Journal of Psychology & Psychotherapy

A Case Study Exploring Attitudes about People with Disability: Evaluating the Intergroup Communication Intervention

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Abstract

Objective: Several entities have been implementing measures to improve individuals' attitudes toward people with disability (PwD) with varying successes. This study aims to use the case of an intergroup interaction program (Intergroup Communication Intervention; ICI) to explore issues related to PwD-attitude change, especially how attitudes may change for better or for worse, as a part of the intergroup communication. The goal of the ICI is to positively affect college students' attitudes about out-group members through systematic, supported, longitudinal intergroup contact.

Methods: This study employed a case study methodology to identify factors that impact college students' attitudes toward PwD. Twenty-four students from a Midwestern University partnered with PwDs at a local residential facility and wrote reflective notes about their experiences. The notes were analyzed using a qualitative evaluation methodology.

Results: Findings showed that students' attitudes toward PwD changed during the relationship building process; specifically, when they focused on the capabilities of PwD instead of their disability and as they confronted their inherent biases about PwD. Students also described more PwD observed comfort with and disclosure to students more after consistent interactions.

Conclusion: We suggest that intervention programs aimed at improving attitudes about PwD should be longitudinal and include opportunities for direct interaction between PwD and differently-abled individuals.

Impact and Implications

- This study examines a communication-based intervention grounded in Intergroup Contact Theory as an important tool in improving attitudes between in-groups and out-groups.

- The equality and face-to-face benefits of these types of interventions can be leveraged by scholars to create supportive environments for trust building between differently-abled individuals and PwD and to develop PwD's social and interpersonal skills.

- Institutions of higher education should cooperate with local communities to provide extensive training in order to motivate young adults to engage in community-engaged programs.

- Communication technologies (e.g. Kindle and iPads) should be included in PwD intervention programs as they can help bridge differences and start conversations between PwD and differently-abled individuals.

Introduction

People with disability (PwD) have long been stigmatized in society due partly to systemic and individual-level factors that make marks of physical abilities the yardstick for deciding eligibility and competence. This phenomenon induces discrimination against and stereotyping of PwD as they are given the status of the "Other" and are judged even before their capabilities are assessed. The stigmatization, discrimination, and stereotyping of PwD can adversely impact their self-esteem, overall health outcomes, quality of life and the effectiveness of health intervention programs [1,2].

To address this issue, researchers, scholars and government agencies have made concerted efforts to change societal attitudes toward PwD and ultimately improve the overall health of society. In the U.S., one such effort is the Americans with Disability Act (ADA) Congress passed in 1990 to ensure full inclusion of PwD in society with the ultimate aim of improving their quality of life. The ADA criminalizes disability-based discrimination in employment, transportation, and public accommodation (U.S. Department of Justice, 2009). Although the ADA "is helping to improve both the self-esteem of people with disabilities, and how they are perceived by others" [3], more work still needs to be done as some people in society still harbor negative attitudes toward PwD. The National Council on Disability Progress Reports [4] indicated increasing disparity between people with and those without disability such that PwD have lower employment rates, limited access to technology, healthcare, housing, and are more likely to live in poverty than the rest of the population. The 2013 NCD report noted that measureable progress has been made over the years to ensure improved wellbeing of PwD, but acknowledged that significant challenges remain.

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As observed by some scholars, legislation alone is not enough to change attitudes and behaviors toward PwD; action stemming from focused research "can help address concerns of individual able bodied persons and perhaps help them overcome some of their discomfort about communicating with persons who have disabilities" [5]. One way to accomplish this may be through programs that bring PwD and their differently-abled colleagues together in an environment that fosters reciprocal learning and dissolves stereotypes.

College students may be a viable target population because of their ability to participate in programs and activities that change attitudes toward PwD, especially through coursework. Kahl [6] proposed that service learning and community engagement opportunities at the undergraduate level are necessary to bridge the gap between communication scholarship and practice. Past studies have tested initiatives designed to alter college students' attitudes toward PwD and the results have been largely positive [7,8]. However, these studies focused primarily on students whose programs of study mandated some form of exposure to PwD. Thus, there is some gap in knowledge about how attitude-altering initiatives will work among college students whose fields of study and whose occupations do not directly involve contact with PwD. Our study endeavors to embrace that gap in research and programming.

We provide a qualitative evaluation [9] of an Intergroup Communication Intervention (ICI) designed to improve college students' attitudes about PwD through systematic, supported, longitudinal intergroup contact. The ICI model is consistent with some past interventions developed to improve self-esteem, communication apprehension (CA) and contact with PwD and consequently, attitude toward PwD including systematic desensitization, cognitive modification, skills training/service learning and visualization [10-12]. The ICI is framed in Intergroup Contact Theory [13] and enables college students to learn more about an out-group population while at the same time building community between groups. The goals of the ICI in this project were to positively affect college students' attitudes toward PwD. Scholars have found that knowledge of disability and frequent contact with PwD can help improve attitudes toward this population [7,8,14]. Additionally, Authors found that self-esteem, audience-based communication apprehension reduction, and frequent contact with PwD can significantly impact college students' attitudinal change toward PwD, but did not test this finding. Finally, the ICI has been successful in affecting positive attitude change in other contexts. Therefore, the purpose of this study is to qualitatively evaluate the ICI in the context of college students' interactions with PwD.

We begin by discussing research related to attitudes toward PwD and frequency of contact. Next, we discuss intergroup contact theory [13] and explain how the ICI is grounded in ICT. Finally, we discuss the concept of community engaged learning, especially as it applied to group interaction, to contextualize the program/initiative this study utilizes.

Attitude toward PwD

Scholars have primarily defined attitude in terms of affect, cognition, and behavior that the concept triggers in people [15]. Shannon et al. [16] defined attitude as "an idea charged with emotion which predisposes a class of actions in a particular class of social situations and represents a complex interaction of cognitions, affective experiences, behaviors, and experiences" (p. 12). Attitude toward PwD is multi-dimensional, impacted by a host of factors and triggers a range of behaviors [17]. The social context, type of disability, education, age, level and frequency of contact with PwD, self-esteem and audience-based communication apprehension can influence attitude toward PwD [17-19]. Research suggests that people's attitude toward PwD can impact PwD self-esteem and the effectiveness of health promotion interventions for PwD [1]. Some scholars have argued that measuring attitudes toward PwD does not directly affect the lives of such people or influence behavior, especially if the attitude is general and not situated in a context [7]. However, disavowing attitudes toward PwD can negatively impact such people in numerous ways. For example, healthcare workers' attitudes toward PwD can impact the therapeutic process and the reintegration of PwD into society [14,20]. Therefore, we argue that it is important for research to identify factors that influence attitudes toward PwD as well as measures for improvement in order to improve the overall wellbeing of PwD and society at large.

Contact and attitude toward PwD

Frequency of contact with PwD can influence attitude toward PwD such that people who have more contact with PwD tend to have more positive attitudes toward these individuals than those with less frequent contact [7,14,21]. Estes and colleagues [14] found that students in occupational therapy had better attitudes about PwD than medical technology students. They attributed this difference to greater knowledge about disability and more frequent contact with PwD provided by the occupational therapy curriculum. Also, Tervo et al. [8] suggested that differential attitudes and behaviors toward PwD among nursing students, medical students, and other health professional students could be improved by increasing students' contact with PwD.

In the present study, the ICI intervention utilizes intergroup contact theory in conjunction with the above research about PwD to discover how systematic, supported, longitudinal intergroup contact with PwD might improve college students' attitudes toward PwD. We argue that as students interact and communicate with PwD, their understanding about these people will improve, leading to improved attitude toward PwD.

Intergroup contact theory

Intergroup contact theory (ICT) is often credited to Allport [22] and it holds that opportunities for face-to-face interaction can help improve beliefs and attitudes toward groups of people about whom less is known or accurate information is lacking. Intergroup contact theory explains that face-to-face contact will be successful at correcting misconceptions and/or prejudice about groups of people if the groups are made to feel equal in status during the encounter, if they share common goals, if they work together toward achieving such goals and if the contact has institutional support [13,22,23]. The theory is grounded in the premise that working together as equals toward a common goal will create a commonality among group members and thus shift the focus from differences onto the common goal.

Scholars have studied ICT for decades and research now confirms that the four conditions of contact proposed by Allport [22] are not necessary for reduction in prejudice but can facilitate the process [24]. Further, intergroup contact can reduce prejudice not only in situations of direct contact with a group but also when the contact is indirect [23,25]. This is because actual direct contact among people from different out-groups may be unlikely in most situations. However, positive attitudinal shift may occur when someone in the in-group interacts with someone in an out-group and interaction with an individual can facilitate positive feelings toward an out-group [26]. One explanation for this phenomenon stems from admiration or sympathy for the out-group [26]. For instance, Pettigrew [26] also explained that intergroup

friendship can reduce prejudice. The positive effects of contact can be even more removed; for example, Joyce and Harwood [23] found that when individuals have positive indirect contact with members of an out-group through the media, it can positively influence attitude toward those outgroup members.

Copious research indicates that intergroup contact does reduce prejudice. For example, Pettigrew [27] found convincing evidence that intergroup contact can reduce prejudice attitudes. In a meta-analysis of 515 studies that used intergroup contact theory, Pettigrew et al. [28] found that intergroup contact theory does indeed reduce prejudice attitudes. ICT was originally theorized to explain for racial and ethnic encounters, however, recent studies have illustrated how intergroup contact can reduce prejudice toward people with disability, the mentally ill, people from different age groups, and those with different sexual orientations [24,28].

The intervention we evaluated is situated in an academic context. Pettigrew [13] found support for intergroup contact's ability to positively shift attitudes within school settings. We propose that community engaged group work could contribute to positively affecting attitudes about various populations. The ICI utilizes community engaged learning (see also, service learning) as a context to facilitate systematic, supported, longitudinal interaction between diverse groups for the goal of improving in and out-group attitudes. The following sections describe how community engaged learning experiences contribute to positive attitude change.

Community engaged learning

Thus far we have established that negative attitudes toward PwD are problematic on multiple levels and that it is possible to remediate negative attitudes through intergroup contact. Some research discusses how attitudinal shift may occur as a facet of course curriculum [14], but the shift not necessarily an intentional effect and the curriculum highly concentrated within health related majors. The ICI is designed to be executed within communication coursework, but could be applied in a number of different disciplines. The ICI stimulates systematic, supported, longitudinal contact between students and PwD through a community engaged learning projects.

Many studies demonstrate that community engaged learning, also called service learning, enhances students' sense of civic duty, self-esteem, social awareness and even positive academic consequences [29]. As a whole, community engaged pedagogical projects provide positive outcomes for students on a personal, academic and a community level, while at the same time improving knowledge, beliefs and attitudes toward those served in such projects. Additionally, research has shown that people who are active in volunteer work are more likely to feel a sense of social responsibility and act on that responsibility [30]. Participation in community engaged learning during college can impact participants' behavioral outcomes including the likelihood to donate to their alma mater, socialize with more diverse groups and volunteer within their communities [31].

Some research has examined community engaged learning in the context of disability. Anderson et al. [32] examined medical and social work students who participated in a community engaged learning project with a disabled community with project goals of encouraging team collaboration and effectiveness. Students' post-reflection scores indicated that 90.9% of social work students and 86.7% of medical students felt an appreciation for and more positive view of PwD. Thus, community engaged learning projects have the potential to positively affect both in and out groups. Additionally, many of these projects are completed in groups.

Group work

Group work is the process of adjusting and increasing participation in community activities among members of groups. Some research and service learning theory suggests that working in groups can create a greater attitude change [33], due to the groups' need for cohesion. This is consistent with some theoretical frames in small group communication including group dialectical perspective and social group comparison theory [34]. The initial intent of much group work instituted in college classrooms is to help students become more skilled in teamwork and communication for future careers [35]. As time progressed research uncovered additional benefits of group work including self-development. That is, the group would begin as a collection of individual self-identities, but after time, a few students would anchor themselves, possibly with one or two establishing themselves as forerunners or leaders. The remaining members would then quickly assess the group dynamics and adjust their identities to fit the needs of the group. A final component of the ICI is that students interact with PwD in a group throughout the semester instead of individually.

Qualitative program/process evaluation

We employ a case study methodology [36] and a qualitative evaluation method [9] to identify and understand factors that may influence younger adult's attitudes toward PwD in order to move toward an ultimate goal of improving PwDs' overall wellbeing. One strategy that is particularly appropriate in this context is a qualitative evaluation approach that allows for integration of interdependent dimensions into a whole that is placed in context [9], especially as social desirability may be heightened in this context and self-report survey data may not be the most powerful evaluation strategy. This study aims to use the case of an intergroup interaction program (ICI) to explore issues related to attitudes about PwD, especially how attitudes may change for better or for worse, as a part of the intergroup communication.

Method

Procedure

The first author met a representative from a local residential facility for adults with developmental disabilities at an on campus event. They met at the residential facility in 2012 to discuss engaging the residents in the ICI project with university students. The first author and the facility representative (the recreation coordinator) brainstormed a schedule for interactive training, face-to-face interaction both at the facility and on campus (to facilitate feelings of equality), the common goal residents and students would work toward, and confidentiality agreements.

During the first two classes, the first author explained the ICI project as well as voluntary data collection to students who were enrolled in a Health Communication class at a mid-sized Midwestern University. Students were divided into groups of 4-5, based upon pre-test surveys measuring attitudes and comfort level of working with PwD as well as schedule cohesion. Each student group partnered with one PwD. The first author and facility representative brainstormed initial common goals for each group, but gave groups latitude for ongoing goal modification based on interaction. Groups initially began by exploring touch screen devices (e.g. Kindle, iPad) because facility representatives believed interacting with new communication technologies would be beneficial to the residents on an educational and interactive level. Before meeting with PwD, student groups discussed possible ways to utilize the touch screen devices with the facility residents and participated in a training session via telecommunication explaining how to interact with the residents and what to expect behavior wise. The ICI groups were

encouraged to meet multiple times, both on and off campus, including on campus visits in the classroom and having lunch together at campus. The students and PwD met approximately twice a month, twice on campus and then again twice at the residential facility.

During the course of the ICI project, each student was required to complete various individual ethnographic field notes entries as well as one collective group assignment. Students were informed that while participation in the class project was mandatory, agreement to allow the first author to analyze their data was voluntary, and thus students provided informed consent for permission to use their ethnographic field notes for this study. However, the first author did not collect informed consent agreements until after the final exam day, and did not review them until after reporting final grades, to help students feel confident that refusing to participate in data collection would not negatively affect their evaluation. Students understood and agreed to have their data used. Authorship includes the professor who taught the course (first author) and one undergraduate student who was enrolled in the course, as well as two graduate students who were not actively involved in the ICI, to provide balance in perspective.

Ethnographic field notes

The first author, facility representatives, and the human subjects review board administrator developed the data collection strategy through several meetings. We decided that the data collection strategy that most protected both university students and PwD was to have students complete ethnographic field notes as a fulfillment of coursework to be analyzed after course completion.

Students recorded and submitted their observations about their group interactions with PwD. Students met adults with developmental disabilities at least three times over the course of a semester for this project: twice was that the community group visits on campus; the other was that students visited community partner at their location. All students had the opportunity to be present for these three visits, although were encouraged to arrange more visits at the community partner's location. All field notes needed to be typed and submitted within 24-36 h of their meetings.

The content of ethnographic field notes assignment included detailed and story notes based on student observations. Students were provided with the following cues to guide their observation notes: who is involved, setting, interactions, impression, the way people communicated with verbal and nonverbal cues, and the meaningful content of conversation and interaction. Students were advised to complete field notes during and after interacting with PwD and work to create the story of the experience for readers and researchers. Students also included summary comments to frame their experiences. This was an instruction provided by the course professor to help encourage detailed ethnographic notes.

Institutional support was high at project outset. The first author was well supported by the on campus office of service learning and well as the university's human subjects review board. Together the first author and facility representatives partnered to create an understanding of expectations and agreements. This method is highly appropriate strategy to investigate the process of attitude change through supportive intergroup contact as it relies on "detailed descriptions of how people engage with each other" (p. 159), captures experiences in students own words, cannot be summarized with a single rating at one point in time and highlights participants perceptions as key process considerations [9].

Participants

Participants included 24 students between the ages of 20 and 51 (M=24.29; SD=7.10) and four residents. The majority of student participants (92%) were between the ages of 20 and 25. Eight of the students were males (33%) and sixteen were females (67%); one was a sophomore, nine were juniors and 14 were seniors. In terms of ethnicity, four of the students identified as African-American, one identified as Asian-American, one as Mexican-American, and eighteen considered themselves Caucasian. As per the agreement arranged with leadership at the residential facility for adults with developmental disabilities and the university human subjects review board, PwD did not actively participate in the completion of data (e.g. interviews, surveys), and we collected very little data about these individuals. Instead, students were permitted to record their interactions with the PwD in the form of detailed ethnographic field notes. Each student completed between two and five ethnographic field note entries, with individual entries ranging from 649 words to 6569 words. Participating residents were selected by facility representatives based upon degree of disability and sociability. All were adults older than the traditional college student. One was a Latina/Hispanic woman, two were African American men, and one was a Caucasian woman. We use pseudonyms to describe both students and PwDs in the results to protect participants' anonymity.

Group 1 was partnered with Lupita, a Latina/Hispanic woman. Six students completed 27 total field notes, for a sum of 20,660 words for all field notes. Group 2 was partnered with Reggie, an African American man. 6 students completed 25 total field notes, for a sum of 18.171 words. Group 3 was partnered with Opal, a Caucasian woman. Six students completed 17 total field notes, for a sum of 12,989 words. Group 4 was partnered with Nathan, an African American man. Six students completed 18 total field notes, for a sum of 13,081 words. Across all groups there were 68,201 words (87 total files). There were no significant differences across groups or by biological sex of students in how much the students wrote about their experiences.

Students visited both the day and evening residential facilities, and PwD visited campus several times. Each student completed between 0 and four on campus field note entries, ranging from 0 to 3088 words per entry and between 0 and four residential facility entries, ranging from 0 to 2537 words per entry. There were no significant differences across groups or by biological sex of students in how much the students wrote about their experiences on or off campus and no significant differences between length of on vs. off campus field note entries.

Analysis

We used thematic analysis [37] to code students' ethnographic field notes. First, because two of the authors had participated in the project in different capacities, we created codenames for each student and changed every mention of every name in every entry to the code name. All four authors independently read students' field notes, which were organized by group and met a week later to deliberate and discuss emerging themes. We created a preliminary codebook with initial themes during this meeting. The authors went back to independently code students' field notes entries again using the codebook as a guide; they communicated and provided feedback to each other via email. The authors met again for two and a half hours to discuss edits to the codebook based on the first round of coding and to select illustrative quotes/examples for each theme. Then we intentionally allowed the data to sit for about six months to gain perspective and distance for those who were active participants (first author and undergraduate student author). During this time we went back through our theoretical

memos to document our emerging understandings. The next round of major coding was completed by the first author and a graduate student and was confirmed by the undergrad class participant and second graduate student. Disagreements during the thematic analysis process were resolved through discussion.

Using Wiggins and McTighe's definitions for empathy, self-knowledge and perception, we analyzed each field note entry for each individual student for displays of those characteristics. We also analyzed student's field notes to determine if a notable change in attitude occurred in the progression of the project. Finally, we analyzed each individual field note entry in comparison to the entries of the individuals in that groups to determine if any one member held an impact over the course of the attitude change.

Explanations

Students' field notes helped explain our overarching research question about how students' overall attitudes toward PwD shifted throughout the project. The ICI provided students the opportunity to learn about PwD, including their interests and capabilities, and encouraged students' increased appreciation for the ways in which PwD are different from them. However, some students reported negative experiences and this sub-theme is especially useful for intervention designers. Students also reported that PwD appeared to grow more comfortable with students during the project. Finally, our analyses revealed that the group design of the ICI positively affected students' ability to adapt to the interaction and the self-comparison to group members was fundamental in the positive attitudinal change. These findings are discussed in the themes below and illustrated with quotes.

Attitude toward PwD

Students reported improved attitudes toward PwD and satisfaction with the program and the learning experience. Students used words such as "positive," "pleasantly surprised" and "successful" to describe their experiences with PwD. Additionally, we found that PwD also felt more comfortable interacting with students with subsequent visits. However, some students expressed negative feelings about their contact with PwD when they felt threatened by or uncomfortable in the presence of PwD. We discuss these findings in the sub-themes below.

Improved attitude toward PwD: Students acknowledged how working with PwD enabled them realize long-held biases, which made them uncomfortable interacting with PwD initially. Some of these biases included notions that PwD would not be able to use gadgets such as tablets and cell phones, that they could not read or write, or that they would have limited knowledge about popular culture. Students reported that these biases stemmed from lack of exposure with and knowledge about PwD. For instance, one student noted, "My level of discomfort was very high. It made me feel bad that my ignorance of never having been exposed to this type of situation was getting the best of me." Subsequent observations detailed how, because of the opportunity to interact with PwD, students were "pleasantly surprised" by the capabilities of PwD. For example, Joe wrote, "To me it was fascinating that these individuals are such hard working/active/involved/good hearted people; they seem to be overall more proactive than most people." Chloe also shared that "Lupita was a very interesting and high functioning person to talk with and learn about, and I was impressed by all of the things she had accomplished." Some students, like Keaton wrote observations that illustrated an intergroup mechanism for positive shift in attitudes:

Instead of focusing on what we know about disabilities or communication with disabilities we need to address our focus on Nathan's

abilities. Doing so allows for me at least to ignore and almost forget about the disability and see him as a peer rather than me being superior because of my abilities.

These quotes illustrate how frequent contact with PwD positively influenced students' attitudes toward PwD, as suggested in previous research [7,14,21]. Additionally, these quotes clarify how students changed the way they thought of or viewed PwD upon realizing that PwDs were content with their lives. For example, Damarian recounted,

The introduction phase allowed us to feel for what it is like to communicate with someone with a disability. It allowed me personally to calm my fears and clarify stigmas that are drawn from my experiences with people with disabilities and what is portrayed in the media.

The ICI prompted students' realization that their lives as able people and the privileges that afforded them could not be taken as the ideal that everyone else including PwD must aspire to have in order to be happy. Students were challenged to understand life from the perspectives of PwD. This was a significant teachable moment for many students who probably had previously considered their positions in life as the norm. Students mentioned shifting their focus from PwD's disability to the numerous capabilities they possessed which helped them better appreciate the lives of PwD. This recognition was crucial in the shift in how students viewed and related with PwD. We found consistent evidence in the field notes that once students stopped "feeling sorry for" PwD, they were able to appreciate these individuals' capabilities, and consider them equals – a crucial element of Intergroup Contact Theory. Thus, future intervention programs aimed at changing attitudes toward PwDs or other out-groups should center on helping the target population realize out-group member's capabilities, and focus on abilities instead of limitations. This finding also adds evidence of how equality goals in intergroup contact can be facilitated. Further, this realization was a product of students' own experiences, observation and reflection as opposed to information communicated by a figure of authority such as a professor, or a governmental agency, as is often the case. Individuals, especially students, would be more likely to resist new knowledge/information presented to them by an authority figure, supporting short-spanned attitudes change, if any at all.

This is not to suggest that attitude shift was easily facilitated. This change in attitudes was for students as most of them wrote about battling previously-held biases and how they had to consciously move past these. In terms of timing, we found that students started addressing biases after initial contact with PwD. Angel remarked,

I tried my hardest not to talk to her in a tone I would use with young children, but it was very hard because I know she has a mental disability. I wish I knew the extent of her disability. She talks slow and sometimes pauses to either understand what you're saying or to properly formulate her words.

Angel is one of many students who acknowledged a bias, for example that her tone of communication was inappropriate, but struggled to enact appropriate communication. Subsequent field notes from students spoke more about the success of conquering their biases, especially in the way they communicated with and appraised PwD. Overall, students attributed overcoming biases to the ICI program, providing evidence for interventions based in ICT executed in the college classroom, such as the intervention described in this study.

Improved comfort-level of PwDs

Our analyses also revealed improvement in the comfort PwD had when interacting with students. PwD's comfort level improved with

subsequent contacts with students. This is illustrated in the following quote: "Nathan really liked coming today and sitting and doing activities with us. He seemed very comfortable in the beginning of the meeting and even more comfortable in the end." Similarly, Chloe observed that "The more time we spent interacting with Lupita, the more comfortable she seemed talking to us because she would elaborate more on her answers to our questions and keep the conversation going a little more." In a later visit Chloe recorded that "Lupita was a little louder today when she would talk and laugh and I believe that it could have been the loud atmosphere or because she wasn't as shy around us after hanging out with us a little more." One of Chloe's group members, Nicole, wrote about how "Chloe and Joe helped [Lupita] a lot of the time; while playing the game Lupita actually came out of her shell even more during this visit." Students described the positive shift observed in the comfort level of PwD in their own groups as well as in others' groups. For example, consider the following quote from Lily during one of the visits where the group members were all in the same room:

I did notice that the community partner made more eye contact with the group members on this second meeting than she did on the initial meeting. Overall it seemed that all the groups were a little more talkative than the first meeting.

Evident in these quotes is how frequent contact facilitated building of relationships of trust between students and PwD, which helped PwD to open up to students. Additionally, our findings correspond with previous research that frequent contact is positively associated with positive attitude toward PwD [7]. The difference in our program is that the frequency of contact was stable through systematic, supported, longitudinal intergroup contact provided by the ICI, instead of the contact being an unintended byproduct.

Negative experiences

Finally, it is important to detail that students' experiences were not all positive. We also found a theme pertaining to negative experiences, such that when students felt threatened or uncomfortable they expressed negative feelings and discomfort in their interactions with PwD. This discomfort sometimes stemmed from behaviors exhibited by PwD that students were not accustomed to, largely concentrated in proxemics. For instance, during one of their visits to the daytime care facility, some PwD touched some of the students in a manner students considered inappropriate. Students expressed their discomfort in statements such as: "As we left the facility, I felt a little bit of relief and couldn't really stop thinking about the awkward situations that some of us experienced." Angel also elaborated "[The PwD] continued his fit of excitement and was jumping around. At one point he jumped too close to me and I flinched back. I felt bad for blatantly showing my discomfort." Chloe expressed a similar experience, especially related to physical proximity. She said, "Cory kept getting closer and closer to me while blatantly staring at me. I felt very awkward because I was not sure how to react I just kept slowly moving forward."

Although students shared negative experiences, observations such as these were few in comparison to the notations of positive attitude change. Some of these negative experienced may stem from a lack of sufficient preparation about what students would encounter when they visited PwD. This phenomenon should be explored in future research, especially as it pertains to intergroup contact interventions and appropriate training for in-group members.

Group work

Community-engaged research suggests that group work in the community can affect greater attitude change, consistent with small group communication perspectives such as group dialectical perspective and social identity perspective. The ICI is designed to be completed in groups. Our analyses revealed that this group design positively affected students' attitudinal shift, with self-comparison to group members functioning as a salient component.

Being in a group functioned as a form of support. Although most students did not know one another prior to the start of the project, we observed that students worked as teams and referred to one another by their first names. They also looked to one another for guidance and support in productively processing their apprehension toward PwD. Additionally, consistent with tenants of social group comparison theory [34], students made intragroup comparisons to assess their own performance. For example, Angel wrote, "I watched Chloe and Nicole especially interact with the residents with ease. It made me feel sort of jealous that I was unable to step outside of my comfort zone the way they were able to." Jackie also observed, "As far as my group members, Mira and Jenny did the most communicating with the resident while the rest of us observed and offered assistance when needed." Many students described how working in groups and observing the skills of their colleagues challenged them to reflect on and identify areas and/or issues in their lives that may be influencing their relationship/communication with PwDs.

The intragroup comparisons also included evidence of similar/different observations where students did not recognize a group member as superior. Self- and intragroup-comparison was fundamental to the attitudinal change we observed in students. Finally, students assisted one another to accomplish tasks they were assigned, capitalizing on their strengths (i.e. students with skills in one area would take a lead role while others worked in areas where they excelled). A full application of social group comparison theory in this context is outside the scope of the current paper, but should be explored in future research.

Discussion

The study explored how an Intergroup Communication Intervention (ICI) facilitated college students' improved attitudes toward PwD. Our analyses illustrated how the ICI was instrumental in improving students' attitudes toward PwD and also in improving the comfort level of PwD in interacting with students. We also found evidence of negative experiences and propose that negative experiences could be better mitigated with targeted training.

Our findings were consistent with prior research that knowledge about and prior contact with PwD were significant in improving attitude toward these individuals [7,14]. According to their peers, students who had prior contact with PwD or have careers in the health care system (e.g. Tiffany) performed better interacting with PwD than those who had not. Also, for all students, we found that it was after subsequent visits and contacts with PwD that student in-group members began addressing their long-held biases that interfered with their attitudes toward PwD. Our analyses also revealed that the group exposure allowed for social comparison that then contributed to students' reflection, growth, and positive attitude change.

We also found that the shift in the way students perceived PwD, focusing on their capabilities instead of their inabilities or disabilities, was crucial to the change in attitude toward PwD. Thus, with a change in focus came a change in attitude. Therefore, we argue that programs aimed at changing attitudes toward PwD should seek to bring the target population into direct contact with PwD, following the tenants of ICT,

as this will facilitate opportunities to observe the details of PwD's daily lives including the strength and determination required to navigate life. This will help in-group members to be more appreciative of PwD and subsequently lead to a positive attitudinal shift. Finally, this underscores the need for longitudinal intervention programs that allow in-group members the time to realize, reflect on, and address their own biases.

One temptation of sharing result related to intervention appraisal may be to report only positive results. Our findings reveal both positive and negative aspects of students' experiences. Specifically, we found that students expressed negative feelings and discomfort about their interaction(s) with PwD when they felt threatened by PwD. This is an important consideration, because when contact with out-group members is threatening or not voluntary it can lead to negative contact experience [24,28]. However, in our study, isolated reports of negative feelings did not affect the overall attitude toward PwD. We believe that this is due to both the longitudinal design of the ICI in that it gave students opportunities for frequent face-to-face contacts with PwD, as well as element of social comparison discussed above.

Implications and Recommendations

Various factors account for how differently-abled people relate with PwD. We qualitatively evaluated an intervention that allows for consistent contact between PwD and differently-abled people. We found improved attitudes toward PwD. One recommendation for practitioners is to utilize tenants of ICI such as equality and face-to-face contact to create an environment that fosters relationship building between ingroups and outgroups. Another recommendation is to facilitate opportunities or discussions that highlight PwD's the strengths and/or capabilities, including participating in activities PwD enjoy. Finally, we recommend constructing ingroups based on pretest measures that balance apprehensions, skills, and experiences of group members to best take advantage of social comparison. According to our study, these strategies could help ingroup members better appreciate the lives of PwD, leading to improved attitudes toward such individuals and benefitting society overall. Finally, we recommend reflection — whether in the form of ethnographic field notes (as in the current study) or reflective journals. We recommend that as individuals interact with PwD, they should be encouraged to reflect on their experiences in writing and to critically think about possible sources of biases and discomfort they may hold about PwD. Such an exercise is helpful in not only encouraging differently-abled individuals to acknowledge and own their biases but also helps them in taking steps to address these. Reflection is a recommendation for community and should be "continuous in timeframe as an ongoing part of the learner's education, connected to the intellectual and academic needs of those involved, challenging to assumptions and complacency and contextualized in terms of design" [38]. We also recommend regular communication with representatives of the outgroup community, in our case, facility representatives. As Wittenberg-Lyles and Goldsmith explained, feedback is essential to the engaged research process. Further, programs devised by scholars for the community must repeatedly adapt to reflect knowledge gleaned from agency professionals and the community members they serve.

Limitations and Future Research

This study is not without limitations. First, data were collected from students enrolled in a semester-long Health Communication course. The course is an elective for Communication majors but a required course for health care administration majors. The class was designated as a service-learning class in the university system, but not all students were aware of this designation. Although the project was explained on the first day of class and instead of students dropping more students added the class, because the course is required for some majors and only offered once a year, some students may have remained in the class "unwillingly." This situation could have affected their level of willingness to participate and relate with PwD. Also, data were collected over the course of one semester, but most students only had contact with PwD three times. We may have uncovered different themes if the students had had more contact-time with PwD. Future research could extend the frequency of contact between PwD and students.

Another limitation of this study was in the students' training. The first author and facility representatives had planned for facility representatives to travel to campus to administer training. Facility representatives' scheduling conflicts prohibited face-to-face training and this training was instead delivered in a mediated environment. This shift heightened students' feelings of uncertainty and apprehension. Further, the first author and undergraduate student author believe that the mediated training was not sufficient to prepare students for interactions at the facility. Proper training is essential to success, and would have likely mitigated some of the negative experiences students reported. The full effect of insufficient training should be examined in future research, perhaps from an expectancy violation framework [39].

Conclusion

This study examined the role of an Intergroup Communication Intervention (ICI) program in improving college students overall attitudes toward PwD. Findings suggest that the intervention was instrumental in improving students' attitudinal shift, as well as in PwD's improved comfort in interaction. The program afforded students the chance to experience the capabilities of PwD first-hand, thus providing a shift in focus from what PwD might be lacking or could not do to what they were able to do. This shift in focus influenced a change in attitudes toward PwD. Moreover, we found that frequent contact enabled PwD to open up to their differently-abled colleagues; this was key in improving their comfort level with differently-abled individuals and improvement in attitudes toward PwD. Elements of group interaction, such as social comparison, were essential to the success of this intervention.

References

1. Hamzat TK, Seyi-Adeyemo OR (2008) Health status, self-esteem and participation: A comparison between young adults with mobility disability and those without disability in a Nigerian community. Scand J Disabil Res 10: 166-178.

2. Zheng QL, Tian Q, Hao C, Gu J, Lucas-Carrasco R, et al. (2014) The role of quality of care and attitude towards disability in the relationship between severity of disability and quality of life: Findings from a cross-sectional survey among people with physical disability in China. Health Qual Life Outcomes 12: 1-21.

3. Frieden L (2010) Impact of the ADA in American communities.

4. National Council on Disability (2001) Progress Report 2011.

5. Braithwaite DO, Labrecque D (1994) Responding to the Americans with disabilities act: Contributions of interpersonal communication research and training. J Appl Commun Res 22: 287-294.

6. Kahl DH (2010) Making a difference: (Re)connecting communication scholarship with pedagogy. J Appl Commun Res 38: 298-302.

7. Stachura K, Garven F (2003) Comparison of occupational therapy and physiotherapy students' attitudes towards people with disabilities. Physiotherapy 89: 653-664.

8. Tervo RC, Palmer G, Redinius P (2004) Health professional student attitudes towards people with disability. Clin Rehabil 18: 908-915.

9. Patton MQ (2015) Qualitative research and evaluation methods: Integrating theory and practice. 4th edition. Sage, Thousand Oaks, CA.

10. Ayres J, Heuett B, Sonandre DA (1998) Testing refinement in an intervention for communication apprehension. Communication Reports 11: 73-83.

11. Kondas O (1967) Reduction of examination anxiety and 'stage-fright' by group desensitization and relaxation. Behav Res Ther 5: 275-281.

12. McCroskey JC (1972) The implementation of a large scale program of systematic desensitization for communication apprehension. Speech Teacher 21: 255-264.

13. Pettigrew TF (1998) Intergroup contact theory. Annu Rev Psychol 49: 65-85.

14. Estes JP, Deyer CA, Hansen RA, Russell JC (1991) Influence of occupational therapy curricula on students on students and ward persons with disabilities. Am J Occup Ther 45: 156-159.

15. Olson JM, Zanna MP (1993) Attitudes and attitude change. Annu Rev Psychol 44: 117-154.

16. Shannon CD, Schoen B, Tansey TN (2009) The effect of contact, context and social power on undergraduate attitudes toward persons with disabilities. J Rehabil 75: 11-18.

17. Gordon ED, Minnes PM, Holden RR (1990) The structure of attitudes towards persons with a disability: When specific disability and context are considered. Rehabil Psychol 35: 79-90.

18. Grand SA, Bernier JE, Strohmer DC (1982) Attitudes toward disabled persons as functions of social context and specific disability. Rehabil Psychol 27: 165-174.

19. Wong DW, Chan F, Cardoso E, Lam CS, Miller S (2004) Rehabilitation counseling students' attitudes toward people with disabilities in three social contexts: A conjoint analysis. Rehabil Couns Bull 47: 194-204.

20. Chubon RA (1982) An analysis dealing with the attitudes of professionals toward disability. J Rehabil 48: 25-30.

21. Yuker HE, Hurley MK (1987) Contact with and attitudes toward persons with disability: The measurement of intergroup contact. Rehabil Psychol 32: 145-154.

22. Allport GW (1954) The nature of prejudice. Addison Wesley, Reading, MA.

23. Joyce N, Harwood J (2012) Improving intergroup attitudes through televised vicarious intergroup contact: Social cognitive processing of in-group and out-group information. Commun Res 41: 627-643.

24. Pettigrew TF, Tropp LR (2006) A meta-analytic test of intergroup contact theory. J Pers Soc Psychol 90: 751-783.

25. Pettigrew TF, Christ O, Wagner U, Stellmacher J (2007) Direct and indirect intergroup contact effects on prejudice: A normative interpretation. Int J Intercult Relat 31: 411-425.

26. Pettigrew TF (1997) Generalized intergroup contact effects on prejudice. Pers Soc Psychol Bull 23: 173-185.

27. Pettigrew TF (2008) Future directions for intergroup contact theory and research. Int J Intercult Relat 32: 187-199.

28. Pettigrew TF, Tropp LR, Wagner U, Christ O (2011) Recent advances in intergroup contact theory. Int J Intercult Relat 35: 271-280.

29. Weiler L, Haddock S, Zimmerman TS, Krafchick J, Henry K, et al. (2013) Benefits derived by college students from mentoring at-risk youth in a service-learning course. Am J Community Psychol 52: 236-248.

30. Conway JM, Amel EL, Gerwien DP (2009) Teaching and learning in the social context: A meta-analysis of service learning's effects on academic, personal, social and citizenship outcomes. Teach Psychol 36: 233-245.

31. Astin AW, Sax LJ, Avalos J (1999) Long-term effects of volunteerism during the undergraduate years. Rev High Ed 22: 187-202.

32. Anderson ES, Smith R, Thorpe LN (2010) Learning from lives together: Medical and social work students' experiences of learning from people with disabilities in the community. Health Soc Care Community 18: 229-240.

33. Yates M, Youniss J (1996) A developmental perspective on community service in adolescence. Soc Dev 5: 85-111.

34. SunWolf (2008) Peer groups: Expanding our study of small group communication. Sage, Thousand Oaks, CA.

35. Colbeck CL, Campbell SE, Bjorkland SA (2000) Grouping in the dark: What college students learn from group projects. J Higher Educ 71: 60-83.

36. Yin RK (2009) Case study research: Design and method. 4th (Edn.), Sage, Thousand Oaks, CA.

37. Morse J, Field PA (1995) Qualitative research methods for health professionals. Sage, Thousand Oaks, CA.

38. Eyler J, Giles D (1996) A practitioner's guide to reflection in service learning. Nashville: Vanderbilt University.

39. Burgoon JK (1978) A communication model of personal space violations: Explication and an initial test. Hum Commun Res 4: 130-131.