

**PERCEPTIONS OF A PERSON WITH MENTAL RETARDATION AS A FUNCTION OF  
PARTICIPATION IN INTEGRATED VERSUS SEGREGATED RECREATION/SPORT  
ACTIVITIES: AN EXPERIMENTAL ANALYSIS**

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*This study is a conceptual replication of previous work by Storey, Stern, & Parker (1990) that examined the influence of participation in integrated vs. segregated recreation/sports activities on evaluations of a person with mental retardation by persons without a disability. The Storey et al., (1990) study observed that people with mental retardation were viewed less favorably when participating in segregated activities and the current research used an alternate methodological approach to revisit this issue. Eighty participants were randomly assigned to one of two groups. Participants in the first group were exposed to a slide show depicting a young woman engaging in various segregated recreation/sport activities. Participants in the second group saw the same person engaging in integrated recreation/sport activities. The Attitudes Toward Individuals with Severe Handicaps survey served as the outcome measure. Participants evaluated the stimulus person more favorably when she was engaged in integrated as compared to segregated activities; however, the magnitude of these differences was negligible. Future directions for research are discussed.*

As part of the deinstitutionalization movement, people with mental retardation have been increasingly integrated into community-based employment, living arrangements, and recreation/sport activities. The normalization principle maintains that physical presence is necessary to induce positive perceptions and acceptance by general society (Wolfensberger, 1972). However, it is also understood that many other factors influence perceptions toward people with mental retardation, including the nature of activities in which these individuals engage (Bates, Morrow, Pancsofar, & Sedlak, 1984; Burns, Storey, & Certo, 1999; Sparrow, Shinkfield, & Karnilowicz, 1993; Storey, Stern, & Parker, 1990). That is, physical integration alone is not sufficient to promote positive perceptions among those without disabilities. People with mental retardation must also participate in age-appropriate, socially valid activities to be accepted by those without disabilities (Bates et al., 1984; Burns et al., 1999).

Society generally holds favorable views toward participation in recreation/sport activities because physical competence is a valued trait (Goldberg & Chandler, 1989, 1992). The significant increase in these opportunities for people with mental retardation over the last 30 years supports this assertion (Schilling & Coles, 1997), and while integrated programs exist, most physical activity outlets for this population are segregated (Datillo, 2002). The influence of segregated recreation/sport programs on societal perceptions of people with mental retardation is the topic of ongoing debate (Storey, 2004). Although involvement in these activities has a positive effect on various personal attributes of the participant (e.g., self-concept,) (Klein, Gilman, & Zigler, 1993), the impact on overall attitudes toward this population is less clear. Specifically, it is unknown if participation in segregated recreation/sports activities reinforces negative views of people with mental retardation.

Research in integrated versus segregated placements and societal perceptions of people with mental retardation has been conducted primarily among children, teachers, volunteers, parents and caregivers, usually in school settings, with mixed findings (Hastings & Graham, 1995; Yazbeck, McVilly, & Parmenter, 2004). There exists relatively less information on attitudes of the general public toward inclusion of people with mental retardation in regular (i.e., non-disability specific) recreation opportunities. Block and Malloy (1998) surveyed players without disabilities, parents of players without disabilities and coaches who were part of a 10-12 years age-group girls' softball league regarding attitudes toward inclusion of peers with disabilities (non-labeled). Players identified themselves as *kind of competitive* and along with parents held positive attitudes of both inclusion and rule modification that would facilitate inclusion, while coaches were generally undecided. Sparrow et al. (1995) studied attitudes and behavioral intentions toward inclusion of people with mental retardation in a private tennis club. Club members generally held positive attitudes toward people with mental retardation; however, behavioral intentions toward the target population were less positive. For example, participants were less likely to play tennis with or nominate someone with mental retardation for club membership, and this was most evident among highly skilled club members. The authors concluded that mere access to a facility is not sufficient to promote acceptance and equality.

To date, only one study has specifically compared the impact of segregated versus integrated recreation/sport participation on the evaluation of persons with mental retardation by peers without this diagnosis. Storey, et al. (1990) used a quasi-experimental, intact groups design to examine 216 college students' evaluation of a 20 year old woman with mental retardation, who participated in either integrated or segregated recreational activities. Participants were pre-tested with the Attitudes Toward Disabled Persons Scale (ATDP) to assess any pre-experimental difference between the groups (the difference was not statistically significant). Participants then viewed a short narrated slide presentation of the stimulus person engaging in one of the two activities and were administered a post-test measure consisting of a 13-item questionnaire that assessed subjective evaluation of the woman's (a) age, (b) IQ, (c) appropriate school situation, (d) classification of mental retardation, (e) living situation, (f) wage and vocational programming, and (g) recreational/leisure programming. Those that viewed the segregated activities rated the stimulus person as younger, needing a more restrictive educational environment, and needing a more segregated recreational program compared to participants that viewed the integrated activities. The authors concluded that segregated recreation/sport activities reinforced negative perceptions of people with mental retardation, although the effect sizes found were small.

#### *Rationale for the Present Study*

Krajewski and Hyde (2000) observed that perceptions of people with mental retardation held by those without disabilities improved over an 11-year period. However, reports of global improvements may obscure differences in perceptions associated with the context in which those perceptions are measured. With the increased visibility of persons with mental retardation in inclusive settings over the past 20 years, persons without a disability may be inclined to evaluate a person with mental retardation who participates in segregated physical/sport activities negatively compared to a person engaging in integrated activities. Indeed, professionals in the field of mental retardation have criticized segregated recreation/sports such as Special Olympics on numerous grounds, including negative effects on attitudes toward persons with disabilities, the promotion of *handicapism*, and continuation of self-fulfilling prophecies about deviant characteristics of persons with disabilities (Storey, 2004). If, as Becker (1973) suggests, perceptions of normative behavior change over time, and that these perceptions guide evaluations of deviance, then it is expected that the negative effects associated with participation in segregated activities would be even stronger today than those reported by Storey et al. (1990) 15 years ago.

The present study is an attempt to conceptually replicate the Storey et al. investigation with a tighter methodological approach. This study is important for several reasons. First, it is one of the few attempts to examine attitudes toward people with mental retardation among those not directly affiliated with the population (e.g., volunteers), and an understanding of attitudes held by those in the general community is necessary to advance social change (Yazbeck et al., 2004). Second, it is one of two studies that have specifically examined the influence of integrated versus segregated recreation for people with mental retardation on attitudes of those without this diagnosis.

*Limitations of Storey et al. (1990)*

Several methodological shortcomings are evident in the Storey et al. (1990) study. First, these researchers used intact groups. Although pre-testing on one attitude measure revealed minimal differences between groups, other important group differences, such as the gender of participants, may have existed. Cambell and Stanley (1966) and other research methodologists have articulated numerous threats to the internal validity of studies that employ pre-existing groups. Indeed, pre-testing itself is often cited as a potential confound in experimental studies because participants may be differentially sensitized to the content and focus of the pre-test measure (Trochim, 2001).

Second, while the authors claimed to measure *attitudes* as noted in the title of their manuscript, the questions posed to respondents were designed to elicit only cognitive appraisals and not affective responses or inclinations to behave in a certain fashion. Prominent social psychologists who research attitudes (cf. Petty & Cacioppo, 1981) typically operationalize the construct of interest in terms of (a) cognitions, (b) affect, and (c) inclinations to behave in accordance with one's thoughts and feelings. Thus, the multidimensional nature of attitudes is only partially captured by Storey and colleagues.

As Gall, Borg, and Gall (1996) note, *In any research study, it is possible that the findings are an artifact of the methodology used by the researcher. Thus, it is important to [conceptually] replicate studies using different methodology* (p. 54). In the present study we employed a randomized procedure to assign participants to experimental groups as opposed to using intact groups. When random assignment is used the groups that are formed are considered probabilistically equivalent, which makes pre-testing unnecessary (provided a moderately large sample size).

In addition, we used a measure that provides a more comprehensive assessment of the construct *attitudes toward persons with disabilities*. Rather than simply assess the cognitions of participants regarding various personal (e.g., age) or environmental (e.g., living situation) characteristics of the stimulus person, as was done in the Storey et al. (1990) investigation, we chose the Attitudes Toward Individuals with Severe Handicaps (ATISH) survey (Aveno, 1988) as the dependent variable in the present study. The ATISH purports to measure a global construct: the extent to which a person holds positive, accepting attitudes toward persons with severe disabilities, and consists of 18 items on a 6-point scale (*1 = Strongly Disagree* to *6 = Strongly Agree*) that assess a variety of cognitions, affective responses, and behavioral indicators oriented towards persons with disabilities. Scores may range from 18 to 108, with higher scores indicating more positive attitudes. In contrast to the ATDP (used by Storey et al. as a pre-test), which measures general attitudes toward persons with disabilities, the ATISH assesses context specific attitudes. As noted by Thomas, Palmer, Coker-Juneau, and Williams, ... *the ATDP may capture the overall affect a given rater has for disabled people, generally speaking, it will not be completely descriptive in understanding how a rater feels about a particular individual with a specific disability in a certain situation* (2002, p. 468).

Sample ATISH items include:<sup>1</sup>

1. In settings such as parties or clubs, a person does not need special training to interact socially with someone who is severely disabled. (Cognition)
2. While shopping in a mall, you are walking toward a person who is severely retarded. Normally you would look at the individual, smile, and say hello. But, because this person has a disability, you should look the other way so she won't think you are staring. (Affective)
3. You should begin to talk to an adult you have just met like an adult even if s/he is severely retarded. (Behavioral)

*The authors recognize and are sensitive to the absence of person-first language and the use of the term retarded in the scale items, however, the items were presented without modification to avoid potential validity concerns.*

*Research Hypothesis*

The authors tested the following null research hypothesis:

$H_0$  : The mean score of participants who view the stimulus person in integrated activities will be equal to or significantly less than the mean score of participants who view the stimulus person in segregated activities; against the directional alternative hypotheses:

$H_A$  : The mean score of participants who view the stimulus person in integrated activities will be significantly higher than the mean score of participants who view the stimulus person in segregated activities.

## Method

### *Participants*

Participants for this investigation were 80 students enrolled in introductory psychology courses at a junior college in a large urban city. Participants received extra-credit for participation and were randomly assigned to one of two treatment groups: Group 1 (18 males; 22 females ages = 25.5 yrs) and Group 2 (17 males; 23 females ages = 24.1 yrs).

### *Stimulus Materials*

We used the identical stimulus materials developed by Storey et al. (1990). Stimulus materials consisted of two sets of slides depicting the same person (*Sue*), described as a person with mental retardation engaging in either segregated, in this case Special Olympics, or integrated recreation/sports activities. It is important to note that, for the purposes of this study, the term segregated refers to programs that are specifically designed and organized for people with disabilities, and Special Olympics is used because it is a highly visible specialized program for people with mental retardation. As such, the intent was not to specifically compare Special Olympics to other activities, but rather the organization is merely a medium to represent segregated activities. Integrated refers to activities that are accessible to all people. The same audio-taped narrative accompanied each slide presentation. Each presentation (13 slides) took approximately three minutes to view. For each slide of Sue engaging in a segregated activity (e.g., wearing a Special Olympics shirt running a 100-yard dash with other persons with mental retardation; being hugged after a race), a corresponding slide in the second presentation showed her engaging in an integrated activity (e.g., jogging alone in the park; talking to a person without a disability at a golf driving range).

### *Procedure*

Participants first completed an informed consent previously approved by the university review board for the protection of human subjects and provided demographic data. They were then told they would be viewing a slide presentation of Sue, a young woman with mental retardation. Sue was described to participants as having a disability that would require on-going support in community living and employment. This was followed by viewing the aforementioned slide presentation. After viewing the presentation, participants completed the ATISH.

## Results

The internal consistency estimate (Cronbach's alpha) for the ATISH was acceptable ( $\alpha = .72$ ). This estimate is considerably lower than the test-retest reliability estimate reported by the publisher ( $r = .91$ ), however, since internal consistency reliability and test-retest reliability estimates are psychometrically different phenomena, Aveno's (1988) claim is not disputed. An independent samples *t*-test was used to compare Group 1 (segregated activities) and Group 2 (integrated activities) on the ATISH total score. These results are presented in **Table 1**. The difference between groups was not statistically significant at the specified .05 alpha level. Using  $\eta^2$  as a measure of effect size, the percent of variance explained (PVE) estimate attributable to group assignment was 1.4%.

**Table 1**  
*Group Comparisons on the ATISH (n = 80)*

<u>Instrument</u>	<u>Special Olympics</u>		<u>Integrated Activities</u>		$\eta^2$	<i>t</i>
	M	SD	M	SD		
ATISH	82.0	8.6	83.9	7.3	.014	1.08

Note: The comparison was not statistically significant at the .05 alpha level ( $df = 1, 78$ )

## Discussion

This study attempted to conceptually replicate Storey et al. (1990) using a revised methodological approach and the results were similar to those previous findings. While these authors found several statistically significant differences, none had PVE effects greater than 4%. In the current study there were no significant group differences, and the effect sizes were in the range of those reported by Storey et al. (1990). Although scores on the ATISH were higher for the group observing Sue interacting in integrated activities, the practical significance of these effects was negligible, similar to the previous study. Indeed,

given the possible range of scores on the ATISH, overall evaluations of the stimulus person in both settings were fairly positive.

Although the present findings were not statistically significant, the tendency for participants to view segregated activities more negatively than integrated activities suggests that continued integration of people with mental retardation is important to advances in social acceptance of this population, particularly when there is *normal* interaction between those with and without disabilities. This was partially supported by Burns et al. (1999) who found that *normalized* service learning activities that allowed people with and without disabilities to work together for a common goal were more conducive to improving attitudes than segregated activities where there were clear receiver (i.e., person with disability) and giver (i.e., person without disability) roles.

Additional research is needed to better understand the quality of attitudes toward people with mental retardation and this will help direct future integration efforts. Emphasis should be placed on qualifying, rather than quantifying attitude and acceptance constructs because it is unclear if integration has served to actually change self-reported perceptions of persons with disabilities. It is possible that self-reports may be influenced by social desirability (e.g., political correctness) and positive attitudes may not represent positive behavioral intentions, such as interacting with an individual with mental retardation (Sparrow et al., 1993).

Differences between structured and unstructured integrated recreation are also worthy of further inquiry. Special Olympics offers a Unified Sports program that requires teams be comprised of equal numbers of people with mental retardation matched according to age and skill level. To date, there appears to be only one study that has examined the influence of this program on the all participants (Castagno, 2001) and results were that participation in the program improved attitudes of children without mental retardation. It is of interest to determine if attitudes toward people with mental retardation are different according to participation in Unified Sports (structured integration) versus Special Olympics (segregation) versus *normalized activities* (non-structured integration). These issues need to be more clearly elucidated before appropriate interventions that promote greater acceptance and inclusion of this population can be developed. In particular, understanding attitudes of various community members across age, gender, education, socioeconomic status and so forth is vital, because continued change will only occur when people with mental retardation are respected and accepted by the broader society (Yazbeck et al., 2004).

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