

PEDAGOGY

Examining the Impact of Community Inclusive Sport Event on Attitudes Toward People with Intellectual Disabilities Through a Sport Management Coursework: A Pilot Study

Chih-Chia (JJ) Chen and Soyoun Lim

Abstract

People with disabilities have become part of a growing population in the U.S. and globally. This study investigated the implicit and explicit attitudes after involvement in a community-inclusive soccer festival, Stark Vegas Fútbol Jamboree, that included people with intellectual disabilities (ID). Nine sport management graduate students who enrolled in a sport event and facility management course and organized and implemented this event participated in this study. In addition, 15 event volunteers were recruited. Multiple strategies during event planning were utilized to reduce attitude bias. The measure of implicit attitudes toward disability was administered to sport management students before and after the event. The measure of explicit attitudes was collected on the event day for sport management students and volunteers. There was no association between implicit and explicit attitudes since both may tap into distinctly different knowledge structures. The strategies achieved a partial success. The sensitivity to disease and contact

Chih-Chia (JJ) Chen, assistant professor, University of Iowa, and Soyoun Lim, associate professor, Mississippi State University. Please send author correspondence to chih-chia-chen@uiowa.edu

with people with disabilities may be possible factors associated with this change. However, explicit attitude scores were lower than in past literature due to limitations in direct and quality contact. The findings prove that faculty may use an inclusive community sport event to improve attitudes toward people with ID.

Introduction

Approximately 64 million (one in four) adults in the United States live with a disability (Centers of Disease Control and Prevention, 2022), and increasingly more are starting to participate in sport and physical activities because of their well-documented psychological and physiological benefits (Adams & Morgan, 2018; Lord & Patterson, 2008). Traditionally, Kinesiology, an interdisciplinary field that addresses human body movement, has placed disability issues in sub-disciplines, such as clinical exercise physiology or adapted physical education/activity. However, relevant disability information that spans all sport management domains is currently scarce. Shapiro and Pitts (2014) found only 0.016% of papers pertained to disability sport, leisure, recreation, or physical activity in 34 sport business management journals between 2002 to 2012. Further, Pitts et al. (2022) identified only 0.0006% of content related to disability, disability sport, and/or people with disabilities in sport across 24 sport management textbooks. As the field of sport business management develops, people with disabilities are a growing population in this industry. Thus, sports management curriculum standards (COSMA, 2016) have required sports management programs to prepare students to work in a “diverse sport management environment” (p. 54). It is important to include disability sport in the sport management curriculum for sport management majors.

Intellectual disability (ID) is currently the most common developmental disability. Approximately seven to eight million people in the United States have an ID (Administration for Community Living, 2022). This means people with ID have intellectual deficits and other cognitive limitations that may affect their adaptive behaviors in communication, social, and self-care skills. Regrettably, less favorable attitudes toward people with ID in society have been commonly observed. Chan et al. (1988) noted greater public acceptance for people with physical disabilities compared to those with ID. In

another study, de Laat et al. (2013) found that respondents have more positive behavioral and affective aspects of attitudes toward people with deafness, paralysis, and blindness than those with ID. Thus, much less favorable attitudes could be a potential barrier to achieving social inclusion (Kleintjes et al., 2013), which can lead to low self-esteem and psychological disorders in people with ID (Dagnan & Waring, 2004; Paterson et al., 2012). To change these attitudes, researchers embraced the “contact” hypothesis (Allport, 1954), which suggested that more structured contact can lead to positive public attitudes toward people with ID (Albaum et al., 2022; Ferrara et al., 2015). In the research areas of attitudes toward people with disabilities, the literature has focused on teachers and health professionals. However, studies that focus on sport management students are rare.

Measuring implicit and explicit attitudes toward people with disabilities is a common approach researchers use. Implicit attitudes represent an individual’s unconscious thoughts and automatic responses whereas explicit attitudes indicate conscious control and deliberate action (Greenwald et al., 1998). In addition, sport management students are trained to develop skills related to planning, programming, administering, and evaluating an event. The current study aimed to examine implicit and explicit attitude changes after involvement in a community-inclusive soccer festival, StarkVegas Fútbol Jamboree, that included people with ID. The objective of the study was 1) to determine the association between implicit and explicit attitudes toward people with ID; 2) whether the implicit attitudes about ID among sport management students would differ in a sport management coursework program and 3) to determine differences in explicit attitudes between sport management students and volunteers after event participation. To date, no research has examined implicit attitudes or explicit attitudes in relation to involvement in this kind of community sport event, nor has research considered sport management students.

Methods

Participants

The current study employed a convenience sampling method. Nine graduate students (four males, five females) who enrolled in the Sport Event and Facility Management graduate-level course at

a Southeastern University in the United States participated in the study. Their mean age was 24.78 years (SD = 3.60). Additionally, 15 volunteers were randomly selected from StarkVegas Fútbol Jamboree. The mean age was 21.73 years (SD = 4.32).

Instrument

Harvard's Disability Implicit Association Test

Harvard University's Project Implicit (<https://implicit.harvard.edu/>) offers a free online assessment framework to help individuals identify implicit biases toward disabilities. Respondents were asked to sort pictures and words into groups as fast as possible to measure the strength of subconscious associations in their memory between certain concepts (e.g., physically abled and physically disabled people) and evaluations (e.g., good, bad). In this assessment, it was observed that respondents who were quicker to respond when items were more closely related in their mind would share the same button. Each respondent would also receive a suggestion that he/she had no preference or had a strong, moderate, or slight automatic preference for physically abled people over physically disabled people. The scoring system used a 4-point Likert-type scale from +4= no preference to +1 = strong automatic preference. Higher scores would indicate more favorable attitudes toward people with disabilities.

Attitude Toward Disabled Persons Scale, Form-O (ATDP-O)

ATDP-O is a 20-item instrument that uses a 6-point Likert-type scale from +3 = I agree very much to -3 = I disagree very much) to measure explicit attitudes towards people with disabilities. It was used to observe the extent to which the respondents perceived people with disabilities as similar to those without disabilities and the extent to which the respondents believed people with disabilities should be treated similarly to people without disabilities (Yuker & Hurley, 1987). After calculating the total scores of each item, a score of 60 was added to eliminate the negative scores. Thus, the possible range of final scores would be between 0 and 120. Higher scores would indicate more favorable attitudes toward people with disabilities.

Sport Event and Facility Management Course

Graduate students who enrolled in the Sport Event and Facility Management course were required for a practicum project to orga-

nize and implement an inclusive community soccer festival. Students worked in groups to contribute in different ways to run the event. A multi-strategy intervention was called for to impact deep-seated biases and a variety of existing negative stereotypes. One strategy that instructors utilized was consciousness-raising, wherein a topic of disability and sport was introduced in the lecture to make students aware of the nature of disability bias and the importance of physical activity and inclusion for people with ID. Another strategic intervention involved perspective taking. Students heard professionals who offered adapted physical activity for people with ID about what they did, how people with ID felt, and what the positive outcomes of sport participation people with ID. The final strategy involved exposure to people with ID. Students could watch their performance in the inclusive community soccer festival. These strategies were promoted in conjunction with the course schedule, allowing students to connect theoretical concepts in class material to real-world applications.

Procedure

The implicit attitude testing sessions were conducted by individual appointment at the beginning and end of the semester. The general purpose and procedure of the study were explained when the participants arrived. They were then led to a quiet room where they were administered Harvard's Disability Implicit Association Test on notebook computers with 14-inch screens set at a resolution of 1024 × 768 pixels. The test was completed under the direct supervision of the researchers.

The Attitude Toward Disabled Persons Scale questionnaire was distributed to participants on the event day. Participants completed the questionnaire individually to measure their explicit attitudes toward people with disabilities after watching the sports performance of people with ID in the event. The Human Subjects Institutional Review Board of the University approved all protocols.

Data Analysis

Analyses were conducted using SPSS for Windows (Version 28). The insufficient power and the violation of the normality assumption could be observed due to the small sample size in the current study. Non-parametric tests were utilized to test the hypothesis. A Spearman's rank correlation coefficient was conducted to test the

correlations between implicit and explicit attitudes. Wilcoxon signed rank test, similar to the parametric paired t-test in which the median values were used, was conducted to compare the differences in implicit attitudes between pre- and post-intervention. In addition, the Mann-Whitney test, similar to the parametric independent t-test in which the median values were used, was conducted to compare the differences in explicit attitudes between sport management students and volunteers. The statistical significance was evaluated at the alpha .05 level.

Table 1
Spearman's Rank Correlation Coefficient Among Attitude Measures

	Implicit attitude _{pre-intervention}	Implicit attitude _{post-intervention}	Explicit attitude
Implicit attitude _{pre-intervention}	-	.694*	.312
Implicit attitude _{post-intervention}		-	.206
Explicit attitude			-

note. * < .05

Results

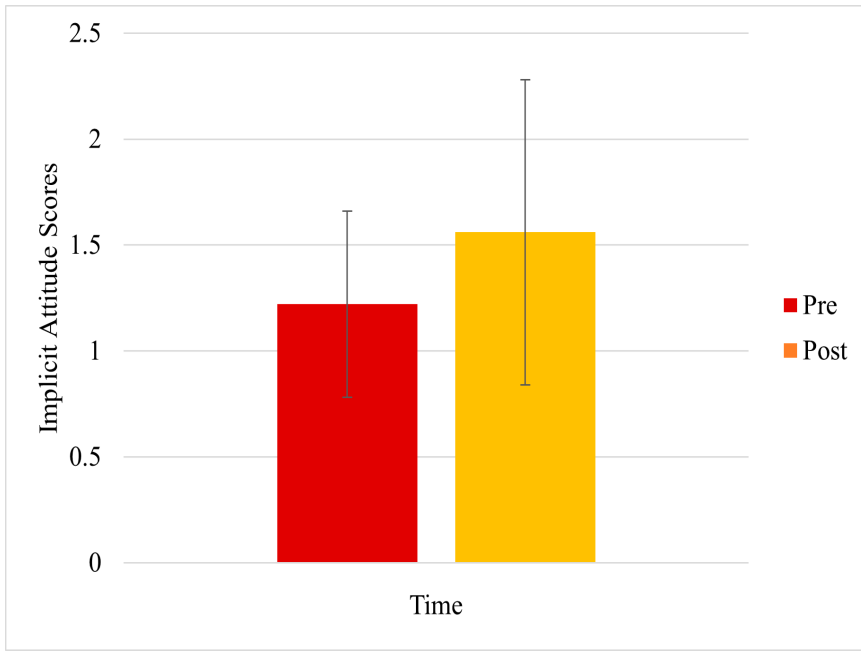
Correlations

A Spearman correlation coefficient between implicit and explicit attitudes was computed. As shown in Table 1, there were no significant correlations between implicit attitude_{pre-intervention} and explicit attitude, $r_s = .312, p = .414$, and between implicit attitude_{post-intervention} and explicit attitude, $r_s = .206, p = .595$.

Implicit Attitudes toward People with ID

As shown in Figure 1, implicit attitude had a mean of $M = 1.22$ ($SD = 0.44$) before intervention and a mean of $M = 1.56$ ($SD = 0.72$) after intervention. Wilcoxon signed rank test was calculated for these data and determined no significant difference in the implicit attitudes between pre- and post-interventions. However, the difference did approach conventional levels of significance, $z = -1.73, p = 0.08$.

Figure 1
Changes in the Implicit Attitude Scores



Explicit Attitudes Toward People with ID

The mean scores for students were 48.67 (SD = 5.72) and the mean scores for volunteers were 57.53 years (SD = 14.17). The Mann-Whitney test was calculated, which showed no significant difference in the implicit attitudes between students and volunteers, $z = -1.37$, $p = 0.17$.

Discussion

The current study aimed to assess the efficacy of a multi-strategy intervention to reduce implicit and explicit disability bias. First, consistent with past findings (Chen et al., 2011; Wilson & Scior, 2015), we did not observe statistically significant results between implicit and explicit attitudes. According to Devine's (1989) dissociation model, implicit and explicit measures may tap distinct knowledge structures. Further, in the present study, students reported strong implicit disability bias before the intervention, suggesting these sport managers did have unconscious prejudice that may inform, without recognizing it, their interactions with people with ID. The results of the implicit disability bias could be problematic. Because

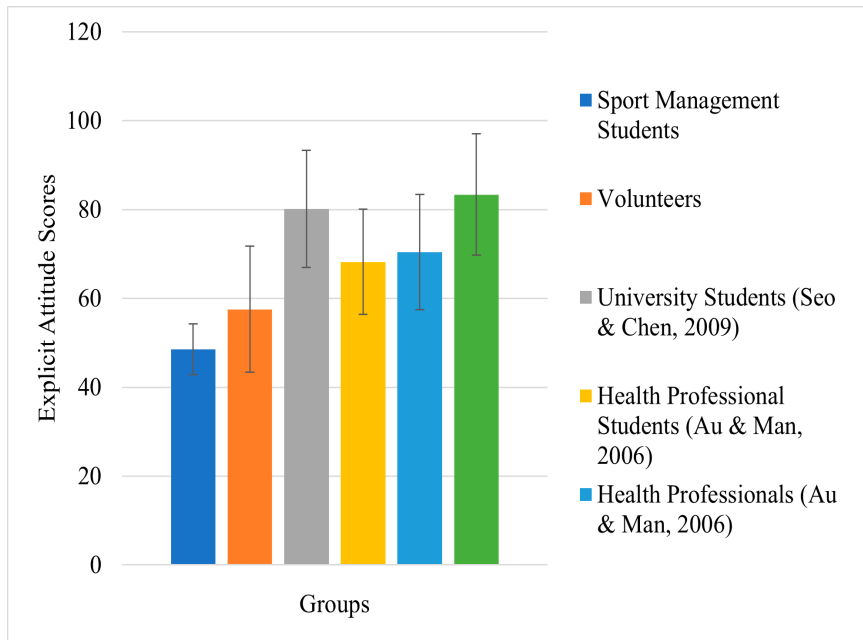
of the unconscious nature of implicit attitudes, sports managers may fail to provide accessible equipment or spaces, use plain language when describing exercise programs and procedures, and make biased decisions about adaptation and modification in sports settings. Hence, future research should investigate how implicit disability bias can affect the associations between sports managers' behavior and people with ID.

Although implicit bias remains difficult to change, our findings seemed promising. The intervention achieved partial success since the mean value of implicit bias was reduced to a marginally significant level. Factors such as sensitivity to the concept of disease (Wilson & Scior, 2014) and contact with people with disabilities (Enea-Drapeau et al., 2012) appear to be associated with implicit attitudes. The current study showed that multiple strategies can effectively reduce bias by providing students with opportunities to increase their understanding of the nature of ID. Lastly, StarkVegas Fútbol Jamboree provided a situation-specific environment for greater contact with people with ID and evoked students' empathy toward people with ID. Face-to-face interactions increase people's knowledge about people with disabilities, and thus understanding the special needs of people with disabilities may further improve their attitudes toward disabilities (Yildirim Haciibrahimoğlu & Ustaoglu, 2020).

Importantly, as shown in Figure 2, after StarkVegas Fútbol Jamboree, the mean ATDP-O scores for the respondents in the current study were, however, still lower than other university students (Seo & Chen, 2009), healthcare professionals and students (Au & Man, 2006) and teacher education majors (Marsh, 1983). Hence, it was determined that this could be due to the duration and quality of intervention (Babik & Gardner, 2021). For example, six- to eight-hour-long interventions involving eating lunch, chatting, playing games such as Bingo and Hot Potato, engaging in crafts, and dancing with people with disabilities and participants improved their attitudes toward people with disabilities (Hsiao, 2022). Moreover, participants may not have had prior contact or early experience with an individual with a disability, which may also affect their attitudes toward people with ID (Goddard & Evans, 2018). StarkVegas Fútbol Jamboree was a half day event. Only a three-hour-long observation, therefore, may also fail to reduce bias in students and volunteers.

Figure 2

Explicit Attitude Scores Compared to Other Studies



Some limitations in this study need to be addressed. A convenient sampling method was used. First, external validity and generalizability may not be strong enough due to the small sample size recruited from a college town in the Southeast. Second, although no significant difference in implicit attitudes with a moderate to strong effect size. This preliminary result is promising but needs to be replicated with a large sample size to validate the effectiveness of the course strategies. Third, more duration and quality contact experiences can help to validate the changes in attitudes towards people with ID.

Attitudinal barriers may hinder the inclusion of people with ID into our communities. However, the present study suggested that the impact of strategic interventions and a community-inclusive sport event through a sport event and facility management course may lead to changes in implicit attitudes toward people with ID among sport management graduate students. By training students to be able to work in a diverse environment, the improvement in disability sport and quality of life in people with ID may be feasible in the near future.

Compliance with Ethical Standards

Disclosure of potential conflicts of interest: Authors have no conflicts of interest to declare in reference to this work.

Research involving human participants and/or animals: All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards.

Informed consent: Written informed consent was obtained from the participant(s) for their anonymized information to be published in this article.

References

- Adam, S. L., & Morgan, K. A. (2018). Meaningful components of a community-based exercise program for individuals with disabilities: A qualitative study. *Disability and Health Journal, 11*(2), 301–305. <https://doi.org/10.1016/j.dhjo.2017.12.007>
- Administration for Community Living. (2022, October 11). *The President's Committee for People with Intellectual Disabilities (PCPID)*. <https://acl.gov/programs/empowering-advocacy/presidents-committee-people>
- Albaum, C., Mills, A., Morin, D., & Weiss, J. A. (2022). Attitudes toward people with intellectual disability associated with integrated sport participation. *Adapted Physical Activity Quarterly, 39*(1), 86–108. <https://doi.org/10.1123/apaq.2021-0034>
- Allport, G. (1954). *The nature of prejudice*. Addison-Wesley.
- Au, K. W., & Man, D. W. (2006). Attitudes toward people with disabilities: A comparison between health care professionals and students. *International Journal of Rehabilitation Research, 29*(2), 155–160. <https://doi.org/10.1097/01.mrr.0000210048.09665.1c>
- Babik, I., & Gardner, E. S. (2021). Factors affecting the perception of disability: A developmental perspective. *Frontiers in Psychology, 12*, 2459. <https://doi.org/10.3389/fpsyg.2021.702166>
- Centers for Disease Control and Prevention. (2022, May 19). *Disability and Health Data System (DHDS)*. <http://dhds.cdc.gov>
- Chan, F., Hedl, J. J., Parker, H. J., Lam, C. S., Chan, T. N., & Yu, B. (1988). Differential attitudes of Chinese students toward people with disabilities: A cross-cultural perspective. *International Journal of Social Psychiatry, 34*(4), 267–273. <https://doi.org/10.1177/002076408803400404>

- Chen, S., Ma, L., & Zhang, J. X. (2011). Chinese undergraduates' explicit and implicit attitudes toward persons with disabilities. *Rehabilitation Counseling Bulletin*, 55(1), 38–45. <https://doi.org/10.1177/0034355211400208>
- Commission on Sport Management Accreditation (COSMA). (2016). *Commission on sport management accreditation: Accreditation principles manual & guidelines for self-study preparation*. <http://www.cosmaweb.org/accreditation-manuals.html>
- Dagnan, D., & Waring, M. (2004). Linking stigma to psychological distress: Testing a social-cognitive model of the experience of people with intellectual disabilities. *Clinical Psychology and Psychotherapy*, 11, 247–254. <https://doi.org/10.1002/cpp.410>
- deLaat, S., Freriksen, E., & Vervloed, M. P. (2013). Attitudes of children and adolescents toward persons who are deaf, blind, paralyzed or intellectually disabled. *Research in Developmental Disabilities*, 34(2), 855–863. <https://doi.org/10.1016/j.ridd.2012.11.004>
- Devine, P. (1989). Stereotypes and prejudice: Their automatic and controlled components. *Journal of Personality and Social Psychology*, 56, 5–18. <https://doi.org/10.1037/0022-3514.56.1.5>
- Enea-Drapeau, C., Carlier, M., & Huguet, P. (2012). Tracking subtle stereotypes of children with trisomy 21: From facial-feature-based to implicit stereotyping. *PLOS ONE*, 7(4), e34369. <https://doi.org/10.1371/journal.pone.0034369>
- Ferrara, K., Burns, J., & Mills, H. (2015). Public attitudes toward people with intellectual disabilities after viewing Olympic or Paralympic performance. *Adapted Physical Activity Quarterly*, 32(1), 19–33. <https://doi.org/10.1123/APAQ.2013-0083>
- Goddard, C., & Evans, D. (2018). Primary pre-service teachers' attitudes towards inclusion across the training years. *Australian Journal of Teacher Education*, 43(6), 122–142. <https://doi.org/10.14221/ajte.2018v43n6.8>
- Greenwald, A. G., McGhee, D. E., & Schwartz, J. L. K. (1998). Measuring individual differences in implicit cognition: The implicit association test. *Journal of Personality and Social Psychology*, 74(6), 1464–1480. <https://doi.org/10.1037/0022-3514.74.6.1464>
- Hsiao, Y. J. (2022). The impact of interaction with adults with disabilities on preservice general education students' attitudes towards disability and inclusion. *International Journal of Disability, Development and Education*, 69(4), 1373–1388. <https://doi.org/10.1080/1034912X.2020.1787752>

- Kleintjes, S., Lund, C., & Swartz, L. (2013). Barriers to the participation of people with psychosocial disability in mental health policy development in South Africa: A qualitative study of perspectives of policy makers, professionals, religious leaders and academics. *BMC International Health and Human Rights*, *13*(1), 1–10. <https://doi.org/10.1186/1472-698X-13-17>
- Lord, E., & Patterson, I. (2008). The benefits of physically active leisure for people with disabilities: An Australian perspective. *Annals of Leisure Research*, *11*(1–2), 123–144. <https://doi.org/10.1080/11745398.2008.9686782>
- Marsh, J. C. (1983). *Attitudes of preservice and inservice teachers toward disabled children* (Doctoral dissertation, Texas Tech University).
- Paterson, L., McKenzie, K., & Lindsay, B. (2012). Stigma, social comparison and self-esteem in adults with an intellectual disability. *Journal of Applied Research in Intellectual Disabilities*, *25*(2), 166–176. <https://doi.org/10.1111/j.1468-3148.2011.00658.x>
- Pitts, B. G., Shapiro, D. R., Piletic, C. K., & Zdroik, J. (2022). Examination of disability-related content across sport management textbooks. *Sport Management Education Journal*, *16*(1), 42–54. <https://doi.org/10.1123/smej.2021-0024>
- Seo, W. (S.), & Chen, R. K. (2009). Attitudes of college students towards people with disabilities. *Journal of Applied Rehabilitation Counseling*, *40*(4), 3–8.
- Shapiro, D. R., & Pitts, B. G. (2014). What little do we know: Content analysis of disability sport in sport management literature. *Journal of Sport Management*, *28*(6), 657–671. <https://doi.org/10.1123/jsm.2013-0324>
- Wilson, M. C., & Scior, K. (2014). Attitudes towards individuals with disabilities as measured by the Implicit Association Test: A literature review. *Research in Developmental Disabilities*, *35*(2), 294–321. <https://doi.org/10.1016/j.ridd.2013.11.003>
- Wilson, M. C., & Scior, K. (2015). Implicit attitudes towards people with intellectual disabilities: Their relationship with explicit attitudes, social distance, emotions and contact. *PLOS ONE*, *10*(9), e0137902. <https://doi.org/10.1371/journal.pone.0137902>
- Yıldırım Hacıbrahimoğlu, B., & Ustaoglu, A. (2020). The acceptance of Turkish kindergarten children toward children with disabilities. *European Early Childhood Education Research Journal*, *28*(3), 391–412. <https://doi.org/10.1080/1350293X.2020.1755487>

Yuker, H. E., & Hurley, M. K. (1987). Contact with and attitudes toward persons with disabilities: The measurement of intergroup contact. *Rehabilitation Psychology, 32*(3), 145–154.