Attitudes of Older Adults Toward Their Peers with Mental Disabilities

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BY

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A Thesis/Practicum submitted to the Faculty of Graduate Studies of The University of Manitoba in partial fulfillment of the requirements of the degree of Master of Science

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Abstract

The attitudes of older adults without disabilities have been identified as a potential barrier for older adults with mental disabilities to integrate into community-based senior programs. The purpose of this study was to examine the attitudes of older adults toward their peers with mental disabilities and the demographic correlates associated with those attitudes.

Two scales were utilized to measure the attitudes of older adults: Attitude Toward Disabled Persons Scale – Form O (modified) ATDP and Theory of Reasoned Action (TRA). The Contact with Disabled Persons Scale – modified (CDP) was used to measure the amount of contact older adults had with people with mental disabilities. Demographic correlates were examined in relation to attitudes as measured by ATDP and/or the TRA scale and to amount of contact: gender, age, income, types of activities, attendance, urban/rural, disability, family member with a mental disability, amount of contact, labeling and behavioural characteristics.

The attitudes of older adults appeared to be neutral (ATDP) to positive (TRA) toward their peers with mental disabilities. Results from the CDP indicated participants had a low level of contact with people with mental disabilities. Significant relationships were indicated between amount of contact and positive attitudes (TRA scale) and between rural, age (younger) and education and higher attitude scores (ATDP), as well as more contact. Participants with a family member with mental disabilities also reported having more contact. Results from this study provided some important information about the attitudes of older adults toward people with mental disabilities and the demographic correlates associated with those attitudes.

Introduction

Individuals with mental disabilities[1] are living longer. Based on the 1992 census data and using the prevalence rate of four per thousand or 0.4%, the number of older Canadian with mental disabilities can be estimated at approximately 12,000 (Statistics Canada, 1992). It should be noted that these estimations could be low since the signs of aging occur earlier among this population (Janicki, Otis, Puccio, Rettig, & Jacobsen, 1985; Lubin & Kiley, 1985). Premature aging (as early as 30 years of age) has been found to be present among individuals with Down Syndrome (Chappell, 1991; Mahon, Mactavish, Mahon, & Searle, 1995). Whatever the actual numbers, it is well recognized that older adults with mental disabilities represent a significant and rapidly increasing segment of our population (Sison & Cotten, 1989).

With the increasing number of older adults with mental disabilities, coupled with a longer life expectancy, retirement becomes an important option for this population. Retirement is a relatively new concept for older adults with mental disabilities and like all older adults in Canada, they should have the right to make the transition from a work-oriented to a leisure-oriented lifestyle (Browder & Cooper, 1994).

Retirement provides the opportunity for older adults to pursue leisure activities of interest. Older adults with mental disabilities have interests and needs that are similar to their peers without mental disabilities (Erickson, Kraus, & Seltzer, 1989; Glausier, Whorton, & Knight, 1995; Janicki, et al., 1985). In many instances, a "generic" community-based service system can meet the needs of older persons with mental

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[1] The term mental disability is used to refer to the condition of mental retardation. Mental retardation is characterized by "significant subaverage intellectual functioning that exists concurrently with related limitations in two or more of the following areas: communication, self-care, home living, social skills, community use, self-direction, health and safety, functional academics, leisure and work" (American Association on Mental Retardation, 1992)

disabilities (Janicki, et al., 1985). The principle of normalization, social role valorization, and social integration are key concepts that support access to community-based services by persons with disabilities.

Principle of normalization. The principle of normalization has been a central concept relevant to persons with mental disabilities since the early 1970's (Epstein, 1982). Normalization means "making available to all [people with mental disabilities] patterns of life and conditions of everyday living which are as close as possible to the regular circumstances and ways of life of society" (Nirje, 1980). According to the normalization principle, individuals with disabilities should be encouraged and guided to have lives that are as similar as possible to their peers who are not disabled (Calhoun & Calhoun, 1993). In Manitoba, 63.3 % of the population over the age of 65 report "going often" or "sometimes" to clubs, church and community centres (Centre on Aging, 1996) which would indicate that participating in community-based activities could be considered normative for older adults in this province.

Social role valorization. This concept was developed to deal with the problem of variations in the interpretation of the term "normalization." Wolfensberger (1983) suggested that there are many misconceptions regarding the term and many people do not understand the theory behind the term. According to Wolfensberger, the foundation of social role valorization theory is that " . . . the most explicit and highest goal for normalization must be the creation, support, and defense of valued social roles for people who are at risk of social devaluation" (p. 234). The premise is that if a person holds a valued social role, she or he will be given the respect associated with that valued social role and be less vulnerable to social devaluation (Hutchinson & McGill, 1992). By

assuming any single role or a variety of roles at a community-based activity, Davis (as cited in MacNeil & Teague, 1987) suggested older adults (with or without disabilities) would be occupying a position within the community. With this position would come status, prestige, and a sense of personal identity for the older adult.

Social Integration. Closely related to the principle of normalization and the theory of social role valorization is social integration. Social integration refers to the "participation of people with disabilities in social interactions and relationships with non-devalued citizens in ordinary situations and contexts" (Hutchinson & McGill, 1992, p. 102). Some important elements of social integration are: access to all community resources which are available to and used by other community members; participation in the same community activities in which individuals without disabilities participate; and regular contact with other community members without disabilities (Anderson, Lakin, Hill, & Chen, 1992). Through social integration, persons with disabilities can participate in mainstream community-based activities and thus have lives that are as similar as possible to their peers (normalization) and occupy valued social roles (social role valorization).

Older adults with mental disabilities have identified community-based senior programs, such as senior centres, as a leisure preference (Glausier, et al., 1995; Mahon & Goatcher, 1999). Senior centres are considered an important component of the community-based service system (Krout, 1991). For older adults with mental disabilities, participating in activities at the community senior centre may have many advantages including the opportunity to experience a variety of activities and a stimulating environment; to socialize and make new friends; and the chance to be part of their

community (Mahon, et al., 1995).

Although integration into community-based senior programs is advantageous for older adults with mental disabilities, some service providers have identified the attitudes of older adults without disabilities as a potential barrier to integration (Mahon, Lutfiyya, Mactavish, Rodrigue, Strain, & Studholme, 2000; Sparrow, Skinfield, & Karnilowicz, 1993). Patrick (1987) stated that "attitudes often influence perceptions and choices, and negative attitudes generate barriers to full participation in society, both external and internal. Positive attitudes...enable people to seek out opportunities" (p. 316).

Service providers have expressed concern about the acceptance of individuals with mental disabilities by their peers without a disability. It is speculated that the attitudes of the older adults may be the basis for the unpredictable acceptance (Cox & Monk, 1990; Janicki, 1990; May & Marozas, 1994; Roberto & Nelson, 1989; Walker & Walker, 1998). The possible negative attitudes of the older adults is thought to be a result of this cohort of people growing up at a time when people with mental disabilities were more severely devalued than they are today (Wolfensberger, 1985). The norm was that persons with mental disabilities were either confined to institutions or were in "the protected, and often equally isolated, care of their families" (Walker & Walker, 1998, p. 126). They were not part of mainstream society. As a result, older adults may have very different attitudes and values about people with disabilities than younger cohorts who have experienced integration in a variety of situations such as mainstreaming in schools (Mahon, et al., 2000). Unfortunately, there appears to be a void in attitudinal research to support these assumptions. Therefore, the purpose of this study is to examine the attitudes of older adults toward their peers with mental disabilities.

It has been suggested that knowledge of attitudes of people without disabilities toward people with disabilities will assist in understanding the composition of the interactions between the two groups. Research measuring these attitudes may reveal the components of both negative (e.g., avoidance, rejection) and positive attitudes (e.g., acceptance, friendliness) toward people with disabilities. In addition, understanding the basic components of negative attitudes may assist in the development of attitude change programs/interventions and provide assessment of the impact of such change programs (Antonak & Livneh, 1988).

The following literature review will provide a general overview on attitudes. This will be followed by: an examination of the attitudes held toward people with disabilities; the demographic correlates such as age and gender; the relationship between attitudes and contact/interaction with people with mental disabilities; and the relationship between attitudes and the label of mental retardation. The review primarily focuses upon literature and research pertaining to persons with mental disabilities.

Literature Review

Attitudes

Definitions of Attitude

There is a vast amount of literature and research pertaining to the conceptualization and definition of attitudes (Sable, 1995). The basic concept behind all definitions is "that attitudes are relatively stable mental positions held towards specific issues, objects or persons" (Johnston, 1995, p.85). There appears to be two main dimensions along which attitudes are defined: the dimension of abstractness and the dimension of extensiveness. The abstractness dimension is represented by a continuum

ranging from concrete (specific/operational) to abstract (general/theoretical) (Antonak & Livneh, 1988). An example of a concrete definition can be found in Rosenberg and Hovland (1960, p.1): "Attitudes are a predisposition to respond in a particular way to a specified class of objects." Allport (1935) provided an example from the abstract end of the continuum: "[Attitude is] the degree of affect for or against an object or value" (p. 10).

The dimension of extensiveness refers to the components or categories that make the content of attitudes. The three components that are typically postulated are cognitive, affective, and behavioural. The cognitive component includes the individual's thoughts, perceptions, beliefs or opinions about the attitude object (Antonak & Livneh, 1988). This component is often expressed in stereotypical perceptions when the attitude object is a person with a disability (Sable, 1995; Triandis, Adamopoulos, & Brinberg, 1984) and can influence the processing, interpretation and memory of attitude-relevant information (Johnston, 1995). The affective component refers to the feeling or emotion that charges the idea (cognitive component) of the attitude. The affective component is expressed in terms of positive or negative feelings or affect toward the attitude object. The third category is the behavioural component and concerns the actual reaction to the attitude object. Examples of this component are observable behaviours such as approaching an individual with a disability, avoiding contact or moving away from an individual with a disability, and moving or fighting against that individual. This component may also include expressions of what the individual would do in given situations involving the attitude object or recollections of past actions (Antonak & Livneh, 1988; Sable, 1995; Triandis, 1971; Triandis, et al., 1984).

A number of definitions have been proposed which embody some or all three components of attitudes. For the purpose of this study, Triandis' (1971) definition will be used: "An attitude is an idea [cognitive] charged with emotion [affective] which predisposes a class of actions [behavioural] to a particular class of social situations" (p. 2). As indicated, this definition includes all three components of attitudes and reflects the attitudinal measurements proposed for this study.

Origin of Negative Attitudes

Negative attitudes can be a barrier to full participation in mainstream activities for people with disabilities (Patrick, 1987). Livneh (1988) provided a six dimensional perspective on the origin of negative attitudes toward people with disabilities: sociocultural-psychological; affective-cognitive; conscious-unconscious; past experience-present situation; internally originated-externally-originated; and theoretical-empirical. Livneh noted that the six dimensions are not necessarily exclusive or independent of each other. The two dimensions relevant to this study are past experience-present situation and internally originated-externally originated.

Past experience-present situation sources. The sources of negative attitudes along the past experience-present situation dimension vary from those stemming from early childhood experiences to those associated with current interactional and situational experiences (Livneh, 1988). The important component of this dimension in relation to the present cohort of older adults is the early life influences associated with the norms and beliefs of that earlier time period. In the past, many people with mental disabilities were institutionalized and were not part of mainstream society (Walker & Walker, 1998). Past norms such as institutionalization could have an impact on present day attitudes and

acceptance of older adults toward their peers with mental disabilities.

Internally originated-externally originated sources. The determinants of negative attitudes along the internally originated-externally originated dimension extend from characteristics related to the individual observer without a disability to the characteristics associated with the person with a disability or the disability itself (Livneh, 1988). The variables associated with the observer include demographic characteristics such as gender, age, socioeconomic status, and educational level. More favourable attitudes toward people with disabilities are displayed by females more than males, younger people than older, and those with higher educational and socio-economic status (Gaier, Linkowski, & Jaques, 1968; Yuker, Block, & Younng, 1970).

The amount of previous contact with persons with disability has also been suggested as affecting attitudes (Makas, 1993; Stephan & Stephan, 1996) and can be included in the demographic variables (Livneh, 1988). The more one has experienced a positive interaction with a person with a disability, on an equal basis, the more positive one's attitudes can become (Makas, 1993; Stephan & Stephan, 1996). With older adults, the amount of positive interaction with people with mental disabilities may be limited due to the past norms of institutionalization and segregation of people with mental disabilities.

At the opposite end of this dimension is the externally originated sources occupied by characteristics associated with the person with the disability or the disability itself. Some of the variables associated with the person with the disability include prejudice provoking-behaviours such as being over dependent, withdrawing from social contact, and inappropriate social skills (Livneh, 1988). Service providers in senior centres

have reported that older adults may be reluctant to accept their peers with mental disabilities for the older adults feel they may have to "take care" of them, reflecting an assumed dependency of the people with mental disabilities. Service providers also identified lack of social skills as a potential barrier to acceptance (Mahon, et al., 2000).

The disability-connected factors within the externally originated sources of negative attitudes include level of functionality, severity of the disability, and the type of disability (Livneh, 1988). Persons with a developmental or mental health disability are viewed more negatively than persons with physical or sensory disabilities (Furnham & Gibbs, 1984; West, 1984).

Placing a categorical label (e.g., mental disability) on people, a process called labeling, could also be included as a disability-connected factor. Labeling may place emphasis on the disability rather than upon the individuals themselves (Kennedy, Smith & Austin, 1991) and it has been suggested that labeling can stigmatize, stereotype, and reflect a negative attitude towards people with a disability (Morozas & May, 1988). Research on labeling indicates that labels can prejudice the expectations and opinions of people with a disability (Hallahan & Kauffman, 1988; Rosenthal & Jacobsen, 1968).

Whatever the source, negative attitudes toward people with disabilities can impede participation in community-based activities. Through the measurement of attitudes, researchers can provide a better understanding of the formation, correlates, and modification of the attitudes held toward people with mental disabilities (Antonak, 1988).

Measurement of Attitudes

The purpose of attitude measurement is to transform observations of a respondent's behaviour into an index which represents the attitude presumed to underlie

the behaviour (Antonak, 1988). In other words, attitude measurement provides a numerical representation of the degree to which a person is favourable or unfavourable toward the attitude object (e.g., people with mental disabilities) (Ajzen & Fishbein, 1980). The methods available for the measurement of attitudes can be classified as either direct or indirect (Antonak, 1988).

Indirect methods. Indirect measures of attitudes were developed for situations in which: (1) the act of measurement may sensitize the respondents toward an attitude object of which they were previously unaware (e.g., questionnaire about Turner's syndrome); (2) the measurement may elicit responses that are inconsistent with the respondent's true attitudes (e.g., attempting to give a good impression of him/herself); and (3) where personality characteristics of the respondent distort responses (e.g., acquiescence response style) (Antonak & Livneh, 1988).

Indirect methods of measuring attitudes include situations where the respondents are unaware they are being measured or observed such as behavioural observations in natural settings. Other indirect methods include: measures in which the respondents are aware they are being measured and observed, but unaware of the purpose of the measurement situation (projective techniques); measures where the respondents are purposefully deceived as to the purpose of the measurement (disguise techniques); and those in which they may be aware but are inactive participants (physiological measures). The physiological measures, such as heart rate and pupil dilation, evaluate the affective component of attitudes and the behavioural observations measure the behavioural component (Antonak, 1988; Antonak & Livneh, 1988).

The strength of indirect methods of attitude measurement is that they were

developed for the situations (see above) where the use of direct methods may encounter threats to the validity of the measure. However, in many situations the researcher may run into obstacles using these methods such as: time constraints; financial limitations; being able to devise a situation in which the behaviour relating to the attitude object will be evident (Antonak & Livneh, 1988); and ethical considerations such as informed consent and/or deceiving the participant (Babbie, 1992).

Direct methods. Direct methods are the most widely used measurement of attitudes toward people with disabilities. With these methods, the participants are aware that they are participating in research measuring attitudes. Such methods include opinion surveys, interviews, rankings, Q-methodology, checklists, probabilistic rating scales and semantic differential scale (Antonak & Livneh, 1988).

Opinion surveys ask participants to express in writing their attitudes, beliefs, or intentions toward the attitude object by responding to a list of questions. The surveys may be structured (closed) or unstructured (open-ended). Interviews are conducted directly and verbally with the participant, with the participant answering a series of questions and the responses being recorded in some manner. Ranking methods have the respondents arrange a small set of items or terms in an order according to some established criterion (e.g., placing names of disability categories in order of acceptability). Q-methodology is similar to ranking methods. It requires that the participant sort a set of attitude statements, written on separate cards, into piles, according to parameters such as favourability or degree of agreement. The number of piles and cards in each pile is also specified (Antonak & Livneh, 1988).

Checklists include such methods as sociometrics, adjective checklists, and paired

comparison scales. Sociometric techniques attempt to determine how the participant will behave or intends to behave toward the attitude object when given a choice of behaviours (e.g., asking children who they want to eat lunch with). Adjective checklists provide a list of adjectives and the respondents are asked to check the ones that they feel characterize different groups of people with disabilities. For paired comparisons, the participant is presented pairs of items and they are to select one item of each pair that they rate higher in terms of the criterion established (e.g., which is more disabling: mental retardation or blindness) (Antonak & Livneh, 1988).

The Semantic differential scales, developed by Thurstone, are rating scales which present a single concept such as mental retardation at the top of the page, followed by a set of scales (usually 7) with bipolar adjectives (e.g., good, bad) at each end. The adjectives are connected by a series of blanks and the participants are asked to check the blank that best represents their rating of the concept (Antonak, 1988; Antonak & Livneh, 1988).

Probabilistic rating scales require the participants to indicate the strength of their agreement or disagreement on lists of items concerning the attitude object and numerical weights are assigned to each response category (e.g., -3 to +3). The score for each participant is determined by summing the weighted response on each item. This type of scale is based on the Likert-format which was originally developed for measuring attitudes (Antonak, 1988). The most widely used rating scale in the measurement of attitudes toward people with disabilities is the Attitude Toward Disabled Persons Scale (Yuker, et. al., 1970).

The strengths of direct methods include the following: relative easy of

administration; accommodation of larger sample sizes; utilizes fewer resources, therefore more cost effective; and results are mathematically calculated and readily interpreted. Direct methods can be adapted to answer a variety of research questions and can provide meaningful and reliable results. The weaknesses of direct methods of measurements are their susceptibility to the influence of the participant's sensitization and response styles, which threatens the validity of the measure. To ensure confidence in the results of any method, fundamental psychometric characteristics, such as reliability and validity, must be adequately assured (Antonak & Livneh, 1988).

Due to the strengths of direct methods, two will be utilized in this study to measure the attitudes of older adults toward their peers with mental disabilities: the Attitude Toward Disabled Persons Scale (Yuker, et. al., 1970) which is a rating scale and an attitude measure which is based on the Theory of Reasoned Action (see attitudes and behaviour) (Ajzen & Fishbein, 1980) and incorporates a semantic differential scale.

Attitudes and Behaviour

The relationship between attitudes and behaviours is highly complex and not fully understood. Attitudes alone are not sufficient predictors of social behaviour. Ajzen and Fishbein (1980) suggested that attitudes are only one influence on the 'intention to behave'. Behaviours are thought to be a function of a variety of other influences such as: one's ability, effort and motivation; societal norms; prior exposure to the attitude object; expectations regarding reinforcement and punishment; and personality factors (Ajzen & Fishbein, 1980; Antonak & Livneh, 1988; Halloran, 1970; Triandis, 1971).

Ajzen and Fishbein (1980) stated that the intention to behave is a better predictor of behaviour than just a measure of the attitude towards that behaviour. According to

their Theory of Reasoned Action (see Figure 1), a person's intention to act is influenced by two factors: a personal attitudinal factor and a normative factor. The attitudinal factor represents the person's beliefs and evaluation about the outcomes of the behaviour in question. The normative factor, or subjective norm, refers to the extent to which important people (e.g., family, peers) would approve or disapprove of the person performing the specific behaviour and the extent the person is motivated to accede to the wishes of these people (Ajzen and Fishbein, 1980; Johnston, 1995). These factors are proposed to determine the subjective probability that the person will perform the specified behaviour (Sparrow, et al., 1993).

The Theory of Reasoned Action has been used to predict and explain various behaviours such as family planning (Jaccard & Davidson, 1972), intention to go summer camping (Young & Kent, 1995), and intention to peer tutor (Miller & Gibbs, 1984). In general, a high correlation has been reported between the factors of attitude and subjective norm and the intention to act (Ajzen & Fishbein, 1973) and it is for this reason that one of the attitude measures for this study will be based upon this theory.

The next sections will review the literature pertaining to the measure of attitudes toward people with disabilities. It focuses upon the attitudes that are held toward people with a mental disability, the methods used to measure those attitudes, the demographic correlates, and the relationship between disability labels and attitudes.

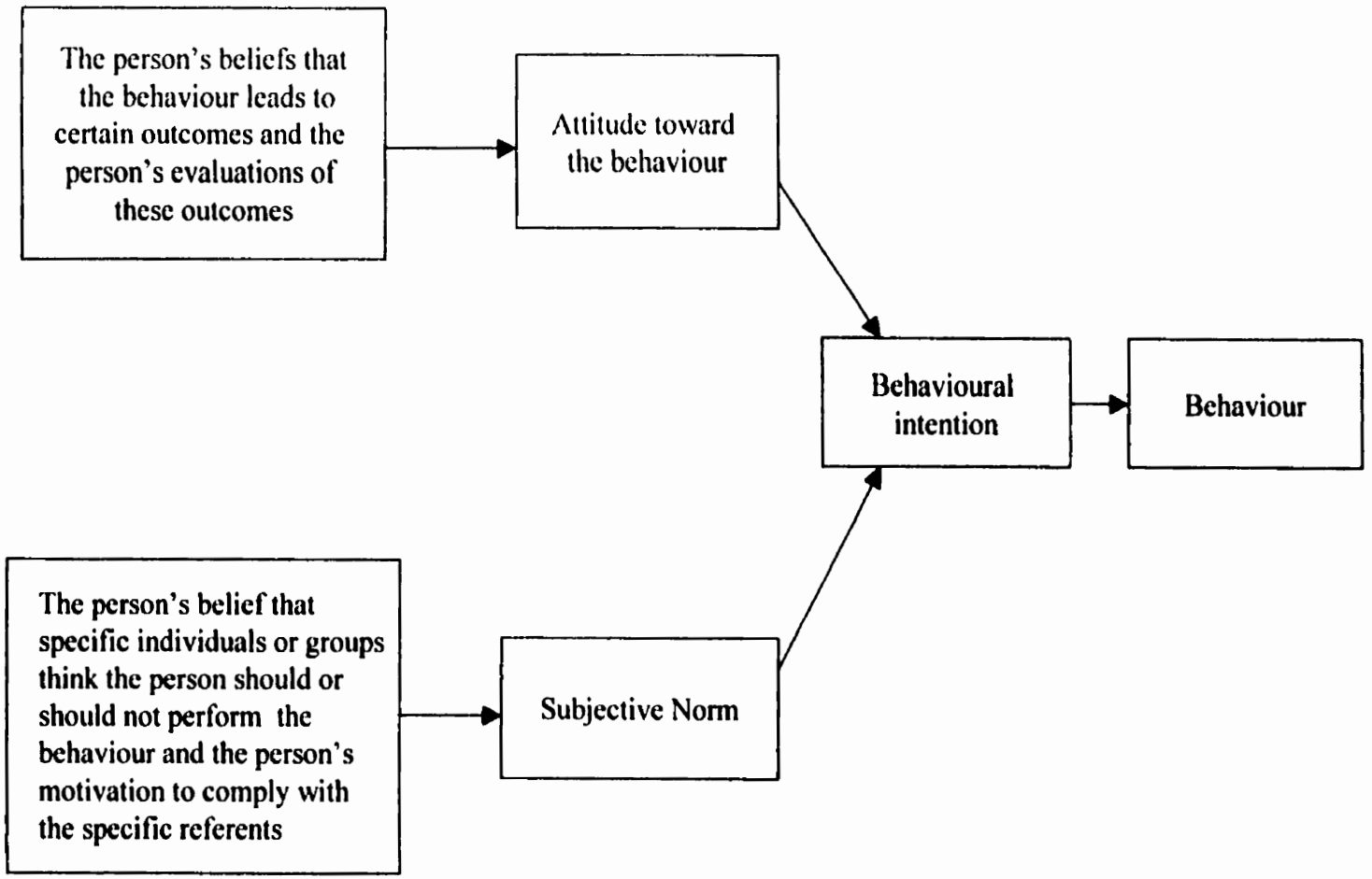

Figure 1. Theory of Reasoned Action: factors determining a person's behavior.
Note: From Understanding attitudes and predicting behavior (p. 8), I. Ajzen and M. Fishbein, 1980,. Engelwood Cliffs, NJ: Prentice Hall

Attitudes Toward People with Disabilities

Attitude Toward Disabled Persons Scale

The Attitudes Toward Disabled Persons Scale (ATDP) (Yuker, et. al., 1970) is the most widely used rating scale designed to measure general attitudes toward people with disabilities (Antonak & Livneh, 1988). It is a self-reported scale that has three forms, Form O having a 20-item summated rating scale, and Forms A and B each with 30 items. Scores range form 0 to 120 for Form O and from 0 to 180 for Forms A and B. High scores of above 60 (Form 0) and above 100 (Forms A and B) represent favourable/positive attitudes toward people with disabilities and low scores of less than 60 or 100 represent unfavourable/negative attitudes (Antonak & Livneh, 1988; Yuker, et. al., 1970).

Scott and Rutledge (1997) utilized the ATDP-Form O to assess the attitudes of 80 first year medical students toward people with mental disabilities. They reported the mean score for the students as 74 (SD = 9.4), indicating that most of the students had positive attitudes toward people with mental disabilities. It should be noted that the authors did not indicate whether the ATDP scale, which is a general measure of attitudes toward "disabled persons," had been modified to be a specific measure toward the disability of "mental retardation."

The ATDP-Form 0 scale was used by MacLean and Gannon (1995) to evaluate the construct validity of The Interaction with Disabled Persons Scale (IDP), a scale designed to measure discomfort in interacting with people with disabilities. University undergraduate students (N = 343) completed the IDP and the ADTP. The majority of the students were between the ages of 17 to 25, with 40 of the students over the age of 35.

MacLean and Gannon reported the sample's total mean ATDP score as 79.10, indicating a generally positive attitude toward people with disabilities.

Patrick (1987) utilized a Solomon four-group design to examine the impact of an adapted physical education course on attitudes toward persons with disabilities as measured by the ATDP-Form O. Two groups, consisting of undergraduate students with a mean age of 20.7 years, participated in the adaptive physical education course (pretest-posttest, $\underline{N} = 47$; posttest only, $\underline{N} = 45$) which included lectures, contact, relevant films, disability simulations, and readings. The two control groups (pretest-posttest, $\underline{N} = 44$; posttest only, $\underline{N} = 43$) were not enrolled in the adaptive physical education course. Overall, all subjects had scores which indicated positive attitudes ($\underline{M} = 86.30$) and there were significant changes of attitudes (positive) in the two treatment groups. Results also suggested that exposure to the pretest did sensitize the students to course content.

Rowe and Stutts (1987) conducted a study with 175 undergraduate physical education majors to examine attitudinal changes toward students with a disability. The students' ages ranged from 20 to 24 years. The participants were administered the ATDP-Form A one week before the start and one week after the completion of a twelve-week practicum experience. Results for the pre- and post-test were reported as being bifurcated. The ranges of scores for the pre-tests were 9 to 49 and 119 to 170 and for the post-tests were 32 to 99 and 148 to 180. The bimodal distributions represented relatively strong negative or relatively strong positive attitudes toward people with disabilities.

The ATDP-Form O scale was also used in a study conducted by Furnham and Pendred (1983) to primarily determine whether attitudes towards people with disabilities differed as a function of whether the disability was physical or mental, observable

(obvious) or not observable. Participants consisted of 96 under- and postgraduate students, plus participants from the general public. Their ages ranged from 18 to 60, with the majority being in their 20s and 30s (no mean age was reported). Participants were given one of four modified versions of the ATDP scale in which the term disabled person/people was replaced by one of four disabilities: totally blind person, totally deaf person, person with Down's syndrome, or educationally subnormal person. The participants were randomly given one of the four questionnaires resulting in 24 (12 males, 12 females) people completing the different questionnaires. The mean overall score for all participants was reported as 72.58, indicating that the participants generally had a positive attitude toward people with disabilities. However, when examining the mean attitudinal scores for the individual disabilities it was found that people with mental disabilities were viewed significantly more negatively than people with physical disabilities (blind, $\underline{M} = 80.8$; deaf, $\underline{M} = 80.46$; Down's, $\underline{M} = 65.54$; educationally subnormal, $\underline{M} = 62.29$).

The results of the above studies indicate that overall, participants held a relatively positive attitude towards people with disabilities, as measured by the Attitude Toward Disabled Persons Scale. These studies, however, were measuring general attitudes toward people with disabilities with the exception of the study by Furnham and Pendred (1983) which modified the ATDP scale to measure attitudes toward people with mental disabilities. This study found that attitudes toward people with mental disabilities were significantly more negative than toward people with physical disabilities. Other studies (Furnham & Gibbs, 1984; Westbrook, Legge, & Pennay, 1993) have reported similar results which may suggest that using general measures of attitudes toward persons with

disabilities may not accurately reflect the attitudes toward people with mental disabilities.

The ages of the participants in the studies using the ATDP scale were for the most part in their early twenties. Furnham and Pendred (1983) study did include participants who were up to the age of 60, but the relationship between age and attitude was not examined. MacLean and Gannon (1995) also had older students in their study, however, they were all placed in one category of 35 years of age and older. Therefore, the results of the studies examined in this section can be generalized to younger adults, but not to older cohorts.

The Attitudes Toward Disabled Persons Scale is said to be the most widely used rating scale designed to measure general attitudes toward people with disabilities (Antonak & Livneh, 1988). However, a general attitude measure may not be the best predictor of people's behaviour (Ajzen and Fishbein, 1980). Ajzen and Fishbein (1973, 1980) propose that attitude measures based on the Theory of Reasoned Action can be used to predict and explain various behaviours. The following section will review the literature in which attitudes toward people with disabilities were measured with questionnaires based on this theory.

Theory of Reasoned Action

The Theory of Reasoned Action (Ajzen & Fishbein, 1980) has been used as the theoretical basis in the development of a variety of attitudinal questionnaires (Jaccard & Davidson, 1972; Miller & Gibbs, 1984; Young & Kent, 1995). According to Theory of Reasoned Action, measuring a person's attitude, subjective norm, and intention to perform a particular behaviour is more effective in predicting a behaviour toward an attitude object than determining the attitude alone. The measurement is accomplished by

providing statements of attitude, subjective norm, and behavioural intention that focus upon the attitude object. The statements are followed by any standard scaling procedure to evaluate responses to that statement (Ajzen & Fishbein, 1980). It should be noted that the attitude object is usually presented before the measurement statements in the context of a vignette. Vignettes, because they are contextual, come closer to real situations than do more general attitudinal scales or measures (Holland, 1996).

In a study conducted by Karnilowicz, Sparrow, and Shinkfield (1994), the Theory of Reasoned Action was used as the basis in examining high school students' attitudes, social norms, and intentions associated with performing social behaviours of low, moderate, and high intimacy. Six vignettes were developed with a combination of one of possible three levels of intimacy behaviours and one of three disability types. Participants (N = 211; 102 females and 109 males) were asked to read the vignettes and then to rate the target peer with respect to each of the behaviours on a 7-point bipolar scale. The three levels of intimacy behaviours were saying "Hi" (low), sharing a bag of chips (medium), and going to a dance (high). The disability types were nondisabled (N = 70), physically disabled (N = 73), and mentally disabled (N = 68). The data indicated that, in general, participants had favourable attitudes toward performing the social behaviours with the target groups. However, the authors reported that only in the case of the target peer with a mental disability did attitudes to performing the behaviours tended to be neutral or unfavourable.

Sparrow, et al. (1993) investigated the effect of skill level, behavioural characteristics, and labeling upon attitudes toward the involvement of individuals with mental disabilities in a recreation activity (tennis). The questionnaire development was

based on the Theory of Reasoned Action. Eight vignettes were developed describing an individual who wished to join the respondents' tennis club. The vignettes were based on two primary descriptions. Description 1 represented behavioural characteristics associated with mild forms of mental retardation such as difficulty in reading and making remarks unrelated to the topic. Description 2 represented a person without a disability. Within the vignettes, the variables of skill level in playing tennis (high, low), label assigned (mental disability), and behavioural characteristics were manipulated to produce four combinations for both Descriptions 1 and 2.

Participants (N = 320; age range, 13 – 60 years) read the vignettes and then completed a questionnaire with three questions reflecting typical behaviour of an introduction at a tennis club: saying hello and introducing myself; nominating for membership; and playing a set of tennis. For each of the three questions, a 7-point Likert rating scale was used to obtain measures of attitude toward the behaviour, subjective norm, and behavioural intention. Results indicated that responses toward the target person were generally favourable, regardless of the behaviour and the target person's characteristics. However, when the target peer was labeled with a mental disability, the attitude toward performing the behaviours tend to be neutral or unfavourable.

A study was conducted to determine the influence of two physical education courses, an Adapted Physical Education and a Physical Education for Children, on undergraduates' attitudes toward teaching students labeled as having disabilities (Rizzo & Vispoel, 1992). The Adapted Physical Education course included strategies for attitudinal change (information, contact, persuasion, and vicarious experience). The data collection instrument was the Physical Educator's Attitude Toward Teaching the Handicapped

Measures II (PEATH-II) which was based on the Theory of Reasoned Action. This measure consisted of 12 statements with blanks inserted such as, "Having to teach students labeled as ___ in regular physical education classes with nonhandicapped students places an unfair burden on teachers." The disability labels of behaviourally disordered, educable mentally retarded, and learning disabled were listed under each of the 12 statements, along with a 5-point Likert Scale.

Participants (N = 174) completed the questionnaire during the first and last days of a 16-week term. The age range of participants was 18 to 19 years with 65 females and 109 males. Results showed that attitudes toward teaching students with disabilities were generally favourable in both the beginning and at the end of the course. Pre-test (M = 3.20, SD = .58) and post-test (M = 3.40, SD = .52) attitudinal mean scores for the total sample were generally favourable, given that the midpoint was 3.0. This held true for the individual disability labels with no significant differences across disability. Significant improvement in attitudes toward teaching children with disabilities were found in the Adapted Physical Education (N = 77) course but not in the Physical Education for Children course (N = 97).

In an earlier study, Rizzo and Vispoel (1991) had used the same PEATH-II scale to examine the relationship between selected attributes of physical education teachers (N = 94; mean age = 38, SD = 7.36) and their attitudes toward teaching students with various disabilities. The disability labels were the same: behaviourally disordered, educable mentally retarded, and learning disabled. Contradictory to the authors' data with university students (1992), the results of this study indicated that attitudes toward teaching students with a disability varied as a function of the disability. Attitudes toward

teaching students labeled as learning disabled (M = 3.2, SD = .74) were significantly more favourable than toward teaching students labeled educable mentally retarded (M = 2.8, SD = .79) and behavioural disordered (M = 2.7, SD = .74). There were no significant differences between educable mentally retarded and behavioural disordered scale means. The overall item mean was 2.9 (SD = .76). With a neutral response to the PEATH-II equaling 3, this would indicate that generally, physical education educators' attitudes were not favourable toward teaching students labeled as having a disability.

The results of the above studies again appear to demonstrate that for the most part, participants appeared to have favourable attitudes toward people with disabilities. The exception was Rizzo and Vispoel's (1991) study, which reported unfavourable attitudes of teachers toward teaching students with disabilities. However, when the attitudes toward specific disabilities were examined, Karnilowicz, et al., (1994), Sparrow, et al. (1993), and Rizzo and Vispoel (1992) found that when the target person was labeled with a mental disability, the attitudes of the participants to perform the behaviour tended to be neutral or unfavourable. These results suggest that using attitudinal measures that specify the target person's disability (e.g., mental disability) may give a more accurate evaluation of the attitudes held toward people with mental disabilities than a more general measure.

As with the studies using the ATDP scale, most of the participants in the studies above were not older adults, which limits generalizing the results to an older cohort. The participants were high school students (Karnilowicz, et al., 1994), 18 and 19 year old university students (Risso & Vispoel, 1992), and physical education teachers with a mean age of 38 (Risso & Vispoel, 1991). In the study conducted by Sparrow, et al (1993), the

age range of the participants was 13 to 60 years (no mean age) but relationships between age and attitude were not reported. The teachers in Risso and Vispoel's (1991) study were reported to have an unfavourable attitude toward teaching students with mental disabilities whereas the younger student teachers (1992) had a favourable attitude toward teaching the same student population. Risso and Vispoel (1991) reported that there was a positive correlation between attitude and years of teaching experience and perceived competence in teaching students with a disability. This may indicate that the difference in attitudes is not related to the different age groups but to the amount of teaching experience.

When attitude measures are based upon the Theory of Reasoned Action, the format of the questionnaire would usually be developed around a specific situation such as teaching students with a disability or inclusion in a recreational setting. Therefore, the results of these studies can only be generalized to the situations described within the various studies.

The two previous sections have reviewed literature that has focused upon studies utilizing the Attitude Toward Disabled Persons Scale and attitude measures based on the Theory of Reasoned Action. As discussed in the measurement of attitude section, there are a variety of methodologies used to measure attitudes. The next two sections will review literature in which attitudes were measured using methods that will not be used in this study but which add to the overall knowledge and understanding of the attitudes toward people with mental disabilities.

Other Attitude Measures

Acceptance scale. The Acceptance Scale was created by Voeltz (1980) and was

designed to measure attitudes towards peers with mental disabilities in an educational setting. It is a three point survey (agree, disagree, undecided) that consists of 27 sentences with 21 core sentences reflecting varied positive and negative statements about individual differences and children with disabilities. The remaining statements pertained to common classroom rules and were included to provide an indication of social-desirability in responding (Sable, 1995; Voeltz, 1980). Voeltz (1980) assigned a score of zero for disagree or "non-accepting" responses, two for agree or "accepting" responses, and one for undecided or "maybe" responses. Within the score ranges of 0 – 42, high scores would reflect accepting attitudes and low scores would reflect the opposite.

The Acceptance Scale was first used in a study conducted by Voeltz (1980). The purpose of the study was to obtain data regarding the present attitudes of regular-education children towards their peers with severe disabilities where interactions between children with and without disabilities had recently begun to occur. The schools were specifically chosen to represent varying level of contact with peers with severe disabilities (no-contact, low-contact, and high-contact groups). The Acceptance Scale was completed by 2,392 public school children (1,217 boys, 1,175 girls) in grades two through seven. No mean age was reported. The mean score of the entire sample was reported as 22.3 (SD = 7.4) within the score range of 0 to 42, indicating an accepting attitude of participating students toward their peers with mental disabilities.

Sable (1995) conducted a study to examine the effect of three different adventure programs on children's acceptance of individuals with a disability. The comparison group experienced camping which provided physical integration only. The two experimental groups experienced either a disability awareness program or an adventure program. The

participants (N = 66) were between the ages of 11and 16 (M = 13.5). All campers were pre-tested and post-tested using a modified Acceptance Scale in which quotations had been modified (Schleien & Ray, 1988) to relate more to a recreational setting rather than an educational setting. Overall, both the pre-test (M = 38.01, SD = 5.65) and post-test (M = 41.29, SD = 4.76) results indicated that the participants had an accepting attitude toward other campers with mental disabilities.

In a study conducted by Vandercook (1991), the author evaluated competency enhancement of leisure skills and its effect on participation of teenagers with severe disabilities in community leisure activities with a friend. Five high school students without disabilities were recruited to participate as "Special Friends" and took part in a community leisure activity with teenagers having disabilities. Within this study, Vandercook utilized the Acceptance Scale to assess the attitude of the students without disabilities toward people with disabilities pre- and post-intervention. The author reported that in both test situations, the students without disabilities had positive attitudes toward peers with mental disabilities.

The Acceptance Scale was used in the previous studies to measure attitudes specifically toward people with mental disabilities. The results indicated that participants had an accepting attitude toward peers with mental disabilities. However, the participants were children or teenagers, limiting the generalizing of the results to only these age groups.

Semantic differential and social distance scales. Calhoun and Calhoun (1993) examined the social perceptions toward adults with mental disabilities utilizing two methods: semantic differential scale and social distance scale. College students (N = 94)

were randomly assigned to groups to view a video depicting one of two conditions. In the first condition (8 males, 39 females; mean age = 23.10 years), an adult with Down Syndrome participated in leisure activities typical for her age such as clipping grocery store coupons from the newspaper. In the second condition (9 males and 38 females; mean age = 21.49 years) the same individual participated in leisure activities which would be considered for much younger persons such as using children's scissors to cut out shapes from a colouring book. After viewing the video the respondents completed a questionnaire rating the individual in the video on four rating scales: likeability; social distance; estimated IQ; and estimated reading level. The likeability questionnaire (semantic differential scale) was designed to assess how likeable the person in the video was. Participants were asked to rate the person on four bipolar adjectives with six point scales indicating greater liking with higher ratings. The adjective pairs were likeable/dislikeable, sociable/unsociable, pleasant/unpleasant, and exciting/boring. Scores for this scale range from 4 to 24. Participants also responded to a five-item social distance scale indicating willingness to interact closely with the person in the video. Scores could range from 0 to 5, with higher ratings being associated with more positive social responses.

The authors reported that this specific sample expressed views that were generally positive toward the person in the video. The group that viewed the age-appropriate condition had a mean score of 18.3 on the likeability scale and 1.3 on the social distance. With the age-inappropriate condition, participants had a mean score of 19.1 on the likeability scale and 1.1 on the social distance scale. Scores higher than 14 on the likeability scale and 3.5 on the social distance scale indicate favourable views toward the

person in the video, therefore participants viewed the person as likeable, but were less willing to interact closely with the person.

In New Zealand, Townsend, Wilton, and Vakilirad (1993) used similar methods in a study designed to evaluate the attitudes of children (N = 563, age range of 8-13 years) toward their peers with mental disabilities. Children completed a Semantic Differential scale and a Social Distance scale to assess their attitudes.

The Semantic Differential contained nine pairs of opposing descriptions (e.g., helpful–not helpful, friendly–not friendly) measuring beliefs about children with mental disabilities on a six-point scale. Scores could range from 27 to 162, with higher scores depicting a more positive attitude. The Social Distance Scale was a six-item scale where children would rate on a six-point scale the degree they would accept a child with a mental disability in their school classroom and at various social activities outside of school, such as birthday parties. Scores on this measure could range from 6 to 36, again with higher scores relating to a more accepting attitude. The results of the study indicated that the attitudes of the children were relatively positive overall. Mean scores for the entire sample on the Semantic Differential Scale were 106.53 (neutral score = 94) and on the Social Distance scale were 25.85 (neutral score = 21).

In their studies, Calhoun and Calhoun (1993) and Townsend, et al. (1993) measured attitudes toward people with mental disabilities using similar methods – semantic differential scale and social distance scale. In both studies, it was reported that generally, participants held a positive and accepting attitude toward people with mental disabilities. Comparison between studies is limited due to the difference of the ages of the participants (school age vs. young adults), and the difference in the contents of the

scales used. The semantic differential scales had different numbers of items (4 vs. 9) as with the social distance scales (5 vs. 6). In addition, the procedures for implementing the scales varied, with Calhoun and Calhoun using a video as a reference point for responses and Townsend, et al. using a verbal cue.

Attitude scale. In a study designed to investigate the relationship between differing amounts of contact with people with disabilities and attitudes toward peers with disabilities and toward integration, Beh-pajooh (1991) included within the measuring instrument a scale called the Attitude Scale (AS). The AS was a 28-item scale with 15 items worded to measure positive attitudes and 13 items similarly worded to measure negative attitudes. The items were followed by a five-point Likert-type rating scale: strongly agree, agree, undecided, disagree, strongly disagree, with positive numbers assigned to attitude items that indicated positive attitudes and negative to those indicating negative attitudes. Possible total scores ranged from – 56, the most negative score, to +56, the most positive score. The study was conducted in England and the participants were 132 college students (60 males; 72 females), with all but three between the ages of 16 to 19 years. It was reported that the sample expressed positive attitudes toward students with severe disabilities (M = 18.58, SD = 10.84), with 95% of the participants obtaining a positive score ranging from +1 to +42 and only 5% receiving negative scores ranging from 0 to –11.

The above studies demonstrated that various methods have been used to measure people's attitudes toward individuals with disabilities. The studies reported that participants for the most part hold favourable attitudes toward peers with disabilities as indicated by the scores on the attitude scales. However, participants were either children

or young adults, therefore results can only be generalized toward these age groups. The AS used in the study conducted by Beh-pajooh (1991) measured attitudes toward students with severe disabilities and was not specifically directed toward students with mental disabilities. As stated previously, using general measures of attitudes toward persons with disabilities may not accurately reflect the attitudes toward people with mental disabilities.

Summary

This section provided a review of the literature pertaining to the attitudes of people without disabilities toward people with disabilities, focusing on people with mental disabilities. The review has examined studies that reported overall attitude scores as measured by a variety of attitudinal measures. The majority of the participants appear to have favourable/positive attitudes toward people with disabilities and people with mental disabilities as measured by the ATDP scale (Furnham & Pendred, 1983; MacLean & Gannon, 1995; Patrick, 1987; Rowe & Stutts, 1987; Scott & Rutledge, 1997), by measures based on the Theory of Reasoned Action (Karnilowicz, et al., 1994; Sparrow, et al., 1993; Rizzo & Vispoel, 1991, 1992), the Acceptance Scale (Sable, 1995; Vandercook, 1991; Voeltz, 1980) and a variety of other methods (Beh-pajooh, 1991; Calhoun & Calhoun, 1993; Townsend, et al., 1993).

However, when the participants were responding to a specific reference scenario or comparisons were made across disability types, attitudes toward people with mental disabilities varied. Furnham and Pendred (1983) reported that although attitudes toward people with mental disabilities appeared favourable, they were significantly more negative than toward people with physical disabilities. The results of some studies in which behaviour intentions or social distance were measured, attitudes toward people

with mental disabilities tended to be neutral or unfavourable (Calhoun & Calhoun, 1993; Karnilowicz, et al., 1994; Rizzo & Vispoel, 1991; Sparrow, et al., 1993). Such findings may indicate that when measuring attitudes toward people with mental disabilities, general measures may reveal favourable or positive attitudes, but when attitudes toward specific types of interactions are measured, results may not be as favourable. Therefore, attitudes may vary with the conditions under which interaction between people with and without a mental disability takes place (Tripp & Sherrill, 1991).

The participants of the studies for the most part were children or young adults. In the studies conducted by MacLean and Gannon (1995), Furnham and Pendred (1983), Sparrow, et al., (1993) the participants were older (over 25), but no break down of the attitude scores in relation to different age categories were provided. This limits generalizing the results to an older population.

The majority of the studies reviewed in this section were not specifically designed to just measure the attitudes toward people with mental disabilities. For the most part, literature pertaining to attitudes and people with disabilities examines relationships between attitudes and a variety of different variables such as: amount of contact with people with disabilities; demographic variables, such as age and gender; integration in schools; labeling; and attitude change over time. In the next section, attitudes and demographic correlates will be examined within the studies that have been previously reviewed. Additional studies using a variety of different methods will be introduced and reviewed.

Demographic Correlates of Attitudes

Negative attitudes toward people with disabilities can be a barrier to full

participation in mainstream activities (Patrick, 1987). Within the six dimensional perspective on the origin of negative attitudes toward people with disabilities, Livneh (1988) included the dimension of "internally originated-externally originated sources." This dimension incorporates characteristics related to the observer without a disability at one end of a continuum, to the characteristics associated with the person with a disability or the disability itself at the other end. Variables associated with the observer (internally originated) include demographic characteristics such as age, gender, socioeconomic status, educational level and the amount of previous contact with persons with a disability.

Affiliated with the disability-connected factors (externally originated) is the type of disability. Labeling a person with a particular disability may place emphasis on the disability rather than the person (Kennedy, et al., 1991). Since labeling places the focus on the type of disability, it could be included as a disability-connected factor and therefore be considered a component of the internally originated – externally originated dimension.

The following will examine attitudes and the demographic correlates of age, gender, socioeconomic status (education, income), amount of previous contact with persons with disabilities, and labeling. Previously reviewed literature will be re-examined, along with a review of additional studies.

Attitudes and Contact

The effects of contact on attitudes toward persons with disabilities are complex (Yuker & Hurley, 1987). Interaction between people without disabilities and people with disabilities can result in positive, negative, or no change in attitude depending upon the

conditions of the interaction (Amir, 1969). Favourable conditions that tend to produce positive attitude shifts include: equal status contact; favourable social climate; intimate rather than casual contact; pleasant and rewarding contact; cooperative interdependence; and when the person with a disability demonstrates few of the negative characteristics of the stereotype associated with that disability (Amir, 1969; Guskin & Jones, 1982; Makas, 1993; Tripp & Sherrill, 1991; Yuker, 1988, 1994). However, "the degree of contact with [people with disabilities] is a variable which has the usual and predictable result that closer contact leads to more positive attitudes" (Furnham & Gibbs, 1984, p. 101).

Previously reviewed literature. MacLean and Gannon (1995) and Furnham and Pendred (1983) reported no significant correlation between disability contact scores and the scores from Attitude Toward Disabled Person scale. MacLean and Gannon measured the level of contact with a single item, which asked the participants to indicate the extent of experience with people with disabilities. Furnham and Pendred requested participants to indicate certain aspects of contact such as length of acquaintance and regularity of contact. Although Furnham and Pendred did not include the question in their method section, it appeared to the reader that it was an open-ended question. The authors stated that "subjects were given the opportunity to specify in full the nature of the contact that they had had with [people with disabilities]" (1983, p.181).

Beh-pajooh (1991) used three measures of contact with people with disabilities in comparison to attitude scores as measured by the Acceptance Scale (AS). Respondents reported if they had contact, the type of contact, and the frequency of contact. Only 27% of the sample ($N = 132$) reported having had contact with people with disabilities, and this group obtained significantly higher mean scores on the AS than the group who

reported not having had contact ($t = 4.00$, $df = 130$, $p < 0.0001$). The relationship between the various types of contact reported by students having had contact and their mean AS scores was not significant. Beh-pajooh also reported that the AS scores of those indicating the frequency of contact as "often," "sometimes," or "never." The mean scores of the three groups were reported as differing significantly ($f(2, 128) = 6.63$, $p < 0.0001$) with the "often" and "sometimes" groups scoring higher means than the "never" group. Post hoc analysis indicated that the difference between mean scores of the "sometimes" and the "never" groups ($p < 0.05$) explained the significant difference.

Rowe & Stutts (1987) found that the distribution of scores for participants who had no prior experience with people with disabilities differed significantly from those with prior experience. Participants in this study ($N = 175$) were required to participate in a practicum at sites that included people with disabilities as part of an adapted physical education course. The researchers reported that 109 of the participants who scored negatively on the ATDP pre-test measure, had a positive score change on the post-test. They partly attributed the change to the practicum experience. It should be noted that the authors did not indicate how "prior experience" with people with disabilities was determined.

Patrick (1987) reported similar results. In this study, the treatment group was enrolled in an adapted physical education course, which included a practicum with people with disabilities. Patrick reported significant changes of ATDP scores (positive) in the treatment groups as compared to the groups not enrolled in the course. Patrick questioned the relative influence of the various components of the adapted physical education course in relation to the attitudes toward people with disabilities. However, course evaluations

by the students indicated that the practicum component was ranked first in having a positive effect on their attitudes.

Vandercook (1991) also reported that increased interaction between people with and without disabilities was associated with more favourable attitudes. To assist with the intervention in the study, students ($N = 5$) were recruited to participate in community leisure activities with peers with disabilities. Pre- versus post-intervention attitude scores as measured by the Acceptance Scale indicated that initially positive scores became significantly more positive by the end of the study ($z = -2.02$, $p < 0.05$).

Sable (1995) conducted her study to examine the effect of three different adventure programs on children's acceptance of individuals with a disability. The comparison group experienced camping which provided physical integration only. The two experimental groups experienced either a disability awareness program or an adventure program. Pre- and post-test results indicated that the campers, who participated in the disability awareness and adventure program, showed significantly higher post-test scores on the Acceptance Scale than did the comparison group ($F = 12.22$, $p < 0.0001$). Sable suggested that the findings indicated that just physical integration might not impact on children's acceptance towards peers with disabilities.

Townsend, et al., (1993) reported that attitude scores on both a Semantic Differential scale and Social Distance scale were significantly more positive for children in well-integrated schools as compared to the scores of children in less integrated schools. The authors concluded that the findings support policies of integration in schools for such integration appeared to facilitate positive acceptance between children without disabilities toward their peers with disabilities.

Additional literature. Beckwith and Matthews (1994) conducted a study with the purpose of determining the suitability of the Interaction with Disabled Persons (IDP) Scale for college students. The scale was designed to measure the level of discomfort when interacting with people with disabilities. Of the total number of 468 participants, 372 were female and 96 were male. The average age of the students was 19.7 years (SD = 4.7 years, range = 17-49 years). Participants completed the questionnaire, followed by questions to establish participants' characteristics such as age, gender, and contact with people with mental disabilities. Contact was based on the 12 months prior to data collection, and was determined as a dichotomy (yes/no) and the frequency of contact (1 = daily to 6 = not at all). The product-moment correlation between both measures of contact and the IDP scores were reported as significant at $p < 0.01$. Results indicated that having contact with persons with disabilities and the frequency of contact are both positively related to attitudes as measured by the IDP scale.

Jones, Wint, and Ellis (1990) conducted a study to determine how persons with mental disabilities displaying stereotyped behaviour were viewed by students (N = 205) attending a secondary school. The students were between 14 and 15 years of age, and there were 109 females and 96 males. The students were divided into four groups and were shown a video. The video showed a female actress aged 21 years either performing typical behaviours (e.g., simple kitchen tasks) or performing the same tasks with stereotyped behaviour (e.g., rhythmic repetitive head rolling movements). Two groups watched the video seeing typical behaviour and two, the stereotyped behaviour. One of each of the two groups was told the person in the video was a university student, with other group being told that person was "mentally handicapped." A questionnaire was

administered to all groups after the viewing the videos to determine their perceptions about the person in the video. The questionnaire was composed of nine bipolar semantic differential items. Participants were also asked to indicate whether or not they had ever had contact with anyone with a "mental handicap." The results indicated that there was a significant effect of the participant's prior contact with people with mental disabilities ($f = 5.32$, $df = 174$, $p < 0.05$) on attitude scores. Those having had prior contact evaluated the videos more favourable than those without prior contact.

In a study examining the relationship between naturally occurring contact with people with disabilities and attitudes toward people with disabilities, Makas (1989) used a newly developed Contact Form and ATDP-Form 0. On the Contact Form, participants ($N = 100$, 50 males and 50 females) were asked to describe the length, frequency, pleasantness, intimacy of their contacts with individuals with disabilities (physical), and the relative status of the "interactants." Participants were also asked to estimate on a single-item measure their overall amount of contact with people with disabilities. Attitudes were measured by the ATDP scale.

Makas reported a "strong relationship" between attitudes and contact, with significant relationships between ATDP scores and five contact variables: number of contacts, relative status of interactants, length, pleasantness, and intimacy of contact. Bivariate regression analysis indicated that the single-item measure of overall amount of contact was also significantly predictive of ATDP scores.

Yuker and Hurley (1987) developed the Contact with Disabled Persons (CDP) scale to measure contact with people with disabilities. The scale consisted of 20 items with five response categories, ranging from "never" to "very often" which were assigned

scores of 1 through 5. The purpose of the study was to establish the reliability and validity of the CDP scale. A total of 656 persons participated in the study, with each participant completing the CDP scale and either ATDP-Form A, B, or O. To evaluate the construct validity of the CDP, CDP scores were correlated with attitude scores from the three forms of the ATDP scale. Yuker and Hurley reported an overall low positive correlation, with correlations ranging from – 0.26 to + 0.40 and a median correlation of + 0.10, indicating that the more contact respondents had with people with disabilities, the more positive their attitudes toward them.

In an attempt to determine whether social interactions in locations other than the schoolroom would foster social interaction, Newberry and Parish (1986) examined the attitudes of children in open scout troops toward other scouts with disabilities. Participants in the study were 8 to 11 year old scouts (225 males, 251 females). Children were randomly placed in 10 troops and 5 groups (treatment) of the 10 included one child with a mental disability, physical disability, hearing impairment, visual impairment, or learning disability. The troops met once a week for an hour over six weeks. The scouts were administered the Personal Attribute Inventory for Children before and after the 6 weekly meetings. The inventory was used to measure the scouts' attitudes toward people with disabilities. It consisted of 48 adjectives (24 positive and 24 negative) and the participant is asked to check exactly 15 adjectives that are most like the target group (e.g., mentally retarded) in question.

Results indicated that four of the five treatment groups had taken on significantly more favourable attitudes than the counterpart control group. The only group that did not show a significant difference was the group assigned the scout with the learning

disability. Results reported for the comparison between the groups with the target stimulus of mental disability were $F(1, 113) = 43.57$, $p < 0.001$. The authors concluded that social interactions between scouts with and without disabilities during troop meetings "served to enhance evaluations of four out of the five areas of exceptionality" (p. 61) by the scouts without disabilities.

Williams (1986) investigated the two assumptions made concerning people's perceptions of persons with mental disabilities: (1) that people with mental disabilities are perceived to be lacking with respects to a variety of personality traits, and (2) that increased contact with people with mental disabilities tends to diminish such perceptions. Participants in the study were 373 undergraduate students, with 193 females and 180 males between the ages of 18 and 62, with a median age of 21. The students compared persons who were "mentally retarded" and "normal" on 18 personality-traits rating. They rated on a 6-point scale the extent to which they thought the traits characterized persons with mental disabilities, and they did the same for people of "normal" intelligence. Also included in the questionnaire were a group of questions concerning the students' age and gender, and also two multiple-choice questions about the type(s) and level of contact they had had with persons with mental disabilities. In general, the results indicated that previous contact with people with mental disabilities had no significant relationship with the participants' perceptions of others with mental disabilities as measured by the personality-traits rating scale. The authors suggest that increased contact with people with mental disabilities did not result in the public developing more positive perceptions of this population.

In 1988, Rees, Spreen, and Harnadek (1991) replicated a study carried out more

than ten years earlier to determine if attitudes toward people with mental disabilities had changed over time. The original study was designed to determine if class instruction and contact would influence university students' attitudes toward mental retardation. Rees, et al. hypothesized that, as a result of increased media attention, community integration, mainstreaming, and deinstitutionalization, students in 1988 would rate the term "mentally retarded" more positively than did a comparable student group a decade earlier.

Attitudes were measured using a semantic differential rating scale. One of six concepts, including "mentally retarded," was listed at the top of each page with twenty-two, 7-point bipolar adjective scales underneath each concept. Results indicated that the 1988 participants rated the concept of mentally retarded significantly more positively than did the participants from 1975. The authors concluded that "with the implementation of changes in legislation, methods of education, desegregation, community integration, and awareness, there has been a positive shift of attitudes towards individuals [with mental disabilities]" (Rees et al., 1991, p. 85).

This literature review found only one study, which examined the relationship between contact with people with disabilities and attitudes, with the participants who were older adults. Kalson (1976) conducted the study over 20 years ago. The purpose of the study was to assess an intervention program nick-named MASH – Mutual Association for Self-Help. The program was devised to bring together residents of a personal care home with adults with mental disabilities in a variety of recreational and social activities. One hypothesis regarding program outcomes was that the residents would show a more positive attitude toward adults with mental disabilities as compared to their pre-program attitude.

Thirty-two residents participated in study with 16 randomly assigned to the program or experimental group (mean age = 79.56 years, SD = 6.45) and 16 to the no-program or control group (mean age = 78.13, SD = 11.54). To assess attitudes toward people with mental disabilities, residents were asked during the pre- and post-program interviews: "How do you feel about associating with mentally retarded?" Independent judges categorized the responses, with negative responses being those which expressed pity, "don't know" responses, and responses that nothing can be done to help them. Positive responses were those that expressed a liking of people with mental disabilities, a feeling that this population can be helped, and enjoying their company. It was determined that there were 6 favourable and 9 unfavourable attitudes expressed toward people with mental disabilities during the pre-program interviews. In the post-program interviews there were 13 favourable and 2 unfavourable attitudes. Analysis, through the use of the chi-square for change formula, found that the favourable change in attitude ($x^2 = 5.14$, df = 1) was significant at the 0.05 level. Kalson reported that the results confirmed the hypothesis that the residents' post-program attitudes would be more positive toward adults with mental disabilities when compared to their pre-program attitudes. It should be noted that no comparisons of attitude responses were reported between the experimental and control groups.

Summary. Except for the studies conducted by MacLean and Gannon (1995), Furnham and Pendred (1983), and Williams (1986), a significant correlation between previous contact with and attitudes toward people with disabilities was reported in the literature reviewed. These findings provide support for the premise that closer contact with people with disabilities leads to more positive attitudes toward them (Furnham &

Gibbs, 1984). However, as stated previously, generalizing across studies may be inappropriate due to the diverse measures of attitude and contact used in the studies.

Attitudes and Gender, Socio-economic Status, and Age

Gender differences have appeared in the measurement of attitudes toward people with disabilities. For the most part, females have a more positive attitude than males (Furnham & Gibbs, 1984; Gottleib, 1975; Yuker, 1988, 1994; Yuker & Block, 1986). However, Yuker and Block (1986) reported that gender differences appear to be diminishing and suggested that this could be the result of the trend toward gender equality.

In previously reviewed studies, in which the ATDP scale was used to measure attitudes, results were variable when male and female scores were compared. Patrick (1987), Rowe and Stutts (1987), and Furnham and Pendred (1983) reported no significant gender differences with respects to attitude scores. In contrast, MacLean and Gannon (1995) and Makas (1989) reported that females scored significantly higher than males on the ATDP.

Generally, significant gender differences were reported in attitudes toward people with disabilities when attitudes were measured with methods other than the ATDP scale. Females scoring higher than the males on a variety of attitude measures was a finding reported by Beckwith and Matthews (1994), Karnilowicz, et al. (1994), Sparrow, et al. (1993), Townsend, et al. (1993), Beh-pajooh (1991), Jones, et al. (1990), and Voeltz (1980). However, Newberry and Parish (1986) and Williams (1986) found no significant gender differences in their studies of attitudes toward people with disabilities.

It would appear from the literature review completed to this point, that females

tend to have a more positive attitude than males toward people with disabilities. Contrary to Yuker and Block's (1986) statement, gender differences do not appear to be diminishing, as demonstrated by the more recent literature (e.g., Beckwith and Matthews, 1994; Karnilowicz, et al., 1994; Sparrow, et al., 1993; Townsend, et al.,1993).

This next section will examine the relationship between socioeconomic status and attitudes toward people with disabilities. For the purpose of this review, socioeconomic status (SES) will refer to the combination of income and education.

Yuker (1994) stated that most studies report a positive correlation between education and positive attitudes toward people with disabilities. However, few studies have examined the relationship between income and attitudes toward people with disabilities. With the high correlation between education and income (Yuker, 1994), it may be hypothesized that the relationship between income and attitudes should be similar to that of education. Results from attitude studies conducted over 25 years ago suggested a variability with regards to the association of attitudes and income (Gottleib, 1975).

The correlation between years of education and attitudes toward people with disabilities was not examined in the studies reviewed so far. Undergraduate university students appear to have favourable attitudes toward people with disabilities (MacLean and Gannon, 1995; Patrick, 1987), including people with mental disabilities (Calhoun and Calhoun, 1993; Scott and Rutledge, 1997). No recent studies were found in which education and attitudes were directly measured and compared. The same applied to the variable of income.

One study conducted by Antonak (1981) correlated scores on the ATDP-Form O scale with educational levels. Educational levels were reported by participants ($\underline{N}$ = 326)

as years of formal education. A weak, but significant, positive correlation (0.11, $p < 0.05$) was reported, indicating that the greater the years of formal education, the more favourable the attitudes toward people with disabilities.

In a study conducted by McConkey, McCormack, and Naughton (1983) in Ireland, a comparison was made between social backgrounds and attitudes. Over 1300, 15 and 16 year old students completed a range of questionnaires which examined the students' perceptions of people with mental disabilities, views on integration, and their knowledge of the disability. The author reported those students from fee-paying schools and therefore more affluent families were less in favour of adults with mental disabilities having the same rights and lifestyles as others in the community. Students from vocational schools, which are usually in working class areas, were more in favour of social integration (Chi square tests, $p < 0.001$).

Differences in attitudes have been found with children in different grade levels (Voeltz, 1980), but those differences are more related to age than with educational levels (Karnilowicz, et al., 1994). The association between age and attitudes toward people with disabilities will be examined next.

The relationship between age and attitude is complicated, and among adults this relationship may be confounded by both education and type and amount of contact with people with disabilities (Yuker, 1988, 1994). Ryan (as cited in Yuker, 1988, 1994) conducted a detailed literature review and found that the data was best represented by a "double inverted U model." Attitudes tended to be more favourable from early childhood to adolescence, then decline. This is followed by another increase from early to late adulthood with a decrease among the elderly.

The participants in the studies reviewed so far were children (Sable, 1995, Townsend, et al., 1993), high school students (Karnilowicz, et al., 1994; Vandercook, 1991), or young adults who were university students (Calhoun & Calhoun, 1993; Rizzo & Vispoel, 1992). When participants were over the age of 25, the relationships between age and attitude were rarely reported (Furnham & Pendred, 1983; Sparrow, et al., 1993) or they were placed in one category such as 35 years of age and older (MacLean & Gannon, 1995). But for the majority of the studies, participants were younger and it was reported that their attitudes were favourable toward people with disabilities.

Some previously reviewed studies included data regarding the relationship between age and attitudes toward people with disabilities. MacLean and Gannon (1995) provided an age breakdown of the ATDP-Form O scores. The mean ATDP scores by age category were as follows: 79.11, ages 17-20 (N = 171, SD = 14.62); 76.35, ages 21-25 (N = 95, SD = 14.00); 83.97, ages 26-35 (N = 83.97, SD = 10.59); 81.08, ages 35+ (N = 40, SD = 13.15). There was a significant difference reported for the scores of the 21-25 age group as compared to the 26-35 group ($F = 3.025$, $df = 342$, $p < 0.05$). The authors suggested that this difference may be the result of the 26-35 age group having significantly more contact with persons with disabilities (i.e., visual impairments) than the participants in the 21-24 age group.

Beckwith and Matthews (1994) found a significant negative correlation (-0.23, $p < 0.01$) between age of participants (age range = 17 to 49 years) and their scores on the Interaction with Disabled Persons (IDP). The scale was designed to measure the level of discomfort when interacting with people with disabilities, with a high total score representing a high level of discomfort. Therefore, the results indicated that the older the

participant, the less discomfort when interacting with people with disabilities.

Antonak (1981), in addition to education level, also compared participants' ages to their ATDP-Form O scores. The ages of the participants ranged from 18 to 58 years. Although a weak, positive correlation was reported, the correlation was not significant at the 0.05 level.

In an additional study, Sandberg (1982) investigated attitudes of elementary school students without disabilities toward students with mental disabilities. The students completed an attitude survey in which they responded to behaviours in a written vignette and to slides of both children with and without disabilities. Students gave neutral to slightly positive ratings to the children with mental disabilities represented in the survey. There was statistically significant difference in the attitudes of the fourth, five, and six grade students, with the fourth and fifth graders being more positive in their attitudes toward peers with mental disabilities. It should be noted that the older students had a less positive attitude toward students without disabilities, wanting to spend less time with other sixth graders, as well as the students with mental disabilities.

The literature reviewed did provide some support for Ryan's "double inverted U model." Attitudes toward people with disabilities tended to be more favourable from early childhood to adolescence and then decline, as demonstrated by the findings in Sandberg's (1982) study. Sandberg suggested that this finding might reflect the tendency of adolescents wanting to fit into a particular social group. In early to late adulthood, according to the model, there is another increase in favourable attitudes, which is supported by the positive attitude scores of university students.

Ryan's model then indicated a decline in attitudes toward people with disabilities

with the elderly, as indicated from the pre-program responses in Kalson's (1976) study. However, few studies have investigated the relationship of older cohorts' attitudes toward people with disabilities. Generalizing attitudinal scores from only one study that is over 20 years old to the current cohort of older adults would be difficult and inappropriate. As Rees, et al. (1991) demonstrated in their longitudinal study, attitudes of the same age group can differ over time.

Attitudes and Labeling

It has been proposed that the use of categorical labels stigmatize, stereotype and reflect a detrimental attitude toward people with disabilities (Bullock & Mahon, 1997; Marozas & May, 1988). In contrast, labeling may provide a reference point for understanding the nature of the disability resulting in more favourable attitudes (Bullock & Mahon, 1997).

Results from previously reviewed literature and additional studies indicate some variability in the relationship between attitudes and labeling. Sparrow, et al. (1993) examined the influence labeling, behaviours, and skill level upon attitudes toward the participation of people with mental disabilities in a recreation activity (tennis). They reported a significant effect for the behaviour condition ($F(8, 2432) = 3.29$, $p < 0.001$), and suggested that this finding indicated that behaviour was a more important influence on participant's responses than was the label assigned or the skill level of the target person. The authors also reported that participants were significantly more favourable ($p < 0.01$) in their attitude of saying hello and introducing themselves to a labeled target person then they were toward a non-labeled target person. Sparrow et al., conclude that the data did not support the assumptions that labeling has a detrimental effect on attitudes

toward persons with mental disabilities.

Jones, et al. (1990) examined the effects of stereotyped behaviour and labeling on attitudes toward people with mental disabilities. To reiterate the procedure, students were divided into four groups and were shown a video. The video depicted a female either performing typical behaviours (e.g., simple kitchen tasks) or performing the same tasks with stereotyped behaviour (e.g., rhythmic repetitive head rolling movements). Students who watched each version of the video were told that the person in the video was a university student or were told that person was "mentally handicapped." A questionnaire was administered to all groups after the viewing the videos to determine their perceptions about the person in the video.

The authors reported no overall relationship between labeling and attitude scores and the interaction between behaviour and label was also not significant. There was a significant effect of behaviour ($\underline{F} = 1.39$, $\underline{df}\,(1.174)$, $\underline{p} < 0.05$), with non-stereotyped behaviour seen more favourably than stereotyped behaviour. The authors suggested that it is not whether a person has a mental disability, or labeled as such, it is the behaviour of that person which has an impact on attitudes.

The purpose of a study conducted by Bak and Siperstein (1986) was to examine the protective effect of the label "mentally retarded" on the negative attitudes of children toward peers with mental disabilities, elicited by withdrawn and aggressive social behaviour. Participants were 126 children from grades 4 through 6. The students were shown two video vignettes. One vignette showed a child with a mild mental disability reading aloud, the other a child without a disability also reading aloud. The vignettes were paired with a written story, which was read to the children. The story portrayed the

target as either socially withdrawn or aggressive. At the end of the video presentation, the children were asked to imagine that the child in the video would be a new student in the class. The students then completed the Friendship Activity Scale and Adjective Checklist. The Friendship Scale measured behavioural intentions and commitment to befriend a new peer, and the Adjective Checklist assess children's judgements of the attributes of a new friend.

Results indicated that the children were significantly less negative in their judgements and more inclined to befriend the labeled child. The same results were found for the withdrawn child versus the aggressive child. The authors reported that the results demonstrated the positive influence of the label of "mentally retarded," but also the limit of the label. The label did not moderate the children's negative judgements of aggressive social behaviour.

Rothlisberg, Hill, and D'Amato (1994) explored the differences in students' (grade 4, $\underline{N} = 60$) willingness to make a behavioural commitment of becoming a "buddy" to a new child coming into the school. "Buddy" was defined as someone to play with, have lunch with, and include with the student's friendship group for at least three weeks. The students were divided into two groups – experimental or control. The two groups were presented four identical descriptions of the new student (2 boys, 2 girls) except for the addition of the "mentally retarded" label to one boy and one girl in the experimental condition. It should be noted that the students had knowledge of the term "mentally retarded" since special education programs were housed in the school. After the presentations, the students were asked to choose one of the new students for whom the participant would be a buddy. The results indicated that the addition of the label to the

description of the new student significantly reduced the frequency of being selected as a "buddy" ($x^2 = 9.98$, $p < 0.02$). The authors suggested that the data indicated that the label of "mentally retarded" might inhibit the willingness of students to accept peers with mental disabilities socially.

The results of the first studies (Jones, et al., 1990; Sparrow, et al., 1993) indicated that it is not the label that influences the attitudes of the participants toward the target individuals with a mental disability, but the type of social behaviours exhibited by the target individual. Bak and Siperstein (1986) found that a label of "mentally retarded" positively influenced children's perceptions of the target child, but when the social behaviour became aggressive, the label did not moderate the children's negative perceptions.

In contrast to Bak and Siperstein (1986), Rothlisberg, et al., (1994) reported that the label of "mentally retarded" may inhibit the willingness of students to accept peers with mental disabilities. The variation of the findings in these studies may be the result of the children responding to the type of interaction requested of them. In one situation the children were asked if they would be a friend (Bak and Siperstein, 1986), where as in the other situation (Rothlisberg, et al., 1994), specific interactions between the respondent and the peer with a mental disability were described (e.g., have lunch with).

The correlation between labels and attitudes toward people with mental disabilities appears to vary, depending upon the behaviours exhibited by the individual. Favourable attitudes tend to be expressed when the person with a mental disability exhibits non-stereotyped or pro-social behaviour, regardless of the label assigned to the

individual (Jones, et al., 1990; Mahon, et al., 1999, Sparrow, et al., 1993; Bak and Siperstein, 1986).

Summary

Older adults with mental disabilities are living longer and are starting to make the transition from a work-orientated to a leisure-orientated lifestyle. Participating in community-based seniors' programs such as senior centres has been identified by older adults with mental disabilities as a leisure preference (Glausier, et al., 1995; Mahon & Goatcher, 1999). However, it has been proposed that the negative attitudes of the older adults without mental disabilities toward their peers with mental disabilities are a potential barrier to integration into these programs (Mahon, et al., 2000; Sparrow, et al., 1993).

Negative attitudes toward people with mental disabilities can create barriers to full participation in society, whereas positive attitudes can "enable people to seek out opportunities" (Patrick, 1987, p. 316). Understanding the attitudes of people without disabilities toward people with disabilities can assist in revealing the components of both negative and positive attitudes which in turn might assist in the development and evaluation of attitude-change programs/interventions (Antonak & Livneh, 1988).

"Internally originated - externally originated sources" was one of the six dimensions put forth by Livneh (1988) within his perspective on the origin of negative attitudes toward people with disabilities. This dimension incorporates characteristics related to the observer without a disability at one end of the continuum, to the characteristics associated with the person with a disability or the disability itself at the other end. Variables associated with the observer (internally originated) include

demographic characteristics such as age, gender, socioeconomic status, and the amount of previous contact with persons with a disability. Affiliated with the disability-connected factors (externally originated) is the type of disability. Since labeling a person with a particular disability may place the focus on the disability (Kennedy, et al., 1991), it can be included as a variable within this dimension

The attitudes of the participants in the studies reviewed were determined using a variety of attitudinal measures. Some measures were constructed to eliminate the variability of techniques used to measure attitudes toward people with disabilities, providing a reliable and valid measure of attitudes, such as the Attitude Toward Disabled Persons Scale (Yuker & Block, 1986). Other measures, such as those based on the Theory of Reasoned Action, were designed specifically for the research project, focusing on the particular situation in which interaction between people with and without disabilities would occur.

The results from the variety of attitudinal measures used within the research reviewed indicated that the attitudes toward people with disabilities, in particular people with mental disabilities, are for the most part favourable. The majority of the participants in these studies were school-aged children, young adults (undergraduates), and teachers. In studies where participants included older adults (over 55 years), the attitude scores were not categorized into age groups or the scores were placed into one category such as 35+ years. Except for one study conducted over 20 years ago (Kalson, 1976), it would appear that the attitudes of older cohorts toward people with mental disabilities has not been examined.

In Kalson's study (1976), the purpose was to assess a social program that included adults with mental disabilities. One of the assessment measures was determining pre- and post-program attitudes of participants toward people with mental disabilities. A significant attitude change from unfavourable to favourable was reported. However, the study did have limitations: the participants were residents of a personal care home; only 16 participants in the experimental group; no comparison of attitudes of the experimental group to the control group, who was not involved in the program; attitudinal measure was one question in which the responses were judged favourable or unfavourable. Due to these limitations, generalizing the results of this study to other older adults would be inappropriate.

According to Antonak and Livneh (1988), regardless of the attitude measurement method selected to investigate attitudes toward people with disabilities, the psychometric characteristics of the measure should be adequately assured. To overcome the methodological issues associated with Kalson's study and assure the reliability and validity, an established scale such as the ATDP scale could be selected to measure the attitudes of older adults toward people with mental disabilities. The ATDP scale is reported to be the most widely used rating scale and was designed to measure general attitudes toward people with disabilities (Antonak & Livneh, 1988). Yuker and Block (1986) have documented the reliability and validity of the scale.

Kalson (1976) reported a significant change between pre- and post-program attitude scores of the older adults and contributed positive change in attitudes as a result of increased interaction with adults with mental disabilities during the social program intervention. Generally, the results of the literature reviewed also indicated a positive

correlation between contact and attitudes. This would support the theory that the more one has experienced a positive interaction with a person with a disability, the more positive one's attitudes can become (Furnham & Gibbs, 1984; Makas, 1993; Stephan & Stephan, 1996).

With older adults, the amount of positive interaction with people with mental disabilities may be limited due to the past norms of institutionalization and segregation of people with mental disabilities. This lack of interaction may have resulted in older adults having an unfavourable attitude toward this population, as indicated by the negative responses (pre-contact) of the participants in Kalson's (1976) study. But, according to Rees, et al. (1991) "with the implementation of changes in legislation, methods of education, desegregation, community integration, and awareness, there has been a positive shift of attitudes towards individuals [with mental disabilities]" (p. 85). The literature reviewed provided no support that this premise could be generalized to present day cohorts of older adults since few of the participants were older adults.

Yuker and Hurley (1987) expressed the need for more continuity in the measurement of contact. As was found in the literature reviewed, almost every study which examined the relationship between contact and attitudes toward persons with disabilities "utilized a measure constructed for and used only in that study" (p. 147). Some measures were based on assumptions that students attending schools with students with disabilities would have more contact with those students than would those attending schools with few or no student with disabilities (Townsend, et al., 1993). Other measures include contact versus no contact dichotomies (Jones, et al., 1990) or several levels of contact (Beckwith & Matthews, 1994). Yuker and Hurley (1987) suggested that to better

clarify the effect that contact variables have on the attitudes toward people with disabilities, a measure with established reliability and validity should be utilized (i.e., Contact with Disabled Persons scale).

Gender differences have appeared in the measurement of attitudes toward people with disabilities. The literature reviewed also indicated that for the most part, females had a more positive attitude than males (Furnham & Gibbs, 1984; Gottleib, 1975; Yuker, 1988, 1994; Yuker & Block, 1986). Yuker and Block (1986) reported that gender differences appear to be diminishing and suggested that this could be the result of the trend toward gender equality. However, more recent studies demonstrated that gender differences in attitudes toward people with disabilities did not appear to be diminishing (Beckwith & Matthews, 1994; Karnilowicz, et al., 1994; Sparrow, et al., 1993; Townsend, et al., 1993). Within the literature reviewed, there were no gender comparisons of older adults' attitudes toward people with disabilities. Again, generalizing attitudinal gender differences of children and young adults to an older cohort would be inappropriate.

Yuker (1994) stated that most studies report a positive correlation between education and positive attitudes toward people with disabilities. With the high correlation between education and income (Yuker, 1994), it may be hypothesized that the relationship between income and attitudes should be similar to that of education. However, no recent studies were found in which educational level or income were directly measured and correlated to attitudes.

The relationship between age and attitude has been reported as being complicated (Yuker, 1994). Ryan (as cited in Yuker, 1988, 1994) proposed a "double inverted U

model" to represent the relationship between age and attitudes toward people with disabilities. The literature reviewed did provide some support for Ryan's "double inverted U model." Attitudes toward people with disabilities tended to be more favourable from early childhood to adolescence and then decline, as demonstrated by the findings in Sandberg's (1982) study. In early to late adulthood, according to the model, there is another increase in favourable attitudes, which is supported by the positive attitude scores of university students (Calhoun & Calhoun, 1993; Rizzo & Vispoel, 1992). Ryan's model then indicated a decline in attitudes toward people with disabilities with the elderly, as indicated from the pre-program responses in Kalson's (1976) study. However, few studies have investigated the relationship of older cohorts toward people with disabilities. Generalizing attitudinal scores from only one study that is over 20 years old to the current cohort of older adults would be difficult and as Rees, et al. (1991) demonstrated, attitudes of the same age group can differ over time.

Placing a categorical label (e.g., mental disability) on people, a process called labeling, may emphasize the disability rather than the individual (Kennedy, et al., 1991). It has been suggested that labeling can stigmatize, stereotype, and reflect a negative attitude towards people with a disability (Morozas & May, 1988). In contrast, it also has been suggested that labeling may provide a reference point for understanding the nature of the disability resulting in more favourable attitudes (Bullock & Mahon, 1997).

The correlation between labels and attitudes toward people with mental disabilities appears to vary, depending upon the behaviours exhibited by the individual. Favourable attitudes tend to be expressed when the person with a mental disability exhibits non-stereotyped or pro-social behaviour, regardless of the label assigned to the

individual (Jones, et al., 1990; Sparrow, et al., 1993; Bak & Siperstein, 1986). In contrast, Rothlisberg, et al., (1994) reported that the label of "mentally retarded" appeared to inhibit the willingness of students to accept peers with mental disabilities. The variation in results may be due to the situation and/or type of interaction requested of the participants (Block, 1995). Having lunch with a person (Rothlisberg, et al., 1994) labeled with mental disability versus saying hello and introducing oneself (Sparrow, et al., 1993) could possibly result in a variation of attitudes expressed by participants.

The review of literature did not locate any studies in which the relationship between labeling and attitudes was explored with participants who were older adults. A study based on the Theory of Reasoned Action, such as Sparrow, et al., (1993), could be developed to examine the association between labeling and the attitudes of older adults toward their peers with mental disabilities.

To summarize, the review of literature did not locate any studies that specifically investigated the attitudes of older adults toward people with disabilities, indicating a void in attitudinal research in this area. The purpose of this study is to examine the attitudes of older adults toward their peers with mental disabilities, providing information to add to the understanding of attitudes toward people with mental disabilities. The next section will present research questions that were developed from the literature review, and which this study will attempt to answer.

Research Questions

In general, the review of literature indicated that the attitudes toward people with mental disability are favourable. However, the majority of studies were conducted with school-aged children and younger adults, such as first year university students. With only

one study found (Kalson, 1976) which attempted to determine the attitudes of older adults toward persons with mental disabilities, it would appear that research in this area is indicated. Therefore, the first research question in this study was as follows:

1. What are the attitudes of older adults toward their peers with mental disabilities as measured by (a) the Attitude Toward Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action?

Since there has been no recent attitudinal research conducted with older adults, an appropriate attitudinal measure for this population has not been established. Therefore, two attitudinal measures were selected for this study. The ATDP scale was chosen to measure the attitudes of older adults toward people with mental disabilities since it is a widely used general measure of attitudes with established psychometric properties (Antonak & Livneh, 1988; Yuker & Block, 1986).

A scale based on the Theory of Reasoned Action was also chosen for the study since it will provide a measure of attitudes specific to certain behaviours. In addition, such a scale is recognized as a better predictor of social behaviour toward the attitude object (Ajzen & Fishbein, 1980), which in this case will be an older adult with a mental disability. The vignette format used within this research design has been used effectively with older adults (Holland, 1996). It has also been shown that behavioural questions are less prone to age-related bias when compared to other types of questions such as ranking (Kaldenberg, Koenig, & Becker, 1994).

The findings from the literature review indicated that when measuring attitudes toward people with mental disabilities, general measures may reveal favourable or positive attitudes. But when attitudes toward specific types of interactions are measured,

results may not be as favourable (Calhoun & Calhoun, 1993; Karnilowicz, et al., 1994; Rizzo & Vispoel, 1991; Sparrow, et al., 1993). As a result of two different attitudinal measures being used within this study, the next research question was developed:

2. Is there a difference in the attitudes (favourable/positive versus unfavourable/negative) of older adults toward their peers with mental disabilities when the attitudes are measured by two different attitude scales: the Attitude Toward Disabled Persons Scale-Form O (modified) and the scale based on the Theory of Reasoned Action?

The amount of contact older adults have had with people with mental disabilities was not established through the review of literature. It has been hypothesized that older cohorts may not have had the "integration experience" that has been available to younger cohorts through mainstreaming in schools and integration into the workplace (Mahon, et al., 2000), resulting in little or no contact with people with mental disabilities. However, with a trend toward desegregation and community integration, older adults may have had contact with this population. The uncertainty around the amount of contact older adults have had with people with mental disabilities was the basis for the next research question:

3. How much contact have older adults had with people with mental disabilities as measured by the Contact with Disabled Persons (modified) scale?

The literature review provided support for the premise that closer contact with people with disabilities leads to more positive attitudes toward them (Furnham & Gibbs, 1984). However, only one study conducted over 20 years ago suggested that this holds true for older cohorts, which lead to the following research question:

4. What is the relationship between the amount of contact older adults have had with people with mental disabilities, as measured by the CDP scale, and their attitudes toward

them, as measured by (a) the Attitude Toward Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action?

The demographic variables of gender, age, education, and income have not been studied in relation to the attitudes of older adults. Studies with other age cohorts demonstrated a positive correlation between attitudes toward people with disabilities and gender (MacLean & Gannon, 1995; Beckwith & Matthews, 1994). With respects to age, Ryan's "double inverted U model" (as cited in Yuker, 1988, 1994) suggested that attitudes toward people with disabilities tended to be more favourable from early childhood to adolescence, then decline, followed by another increase from early to late adulthood, with a decrease among the elderly. The literature reviewed did provide some support for Ryan's model, however, as with gender, no studies were conducted with older adults. In addition, no recent studies were found in which educational level or income were directly measured and correlated to attitudes.

A number of other variables such as types of activities, attendance, and location (urban or rural) of the senior centre also need to be taken into account. Changing any element in a recreation program can alter a participant's leisure experience and intrinsic satisfaction during that program (Ross, 1989). One such element is the other people in the program. The participant may perceive that the inclusion of people with mental disabilities in an activity will decrease the satisfaction gained from the leisure experience, depending upon type of activity and the number of times the experience is changed. This in turn may impact attitudes toward the "change object" which in this case would be older adults with mental disabilities.

As stated earlier, closer contact with people with disabilities leads to more

positive attitudes toward them. It has been suggested that people living in rural communities have increased opportunities to interact with people with mental disabilities (Mahon, et al., 1999; McConkey, et al., 1983; Ralph and Usher, 1995), which would lead to more positive attitudes.

The scarcity of research, in which the relationships between attitudes of older adults and the demographic variables of gender, age, education, income, and location were examined, contributed to the next research question. Type of activity (see also Question 9) and attendance at the seniors centre was also included in the next question to determine if there is a relationship between the two variables and attitudes.

5. What is the relationship between gender, age, years of formal education, income, types of activities participated in, attendance at the seniors centre, urban/rural location and the attitudes of older adults toward their peers with mental disabilities as measured by (a) the Attitude Toward Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action?

It was presumed that people who have a disability of any type would have more positive attitudes toward others with mental disabilities since they understand what life is like with a disability. However, since it has been reported that people without disabilities view people with mental disabilities more negatively than people with other types of disabilities (Furnham & Gibbs, 1984; Westbrook, et al., 1993), those same views may be held by people with disabilities. As there was no research examining the attitudes of people with disabilities toward others with disabilities, the next question was developed:

6. Is there a relationship between older adults identifying that they have a disability and their attitudes toward their peers with mental disabilities as measured by (a) the Attitude

Toward Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action?

It was postulated that people who have family members with mental disabilities would have more contact with people with mental disabilities, resulting in more positive attitudes. There was no literature to support this postulation, which led to the next question:

7. Is there a relationship between older adults identifying that they have a disability and their attitudes toward their peers with mental disabilities as measured by (a) the Attitude Toward Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action?

When examining contact with people with disabilities, the literature has mainly focused upon the relationship between attitude and amount of contact. The literature review only reported gender and location in relation to contact. Females were reported to have had more contact with people with disabilities (Makas, 1989; Beh-pajooh, 1991), as with people from rural communities (McConkey, 1983). The participants of these studies were either University or grade school students. It is also feasible to hypothesize that people with family members with mental disabilities would also have more contact as compared to people who do not have family members with mental disabilities. With few studies examining the relationship between variables other than attitudes with amount of contact with people with mental disabilities, the following question was included:

8. What is the relationship between gender, age, years of formal education, income, urban/rural location, having a family member with a mental disability and the amount of contact older adults have had with people with mental disabilities, as measured by the

Contact with Disabled Persons Scale?

The review of literature indicated variability in the relationship between attitudes and labeling, depending upon the behaviours exhibited by the individual. Favourable attitudes tended to be expressed when the person with a mental disability exhibited non-stereotyped or pro-social behaviour, regardless of the label assigned to the individual (Jones, et al., 1990; Sparrow, et al., 1993; Bak and Siperstein, 1986). It has also been suggested that variation in labeling results may be due to the situation within which the interaction is to take place (Block, 1995), such having coffee versus playing cards.

However, no studies were found which investigated the relationship between labeling and the attitudes of older adults toward people with mental disabilities. Due to this void in the literature, and the potential importance of behavioural characteristics and the interaction situation upon attitudes toward the person labeled with a mental disability, the following research questions were developed:

9. Does placing the label of mental retardation on a person have an influence upon the attitudes of older adults toward that person, as measured by a scale based on the Theory of Reasoned Action?

10. Do the behavioural characteristics of a person have an influence upon the attitudes of older adults toward that person, as measured by a scale based on the Theory of Reasoned Action?

11. Does the interaction between labeling and behavioural characteristics have an influence upon the attitudes of older adults toward that person, as measured by a scale based on the Theory of Reasoned Action?

In order to give the opportunity for participants to express their views about older

adults with mental disabilities, the following research question was developed.

12. What are the views of older adults toward their peers with mental disabilities as expressed in an open-ended question?

The next section will develop the methodology which was used in the attempt to answer the above research questions (see Appendix A for a complete list of the research questions).

Method

Research Design

A survey research design, in the form of a self-administered questionnaire, was used to explore the attitudes of older adults toward peers with mental disabilities. In general, survey research has advantages in terms of the amount of data that can be collected, of lower costs, and the standardization of the data collected. An important advantage of a self-administered questionnaire is anonymity and privacy which may encourage more candid responses on sensitive issues (Babbie, 1992).

A weakness of a questionnaire is that it may be somewhat 'artificial' in that it is not measuring a behaviour in a natural setting (Babbie, 1992). The results consist of what people state they do or believe, like or dislike, and not their actual behaviour (Thomas & Nelson, 1996). The researcher must assume that the participants are responding truthfully.

One section of the questionnaire included the use of vignettes. Vignettes present fictional situations and because they are contextual, the use of vignettes can come closer to real situations than do the types of generalised questions which are asked in questionnaires and surveys. In addition, the details within the vignette can be varied,

providing the possibility of examining a wider range of situations (Holland, 1996). More detailed discussion of the use of the vignettes within the questionnaire can be found within the description of the TRA scale (see p. 83).

Operational Definitions

Attitude. Attitude was operationalized as the total score derived from the attitudinal measures used in the study: the Attitude Toward Disabled Persons Scale (ATDP)– Form O (modified) and the scale based on the Theory of Reasoned Action (TRA). A higher score on the ATDP scale indicates a positive attitude toward people with mental disabilities. A positive score on the TRA scale also indicates a positive attitude toward people with mental disabilities.

Variables

Dependent variable(s). The dependent variables were the attitudes toward older adults with mental disabilities as measured by the ATDP scale and the TRA scale. The amount of contact with people with mental disabilities as measured by the Contact with Disabled Persons (CDP) scale was also a dependent variable when not examined in association with the attitude scales.

Independent variables. The independent variables were: gender, age, education, income, types of activities, location, attendance, disability, family member with mental disability, amount of contact with people with mental disabilities, labeling and behaviour characteristics. It should be noted that the variables of labeling and behaviour characteristics were examined in relation to the attitude scores from the TRA scale. In addition, gender, age, education, income, location, and family member with mental disabilities were examined in relation to amount of contact with people with mental

disabilities.

Sample

A nonprobability sampling technique was used to select participants. Senior centres listed in Manitoba Senior Citizens' Handbook (Manitoba Council on Aging, 1995) were contacted and requested to participate in the study.

Participants

Participants were members of the senior centres who consented to participate. Participants met the following criteria: 55 years of age and over; attend a senior centre; can read English; are not visually impaired; and do not have a mental disability.

The survey was distributed within the senior centre facility, with those attending the centre being requested to complete the survey. Potential participants were asked to read aloud a portion of the informed consent form to establish their ability to read English and identify visual impairments. The age criterion was determined by the participants' response to the age question within the survey. Participants who were under the age of 55 years were excluded from study. If unknown by the researcher, staff of the senior centre was asked to discreetly identify members with mental disabilities and if these members did complete a survey, that survey was excluded from the study.

Tabachnik & Fidell (1989) suggest that the number of participants required for the statistical analysis (see data analysis) of the total attitude scores relates to the total number of variables. They recommend that there be 20 times the participants compared to the total number of independent variables. For one of the two measures that was used in this study, there was one dependent variable (attitudes) and ten independent variables (age, gender, education, income, attendance, location, disability, family member, contact,

and type of activity). According to Tabachnik & Fidell, the suggested number of participants would be 200. From a table produced by Cohen (1992), for a medium population effect size, at a Power of 0.80 for an alpha set at 0.05 with ten independent variables, the suggested number of participants for multiple correlations is 143.

The number of participants necessary for the statistical analysis employed with the second measure can be determined from a table developed by Aron and Aron (1994). They suggested the approximate number of participants for a medium population effect size, at a Power of 0.80 for an alpha set at 0.05, using 2 x 2 ANOVA, would be 132. In contrast, Cohen (1992) recommended 180 participants.

Given all of the above stated information and to ensure maximum power, the minimum number of participants for this study was set at 200.

Informed Consent

Informed consent was obtained from all participants. The participants were informed of the purpose of the research, the option to decline participation at anytime, and the guarantee of anonymity and confidentiality. In addition, participants were told that a report of the findings would be made available through the senior centre or mailed directly to them. The consent form was presented in a written format and the participants were requested to sign the form and a copy was given to them (see Appendix B).

Strain and Chappell (1982) indicated that signing an informed consent form could cause some older adults a great deal of stress. It was found that some older adults might not understand the process and think they are signing over their pension checks. In such instances, viable options include obtaining verbal consent and possibly having participants sign the form after the questionnaire has been completed. In this study, if the

participants felt uncomfortable about signing the form, verbal consent was accepted and so indicated with a check mark on the consent form or the participants marked the consent form with a check mark. Of the 226 participants who consented to participate in either the pilot study or the present study, 42 (18.6%) placed a check on the consent form and did not provide a signature.

Instrument

In this study, a self-administered questionnaire was the instrument used to explore the attitudes of older adults toward peers with mental disabilities (see Appendix C for the complete questionnaire). The questionnaire was composed of four main sections. The first section requested demographic information and included questions regarding the types of activities the respondent participated in and how often they came to the seniors centre.

The next two sections were attitude measures, with the first measure being based on the Theory of Reasoned Action (Ajzen & Fishbein, 1980) and the second measure being based on the Attitude Toward Disabled Persons Scale-Form O (Yuker, et al., 1970). Immediately following the TRA scale was a basic definition of mental retardation to ensure participants comprehended the term.

> Mental retardation is a disability or handicap that people have had all their lives. It involves difficulty in thinking and learning that can cause individuals to have problems at work and living in the community. Down Syndrome is one type of mental retardation, but there are other types that result in a more severe disability.

The definition was placed after the TRA scale to reduce the potential that participants

would think the target person within the vignette had a mental disability when no label was present (see Pilot Study).

The final section measured the amount of contact the respondent had with people with mental disabilities using the Contact with Disabled Persons Scale (Yuker & Hurley, 1987). Included in this section were three additional information questions: Do you have a disability? Do you have a family member with mental retardation? In general, what are your views on older adults with mental retardation?

Questionnaire Design and Measurement

Demographic information. For the variables education, age, and number of people in household, the participant reported the actual number in a blank space. Gender, income, attendance, disability, and family member with disability were measured using closed-ended questions in which the participant checked the appropriate category. The participants were asked in open-ended questions to list the types of activities they participate in at the seniors centre and their views on older adults with mental retardation. The location of the senior centre (urban or rural) was marked on the questionnaire by the researcher.

For the purpose of statistical analysis, education, age, and number of people in a household were coded as the actual number reported by the participant. Income categories were coded as follows:

1 - less than $20,000

2 - $20,000 to 39,999

3 - $40,000 to 59,999

4 - over $60,000

The frequency of attendance at the seniors centre was coded as:

1 - once a week

2 - twice a week

3 - three or more times a week

4 - one or two times a month

5 - one or two times a year

6 - other.

Type of activity reported by the participants was subsequently categorized and coded be the researcher according to the four levels of activities described by Beck-Ford and Brown (1984). The four levels of activities include spectator, social, physical, and creative/self-actualization. Spectator activities are passive and non-participatory in nature with minimal degree of involvement such as concerts and entertainment. Social activities are those that foster the development of interpersonal relationships and included luncheons, birthday parties and pot luck suppers. Physical activities demand active participation both mentally and emotionally, but also physically involved in the activity. Physical activities included exercises, Tai Chi, yoga, pool, and dancing. The final level is creative/self-actualizing activities that involve a great deal of personal investment, mental skills, physical skills (fine motor and coordination) and imaginative skills. Included in this category were cards, bingo, volunteering and choir. The activities were coded according to the level of the activity:

1 - Spectator

2 - Social

3 - Physical

4 – Creative/Self-actualizing

Gender was coded 1 for male and 2 for female. Type of disability and having a family member with a disability were assigned 1 for yes and 2 for no. Location of the senior centre was coded 1 for urban and 2 for rural. Respondents' views on older adults with mental retardation were grouped according to similarity of themes.

Theory of Reasoned Action Scale. The first attitude measure was based upon the Theory of Reasoned Action (Ajzen & Fishbein, 1980). According to this theory, a person's behavioral intention to act is influenced by two factors: a personal attitudinal factor and a normative factor. As stated earlier, the attitudinal factor represents the person's beliefs and evaluation about the outcomes of the behavior in question. The normative factor, or subjective norm, refers to the extent to which important people (e.g., family or peers) would approve or disapprove of the person performing the specific behavior and the extent the person is motivated to accede to the wishes of these people (Ajzen & Fishbein, 1980; Johnston, 1995). These factors are proposed to determine the subjective probability that the person will perform the specified behavior (Sparrow, et al., 1993).

The Theory of Reasoned Action has been used to predict and explain various behaviours such as family planning (Jaccard & Davidson, 1972), intention to go summer camping (Young & Kent, 1995), and intention to peer tutor (Miller & Gibbs, 1984). In general, a high correlation has been reported between the factors of attitude and subjective norm and the intention to act (Ajzen & Fishbein, 1973). It has also been shown that behavioural questions are less prone to age-related bias when compared to other types of questions such as ranking (Kaldenberg, Koenig, & Becker, 1994).

The next section of the questionnaire included one of four possible vignettes describing a woman named Anne who wants to become a member of the seniors centre. It should be noted that the vignette format has been used effectively with older adults (Holland, 1996). The vignettes were developed from the following two primary descriptions of a person with mental retardation (Vignette 1) and a person without mental retardation (Vignette 2).

1. Anne (who is mentally retarded) arrived at your seniors' centre. She would enjoy participating in a number of the activities offered at the centre. Anne has difficulty in reading and often does not understand or remember what she has just read. When completing basic application forms, she requires help from others. Anne also talks slowly and rarely starts a conversation. When interacting with others she often makes remarks that are unrelated to the topic under discussion. She tends not to mix with others, so she is somewhat of a loner. Anne wishes to become a member of your senior's centre.

2. Anne (who is mentally retarded) arrived at your seniors' centre. She would enjoy participating in a number of the activities offered at the centre. Anne wishes to become a member of your senior's centre.

Within the vignettes, the variables of label assigned and behavioural characteristics were varied to produce the following four combinations: labeled with behavioural characteristics; labeled without behavioural characteristics; non-labeled with behavioural characteristics; non-labeled without behavioural characteristics. For statistical analysis, label and behavioural were coded 0 for none and 1 for present. The

participants were randomly assigned questionnaires therefore varying the vignette received. The vignettes were based on the study by Sparrow, et al. (1993), and the behavioural characteristics represented a mild form of mental retardation.

Following the vignette were statements constructed to reflect behaviours that are typical of interactions of members/participants of seniors centres with a potential new member/participant. The behaviours, adapted from the study by Sparrow, et al. (1993), were (1) saying hello and introducing self and (2) inviting the person to join the seniors centre. Attitude (A), social norm (S) and behavioural intention (B) toward the two identified behaviours were assessed by having participants respond to the following statements:

Behaviour 1

(A) My saying hello and introducing myself to Anne would be. . .

(S) Most people who are important to me think I should/should not say hello and introduce myself to John.

(B) My saying hello and introducing myself to Anne is. . .

Behaviour 2

(A) My inviting Anne to join the seniors' centre is . . .

(S) Most people who are important to me think I should/should not invite Anne to join the seniors centre.

(B) My inviting Anne to join the seniors centre is . . .

Under each statement, a semantic differential scale was used to measure the respondents' attitudes, social norms and behavioural intentions. The semantic differential scale consisted of bipolar evaluative adjective scales. The adjectives for attitudes were

harmful-beneficial, good-bad, rewarding-punishing, and pleasant-unpleasant. Social norms were assessed by should/should not and behavioural intentions by likely/unlikely.

The adjectives in a given pair were placed at opposite ends of a seven-point scale, and the respondent was asked to evaluate the statement about the attitude object (Anne) by rating it on each adjective scale (Ajzen & Fishbein, 1980). The seven-point scale, from favourable responses to unfavourable, was labelled and weighted for statistical analysis as follows:

+3 - extremely

+2 - quite

+1 - slightly

0 - neither

-1 - slightly

-2 - quite

-3 - extremely

Scores for the scale are determined by summing the assigned weighting for each response. The range of possible scores was from –36 to +36.The weighting of the responses resulted in positive scores for favourable attitudes, zero for neutral, and negative scores for unfavourable. It should be noted that the weighting scores were not placed on the questionnaire.

Attitude Toward Disabled Persons Scale-Form O (modified). The Attitude Toward Disabled Persons Scale-Form O (ATDP) (Yuker, et al., 1970) was modified and used to measure the dependent variable. This scale has been widely used for the measurement of general attitudes toward persons with disabilities (Antonak & Livneh,

1988). The ATDP scale is a pen-and-paper inventory and takes approximately 10 to 15 minutes to complete. The items are presented in a Likert-type format with six responses scored from +3 to -3 (positive to negative). A higher total score reflects a more positive attitude (Patrick, 1987). It was designed to measure the extent to which respondents perceive persons with disabilities as being similar to persons without disabilities and the extent to which they believe persons with disabilities should be treated similarly to and not different from persons without disabilities (Yuker & Hurley, 1987).

Yuker and Hurley (1987) report that the reliability of ATDP scale is relatively high with the mean split half coefficients ranging from 0.78 to 0.81. Test-retest coefficients range from 0.84 over a period of five weeks or less to 0.68 over four months or more. Coefficient alpha reliability estimates range from 0.79 to 0.89, with a median 0.84. The convergent validity of the ATDP scale was demonstrated by the ATDP scores correlating highly with other measures of attitudes toward persons with disabilities, such as Attitude Toward Handicapped Individuals, Semantic Differential, disabled person, Disability Factors Scale – General, and Attitude Toward Treatment of Disabled Students (average correlation = +.56), and with measures of attitudes toward people with specific disabilities (average correlation = +.32) (Yuker & Block, 1986).

ATDP-Form O was modified by replacing the words "disabled _____" with "older adults with mental retardation" and "non-disabled _____" with "older adults without mental retardation." Minor modifications of the wording of the ATDP scale are assumed not to have an impact on the reliability and validity (Yuker & Block, 1986). It should be noted that the term "mental retardation" was used in the questionnaire to avoid any confusion of the meaning of mental disability.

Other modifications of the ATDP scale included the elimination of two items from the original version of the scale:

Item 1 - Parents of disabled children should be less strict than other parents;

Item 6 - There should not be special schools for disabled children.

These modifications were made to make the scale a more appropriate measure of attitudes toward older adults with mental disabilities.

The modified ATDP-Form O scale contained 18 items or statements. Participants responded to each item by indicating the extent of their agreement or disagreement according to the following 6-point Likert-type scale:

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

The value of each response, for statistical analysis, corresponded to the number associated with that response, for example, agree very much is assigned the value of +3. Scoring the ATDP involved four steps: (1) changing the signs on items 1, 4, 9, and 10; (2) summing the scores, subtracting those with negative signs; (3) changing the sign of the sum, from negative to positive or positive to negative, with total scores ranging form –53 to + 54; (4) to eliminate possible negative values, adding a constant of 54 to the sum obtained. The resulting theoretical range of scores were from 0 to 108, with high scores reflecting positive, accepting attitudes, and relatively low scores reflecting negative, rejecting attitudes (Yuker & Block, 1986).

Contact with Disabled Persons Scale (modified). The Contact with Disabled Persons (CDP) scale was developed to provide a reliable and valid measure of a person's prior contact with people with disabilities. It is a 20-item Likert-type scale, with some items measuring only the amount and type of prior contact, for example "How often have you eaten a meal with a person with a disability?" Other items have an affective component, for example, "How often have you met a person with a disability for whom you feel sorry?" (Yuker & Hurley, 1987).

Yuker and Hurley (1987) reported that the CDP scale was reliable with a corrected median split-half reliability coefficient of 0.93 and a median alpha coefficient of 0.92. Construct validity was assessed by correlating contact scores with scores on the ATDP scale. Correlation coefficients ranged from – 0.26 to + 0.40, with a median correlation of + 0.10.

The CDP scale was modified by replacing "physically disabled person(s)" with "person(s) with mental retardation." Yuker and Hurley (1987) suggested that the items could be modified to refer to contact with people with specific disabilities (i.e., mental retardation), but the word "person" should be maintained.

The CDP (modified) scale contained 20 items or statements. Participants responded to each item by indicating the extent of their contact with a person with "mental retardation" according to the following 5-point Likert-type scale:

1 - never
2 - once or twice
3 - few times
4 - often
5 - very often

The value of each response, for scoring purposes and statistical analysis, corresponded to the number associated with that response, for example, the response of never is scored as 1. The score for each item is summed giving the final total score which can range from 20, indicating no contact at all with a person with mental disabilities, to 100, indicating a high amount of contact (Yuker & Hurley, 1987).

Other considerations. Age related changes in vision (e.g., farsightedness and yellowing of the lens) were taken into consideration when designing the questionnaire. To assist respondents in reading the questionnaire, Gaudet and Dunn (1994) recommend the use of a larger size font, paper that does not present glare, and a background in warm colours which are generally more easily seen (red, yellow, orange). To address these recommendations, a 16-size font was used on the questionnaire and the colour of the paper was a flat yellow.

Complete instructions were included on the first page of each section of the questionnaire along with example questions on how to mark the appropriate response. The researcher was available by telephone to answer any questions regarding the process.

Procedure

Pilot Study

A pilot study was conducted to examine the modifications of the scales, and to ensure the older adults easily understood the content of the questionnaire. The study was piloted with 20 older adults who participated in an exercise class at a local community centre. The responses were examined for trends, omissions, and reliability by computing alpha coefficients. Data collected from the pilot study was not used in the final analysis.

Pilot study demographics. There were 20 participants in the pilot study with an average age of 68 (n = 17, SD = 4.3); 15% were males. The average number of years of education was 11.7 with a range from 10 to 14 years. Only 65% (n = 13) of the participants reported their income with most ranging from less than $20,000 to $39, 999 per year. Average number of people in the household was 1.7. One participant reported having a disability and 5 have/had a family member with mental retardation. See Table 1 (Method section) for a comparison of the demographic data from the pilot and the present study.

Reliability. Alpha coefficients were conducted on the Attitude Toward Disabled Persons Scale-Form O (modified) and Contact with Disabled Persons (modified) to determine if modifications to the scales altered their reliability. The alpha reliability coefficients for the ATDP scale were .74 for the pilot study and .76 for the attitude study. For the CDP scale the coefficients were .91 for the pilot and .93 for the attitude study. These results indicated that the modified scales retained their reliability.

Modifications. While administering the questionnaire to the pilot study group several observations were made. It was apparent that the seniors had anticipated the questionnaire to be similar to others that they had completed. They were surprised that it was not about their health and many expressed that they would like to take it home and complete it for they wanted time to think about their responses. In addition, there were questions about whether the target person had "mental retardation" when the label "mental retardation" was not present.

To address these observations, the researcher modified the questionnaire administration procedure to enable the seniors to take the questionnaire home to complete

(see data collection). The format of the questionnaire was also changed. In the pilot study the definition of "mental retardation" was placed immediately before the TRA scale. In the present study, the definition was placed after the TRA scale and before the ATDP scale, to reduce the potential that participants would think the target person within the vignette had a mental disability when no label was present.

Data Collection

The researcher contacted seniors centres that were listed in the Manitoba Senior Citizens' Handbook (Manitoba Council on Aging, 1995) and requested permission to approach the members at the centre for participation in the study. Only one of the centres listed was not accessed due to the facilitator of the seniors group within the complex not being available to grant permission. A list of the participating seniors centres can be found in Appendix D.

Following the initial contact the researcher forwarded to those requesting information on the study, a package which included the University of Manitoba Ethical Approval form (Appendix E), information form (Appendix F), and an overview of the study (Appendix G). It should be noted that two of the sponsoring organizations had a formal application process. Age and Opportunity requested more detailed information which included an introduction to the study, the procedure (see Appendix H, p.188), a copy of the questionnaire, consent form, and ethical approval. For the Lions Club of Winnipeg Housing Centres, the researcher completed an application form (Appendix H) and submitted copy of the questionnaire, consent form, and ethical approval.

Requests where submitted to the Boards of Directors or a representative of the board, which was usually the president. Approval was given in all cases to access the

centres (see Appendix I).

Once approval to access the centres was given, the researcher contacted the seniors centre and requested the contact person (executive director or president) to recommend a group within their centre that could be approached to complete the questionnaire. The contact person would make arrangements with the group and inform the researcher of the date and time she could approach the group.

The researcher was provided the opportunity to address the group, which was either at the beginning, at a break, or the end of the activity. The researcher addressed the seniors by introducing herself as a student from the University of Manitoba, followed by a brief description of the study and information about completing the questionnaire and the incentive. The seniors were told they could pick up the questionnaire from the researcher at the next break or after the activity was completed, and that the researcher would return the following week to collect the questionnaires.

Seniors would approach the researcher requesting a questionnaire. The researcher would show potential participants the consent form and ask them to read a selected line from the form. If the senior had no difficulties in reading, the questionnaire package was given to them. The questionnaire package consisted of a sheet of instructions (see Appendix J), the participant's and researcher's copy of the consent form, and the questionnaire. When the participants returned the questionnaire the following week, the researcher placed the questionnaires in one folder and the consent form in another. If the participants did not return the consent form, they were requested to complete it or place a check on a blank form to indicate that consent was given.

Once the participants returned the questionnaire, they could entry the $100.00

dollar "Thank-you" or incentive draw. To enter the draw, participants would write their name and address on a small entry form and deposit it into a sealed container. At the conclusion of the data collection, an entry form was drawn from the container and that participant was mailed a money order for the amount of $100.00.

If the participants were not attending the activity the next week or if they forgot the questionnaire, the researcher provided the participant with a questionnaire package which had an instruction sheet for mailing, the two consent forms, the questionnaire, the entry form and a postage-paid addressed envelope.

The researcher tracked the number of questionnaires distributed for each centre and the number returned by marking the returned questionnaires with the appropriate code for the particular senior centre on the questionnaire. If the questionnaire was mailed back, the code was placed on the lower left corner of the envelope when distributed. The codes were only used to determine the response rate.

Data Analysis

Descriptive statistics, means and standard deviations were reported for the following variables: location, gender, age, income, number of people in household, education, attendance, type of activity, disability, family member, views, amount of contact, and attitude scores from TRA and ATDP scales. This provided a demographic and type of activity profile of the sample, the amount of contact the sample had with people with mental disabilities, and the overall attitudes the sample held toward people with mental disabilities.

A correlation (Pearson r) was conducted to determine the association between the attitudes of older adults toward people with mental disabilities as measured by the ATDP

and attitudes measured by the TRA scale. A series of one-way ANOVAs were conducted to examine the relationship of gender, income, types of activities, attendance at centre, urban/rural location, having a disability, having a family member with a mental disability, and amount of contact with people with mental disabilities with attitudes. A correlation (Pearson *r*) was conducted to determine if age and education was associated with attitudes.

The relationship between gender, income, urban/rural location, family members with mental disability and contact was examined using a series of one-way ANOVAs. A correlation was also conducted to determined if age and education was associated with amount of contact. A 2 x 2 factorial analysis of variance was used to evaluate the association between labeling and behavioural characteristics with any variation in attitude scores as measured by the TRA scale.

If the relationships between the variables and attitudes or the amount of contact were found to be significant, then the degree of the relationship was established by using the appropriate correlation statistic which was either Pearson *r*, Kendall's Tau-b, or Eta.

The Statistical Package for the Social Sciences (1990) was used to analyze the data. The alpha was set at 0.05. It should be noted that if more than 10% of the items on the ATDP, TRA, and CDP scales were blank, the score was not considered to be valid and was excluded from analysis (Yuker & Block, 1986) for that research question. A content analysis was conducted to identify any common subject matter or themes among the written responses.

Assumptions

Due to the psychometric properties (see Questionnaire Design and Measurement) of the ATDP scale (Yuker & Block, 1986) and the theoretical basis underlying scales based on the Theory of Reasoned Action (Ajzen & Fishbein, 1980), this study assumed that attitudes toward older adults with mental disabilities can be reliably demonstrated and measured. This study also assumed that the participants responded truthfully.

Delimitations and Limitations

Delimitations

(1) Participants met the following criteria: 55 years of age and over; attended a senior centre; could read English; were not visually impaired; and did not have a mental disability. This limits the generalizability of the results to a population meeting the same criteria.

(2) The order in which the attitude measures were placed within the questionnaire, with the Theory of Reasoned Action-based measure placed first, followed by the ATDP scale. Without randomly assigning varying orders of the attitude measures, the relationship between the presentation order of the measures and the attitude scores could not be examined.

(3) The gender of the target person in the vignettes was female (Anne), which may have resulted in gender biased responses due to the existence of same-gender preference among participants (Sparrow, et al. 1993).

Limitations

This study was limited to the truthfulness of the participants' responses to the items on the questionnaire.

The next section will provide the results of the study, followed by a discussion of the findings.

Results

Response Rates

Questionnaires were distributed to 357 members of community-based senior centres. A total of 232 questionnaires were returned resulting in a response rate of 65.0%. According to Babbie (1992), "a response rate of at least 60% is good" (p. 267). See Appendix K for the response rates for the various senior centres. Of the returned questionnaires, 206 were utilized in the data analysis since 12 were not fully completed and 4 of the participants did not fit the age criteria.

Demographic Information

Within the questionnaire, participants were asked to provide demographic information. First, they were asked to indicate their gender, age in years and number of years of formal education. Responses to these questions showed that the participants were between the ages of 55 and 93 with their average age being 72 (n = 199, SD = 7.5); 23.3% were males. The participants' average number of years of formal education was 11.5 (n = 198, SD = 2.6) with a range from 0 to 20 years.

Participants were then asked to report the actual number of people living in their household and to check the category that reflected the range of their household income (before taxes). One hundred and sixty-two (78.6%) of participants reported their household income, with the majority reporting an annual income within the first two income ranges: less than $20,000 and $20,000 to $39, 999. The average number of people living in the household was 1.7 with 45.7% having one person (n = 91) and 48.2% having

two people (n = 96).

Participants were also asked to indicate whether or not they had a disability and whether or not they have/had a family member with mental retardation. Twenty-six (12.7 %) of the participants indicated they had a disability and 37 (18.3%) reported they have/had a family member with mental retardation.

When returned, the researcher marked the questionnaires to indicate whether the participants attended a senior centre located in an urban or rural community. One hundred and sixty-seven (81%) of the participants were attending urban senior centres. Included in Table 1 is a summary of the above demographic information from the actual study and also the pilot study (see next section for comparison discussion).

The demographic information also included information about the participants' attendance at the senior centre and the types of activities in which they participated. Attendance was divided into a number of categories and most of the participants (n = 189, 91.8%) reported attending the senior centre at least once a week. Participants were asked to list the type of activities they participated in at their senior centre. The first response was coded into one of four activity types: spectator (concerts, entertainment), social (luncheons, birthday parties), physical (exercises, dancing), creative/self-actualizing (cards, choir) (Beck-Ford & Brown, 1984). Most of the older adults (n = 184, 93.4%) in this study reported participating in activities classified as physical or creative/self-actualizing activities. Table 2 gives a summary of participants' attendance and activity type.

Pilot and Present Comparison

Chi-square and T-tests were conducted to determine if the participants in the pilot

and the present study were similar with respect to the demographic variables. No significant differences ($p < .05$) between the two groups were indicated for the variables of gender, age, income, number of people in household, disability and having a family member with a mental disability. As stated earlier, Table 1 provides a summary of the demographic information for the pilot and the present study.

Table 1

Demographics: Pilot and Present Study

	Pilot n	Pilot	Present n	Present
Gender (% of total)	20		206	
Female		85.0		76.7
Male		15.0		23.3
Mean Age (years)	17	68.7 (SD = 4.3)	199	72.2 (SD = 7.5)
Years of Formal Education	20	11.7 (SD = 1.2)	198	11.5 (SD = 2.6)
Mean Number of People in Household	19	1.7 (SD = 0.5)	199	1.7 (SD = 0.9)
Annual Income (% of total)	13		162	
< $20,000		30.8		33.3
$20,000 - $39,999		46.2		48.1
$40,000 - $59,999		23.1		13.6
> $60,000		0.0		4.9
Has Disability (% of total)	20		204	
Yes		5.0		12.7
No		95.0		87.3
Family Member with Mental Disability (% of total)	20		202	
Yes		25.0		18.3
No		75.0		81.7
Location (% of total)	20		206	
Urban		100.0		81.1
Rural		0.0		18.9

Table 2

Attendance and Type of Activity

	n (% of total)
Attendance (n = 206)	
Once a week	63 (30.6%)
Twice a week	62 (30.1%)
Three or more times a week	64 (31.1%)
Once or twice a month	6 (2.9%)
Other	11 (5.3%)
Type of Activity (n = 197)	
Spectator	4 (2.0%)
Social	9 (4.6%)
Physical	59 (29.9%)
Creative/Self-actualizing	125 (63.5%)

The next section will present the results in relation to the research questions.

Research Question #1

What are the attitudes of older adults toward their peers with mental disabilities as measured by (a) the Attitude Toward Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action?

The attitudes of the older adults toward their peers with mental disabilities as measured by the Attitude Toward Disabled Persons Scale-Form O (modified) (ATDP)

appeared to be in the neutral range, tending toward the negative. The mean score was 51.35 (n = 183, SD = 14.11), with a range of 13 to 87. The possible range of scores for the scale is 0 to 108, with the mid-range being 54, with higher scores reflecting more positive attitudes.

For the scale based on the Theory of Reasoned Action (TRA), responses can range from –36 to +36. Positive scores reflect favourable attitudes and negative scores reflect unfavourable. In contrast to the ATDP scale, the attitudes of the older adults to performing the behaviours of introducing themselves to the target person and inviting the target people to join the senior centre were positive. The total mean score for the TRA scale was 20.06 (n = 159, SD = 7.72). Table 3 provides a summary of the results for the ATDP and TRA scales. Frequency Tables for both scales can be found in Appendix L.

Post Hoc analysis was conducted to determine if non-respondents on the TRA scale may have biased the final mean TRA score in a positive manner. Non-respondents to the TRA scale (i.e., participants who did not respond to more the 10% of the TRA scale items) were coded as 1 and respondents were coded as 2. A one-way ANOVA was conducted to determine the relationship of the ATDP scores of TRA non-respondents and respondents. A significant relationship was indicated with the respondents having higher scores (n = 144, M = 52.7, SD = 13.9, $p < .05$), on the ATDP Scale than non-respondents (n = 39, M = 46.5, SD = 14.1).

Research Questions #2

Is there a difference in the attitudes (favourable/positive versus unfavourable/negative) of older adults toward their peers with mental disabilities when the attitudes are measured by two different attitude scales: the Attitude Toward Disabled

Persons Scale-Form O (modified) and the scale based on the Theory of Reasoned Action?

The ATDP scale is a general measure of attitudes. Results from the ATDP scale indicated that the participants held neutral attitudes toward their peers with mental disabilities. When attitudes were measured with the TRA scale, which was targeted toward performing certain behaviours, the attitudes of the participant to performing the behaviours was positive. When the association between the ATDP and TRA scales was examined, no significant correlation (Kendall's Tau-b) between the two measures of attitude (τ_b = .094, n = 145, p = .105) was found. In other words, there was no significant relationship between the two scales.

Table 3

Mean Attitude Scores: ATDP and TRA Scales

	ATDP (n = 183)	TRA (n = 159)
Possible Range	0 to 108	-36 to +36
Midpoint	54	0
Participants:		
Range	13 to 87	0 to +36
Mean Score	51.34 (SD = 14.11)	+20.06 (SD = 7.72)
	Neutral	Positive

Research Question #3

How much contact have older adults had with people with mental disabilities as measured by the Contact with Disabled Persons (modified) scale?

Scores on the Contact with Disabled Persons (modified) scale can range from 20, indicating no contact at all with people with mental disabilities, to 100 which indicates maximum contact. Mid-range or the median for the scale would be 60. The mean contact score for this sample of older adults (n = 197) was 41.67 (SD = 13.42), with a range of 21 to 88. The mean contact score suggests that the participants have had a low level of contact with people with mental disabilities. Table 4 has a summary of the contact findings.

Table 4

Amount of Contact with People with Mental Disabilities

	CDP (n = 197)
Possible Range	20 to 100
Midpoint	60
Participants:	
Range	21 to 88
Mean Score	41.67 (SD = 13.42)
	Low level of contact

Research Question # 4

What is the relationship between the amount of contact older adults have had with people with mental disabilities, as measured by the Contact with Disabled Persons (modified) scale, and their attitudes toward them, as measured by (a) the Attitude Toward Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action?

Due to the low level of contact of this group of older adults, the participants were divided into two groups, lower and higher contact, and a post hoc analysis was conducted to examine the relationship between these two groups and attitudes measured by both scales. The participants were divided into the two groups according to their CDP scores in relation to the overall mean score: lower contact group had scores less than mean score (< 41.66); and higher contact group had scores greater than the mean score (> 41.66).

Analysis of Variance was conducted to determine if there was a difference between the lower and higher level of contact groups and their attitudes toward people with mental disabilities. No significant relationship was indicated between level of contact and attitudes as measured by the ATDP scale, $F(1, 178) = .69$, $p = .40$. However, a significant relationship was found between the level of contact and attitudes as measured by the TRA scale, $F(1, 152) = 5.74$, $p < .05$. Participants having had a higher level of contact with people with mental disabilities ($M = 21.51$) had slightly more positive attitudes toward performing the target behaviours described in the TRA scale, than the participants with a lower level of contact ($M = 18.52$). Table 5 provides a summary of the mean attitudinal scores from the ATDP and TRA scales for the lower and higher contact groups.

Table 5

Mean ATDP and TRA Scores for Lower and Higher Contact Groups

	Lower Contact (< 41.66)	Higher Contact (> 41.66)
ATDP		
Mean	50.40	52.13
N	93	87
SD	12.53	15.29
TRA*		
Mean	18.52	21.51
N	74	79
SD	8.36	6.99

* significant difference between lower and higher contact groups ($p < 0.5$)

Research Question # 5

What is the relationship between gender, age, years of formal education, income, the types of activities older adults participate, the older adults' attendance at the senior centre, urban/rural location and the attitudes of older adults toward peers with mental disabilities as measured by: (a) the Attitude Toward Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action?

A series one-way ANOVAs were conducted to determine the relationship between gender, income, the types of activities older adults participate in, the older adults' attendance at the senior centre, and urban/rural location, and the attitudes of older adults toward peers with mental disabilities as measured by: (a) the Attitude Toward

Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action.

The ANOVAs indicated only one significant relationship between the independent variables and attitudes (see Table 6). There was a significant relationship between the location of the senior centre (urban or rural) and the attitudes measured by the ATDP scale, F (1, 181) = 9.42, $p < .05$. The association (Eta) between the two variables indicated that participants who attend senior centres in rural settings had more favourable/positive attitudes toward their peers with mental disabilities ($\eta = .222$, $p < .01$).

Correlations (Pearson *r*) were conducted to determine the association between age and years of education and both attitudinal measures. Significant correlations were indicated between age and education and the ATDP Scale. Participants that were younger in age ($r = -.310$, $p < .01$) and had more years of formal education ($r = .149$, $p < .05$) appeared to have more positive attitudes than older participants and those with less years of formal education (see Table 7).

Research Question #6

Is there a relationship between the older adults identifying that they have a disability and their attitudes toward peers with mental disabilities as measured by (a) the Attitude Toward Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action?

A one-way ANOVA was also conducted to determine if there was a relationship between older adults identifying that they have disability and their attitudes toward peers with mental disabilities as measured by both attitude scales. No significant relationships

Table 6

Independent Variables and Mean Attitude Scores: ATDP and TRA scales

	ATDP	TRA
Gender:		
Male	50.0 (n = 46)	18.9 (n = 41)
Female	51.8 (n = 137)	20.4 (n = 118)
Income		
< $20,000	47.3 (n = 46)	22.2 (n = 36)
$20,000 - $39,999	53.0 (n = 75)	20.0 (n = 67)
$40,000 - $59,999	54.3 (n = 21)	17.7 (n = 17)
> $60,000	43.4 (n = 7)	18.3 (n = 7)
Location:		
Urban	49.8 (n = 146)	19.8 (n = 124)
Rural	57.6 (n = 37)	20.9 (n = 35)
	F (1, 182) = 9.41, p < .05	
Type of activity		
Spectator	45.8 (n = 4)	20.5 (n = 2)
Social	43.8 (n = 9)	18.7 (n = 7)
Physical	53.7 (n = 56)	19.7 (n = 51)
Creative/Self-actualizing	50.7 (n = 105)	20.7 (n = 93)
Attendance:		
Once a week	48.7 (n = 52)	19.9 (n = 46)
Twice a week	52.5 (n = 53)	18.6 (n = 53)
Three or more times a week	52.4 (n = 62)	22.1 (n = 45)
Once or twice a month	53.3 (n = 6)	18.8 (n = 6)
Other	51.5 (n = 10)	20.2 (n = 9)
Have disability		
Yes	50.5 (n = 23)	22.8 (n = 21)
No	51.5 (n = 160)	19.7 (n = 136)
Family member with mental disability:		
Yes	50.4 (n = 34)	20.1 (n = 32)
No	51.6 (n = 148)	20.0 (n = 124)

were found as shown in Table 6.

Research Question #7

Is there a relationship between the older adults having a family member with mental disabilities and their attitudes toward peers with mental disabilities as measured by (a) the Attitude Toward Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action?

A one-way ANOVA was conducted to determine if there was a relationship between older adults having a family member with mental disabilities and their attitudes toward peers with mental disabilities as measured by the ATDP and TRA scales. As with all the independent variables except location, no significant relationship was found between having a family member with a disability and attitudes toward older adults with mental disabilities (see Table 6).

Question #8

What is the relationship between gender, age, years of formal education, income, urban/rural location, having a family member with a mental disability and the amount of contact older adults have had with people with mental disabilities as measured by the Contact with Disabled Persons scale?

A series of one-way ANOVAs were conducted to examine the relationships between gender, urban/rural location, having a family member with a mental disability and the amount of contact participants have had with people with mental disabilities. Correlations were also conducted to examine the association between age and education and the amount of contact. Results indicated a significant relationship between age, education, urban/rural location, having a family member with a mental disability, and

Table 7

Correlations: ATDP, TRA, and CDP Scales

Scales		Age	Education
ATDP	Pearson *r*	-.310**	.149*
	n	177	176
TRA	Pearson *r*	-.052	.008
	n	153	155
CDP	Pearson *r*	.178*	.147*
	n	190	189

* p < .05
** p < .01

amount of contact. Tables 7 and 8 provide a summary of these results.

Results indicated that the participants who were at the lower end of this group of older adults age range (r = - .18, p = < .05) appeared to have had slightly more contact with people with mental disabilities than those at the upper end of the age range. In other words, the "younger" the participant, the more contact. Participants with more years of formal education (r = .15, p = < .05) reported slightly more contact. Those who attended a senior centre in a rural community, F(1, 196) = 12.76, p < .01 also reported having had more contact with people with mental disabilities than their urban community counterparts. Finally, participants who had a family member with a mental disability, F(1, 195 = 33.51, p < .01, also appeared to have had more contact with people with mental disabilities than those who did not have a family member with a mental disability

Table 8

Independent Variables and Mean CDP Scores

	CDP
Gender:	
Male	41.9 (n = 48)
Female	41.6 (n = 149)
Income	
< $20,000	40.2 (n = 50)
$20,000 - $39,999	44.1 (n = 76)
$40,000 - $59,999	41.0 (n = 21)
> $60,000	41.6 (n = 8)
Location:	
Urban	40.1 (n = 160)
Rural	48.6 (n = 37)
	F (1, 196) = 12.76, p < .01
Family member with mental disability:	
Yes	52.5 (n = 36)
No	39.2 (n = 160)
	F (1, 195) = 33.51, p < .01

Research Questions #9 through #11 involved the vignettes that were used in association with the TRA scale. Within the vignettes, the label of "mental retardation" and the behavourial characteristics of a mild form of mental retardation were varied to produce four vignettes: label and behavourial characteristics; label and no behavourial characteristics; no label and behavourial characteristics; no label and no behavourial characteristics.

Question # 9

Does placing the label of mental retardation on a person have an influence upon

the attitudes of older adults toward that person, as measured by a scale based on the Theory of Reasoned Action?

A 2 x 2 Factorial Analysis of Variance was used to evaluated the relationship between labeling and behavioural characteristics with attitudes as measured by the Theory of Reasoned Action scale. Mean scores for this analysis are presented in Table 8. Results indicate that there were no significant main effects of labeling, $F(1, 159) = 1.68$, $p = .20$ upon variations in attitude scores. In other words, whether or not the target person had the label of "mental retardation," it did not appear to influence the older adults' attitudes on performing the behaviours of saying hello and introducing himself or herself to that target person.

Question # 10

Do the behavioural characteristics of a person have an influence upon the attitudes of older adults toward that person, as measured by a scale based on the Theory of Reasoned Action?

The 2 x 2 Factorial Analysis of Variance described in Question #9 also indicated that there was no significant main effect of the behavioural characteristics of the target person, $F (1, 159) = .54$, $p = .47$, upon variations in the attitude scores (see Table 9). As with labeling, whether the target person had a description of her behavioural characteristics or not, it did not appear to influence the attitudes of the participants to saying hello and introducing themselves to that person.

Table 9

Means: Labeling and Behavioural Characteristics

		Behaviour	
		none	present
Label	none	21.10	20.49
	present	19.79	18.59

Question # 11

Does the interaction between labeling and behavioural characteristic influence the attitudes of older adults toward that person, as measured by a scale based on the Theory of Reasoned Action?

The previously described 2 x 2 Factorial Analysis of Variance indicated that the interaction between labeling and behavioural characteristics had no significant influence, $F(1,159) = .06$, $p = .81$, upon the attitudes of participants. In other words, having the label of "mental retardation" in combination with the behavioural characteristics did not appear to impact the attitudes of participants toward performing the target behaviours.

Question # 12

What are the views of older adults toward their peers with mental disabilities as expressed in an open-ended question?

Participants were given the opportunity to respond to an open-end question that asked the following: In general, what are your views on older adults with mental retardation? Of the 206 participants, 151 responded to the question. A content analysis was conducted to identify any common subject matter or themes among the written responses.

For the most part the responses appear to express positive views about older adults with mental disabilities. The main themes that emerged from content analysis are presented below, along with a brief explanation of the themes and supporting comments. The order the themes are presented represents the reoccurrence of the themes, starting with the most frequent.

Part of society. Participants wrote that older adults with mental disabilities were "part of society" and a "have a voice and place in society." They felt that older adults with mental disabilities were "God's children like the rest of us" and were " not that different from the rest of us." Participants also expressed that older adults with mental disabilities should be treated "with the same care and respect as any older adult," for they are "part of the community" and are "equal in all respects as anyone else."

No experience. Responses grouped within this theme indicated the low level of contact that this group of older adults has had with people with mental disabilities. The participants wrote that they "[did not] know any older adults with mental retardation" or have had "little contact with anyone with mental retardation." Some felt that they "did not [have] enough association to answer" or "not had the experience to be able to say."

Qualities of people with mental disabilities. Some of the participants' responded to the question by providing the qualities of people with mental disabilities, which for the

most part were positive. They described people with mental disabilities as "pleasant and easy to get along with" and "polite and cheerful." One participant stated that "they were happy and more content than other older adults."

Sympathy. Participants expressed feelings of sympathy toward others with mental disabilities within this theme. They wrote that they "feel sorry for them" and had "empathy and compassion." One participant felt "sorry for [people with mental retardation are] misunderstood by us."

Treatment. Responses within this theme included instructions or suggestions in how to treat or interact with people with mental disabilities. Participants felt that people with mental disabilities should be "treated with respect and understanding" and that this population needs "tender loving and understanding." Participants thought that others should "interact with them" and "encourage [them] to take part in activities."

Support/assistance. Some participants felt that people with mental disabilities "need help and assistance for normal lives" and "should be helped as much as possible by government and anybody else." They thought that this population needs "supervision" and "protection" and "with help can lead perfectly normal lives." Some stated that they "would assist if required or requested."

Integration. Responses within this theme reflected positive views toward integrating older adults "into society." Participants wrote that older adults with mental disabilities should be integrated "as far as possible" and "with other people and participation as they are able." They stated that older adults with mental disabilities "can fit in at any organization" and should be included and socialize as much as possible."

Ability/disability. Within this theme, participants spoke about the ability or the disability of people with mental disabilities. They wrote that others should "focus on ability" and this population can "surprise [others] with [their] abilities." However, interaction with others "depends upon the level of disability" and "this then governs how much they are capable of leading a more normal life."

Segregation. Although few in number, some of the participants expressed views that are contradictory to those found within the Integration theme. These older adults wrote that people with mental disabilities "like to be with [their] own" and that people should "keep them together, they enjoy each others company more, for they do not understand our way of living." It is "better for both parties to stick to their own kind since able to talk to each other better."

Summary

The results of this study indicated that for the most part, older adults have neutral to positive attitudes toward their peers with mental disabilities. The older adults in this study have a low level of contact with people with mental disabilities, with those participants having a higher level of contact having slightly more positive attitudes as measured by the TRA scale. Participants attending senior centres in rural areas had more favourable attitudes toward people with mental disabilities as measured by the ATDP scale. People who were "younger" in age, had higher levels of education, attended senior centres in rural areas, and had a family member with a mental disability reported having more contact with people with mental disabilities. The next section will discuss the results in more detail.

Discussion

In order to examine the attitudes of older adults toward their peers with mental disabilities, this study attempted to answer a number of research questions. This section will present and discuss the findings for each of the research questions.

Research Question #1

What are the attitudes of older adults toward their peers with mental disabilities as measured by (a) the Attitude Toward Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action?

Yuker and Block (1986) suggest that the scores from the ATDP scale should be interpreted in terms of the operational definition of the items used in the scale – in terms of the perceived differences between persons with and without disabilities. Yuker and Block state:

> Many items on the ATDP suggest that where a difference is perceived, the difference has negative connotations. This implies that low scores reflect the perception of [persons with disabilities] as both different and inferior or disadvantaged to some degree. Low scores imply negative attitudes (emphasis added) (p. 6).

In this study, the mean ATDP score for the sample was just below the mid-point range. These findings were interpreted as being within a neutral range, tending toward the negative. According to Yuker and Block (1986), this would indicate that older adults perceive their peers with mental disabilities as neither the same or different than themselves, implying a neutral attitude.

It is difficult to compare these results to the results from previous studies, since no

studies were found in the literature that used the ATDP scale with an older population. In addition, all but one study did not modify the ATDP scale from "disabled person/people" to a specific disability such as "mental retardation." In the studies that examined attitudes toward people with disabilities, participants held relatively positive attitudes (MacLean & Gannon, 1995; Patrick, 1987; Rowe & Stutts, 1987; Scott & Rutledge, 1997). In the one study in which the scale was modified to "person with Down's Syndrome" (Furnham & Pendred, 1983) the results were similar to the present study with the mean ATDP score near the mid-range point, but in this case, tending toward the positive.

It should be noted that Furnham and Pendred (1983) also reported that attitudes toward people with mental disabilities were significantly more negative than toward people with physical disabilities. Other studies have reported similar findings (Furnham & Gibbs, 1984; Westbrook, et al., 1993), which may provide insight to the neutral attitudes of the participants in the present study. If the ATDP scale had not been modified from "disabled" to "mental retardation", the participants' attitudes may have been more favourable. In other words, the neutral attitudes of the older adults, as with the younger participants in Furnham and Pendred's study (1983) may have been the result of the type of disability, rather than being attributed to a particular cohort of individuals.

The scale based upon the Theory of Reasoned Action is a measure of attitudes specific to performing a certain behavior, which in this case was saying hello and introducing oneself to the target person and inviting the target person to join the senior centre. The attitudes of the older adults to performing the behaviors were positive.

As with the ATDP scale, most of the participants in previous studies that were based on the Theory of Reasoned Action were not older adults. In addition, the attitude

scale for each study included different scenarios and behaviors. Taking into consideration the problems with generalizing from previous studies, the findings in this study were found to be similar to those reported in the literature, which were for the most part favourable attitudes toward people with disabilities (Karnilowicz, et al., 1994; Rizzo & Vispoel, 1992; Sparrow, et al., 1993).

However, as with the ATDP scale, results from previous TRA-based studies indicated that the attitudes of participants were neutral or unfavourable when the target person was labeled with a mental disability (Karnilowicz, et al., 1994; Rizzo & Vispoel, 1992; Sparrow, et al., 1993). Conversely, this study found that even when the target person was labeled as having a mental disability, the attitudes of the older adults remained positive to performing the target behaviours. Interestingly, this appears to be in opposition to the findings reported for the ATDP scale where it was hypothesized that the neutral attitudes may have been the result of the type of disability. However, even though the general attitudes of the participants are neutral, the values held by the participants may have an effect upon their positive attitudes to performing the target behaviours. More detailed discussion in this area is provided in Question #2.

The contradictory findings between the literature and present study regarding would appear to support the assumption that older adults' attitudes toward people with mental disabilities are "different" than other age groups (Cox & Monk, 1990; Janicki, 1990; May & Marozas, 1994; Roberto & Nelson, 1980; Walker & Walker, 1998). But interestingly, the difference is the opposite of what was projected. When the target person was labeled with a mental disability, the older adults had favourable attitudes to performing the behaviors, whereas the younger cohorts' attitudes tended to be neutral or

unfavourable. Research Question #9 contains further discussion on labeling and attitudes.

The number of participants responding to the TRA scale must considered when examining the results of that scale. Approximately 22% of participants did not answer more than 10% of the items on the scale. It could be hypothesized that if the non-respondents had been included in the final analysis, the results for the TRA scale may not have been as favourable or positive. If a difference were present between the non-respondents and the respondents the ATDP scores, then this difference would be reflected on the TRA scores, providing support for the hypothesis. The statistical analysis indicated a significant difference between the two groups, with the non-respondents having more negative attitudes ($\underline{M}$ = 46.5) than the respondents ($\underline{M}$ = 56.7), which could indicate that if the non-respondents had completed the TRA scale the results may not have been as positive.

However, there are results that appear to contradict the above hypothesis. There was no significant relationship between the attitudinal measures (see Question 2) indicating that even though there was a difference between the TRA scale non-respondents and respondents, this difference may not be reflected in the ATDP scores. In addition, comments from the open-ended questions (see Question 12) provide support to the attitudes of older adults toward peers with mental disabilities as being positive. Because we do not have the TRA scores for the non-respondents, there is no way to confirm that the non-respondents would have answered one way or the other.

Research Question #2

Is there a difference in the attitudes (favourable/positive versus unfavourable/negative) of older adults toward their peers with mental disabilities when

the attitudes were measured by two different attitude scales: the Attitude Toward Disabled Persons Scale-Form O (modified) and the scale based on the Theory of Reasoned Action?

When measured using the ATDP scale, the attitudes of older adults toward other older adults with mental disabilities appeared to be neutral, tending toward the negative. However, when measured by the TRA scale, the results indicated positive attitudes. Statistical analysis found no correlation between the two measures. With no correlation between the two attitude measures, it could be proposed that each is measuring a different "type" of attitude. Support for this proposition can be found since the ATDP scale is a general measure of attitudes (Antonak & Livneh, 1988; Yuker & Block, 1986) and the TRA scale provides a measure of attitudes specific to carrying out certain behaviors (Ajzen & Fishbein, 1980).

The literature indicated that general attitudinal measures may reveal more favourable or positive attitudes, whereas attitudes toward specific behaviors may not be as favourable (Calhoun & Calhoun, 1993; Karnilowicz, et al., 1994; Sparrow, et al., 1993). Within this study, the opposite was found with the attitudes toward a specific behavior (TRA scale) being more favourable than the general measures (ATDP scale). This "reversal" in the findings may be related in several ways to the age of the participants.

The ATDP scale is based upon the participant perceiving a difference between people with and people without disabilities, with the difference having a negative connotation which in turn suggests negative attitudes. An older adult may respond that they agree with a particular statement on the scale which, according to the developers of

the scale (Yuker & Block, 1986) would indicate a negative attitude. However, even though the older participant agreed with the statement, it may not indicate a "perceived" difference between them and the older adult with "mental retardation."

For example, one of the items on the ATDP scale states: "it's up to the government to take care of older adults with mental retardation." For the older adult, agreeing with this statement may not be seen as indicating a difference between older adults with and without mental disabilities. They may feel that it is up to the government to take care of any older adult, with or without a disability, if that individual needs assistance. As one participant wrote: "if [they] need help [they] should get it through the government or wherever." Therefore, the older adults' interpretation of some of the items on the ATDP scale may not be the same as Yuker and Block.

Another explanation for the reversed findings is that this cohort's values may have had an impact on their responses. Values are the older adults ideas about the acceptable goal and behaviours for members of a group (McPherson, 1990). The life experiences of the participants in this study are very different than other cohorts, having experienced at least one World War and the Great Depression. These historical events served to shape their lives and values (Novak, 1993) and have a lasting effect on the "cognitive and behavioural processes of a specific cohort" (McPherson, 1990, p. 13). Even though, "generally" they have neutral or very slightly negative attitudes toward other older adults with mental disabilities, they would still have positive attitudes to performing the specific behaviors, no matter who was the target person, since that would be the "proper thing to do." In other words, the values of the participants have an effect upon their behaviours. As expressed in the open-ended question, older adults with mental

disabilities are "God's children like the rest of us" and "have a voice and place in society."

The amount of contact the older adults have had with people with mental disabilities may also have an impact on how they responded to the ATDP scale. As indicated by comments written beside items on this scale and the responses to the open-ended questions, participants felt that they could not give an answer since they have "not enough association to answer" or "not had experiences to be able to say." But when it came to performing the target behaviors, they have a fairly good idea of what they would do in such a situation. The next research question provides further discussion regarding contact.

Research Question #3

How much contact have older adults had with people with mental disabilities as measured by the Contact with Disabled Persons (modified scale)?

The amount of contact older cohorts have had with people with mental disabilities has not been established within the literature. It has been hypothesized that older cohorts have not had the opportunities to have contact with people with mental disabilities as compared to younger cohorts (Mahon et al., 1999; Walker & Walker, 1998). Results from this study did indicate a low level on contact between older adults and people with mental disabilities, with the participants' mean score ($\underline{M} = 41.67$) on the Contact with Disabled Persons scale being well below the median score of sixty (60).

Within the literature review, only one study was found in which the mean scores of the CDP were reported (Yuker & Hurley, 1987). However, comparisons to the present study are difficult since Yuker and Hurley measured contact with people with disabilities

and the present study measured contact with people with "mental retardation." In the study conducted by Williams (1986) the amount of previous exposure to a "mentally retarded person" was measured. Williams reported that 70% of the people in the sample had little or no exposure to people with mental disabilities, indicating lower levels of contact. The mean age of the participants was 21 and the study was conducted over ten years ago. With more focus on integration since the time of the study, repeating the study now with the same age group of participants may produce entirely different levels of contact. It would also be interesting to determine if 10 years later, the participant's of Williams' study have had more contact with people mental disabilities as a result of integration. If the amount of contact remained the same, then low levels of contact with people with mental disabilities would only be particular to older cohorts. Unfortunately, this is purely speculative, suggesting that more studies are needed to investigate amount of contact.

Research Question #4

What is the relationship between the amount of contact older adults have had with people with mental disabilities, as measured by the Contact with Disabled Person (modified) Scale, and their attitudes as measured by (a) the Attitude Toward Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action?

The effects of contact on attitudes are complex. However, "the degree of contact with [people with disabilities] is a variable which has the usual and predictable result that closer contact leads to more positive attitudes" (Furnham & Gibbs, 1984, p. 101). For the most part, a significant positive correlation was reported within the literature reviewed

between contact and attitudes toward people with disabilities (Beckwith & Matthews, 1994; Beh-pajooh, 1991; Jones, et al., 1990; Makas, 1989; Patrick, 1987; Rowe & Stutts, 1987; Stable, 1995; Townsend, et al., 1993; Vandercook, 1991). The TRA results of this study did support a relationship between contact and attitudes as measured, with a weak positive relationship ($r = .191$) between the higher contact group and as measured by the TRA scale. No relationship was found with the ATDP scale.

The results appear to indicate that for this group of older adults, contact does not impact their general attitudes toward other older adults with mental disabilities either negatively or positively. Having had such little contact, it could be that the participants have not formed either positive or negative attitudes and this equates to the neutral attitudes indicated by the ATDP scale. But even with the low level of contact this group has experienced with people with mental disabilities, those having more contact are just a bit more likely to have a positive attitude toward engaging in the target behaviors. It could be that the slightly more exposure the higher contact group had to people with mental disabilities enabled them to be more comfortable in carrying out the behaviors described in the TRA scale.

Research Question #5

What is the relationship between gender, age, years of formal education, income, types of activities participated in, attendance at the senior centre, urban/rural location and the attitudes of older adults toward their peers with mental disabilities as measured by (a) the Attitude Toward Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action?

Gender. In the reviewed studies in which the ATDP scale was used to measure

attitudes, the results with respects to the relationship between gender and attitudes were variable. Patrick (1987), Rowe and Stutts (1987), and Furnham and Pendred (1983) reported no significant gender differences. MacLean and Gannon (1995) and Makas (1989) reported a significant difference, with females having more positive attitudes. The present study adds to the inconsistency with there being no significant differences between females and males in the their attitudes toward other older adults with mental disabilities when attitudes were measured with the ATDP scale.

There were also no significant gender differences found when the TRA scale was used to measure attitudes. Within previous studies using a TRA scale, a significant difference between females and males was reported, with females having a more positive attitude toward people with mental disabilities (Karnilowicz, et al., 1994; Sparrow, et al., 1993). Variable results were reported with other attitudinal measures (Beckwith & Matthews, 1994; Beh-pajooh, 1991; Jones, et al., 1990; Newberry & Parish, 1986; Townsend, et al., 1993; Voeltz, 1980; Williams, 1986).

No studies were found in the literature that examined gender differences with older participants using either of the attitudinal measures. Therefore, it is difficult to infer whether the non-significant findings with respects to gender were due to the age of the participants, differences in methodologies, or other extraneous factors.

Age. Ryan (as cited in Yuker, 1988, 1994) proposed that the relationship between age and attitudes toward people with disabilities is best represented by a "double inverted U model." The literature reviewed provided support for this model, with attitudes tending to be more favourable from early childhood to adolescence (Sable, 1995; Townsend, et al., 1993), followed by a decline (Sandberg, 1992), with another increase from early to

late adulthood (MacLean & Gannon, 1995; Beckwith & Matthews, 1994) and finally once again followed by a decrease among the elderly (Kalson, 1976). The results from this study provided some support for this model when the attitudes were measure by the ATDP scale. The younger participants appeared to have more positive attitudes toward others with mental disabilities than the older participants, indicating a decline with age.

In contrast, when the attitudes of older adults were measured by the TRA scale, the model was not substantiated since no relationship between age and attitudes was indicated. The TRA scale also indicated that the older adults had a positive or favourable attitude toward people with mental disabilities, which is contrary to Ryan's model. As discussed earlier, the differences that were found between the attitudinal measures used within this study may be the result of the "type" of attitude being measured.

Education and income. There have been few studies that have examined education or income in relation to attitudes toward people with disabilities. This study found a significant relationship between education and the attitudes of the older adults toward people with mental disabilities as measured by both scales. No significant relationship was found between income and attitudes.

In a reviewing the literature, Yuker (1994) found that most studies reported a positive correlation between education and attitudes toward people with disabilities. This study provides support to this positive correlation. However, no recent studies were found that directly examine the relationship between education and attitudes toward people with mental disabilities.

As with education, there are no recent studies that directly examined the relationship between income and attitudes toward people with disabilities. Yuker (1994)

indicated a positive correlation between attitudes and education, and it would stand to reason that a higher income would be associated with a higher level of education and in turn, with positive attitudes. However, McConkey, et al (1983) reported the opposite, with participants from working class families being more favourable to social integration than participants from middle-class families. Such contradictory results combined with this study's findings, attests to the complex relationship between education and income with the attitudes held toward people with mental disabilities.

Activity type and attendance. Changing any element in a recreation program can alter a participant's leisure experience and intrinsic satisfaction felt during that program (Ross, 1989). One such element is the other people in the program. It has been speculated that older adults may perceive that the inclusion of older adults with mental disabilities in an activity at a senior centre will decrease the satisfaction they gain from the leisure experience, depending upon the type of activity and the number of times the experience is changed. The perceived alteration in the experience(s) may impact attitudes toward the "change object" which in this case is the older adult with mental disabilities.

Within this study, no relationship was found between the type of activities the older adults were participating in or their attendance at the senior centre and their attitudes as measured by either the ATDP or the TRA scales. Considering that the ATDP scale is a general measure of attitudes, these results are not surprising. The type of activity the older adult participates in at the senior centre should not impact their general attitudes toward people with mental disabilities.

In contrast, the TRA scale measures attitudes toward performing certain behaviours that are directly related to the senior centre. The fact that there was no

relationship between the activity type and attitudes as measured by the TRA scale may indicate that the participants did not perceive any change in their satisfaction with their leisure experiences by performing the target behaviours, irrespective of activity type. However, the older adults did indicate in the open-ended question that their acceptance of the inclusion of a person with a mental disability would depend upon the "degree to which [it would] affect the class or course" and "upon the fit into the group." This does provide some support for Ross' (1989) position.

Urban/rural location. A significant relationship was found between the location of the senior centre (urban or rural) and the attitudes of older adults as measured by the ATDP scale. Participants who attended senior centres in a rural location had more positive attitudes toward people with mental disabilities than those attending urban senior centers. These results are most likely related to the increased opportunities people living in rural communities have to interact with people with mental disabilities (Mahon, et al., 1999; McConkey, et al., 1983; Ralph and Usher, 1995). Mahon et al. reported in their study on social integration that according to the people interviewed, rural communities are safer for people with disabilities and therefore people with mental disabilities have more opportunities to be out in the community, interacting with others.

No differences in attitudes were found between urban and rural locations when the attitudes were measured with the TRA scale, which would seem to contradict the findings of Mahon, et al. (1999). These findings would indicate that even though the older adults living in rural areas had more positive general attitudes toward others with mental disabilities, when the attitudes were measured toward performing specific behaviors, there was no difference between the two groups. As discussed earlier, having

positive attitudes toward performing the specific behaviors may be due to the values held by this cohort of older adults, no matter what the general attitude is toward the target group.

Research Question #6

Is there a relationship between older adults identifying that they have a disability and their attitudes toward their peers with mental disabilities as measured by (a) the Attitude Toward Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action?

There were no studies reported within the literature that considered the attitudes toward people with disabilities held by participants who had disabilities themselves. The present study found no significant difference between the participants with or without disabilities when either scale was used to measure attitudes toward people with mental disabilities.

It was presumed that older adults who identified themselves as having a disability would have more positive attitudes toward people with mental disabilities since they understand what life is like with a disability. However, the attitudes of participants with disabilities may have been moderated as a result of the target person having a mental disability, since persons with mental disabilities are viewed more negatively by people without disabilities than persons with physical or sensory disabilities (Furnham & Gibbs, 1984; Westbrook, et al., 1993). It may be that people with disabilities also view people with mental disabilities more negatively, resulting in no difference in attitudes toward people with mental disabilities between participants with disabilities and participants without disabilities. As there is no research examining the attitudes of people with

disabilities toward others with disabilities, there is no way to confirm that people with disabilities also view people with mental disabilities more negatively than people with physical or sensory disabilities.

Research Question #7

Is there a relationship between older adults having a family member with mental disabilities and their attitudes toward their peers with mental disabilities as measured by (a) the Attitude Toward Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action?

It was postulated that an older adult who has a family member with mental disabilities would have more contact with people with mental disabilities, resulting in more positive attitudes as compared to those who did not have a family member with mental disabilities. However, within this study no difference was found between the two groups on either attitude measure.

It has been suggested that having a family member with a disability does not necessarily result in more positive attitudes. Interaction between people with and without disabilities that places emphasis on either the disability, behaviours, or negative characteristics, as occurs in the home, can result in unfavourable attitudes (Livneh, 1988; Yuker, 1994). Contact within a family often spotlights the disability and negative characteristics (Gilbride, as cited in Yuker, 1994). This type of interaction may possibly negate the impact of having increased contact on the participants' attitudes, resulting in similar scores with those who do not have a family member with mental disabilities.

As discussed previously, the amount of contact this sample of older adults has had with people with mental disabilities was generally low. Therefore, the difference in

contact between the two groups was likely not great enough to show a difference in attitudes toward the target population (see next question).

Research Question #8

What is the relationship between gender, age, years of formal education, income, urban/rural location, having a family member with a mental disability and the amount of contact older adults have had with people with mental disabilities as measured by the Contact with Disabled Persons scale?

When examining contact with people with disabilities, the literature has mainly focused on the relationship between amount of contact and attitudes (e.g., (Beckwith & Matthews, 1994; Beh-pajooh, 1991; Jones, et al., 1990; Stable, 1995; Townsend, et al., 1993; Vandercook, 1991). Of the studies reviewed, only gender (Makas, 1989; Beh-pajooh, 1991) and location, urban or rural (McConkey, et al., 1983) was examined in relation to contact.

Gender. Of the few studies that examined gender and contact, a significant difference was reported between gender and contact, with females having reported more contact with people with disabilities (Makas, 1989; Beh-pajooh, 1991). Results of this study indicated that there were no significant differences between males and females and the amount of contact they had with people with mental disabilities. With contact presumably leading to more positive attitudes (Furnham & Gibbs, 1984), it is not unexpected that with the low levels of contact the participants had with people with mental disabilities, there were also no gender differences with respects to attitudes.

Age. It has been proposed that older adults have not had the opportunities to interact with people with mental disabilities as a result of the lack of community

interaction. As indicated by the total amount of contact, the older adults in this study did have a low-level of contact with people with mental disabilities. When the ages of the participants were compared to that amount of contact, a significant positive correlation was found. The "younger" participants had more contact with people with mental disabilities than did the "older" participants.

Rees, et al. (1991) concluded from their study that with increased media attention, community integration, mainstreaming, and deinstitutionalization, there had been a positive shift of attitudes towards people with mental disabilities over a 10 year span. The results from the present study provided support for their conclusion that the younger the cohort, the higher the amount of contact. However, the slight increase in contact appeared to have no effect on their attitudes since no significant relationship was found between age and attitudes.

Education and income. No studies were found within the literature that reported relationships between either education or income and contact with people with disabilities. Within the present study, no relationship was indicated between income and contact, however a slight positive relationship was found between education and contact. The more years of formal education reported by participants, the more contact the participants had with people with mental disabilities.

A possible explanation for the relationship between education and amount of contact with people with mental disabilities could relate to the vocational experiences of seniors prior to retirement. Those with higher levels of education may have been in positions such as teaching or nursing that provide more interactions with people with mental disabilities. Such professions would have been typical for this cohort of women,

and with the majority of the participants being women, this may explain the relationship between education and amount of contact. Since no information was gathered regarding the type of vocational experiences of the participants, this hypothesis can not be substantiated.

Since there is a relationship between education and income, one might assume that given a correlation between education and contact, a similar correlation would be found with income. The results of this study did not support this deduction, with no relationship between amount of contact and income, but one between contact and education. This may be the result of the income being reported by the participants not reflecting the educational level they had achieved since they are retired and their income is from their pensions, which tends to be lower than pre-retirement income. In addition, the majority of the participants are women, who generally have lower pensions when compared to men (McPherson, 1990; Novak, 1993; Statistics Canada, 1994).

Urban/rural location. As reported previously, only one significant relationship was indicated between the demographic variables and attitudes, and that was the urban or rural location of the senior centre where the participants attended. Participants attending rural senior seniors had more positive attitudes toward older adults with mental attitudes as measured by the ATDP scale, the general attitudinal measure. It was suggested that this was a result of those living in rural communities having had more contact with this population. The findings did indeed support this perspective with those attending senior centres in rural areas reporting greater contact with people with mental disabilities compared to those attending urban senior centres.

Similar findings were reported in other studies. McConkey et al. (1983) reported that the rural students in their study had more contact with people with mental disabilities than students in urban settings. As previously reported, the people interviewed in the study by Mahon et al. (1999) felt that people in rural communities had more opportunities to interact or have more contact with others with mental disabilities due to the nature of living in rural settings. Ralph and Usher (1995) also reported similar findings – those living in rural communities were more likely to interact with people with disabilities than those living in an urban setting.

Family member with a mental disability. It is rather predictable that participants who had family members with mental disabilities had significantly more contact with such individuals compared to participants who did not family members with mental disabilities. However, having more contact with people with mental disabilities did not appear to have an effect upon attitudes, with no significant differences being found between the two groups according to their scores on the attitudinal measures.

Interaction on a personal, intimate level with people with disabilities tends to have positive effects on attitudes (Amir, 1969) and family interaction presumably involves intimate personal interaction. However, as discussed earlier, this may not be the case since the characteristics and behaviours of the family members involved influence the interaction. Perceived negative interactions could possibly neutralize the effects of increased contact on the family member's attitudes. This may explain the similarity in attitudes between participants with and without family members with mental disabilities despite the significant difference in the amount of contact between the two groups.

Another and perhaps more plausible explanation, considering the age of the participants, is that even though the participants had family members with mental disabilities, the contact with these family members may have been infrequent. The total contact scores on the CDP scale provided some support for this explanation, with the score for participants having a family member with a mental disability ($\underline{M}$ = 52.5) being below the mid-point (60) of the scale. As discussed earlier, the people with mental disabilities were often institutionalized in the past which would reduce the amount of contact other family members could have with them. Also, the person with a mental disability may not be immediate family, again limiting the amount of contact. Therefore, even though the participants with family members with mental disabilities had more contact than participants without family members with mental disabilities, the limited amount of contact may explain why there was no difference in attitudes between the two groups.

Research Question #9

Does placing the label of mental retardation on a person have an influence upon the attitudes of older adults toward that person, as measured by a scale based on the Theory of Reasoned Action?

It has been suggested that the use of categorical labels can have both positive and negative effects upon people with disabilities. Those objecting to the use of labels propose that labels stigmatize, stereotype and reflect a detrimental attitude toward people with disabilities (Bullock & Mahon, 1997; Marozas & May, 1988). On the other hand, labelling can provide a reference point for understanding the disability leading to more favourable attitudes (Bullock & Mahon, 1997).

Within the context of the current study, the participants had positive attitudes toward performing the behaviours of introducing oneself to the target person and inviting the person to join the senior centre whether or not the target person had the label of "mental retardation." In other words, in this situation labeling did not have a detrimental effect on attitudes as measure by the TRA scale. Sparrow, et al. (1993) also reported that labeling did not have a negative effect on their participants' attitudes toward performing the same behaviour of saying hello and introducing oneself, although their study involved a different situation (tennis club) and a younger population. Jones, et al. (1990) and Bak and Siperstein (1986) reported similar findings of no detrimental effects of labeling.

Rothlisberg, et al. (1994) found a negative relationship between labeling and attitudes. They reported that the label of "mentally retarded" might have inhibited the willingness of participants to accept the target person. The variation in their study may be the result of the participants responding to the type of interaction requested. For example, in the Bak and Siperstein study (1986) the participants (children) were asked if they would be a friend with the target person whereas Rothlisberg, et al. (1994) identified specific interaction of having lunch with the target person. In comparing this to the current study, if the behaviours or activities the older adults were asked to respond to were different, such as playing bridge with the target person rather that just saying hello, then the label may have had a different impact upon the attitudes toward performing that behaviour. Respondents may not have wanted to play bridge with someone who was labelled with "mental retardation." This is, however, entirely speculation.

The correlation between labels and attitudes toward people with mental disabilities may also depend upon the behaviours exhibited by the target person. The next

two research questions examine the relationship between behaviours and attitudes, and whether an interaction between labels and the target person's behaviours impacts attitudes

Research Question #10

Does the behavioural characteristics of a person have an influence upon the attitudes of older adults toward that person, as measured by a scale based on the Theory of Reasoned Action?

Within the reviewed literature, it was reported that the behaviours of the target person had a significant impact on attitudes (Sparrow, et al., 1993, Jones, et al., 1990). In contrast, the present study found no significant relationship between the behavioural characteristics of the target person and the attitudes of older adults. Whether the target person was described with the behavioural characteristics of a person with mild "mental retardation" or not, did not make a difference on the participants' attitudes to perform the behaviours of saying hello and introducing themselves and inviting the target person to join the seniors centre.

Within the present study, the behavioural characteristics of the target person were what could be called pro-social or acceptable, such as difficulty in reading and comprehension, talking slow, or out of context remarks. If the behavioural characteristics had been described as ones that could be considered as anti-social or inappropriate, the attitudes of the older adults may have been more negative. Bak and Siperstein (1986) reported that the attitudes of the participants were significantly more negative to the target person exhibiting anti-social behaviour (aggressive) as compared to the target person exhibited behaviours that could be considered more appropriate or acceptable

(withdrawn). Mahon, et al. (1999) also indicated the importance of personal characteristics, which included social skills and the nature of the disability, on the extent to which a person with a mental disability is socially integrated into the community. The importance of the nature of the disability was indicated within the present study by a comment from one participant: "more severe mental retardation should be with those that they can relate to." The personal characteristics or the behaviours of people with mental disabilities, as stated previously, could also impact the leisure experience for the other participants. As one older adult put it: people with mental disabilities "could have difficulty keeping up... and dampen the spirits of seniors who do quite well."

Older adults' attitudes toward people with mental disabilities may vary not only as the result of the behavourial characteristic of the person with the disability but also a result of behaviour the older adult is being asked to perform. For example, even though the target person had been portrayed as having a mild disability, the older adults' attitudes may have been different if the behaviour had been inviting the target person to play bridge rather than just inviting the person to join the seniors centre.

Research Question #11

Does the interaction between labeling and behavioural characteristics of a person influence the attitudes of older adults toward that person, as measured by a scale based on the Theory of Reasoned Action?

Labeling may provide a reference point for understanding the nature of a person's disability resulting in more favourable attitudes. People may be more willing to accept certain personal and/or behavioural characteristics if they understand that the person has a mental disability. Bak and Siperstein (1986) reported that the children in their study were

significantly less negative in their judgements and more inclined to befriend the labeled child, indicating the positive influence of the label of "mentally retarded." It should be noted that the label did not moderate the negative judgements of aggressive social behavior, which demonstrates the limit of a label.

Within the present study, the interaction between labeling and behavioural characteristics did not have any influence upon the attitudes of older adults. In other words, labeling a person with "mental retardation" did not moderate, negatively or positively, the attitudes toward the target person regardless of the behavioural characteristics described within the vignette. When interpreting these findings, the behavioural characteristics of the target person should be taken into consideration. The description was of a person with a mild disability and the behaviours were not that different from what would be considered normative. If the behaviours had been more extreme, the label may have moderated the attitudes of the older adults toward that person. However, it is important to note that there can be a limit to the moderating effect of a label (Bak & Siperstein, 1986).

Research Question #12

What are the views of older adults toward their peers with mental disabilities as expressed in an open-ended question?

Participants were given an opportunity to express their views on older adults with "mental retardation" by responding to an open-ended question. Contrary to the assumptions of some service providers (Mahon, et al., 1999; Sparrow et al., 1993), the older adults in this study expressed positive attitudes toward people with mental disabilities. They felt that older adults with mental disabilities were "part of society" and

that they should be treated with the "same care and respect as any older adult," for they are part of the community" and are "equal in all respects as anyone else." Participants also thought that people with mental disabilities "should be helped as much as possible by government and anybody else" and some stated that they "would assist if required or requested." As stated earlier, these positive comments may reflect this cohort's values and beliefs.

Other participants responded by providing the qualities of people with mental disabilities, which for the most part were positive. They thought that people with mental disabilities were "pleasant and easy to get along with" and "were polite and cheerful" and perhaps "more content than other older adults." Some participants included instructions or suggestions on how to interact or treat this population and again the suggestions were positive. They felt that people with mental disabilities should be "treated with respect and understanding" and others should "interact with them" and "encourage them to take part in activities."

The above responses and comments to the open-ended question support the results from the attitudinal measures used in this study. The ATDP scale indicated neutral attitudes and the TRA scale positive attitudes. In other words, older adults do not appear to have negative attitudes toward older adults with mental disabilities.

The results from CDP scale indicated that this group of older adults had a low level of contact with people with mental disabilities. The written comments also reflected a lack of contact. They stated they "don't know any older adults with mental retardation" and have had "little contact with anyone with mental retardation." Some felt that they "did not have enough association to answer" the questionnaire appropriately. This

supports the assumption that older adults have had little contact with people with mental disabilities (Mahon et al., 1999; Walker & Walker, 1998).

Some participants expressed feelings of sympathy toward others with mental disabilities. They wrote that they "feel sorry for them" and had "empathy and compassion" for them. One participant felt sorry for people with mental disabilities because they were "misunderstood by us." This expression of sympathy may be due to the lack of contact that older adults have had with people with mental disabilities and as a result, do not realize the full lives that people with mental disabilities can and do lead.

Some participants remarked about the ability or the disability of people with mental disabilities. They wrote that people should "focus on ability" and that people with mental disabilities can "surprise with [their] abilities." However, with respects to behavioural characteristics and/or level of disability, interaction with others "depends upon the level of disability" and "this then governs how much they are capable of leading a more normal life." Participants in the study on social integration conducted by Mahon, et al. (1999) provided similar responses, in that the focus should be on a person's ability and not their disability.

It should be noted that not all comments had a positive tone. A small number of participants felt that people with mental disabilities "like to be with [their] own" and people should "keep them together, they enjoy each others company more, for they do not understand our way of living." These opinions again may be the result of having little or no contact with people with mental disabilities or due to previous interactions that may not have been a positive experience for the respondent. These comments may also reflect those participants who did have more negative attitudes towards people with mental

disabilities.

Implications and Future Research

Service providers have expressed concern about the acceptance of older adults with mental disabilities by their peers without mental disabilities. They feel that the negative attitudes of older adults could be the basis of the unwillingness of older adults to include older adults with disabilities in community based seniors centres (Cox & Monk, 1990; Janicki, 1990; May & Marozas; 1994; Roberto & Nelson, 1989; Walker & Walker, 1998). Results from this study appear to contradict those concerns and speculations. The older adults who participate in this study held neutral to positive attitudes toward their peers with mental disabilities. Responses to the open-ended question indicated a willingness of the participants to include older adults with mental disabilities in the activities at their senior centre. In their study on retirement planning, Mahon and Goatcher (1999) also found older adults in seniors centres to be more willing to include people with mental disabilities than was suggested to be the case by local service providers.

The discrepancy between the service providers' concerns and the attitudes of the older adults may indicate some misconceptions on the part of the service providers regarding the willingness of older adults to welcome and include people with mental disabilities at their seniors centre (Mahon, et al., 1999). Mahon et al. suggested that the service providers may possibly stereotype older adults as having negative attitudes due to their age and lack of contact with people with mental disabilities. This potential misconception could have negative implications for older adults with mental disabilities. Service providers may assume that members of the seniors centre are not amenable to

having older adults with mental disabilities participate in activities at their seniors centre, resulting in the service provider discouraging such participation. This in turn could limit the possibility of older adults with mental disabilities participating in chosen leisure activities and benefiting from being integrated into those activities within their community.

Misconceptions about the members of seniors centres not being willing to accept others with mental disabilities may also lead to service providers not pursing alliances with those providing services to people with mental disabilities. Such alliances could provide increased funding, the sharing of resources, and enable a positive interaction between older adults with and without disabilities.

It is possible that the reluctance for integrating older adults with mental disabilities may not be on the part of older adults but on the part of the service providers themselves. Such reluctance of service providers may be the result of perceived consequences of integration and the potential increase to an already busy workload. In a study conducted Pedlar, Gilbert, and Gove (1992), the perceptions of service providers of the impact of integration on service provision were examined. The service providers felt that their staff did not have the skills to facilitate integration in a seniors' program, that integration required more staff and was more costly, and that staff would be expected to take an attendant care role in integrated programs. Mahon et al. reported similar findings. These perceptions related to integration may discourage the service providers to implement integrated programs within the services being provided at their agency.

Results from this study provided some basic information about the attitudes of older adults toward people with mental disabilities and the demographic correlates

associated with those attitudes. To expand on this information, more research in this area is indicated. For example, a qualitative study could provide more detail about the attitudes of older adults toward others with mental disabilities. Older adults appear willing to welcome their peers with mental disabilities into their seniors' centres. However, this acceptance may have some prerequisites that would presumably apply to people without disabilities. These prerequisites may include appropriate social behaviours, ability to participate without adversely affecting other's leisure experience and a certain degree of independence on the part of the person with a disability. Interviews and/or focus groups could explore the impact of these and other factors on the attitudes toward people with mental disabilities and their acceptance at seniors centre. A qualitative approach would also provide the opportunity to discover other potential barriers to integration such as accessibility issues or administrative constraints.

Some service providers have provided suggestions to assist the integration of older adults with mental disabilities into community-based programs. It may be more advantageous to have input regarding integration from older adults with and without disabilities. One suggestion for a future study in this area would be to have the two groups of older adults develop and implement an integration intervention for their centre. A variety of pre-post tests could be used for evaluation, including the measurement of attitudes.

Future research studies could also include modifying the TRA scale used within this study. This would provide more information on the relationships between labeling and the behavioural characteristics of the target person and the impact upon attitudes of older adults. Changing the description of the behavioural characteristics from that of a

mild disability to a more severe disability could results in a change in attitudes toward performing the target behaviours. Labeling could also be found to moderate attitudes in that type of scenario.

Keeping the behavioural characteristics of the target person the same but modifying the target behaviours could influence the attitudes toward performing those behaviours. Older adults have positive attitudes toward saying hello and introducing oneself to a person with a mental disability, but the attitudes toward inviting that person to play bridge or join the current events groups may not be as positive. Such a study would provide more insight into the situation of the interaction and the impact that may have on attitudes.

The current study should be replicated with other groups of older adults, in order to increase the limited information on the attitudes of older adults toward people with mental disabilities. This study could be extended to a greater number of communities such as northern communities or other provinces. It also could also be repeated with different ethnic groups or within different settings such as residential-based recreation settings. Repeating the study would allow the generalizing of results to a larger number of older adults. In addition, it would provide for better comparisons with other age groups using similar attitudinal measures.

The limitations of the current study should also be addressed in future research. Within the current study, the gender of the target person within the TRA scale was female only, and therefore did not address possible gender biased results due to the existence of same-gender preference among participants (Sparrow, et al., 1993). Future research could alternate the gender of the target person within the vignettes to address this limitation.

Another limitation that could be addressed in future research is the order of the attitude measures used within the questionnaire. In the current study, the order was determined as the result of the feedback received from participants in the pilot study. The feedback suggested that having the ATDP scale placed first in the questionnaire may influence the participants to believe that target person in the vignettes had a disability, even if no label was present. Alternating the order of the TRA and ATDP scales may provide support for this decision.

Future research that examines attitudes and contact with people with mental disabilities with other cohorts is also indicated. Few studies were reported in the literature had participants over the age of 30. Information provided from cross-sectional studies could validate Ryan's "double-inverted U model" with respects to age and attitudes and give insight into the effect of mainstreaming and social integration upon amount of contact, as well as attitudes

Examining the attitudes of older adults with mental disabilities toward their peers without disabilities and the amount contact they have had with the other groups are still other areas of future research. Even if the older adults without disabilities are accepting of individuals with mental disabilities, integration may be impaired if this acceptance is not reciprocated. As with older adults without disabilities, it may be possible that the older adults with mental disabilities have had little contact with their peers in certain situations and may be apprehensive of participating in activities with this group. Future research may provide more insight into these areas.

Summary

Results from this study provided some important information about the attitudes of older adults toward people with mental disabilities and the demographic correlates associated with those attitudes. Although the amount of contact with people with mental disabilities was low, the older adults who participated in this study had neutral to positive attitudes toward their peers with mental disabilities. This information may further enable the social integration and normalization processes for older adults with mental disabilities through their participation in community-based seniors centres.

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Appendix A

Research Questions

1. What are the attitudes of older adults toward their peers with mental disabilities as measured by (a) the Attitude Toward Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action?
2. Is there a difference in the attitudes (favourable/positive versus unfavourable/negative) of older adults toward their peers with mental disabilities when the attitudes are measured by two different attitude scales: the Attitude Toward Disabled Persons Scale-Form O (modified) and the scale based on the Theory of Reasoned Action?
3. How much contact have older adults had with people with mental disabilities as measured by the Contact with Disabled Persons (modified) scale?
4. What is the relationship between the amount of contact older adults have had with people with mental disabilities, as measured by the CDP scale, and their attitudes toward them, as measured by (a) the Attitude Toward Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action?
5. What is the relationship between gender, age, years of formal education, income, types of activities participated in, attendance at the seniors centre, urban/rural location and the attitudes of older adults toward their peers with mental disabilities as measured by (a) the Attitude Toward Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action?
6. Is there a relationship between older adults identifying that they have a disability and their attitudes their peers with mental disabilities as measured by (a) the Attitude

Toward Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action?

7. Is there a relationship between older adults identifying that they have a disability and their attitudes their peers with mental disabilities as measured by (a) the Attitude Toward Disabled Persons Scale-Form O (modified) and (b) a scale based on the Theory of Reasoned Action?
8. What is the relationship between gender, age, years of formal education, income, urban/rural location, having a family member with a mental disability and the amount of contact older adults have had with people with mental disabilities, as measured by the Contact with Disabled Persons Scale?
9. Does placing the label of mental retardation on a person have an influence upon the attitudes of older adults toward that person, as measured by a scale based on the Theory of Reasoned Action?
10. Do the behavioural characteristics of a person have an influence upon the attitudes of older adults toward that person, as measured by a scale based on the Theory of Reasoned Action?
11. Does the interaction between labeling and behavioural characteristics have an influence upon the attitudes of older adults toward that person, as measured by a scale based on the Theory of Reasoned Action?
12. What are the views of older adults toward their peers with mental disabilities as expressed in an open-ended question?

Appendix B

Consent Forms

Attitudes of Older Adults Toward Their Peers with Developmental Disabilities

Consent Form – Investigator's Copy

1. Sandra Goatcher, who is a graduate student at the University of Manitoba, has requested my participation in a research study. The title of the research is "Attitudes of Older Adults Toward Their Peers with Developmental Disabilities."
2. I have been informed that the purpose of the study is to find out the attitudes of older adults toward people with mental retardation. Older adults who attend senior centres throughout Winnipeg are being asked to participate in the study.
3. My participation will involve completing a questionnaire that should take approximately 15 to 20 minutes.
4. I understand that the results of the research study may be published but my name or identity will not be revealed. In order to maintain the privacy of my responses, Sandra Goatcher will keep the consent forms and questionnaire separate. Both the consent forms and questionnaires will be kept in a locked filing cabinet at the University of Manitoba.
5. I understand that I may refuse to answer any specific questions and that I am free to withdraw from this study **at anytime**.
6. I have been informed that any questions I have about the research or my participation in it, before or after my consent, will be answered by **Sandra Goatcher, 474-8412** or **Dr. Michael J. Mahon, 474-8770.**
7. I understand that the results of the study will be made available through the senior centre or mailed directly to me.
8. I have read and I understand the above information, and I agree to participate in the research project. A copy of this form has been given to me.

Signature _____ Date _____

Signature of Researcher _____ Date _____

___ Please check if you would like a copy of the final report mailed directly to you.

Name (Please print): _____

Address: _____

_____ Postal Code _____

Attitudes of Older Adults Toward Their Peers with Developmental Disabilities

Consent Form – Participant's Copy

1. Sandra Goatcher, who is a graduate student at the University of Manitoba, has requested my participation in a research study. The title of the research is "Attitudes of Older Adults Toward People with Developmental Disabilities."

2. I have been informed that the purpose of the study is to find out the attitudes of older adults toward people with mental retardation. Older adults who attend senior centres throughout Winnipeg are being asked to participate in the study.

3. My participation will involve completing a questionnaire that should take approximately 15 to 20 minutes.

4. I understand that the results of the research study may be published but my name or identity will not be revealed. In order to maintain the privacy of my responses, Sandra Goatcher will keep the consent forms and questionnaire separate. Both the consent forms and questionnaires will be kept in a locked filing cabinet at the University of Manitoba.

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7. I understand that the results of the study will be made available through the senior centre or mailed directly to me.

8. I have read and I understand the above information, and I agree to participate in the research project. A copy of this form has been given to me.

Signature _____ Date _____

Signature of Researcher _____ Date _____

Appendix C

Questionnaire

First we need some information about you. Please check off or fill in the blanks with the appropriate answer.

1. Male ____ Female ____

2. Age in years: ____ years

3. Number of years of formal education: _____ years

4. Number of people currently living in household: _____

5. Household Income (before taxes):
   Note: Please be assured that answers will not be used for any other purpose other than research and are to be strictly confidential.

   Less than $20,000 _____
   $20,000 - 39,999 _____
   $40,000 - 59,999 _____
   $60,000+ _____

6. How often do you come to the senior centre?

   ____ Once a week
   ____ Twice a week
   ____ Three or more times a week
   ____ Once or twice a month
   ____ Once or twice a year
   Other: _____

7. What type of activities do participate in at your senior centre (please list):

   _____

   _____

   _____

   _____

Please continue...

Instructions:

Read the description below and then on the next pages, check the answer that best matches what you think.

Answering Example:

If you think the weather in Winnipeg is quite bad, you would place your mark as follows:

The weather in Winnipeg is

good							bad
	extremely good	quite good	slightly good	neither	slightly bad	quite bad	extremely bad
	___ :	___ :	___ :	___ :	___ :	___ :	___

Please read the following:

Anne, who is mentally retarded, arrived at your seniors' centre. She enjoys participating in a number of the activities offered at the centre. Anne has difficulty in reading and often does not understand or remember what she has just read. When completing basic application forms, she requires help from others. Anne also talks slowly and rarely starts a conversation. When interacting with others she often makes remarks that are unrelated to the topic under discussion. She tends not to mix with others, so she is somewhat of a loner. Anne wishes to become a member of your senior's centre. (2)

Please continue...

1. My saying hello and introducing myself to Anne would be

good	___ : ___	: ___	: ___	: ___	: ___	: ___	: ___ bad
	extremely good	quite good	slightly good	neither	slightly bad	quite bad	extremely bad

harmful	___ : ___	: ___	: ___	: ___	: ___	: ___	: ___ beneficial
	extremely harmful	quite harmful	slightly harmful	neither	slightly beneficial	quite beneficial	extremely beneficial

rewarding	___ : ___	: ___	: ___	: ___	: ___	: ___	: ___ punishing
	extremely rewarding	quite rewarding	slightly rewarding	neither	slightly punishing	quite punishing	extremely punishing

unpleasant	___ : ___	: ___	: ___	: ___	: ___	: ___	: ___ pleasant
	extremely unpleasant	quite unpleasant	slightly unpleasant	neither	slightly pleasant	quite pleasant	extremely pleasant

2. Most people who are important to me think I

should	___ : ___	: ___	: ___	: ___	: ___	: ___	: ___ should not
	extremely should	quite should	slightly should	neither	slightly should not	quite should not	extremely should not

say hello and introduce myself to Anne.

3. Actually saying hello and introducing myself to Anne is

likely	___ : ___	: ___	: ___	: ___	: ___	: ___	: ___ unlikely
	extremely likely	quite likely	slightly likely	neither	slightly unlikely	quite unlikely	extremely unlikely

4. My inviting Anne to join the seniors' centre would be

good	___ : ___	: ___	: ___	: ___	: ___	: ___	: ___ bad
	extremely good	quite good	slightly good	neither	slightly bad	quite bad	extremely bad
harmful	___ : ___	: ___	: ___	: ___	: ___	: ___	: ___ beneficial
	extremely harmful	quite harmful	slightly harmful	neither	slightly beneficial	quite beneficial	extremely beneficial
rewarding	___ : ___	: ___	: ___	: ___	: ___	: ___	: ___ punishing
	extremely rewarding	quite rewarding	slightly rewarding	neither	slightly punishing	quite punishing	extremely punishing
unpleasant	___ : ___	: ___	: ___	: ___	: ___	: ___	: ___ pleasant
	extremely unpleasant	quite unpleasant	slightly unpleasant	neither	slightly pleasant	quite pleasant	extremely pleasant

5. Most people who are important to me think I

should	___ : ___	: ___	: ___	: ___	: ___	: ___	: ___ should not
	extremely should	quite should	slightly should	neither	slightly should not	quite should not	extremely should not

invite Anne to join the seniors centre.

6. My actually inviting Anne to join the seniors centre is

likely	___ : ___	: ___	: ___	: ___	: ___	: ___	: ___ unlikely
	extremely likely	quite likely	slightly likely	neither	slightly unlikely	quite unlikely	extremely unlikely

Please continue...

Please read the following:

Mental retardation is a disability or handicap that people have had all their lives. It involves difficulty in thinking and learning that can cause individuals to have problems at work and living in the community. Down Syndrome is one type of mental retardation, but there are other types that result in a more severe disability.

The next section is to find out what <u>you think</u> about older adults with mental retardation.

For each question, circle the answer that best matches what <u>you think</u>.

<u>Example:</u>

The sky is blue when the sun is shining.

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

---

1. Older adults with mental retardation are just as intelligent as older adults without mental retardation.

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

2. Older adults with mental retardation are easier to get along with than other older adults.

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

3. Most older adults with mental retardation feel sorry for themselves.

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

4. Older adults with mental retardation are the same as anyone else.

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

5. It would be best for older adults with mental retardation to live and work in special communities.

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

6. It is up to the government to take care of older adults with mental retardation.

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

7. Most older adults with mental retardation worry a great deal.

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

8. Older adults with mental retardation should not be expected to meet the same standards as older adults without mental retardation.

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

9. Older adults with mental retardation are as happy as older adults without mental retardation.

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

10. Older adults with severe mental retardation are no harder to get along with than those with minor mental retardation.

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

11. It is almost impossible for older adults with mental retardation to lead a normal life.

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

12. You should not expect too much from older adults with mental retardation.

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

13. Older adults with mental retardation tend to keep to themselves much of the time.

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

14. Older adults with mental retardation are more easily upset than older adults without mental retardation.

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

15. Older adults with mental retardation cannot have a normal social life.

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

16. Most older adults with mental retardation do not feel that they are as good as other people.

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

17. You have to be careful of what you say when you are with older adults with mental retardation

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

18. Older adults with mental retardation are often grouchy.

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

One more section and you're done,

Please continue...

Finally, we would like to know how much contact you have had with people with mental retardation.
For each question, please circle the best answer for you.

Example:

If you have given advice to a niece a few times you would circle your response as follows:

1	2	3	4	5
never	once or twice	few times	often	very often

---

1. How often have you had a long talk with a person with mental retardation?

1	2	3	4	5
never	once or twice	few times	often	very often

2. How often have you had a brief conversation with persons who are mentally retarded?

1	2	3	4	5
never	once or twice	few times	often	very often

3. How often have you eaten a meal with a person with mental retardation?

1	2	3	4	5
never	once or twice	few times	often	very often

4. How often have you contributed money to organizations that help persons with mental retardation?

1	2	3	4	5
never	once or twice	few times	often	very often

5. How often have persons with mental retardation discussed their lives or problems with you?

1	2	3	4	5
never	once or twice	few times	often	very often

6. How often have you discussed your life or problems with a person with mental retardation?

1	2	3	4	5
never	once or twice	few times	often	very often

7. How often have you tried to help persons with mental retardation with their problems?

1	2	3	4	5
never	once or twice	few times	often	very often

8. How often have persons with mental retardation tried to help you with your problems?

1	2	3	4	5
never	once or twice	few times	often	very often

9. How often have you worked with a client, student, or patient with mental retardation on the job?

1	2	3	4	5
never	once or twice	few times	often	very often

10. How often have you worked with a co-worker with mental retardation?

1	2	3	4	5
never	once or twice	few times	often	very often

11. How often has a friend with mental retardation visited you at your home?

1	2	3	4	5
never	once or twice	few times	often	very often

12. How often have you visited a friend with mental retardation in their homes?

1	2	3	4	5
never	once or twice	few times	often	very often

13. How often have you met a person with mental retardation that you like?

1	2	3	4	5
never	once or twice	few times	often	very often

14. How often have you met a person with mental retardation that you dislike?

1	2	3	4	5
never	once or twice	few times	often	very often

15. How often have you met a person with mental retardation that you admire?

1	2	3	4	5
never	once or twice	few times	often	very often

16. How often have you met a person with mental retardation for whom you feel sorry?

1	2	3	4	5
never	once or twice	few times	often	very often

17. How often have you been annoyed or disturbed by the behavior of a person with mental retardation?

1	2	3	4	5
never	once or twice	few times	often	very often

18. How often have you been pleased by the behavior of a person with mental retardation?

1	2	3	4	5
never	once or twice	few times	often	very often

19. How often have you had pleasant experiences interacting with persons with mental retardation?

1	2	3	4	5
never	once or twice	few times	often	very often

20. How often have you had unpleasant experiences interacting with persons with mental retardation?

1	2	3	4	5
never	once or twice	few times	often	very often

---

21. Do you have a disability? Yes ___ No ___

22. Do you have a family member with mental retardation? Yes ___ No ___

23. In general, what are your views on older adults with mental retardation?

Thank-you so much for your time and effort. It is truly appreciated.

Appendix D

List of Seniors Centres

St. James - Assiniboia Senior Centre

Gwen Sector Creative Living Centre

Good Neighbours Retirement Centre

Lions Place

Elmwood/East Kildonan Senior Centre

Transcona Retired Citizens Organization

Golden Rule Senior Centre

United Lutheran Seruke Club - Carriage House North

Winkler & District Senior Centre

Gordon Howard Senior Centre

Morden Friendship & Seniors Services & Activity Centre

Steinbach Senior Centre

Age & Opportunity Senior Centres:

Main Street	Selkirk Avenue	Stradbrook
St.Vital	Smith Street	Westend

Appendix E

Ethical Approval

FACULTY OF PHYSICAL EDUCATION AND RECREATION STUDIES

COMMITTEE ON RESEARCH INVOLVING HUMAN SUBJECTS

TITLE OF PROPOSAL:

Attitudes of older adults toward their peers with developmental disabilities.

PRINCIPAL INVESTIGATOR:

Ms. Sandy Goatcher

SPONSORING AGENCY: In partial fulfillment of the requirements for the M.Sc. Program

The Committee on Research Involving Human Subjects (Faculty of Physical Education and Recreation Studies) has evaluated the above proposal according to the criteria of the University of Manitoba Committee on Research Involving Human Subjects and finds it to be:

X
_____ acceptable

_____ not acceptable

under the approval category: _____ Approved; __X__ Approved with Modifications; _____Renewal Approved; _____Approved in Principle; _____Tabled; _____Withdrawn; _____Denied

December 16, 1998

Dr. Michael Mahon, Chair

Notes:

Appendix F

Information Form

THE UNIVERSITY OF MANITOBA

Faculty of Physical Education and Recreation Studies

Health, Leisure & Human Performance
RESEARCH INSTITUTE

Max Bell Centre
Winnipeg, MB
R3T 2N2

Tel: (204) 474-7087
Fax: (204) 261-4802

Attitudes of Older Adults Toward Their Peers with Mental Disabilities

General Information

I am a graduate student in the Faculty of Physical Education and Recreation Studies at the University of Manitoba. For my thesis, I am conducting a research study with the assistance of Dr. Michael J. Mahon, the Director of the Health, Leisure and Human Performance Research Institute at the university. The purpose of the study is to investigate the attitudes of older adults toward people with mental retardation.

If you agree to participate in this study, you will be asked to complete a questionnaire which should take approximately 15 - 20 minutes. The information gathered well be kept confidential and you will not be identified. In order to maintain the privacy of your responses, the consent forms and questionnaires will be kept separate. Both the consent forms and questionnaires will be kept in a locked filing cabinet at the University of Manitoba.

The results of the study may be published in a report or in academic journals but your name or identity will not be revealed. A copy of the findings will be made available to your senior centre, or directly to you, should you so wish.

You may withdraw from this study **at any time** and are under no obligation to complete the questionnaire once you have started. Any questions you may have about the research project or your participation in it, can be answered by **Sandra Goatcher, 474-8412** or **Dr. Michael J. Mahon, 474-8774.**

Thank-you for your time,

Sandra Goatcher — Michael J. Mahon Ph.D.

Health, Leisure and Human Performance Research Institute

Faculty of Physical Education and Recreation Studies, University of Manitoba

Appendix G

Overview of Study

THE UNIVERSITY OF MANITOBA

Faculty of Physical Education and Recreation Studies

Health, Leisure & Human Performance
RESEARCH INSTITUTE

Max Bell Centre
Winnipeg, MB
R3T 2N2

Tel: (204) 474-7087
Fax: (204) 261-4802

Attitudes of Older Adults Toward Their Peers with Mental Disabilities[1]

It is well recognized that older adults with mental disabilities represent a significant and rapidly increasing segment of our population (Sison & Cotten, 1989). With the increased numbers of this population, retirement has become an important option. Older adults with mental disabilities making the transition from a work-oriented to a leisure-oriented lifestyle, have identified community-based senior programs, such as senior centres, as a leisure preference. Although integration into community-based senior programs is advantageous for older adults with mental disabilities, some service providers have identified the attitudes of older adults without disabilities as a potential barrier to integration. However, there appears to be a void in attitudinal research to support this assumption. Therefore, the purpose of this study is to examine the attitudes of older adults toward their peers with mental disabilities.

Within the study, 2 scales will be utilized to measure the attitudes of older adults: Attitude Toward Disabled Persons Scale – Form O (modified) and a scale based on the Theory of Reasoned Action. In addition, the relationships between the attitude scores and the following variables will be examined: gender, age, education, income, types of activities, labeling, behavior characteristics, disability, family members with mental retardation, attendance, and amount of contact with people with mental disabilities (as measured by the Contact with Disabled Persons Scale – modified).

Results from this study will provide some basic information about the attitudes of older adults toward people with mental disabilities and the demographic correlates associated with those attitudes. Understanding the attitudes of older adults toward people with mental disabilities will provide knowledge that could further enable the social integration and normalization processes for older adults with mental disabilities.

[1] The term mental disability is used to refer to the condition of mental retardation. Mental retardation is characterized by "significant sub-average intellectual functioning that exists concurrently with related limitations in two or more of the following areas: communication, self-care, home living, social skills, community use, self-direction, health and safety, functional academics, leisure and work" (American Association on Mental Retardation, 1992)

Appendix H

Application for Research

LIONS CLUB OF WINNIPEG HOUSING CENTRES
APPLICATION FOR RESEARCH

Name(s) of Individual(s) / Organization Sandra Goatcher, Graduate Student, University of Manitoba

Address: 307 Max Bell Centre, University of Manitoba, Winnipeg, MB, R3T 2N2

Contact Person(s) & Phone Number(s): Sandra Goatcher, 474-8412

Project Synopsis

Describe the purpose and goals of the research project, and the methodology to be used.

See attached

Why would this project be beneficial to our organization and/or our client population?

See attached

What is the number of participants and type of individuals required to participate in the project?

Number of participants is targeted between 20 – 30. Participants are identified as those attending senior centre activities /groups.

What is the time frame of the project i.e. anticipated start date and completion date, number of visits/hours?

Start date would be as soon as possible after application approval. Number of visits anticipate would be two: one to explain and distribute survey, second to collect surveys (see method). Length of time to complete survey is estimated at 15 to 20 minutes (survey to be taken home to be completed).

What additional resources would you require from our organization?

Depending upon how researcher accesses participants, coffee maybe required. Researcher would reimburse costs for coffee, however deemed appropriate by the organization.

How will the research information be presented to the Lions Club of Winnipeg Housing Centres?

Research information will be made available to the organization in the form of a Research Summary. The Summary will be mailed to the Lions Club of Winnipeg Housing Centres and to those participants who Indicate on their consent form they would like a copy.

Please note: The Ethics Committee meets the second Monday of each month. In order to respond to your request as quickly as possible please return the application form prior to this date.

Applicant Signature

Applicant Signature

Date

Date

For Office Use Only

Older Adults Attitudes Toward Their Peers with Developmental Disabilities[1]

Research Project – Purpose, Goals, and Method

Introduction

It is well recognized that older adults with developmental disabilities represent a significant and rapidly increasing segment of our population (Sison & Cotten, 1989). With the increased numbers of this population, retirement has become an important option. Older adults with developmental disabilities making the transition from a work-oriented to a leisure-oriented lifestyle, have identified community-based senior programs, such as senior centres, as a leisure preference. Although integration into community-based senior programs is advantageous for older adults with developmental disabilities, some service providers have identified the attitudes of older adults without disabilities as a potential barrier to integration. However, there appears to be a void in attitudinal research to support this assumption. Therefore, the purpose of this study is to examine the attitudes of older adults toward their peers with developmental disabilities.

Within the study, 2 scales will be utilized to measure the attitudes of older adults: Attitude Toward Disabled Persons Scale – Form O (modified) and a scale based on the Theory of Reasoned Action. In addition, the relationships between the attitude scores and the following variables will be examined: gender, age, education, income, types of activities, labeling, behavior characteristics, disability, family members with developmental retardation, attendance, and amount of contact with people with developmental disabilities (as measured by the Contact with Disabled Persons Scale – modified).

Results from this study will provide some basic information about the attitudes of older adults toward people with developmental disabilities and the demographic correlates associated with those attitudes. Understanding the attitudes of older adults toward people with developmental disabilities will provide knowledge that could further

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[1] The term developmental disability is used to refer to the condition of mental retardation. Mental retardation is characterized by "significant subaverage intellectual functioning that exists concurrently with related limitations in two or more of the following areas: communication, self-care, home living, social skills, community use, self-direction, health and safety, functional academics, leisure and work" (American Association on Mental Retardation, 1992)

enable the social integration and normalization processes for older adults with developmental disabilities.

Procedure

Participants

Participants will be the members of the senior centres who have consented to participate. Participants will meet the following criterion: 55 years of age and over; attend a senior centre; can read English; are not visually impaired; and do not have a developmental disability.

The survey will be administered within the senior centre facility, with those attending the centre being requested to complete the survey. Potential participants will be asked to read aloud a portion of the informed consent form to establish their ability to read English and identify visual impairments. The age criteria will be determined by the participant's response to the age question within the survey. Participants who are under the age of 55 years will be excluded from study. Staff of the senior centre will be asked to discreetly identify members with developmental disabilities and if these members do complete a survey, that survey will also be excluded from the study.

Informed Consent

Informed consent will be obtained from all participants. The participants will be informed of the purpose of the research, the option to decline participation at anytime, and the guarantee of anonymity and confidentiality. In addition, participants will be told that a report of the findings will be made available through the senior centre or mailed directly to them. The information and consent form will be presented in a written format and the participants will be requested to sign the form and a copy will be offered to them.

Strain and Chappell (1982) indicated that signing an informed consent form can cause some older adults a great deal of stress. It was found that some older adults may not understand the process and think they are signing over their pension checks. In such instances, viable options include obtaining verbal consent and possibly having the participant sign the form after the questionnaire has been completed. In this study, if the participants feel uncomfortable about signing the form, verbal consent will be accepted and so indicated on the consent form.

Data collection

The questionnaire will be administered at the senior centre with the researcher present. The exact location of the study within each centre will be determined in conjunction with the executive director and/or president to ensure optimal conditions and convenience for the participants (e.g., prior to activities, in a meeting room, in a hallway).

Members of the senior centres will be approached and invited to complete a questionnaire. Potential participants will be asked to read the information sheet and then if they agree to participate they will be asked to read and sign the informed consent form. Once signed, the consent form will be placed in an envelope separate from the questionnaire. This will ensure participants that the form and the questionnaires cannot be matched together. A copy of the consent form will be given to the participant if requested. Participants will be offered the following options: to complete the questionnaire at the centre; to complete the questionnaire at home and bring it back to the centre the next week; or to complete the questionnaire and mail it to the researcher in an addressed, postage paid envelope provided by the researcher. Completed questionnaires will placed in an envelope labeled with a code representing the name of the senior centre.

Incentives to participate in the study will be provided. Participants will be offered refreshments, such as coffee or juice, to have while completing the questionnaire. After the participants have completed the questionnaire, they can enter their name in a draw for a $100.00 cash gift. To enter the draw, participants would write their name and address on a small entry form and deposit it into a sealed container. For participants who mail the completed questionnaires, the entry form will be supplied with the envelope. At the conclusion of the study, an entry form will be drawn from the container and that participant will be mailed a money order for the amount of $100.00.

Other considerations

Age related changes in vision (e.g., farsightedness and yellowing of the lens) must be taken into consideration when designing the questionnaire. To assist respondents in reading the questionnaire, Gaudet and Dunn (1994) recommend a larger size font, paper that does not present glare, and that the background be in warm colours which are generally more easily seen (red, yellow, orange). To address these recommendations, 14 and 16 size font will be used on the questionnaire and the colour of the paper will be a

flat yellow.

Complete instructions will be included on the first page of each section of the questionnaire along with example questions on how to mark the appropriate response. The researcher will be present to answer any questions regarding the process or the participants can phone the researcher for assistance.

Benefits and Significance

Direct benefits for the participants in this study could be an increased awareness regarding people with developmental disabilities through the completion of the questionnaire and by having access to the final report. Increased awareness may lead to more inclusive behaviours within the senior centre.

Results from this study will provide some basic information about the attitudes of older adults toward people with developmental disabilities and the demographic correlates associated with those attitudes. Understanding the attitudes of older adult toward people with developmental disabilities will provide knowledge that could further enable the social integration and normalization processes for older adults with developmental disabilities. Negative attitudes toward individuals with developmental disabilities could be improved through a combination of strategies. Positive attitudes could assist in creating system linkages between aging service networks and developmental disability services, thereby maximizing resources. More importantly, positive attitudes could provide opportunities for the social integration of older adults with developmental disabilities into community-based senior programs.

Appendix I

Letter of Approval for Research: Age and Opportunity

Community Services
2nd Floor, 283 Portage Avenue
Winnipeg, Manitoba R3B 2B5
Phone: (204) 956-6440
Fax: (204) 946-5667

Elder Abuse Resource Centre
2nd Floor, 283 Portage Avenue
Winnipeg, Manitoba R3B 2B5
Phone: (204) 956-6449
Fax: (204) 946-5667

Administrative Office
2nd Floor, 283 Portage Avenue
Winnipeg, Manitoba R3B 2B5
Phone: (204) 956-6440
Fax: (204) 946-5667

■

Main Street Senior Centre
817 Main Street
R2W 5J2
Phone: (204) 942-7486

St. Vital Senior Centre
613 St. Mary's Road
R2M 3L8
Phone: (204) 253-1842

Selkirk Avenue Senior Centre
472 Selkirk Avenue
R2W 2M7
Phone: (204) 582-2329

Smith Street Senior Centre
2nd Flr. 185 Smith Street
R3C 3G4
Phone: (204) 942-6301

Stradbrook Senior Centre
400 Stradbrook Avenue
R3L 2P8
Phone: (204) 475-9150

West End Senior Centre
644 Burnell Street
R3G 2B7
Phone: (204) 772-9561

■

Funding
Province of Manitoba
United Way
City of Winnipeg
Winnipeg Foundation

February 25, 1999

Ms. Sandra Goatcher BRS
Health, Leisure & Human Performance Research Institute
307 Max Bell Centre
University of Manitoba
R3T 2N2

Dear Sandra:

Re: **Request for Research Access "Attitudes of Older Adults Towards their Peers with Developmental Disabilities**

I am pleased to inform you that the Management Team of Age & Opportunity have reviewed your request for research access and have given approval for this. We will be forwarding a memo to all of our staff at the Senior Centres informing them of this decision and advising them that you will be calling to arrange times with them.

Upon completion of your thesis, we would appreciate receiving a copy of your executive summary at minimum. We wish you much success in your research work. Please call me if you have any further questions or comments. I apologize for the delay in getting back to you.

Sincerely,

G Dixon MSW RSW

Gloria Dixon MSW RSW
Manager, Specialized Services/Elder Abuse Resource Centre
Age & Opportunity Centre, Inc.

Appendix J

Instructions

Thank-you for agreeing to answer the questionnaire. Since you are taking it home to finish, there are a few things to remember.

1. Please answer the questions in your own. We would like to know just what you think.

2. Sign the consent form or if you fell uneasy about signing, place a check mark beside where your name should go. This so we know that you have agreed to participate.

3. Bring the questionnaire and the consent form back next week and Sandy will personally collect them from you.

4. Any questions or concerns, please feel free to phone 474-8412

Thank-you for agreeing to answer the questionnaire. Since you are taking it home to finish, there are a few things to remember.

1. Please answer the questions in your own. We would like to know just what you think.

2. Sign the consent form or if you fell uneasy about signing, place a check mark beside where your name should go. This so we know that you have agreed to participate.

3. If you wish to put your name in for the $100.00 Thank-you Draw, complete the entry form.

4. Place the questionnaire, the consent form, and the entry form in the envelope provided – postage is paid! It is okay to fold in half.

5. Mail as soon as possible so you will not miss the draw.

6. Any questions or concerns, please feel free to phone 474-8412.

$100.00 Thank-you Draw

Name:_____

Address:_____

_____

Postal Code:_____

Appendix K

Response Rates: Seniors Centres

Name of Seniors Centre		No. Distributed	No. Responses	Response Rate (%)
Gwen Sector		27	18	66.7
St. James – Assiniboia		24	24	100.0
Elmwood – East Kildonan		10	6	60.0
Selkirk		19	10	52.6
Morden		21	16	76.2
Steinbach		14	12	85.7
Transcona		38	22	57.9
St.Vital		35	15	42.8
Lion's Place	Group 1	28	21	75.0
	Group 2	22	18	81.8
	Group 3	9	3	33.3
Stradbrook		12	6	50.0
Selkirk Avenue		14	7	50.0
Main Street		13	11	84.6
Westend		8	3	37.5
Smith Street		11	6	54.5
Winkler		6	5	83.3
Carriage House North		18	11	61.1
Golden Rule		10	7	70.0
Good Neighbour		18	11	61.1
Total		357	232	65.0

Appendix L

Frequency Tables: TRA & ATDP Scales

Reasoned Action Total Score

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	.00	1	.4	.6	.6
	2.00	2	.9	1.3	1.9
	3.00	3	1.3	1.9	3.8
	4.00	4	1.8	2.5	6.3
	8.00	3	1.3	1.9	8.2
	9.00	2	.9	1.3	9.4
	10.00	5	2.2	3.1	12.6
	11.00	4	1.8	2.5	15.1
	12.00	3	1.3	1.9	17.0
	13.00	4	1.8	2.5	19.5
	14.00	3	1.3	1.9	21.4
	15.00	10	4.4	6.3	27.7
	16.00	2	.9	1.3	28.9
	17.00	10	4.4	6.3	35.2
	18.00	4	1.8	2.5	37.7
	19.00	11	4.9	6.9	44.7
	20.00	7	3.1	4.4	49.1
	21.00	5	2.2	3.1	52.2
	22.00	7	3.1	4.4	56.6
	23.00	4	1.8	2.5	59.1
	24.00	10	4.4	6.3	65.4
	25.00	13	5.8	8.2	73.6
	26.00	9	4.0	5.7	79.2
	27.00	10	4.4	6.3	85.5
	28.00	10	4.4	6.3	91.8
	29.00	1	.4	.6	92.5
	30.00	2	.9	1.3	93.7
	31.00	2	.9	1.3	95.0
	32.00	2	.9	1.3	96.2
	33.00	2	.9	1.3	97.5
	35.00	3	1.3	1.9	99.4
	36.00	1	.4	.6	100.0
	Total	159	70.4	100.0	
Missing	System	67	29.6		
Total		226	100.0		

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	13.00	1	.4	.5	.5
	16.00	1	.4	.5	1.1
	18.00	1	.4	.5	1.6
	24.00	1	.4	.5	2.2
	25.00	1	.4	.5	2.7
	26.00	1	.4	.5	3.3
	27.00	1	.4	.5	3.8
	28.00	1	.4	.5	4.4
	29.00	1	.4	.5	4.9
	30.00	2	.9	1.1	6.0
	31.00	5	2.2	2.7	8.7
	33.00	3	1.3	1.6	10.4
	34.00	1	.4	.5	10.9
	35.00	4	1.8	2.2	13.1
	36.00	4	1.8	2.2	15.3
	37.00	2	.9	1.1	16.4
	38.00	5	2.2	2.7	19.1
	39.00	3	1.3	1.6	20.8
	40.00	5	2.2	2.7	23.5
	41.00	6	2.7	3.3	26.8
	42.00	2	.9	1.1	27.9
	43.00	3	1.3	1.6	29.5
	44.00	5	2.2	2.7	32.2
	45.00	3	1.3	1.6	33.9
	46.00	4	1.8	2.2	36.1
	47.00	5	2.2	2.7	38.8
	48.00	6	2.7	3.3	42.1
	49.00	7	3.1	3.8	45.9
	50.00	4	1.8	2.2	48.1
	51.00	6	2.7	3.3	51.4
	52.00	4	1.8	2.2	53.6
	53.00	5	2.2	2.7	56.3
	54.00	6	2.7	3.3	59.6
	55.00	5	2.2	2.7	62.3
	56.00	2	.9	1.1	63.4
	57.00	4	1.8	2.2	65.6
	58.00	4	1.8	2.2	67.8
	59.00	7	3.1	3.8	71.6
	60.00	4	1.8	2.2	73.8
	61.00	3	1.3	1.6	75.4
	62.00	4	1.8	2.2	77.6
	63.00	1	.4	.5	78.1
	64.00	8	3.5	4.4	82.5
	65.00	3	1.3	1.6	84.2
	66.00	4	1.8	2.2	86.3
	67.00	3	1.3	1.6	88.0
	69.00	5	2.2	2.7	90.7
	70.00	3	1.3	1.6	92.3
	72.00	1	.4	.5	92.9
	74.00	3	1.3	1.6	94.5