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Student Reflections on an Intergenerational Service-Learning Program: Bingocize®

Doolittle, Sullivan, and Crandall

Abstract

Many university students have negative attitudes towards and a lack of interest to work with older adults. To help solve this problem, Bingocize®, a group-based health promotion program, was implemented in older adult communities as part of intergenerational service-learning-focused university courses. This investigation examined written reflections of participating students. Students reported benefits from being involved in the program including being more open to a career working with the elderly. The results suggest that Bingocize® can be an effective strategy for preparing future professionals to work with older adults.

Introduction

Current estimates indicate there are 56 million individuals aged 65 and older living in the US (United Health Foundation, 2022; US Census Bureau, 2022). This number is projected to increase to over 87.9 million by 2050 (Ortman et al., 2014). Eighty percent of these older adults are living with at least one chronic disease, and 70% have two or more (National Council on Aging, 2021).

As the population of older adults continues to increase, so does the need for additional physical and mental health services, and professionals to provide those services, in areas such as healthcare, social services, and recreation. Previous researchers suggested multiple disciplines are not training future professionals to address the growing needs of the aging population (Beauvais et al., 2015). Negative attitudes and lack of knowledge about aging contribute to a shortage of professionals willing to work with the aging population (Beauvais et al., 2015; Bolling & Graf, 2022; Chonody et al., 2014; Horowitz et al., 2010; Howell et al., 2021; Liu et al., 2021). To improve these attitudes, students need opportunities to reduce their own fears of aging and gain knowledge, skills, and experience they can use in a professional setting with older adults (Beauvais et al., 2015; Howell et al., 2021; & Snyder, 2006).

Providing opportunities for learning and experience outside of the classroom gives students the chance to apply the knowledge and skills learned in the classroom to real-world problems in the context of the community (Chorazy & Klinedinst, 2019). For example, Samra et al. (2013) found when empathy-building exercises were included in the training, medical students' attitudes were more positive toward older adults. In addition, these empathy-building exercises encouraged interaction or relatable exercises with older adults outside of a medical setting (Samra et al., 2013). Howell et al. (2021) found that as knowledge of older adults increased, healthcare students decreased their negative attitudes and increased their empathy for the population.

The growing older adult population will contribute to a continuing shortage of social work and other health professionals to care for them (Colby & Ortman, 2015). Unfortunately, many students, including social work and allied health students, avoid working with older adults due to negative and stereotypical attitudes towards and a lack of interest in working with this population (Bolling & Graf, 2022; Liu et al., 2021). Providing students experiential learning opportunities, like service-learning, may help solve this problem. In addition, the quality of the experiential learning experience is an important determinant for student success (Howell et al., 2021). Communication and partnerships between the community and the university ensure careful planning, monitoring, and assessment of service-learning activities, while buy-in from administration and faculty are needed to secure adequate resources such as funding and faculty time.

Interprofessional educational opportunities (IPE), defined as "two or more professionals learning about, from and with each other" offer students from different disciplines a chance to share experiences and to learn with and from one another (Yancey et al., 2018; p. 127). Such learning opportunities are more beneficial when they occur outside of the classroom in a real world setting and provide the opportunity for dialogue across disciplines (Howell et al., 2021; Miller et al., 2018).

Amy Doolittle, MSSW, Ph.D, is an Associate Professor in the University of Tennessee Chattanooga Social Work Program

Dana Sullivan, MSW, Ph.D, is a Professor at the Western Kentucky University Department of Social Work and Center for Applied Science in Health and Aging

Jason Crandall, Ph.D, is a Professor at the Western Kentucky University Center of Applied Science in Health and Aging

Service-learning is a high-impact experiential learning practice that is utilized to provide students with organized service activities that link the course content to real world practice experiences (Kruger & Pearl, 2016). An important component of effective service-learning is creating new learning and knowledge by providing students the opportunity and time to engage in critical reflection about their experiences. Through reflection, students can develop a deeper understanding of the course content and greater sense of personal responsibility (Bringle & Hatcher, 1995; Ehrlich, 1996; Eyler & Giles, 1999). Assigning students guided reflection assignments directs them to consider their own experiences and to explore new ideas related to the issues in which they are working.

Planning and implementing successful programs requires significant faculty time and effort without the guarantee of success. Access to pre-prepared and proven programs could make this process easier for faculty and more effective for students. One program that has this potential is Bingocize®, an evidence-based health promotion program that strategically combines the game of bingo, health education, and/or exercise. Trained leaders may select between separate 10-week workshops that focus on *exercise-only*, *exercise and falls prevention*, or *exercise and nutrition*. Each workshop includes a facilitator's script for each session, participants' materials, and "take home" cards for participants to complete exercises and tasks at home to reinforce the weekly health education information. Participants *play* Bingocize® twice per week, with each 45-60-minute session consisting of exercises (range of motion, balance, muscle strengthening, and endurance exercises) and/or health education questions. The overall goals of the program are to help older adults increase physical activity to improve and/or maintain mobility and independence; learn and use health information focused on falls reduction, nutrition, and other health-related behaviors; and socially engage with other older adults.

Bingocize® is a group-based health promotion program that can improve components of functional fitness including flexibility, balance, gait, muscular strength, and cardiorespiratory fitness in older adults across the spectrum of care including nursing homes (Crandall et al., 2019; Crandall & Steenbergen, 2015; Shake et al., 2018). Since 2011, multidisciplinary faculty from fields such as psychology, physical therapy, kinesiology, and social work assigned service-learning opportunities to students to help implement Bingocize® in a variety of older adult facilities. These experiences improved undergraduate exercise science students' attitudes towards older adults after implementing Bingocize® in a variety of older adult communities over the course of a semester (Crandall, 2014; Neils-Strunjas et al., 2018).

More research is needed about programs that provide the opportunity for students to work directly with the elderly. It is important to understand the impact these programs have on the students in terms of their knowledge, skill, and career choice. Better understanding the impact of the Bingocize® program on students will help the program developers and faculty ensure students, Bingocize® participants and faculty are utilizing the program to its greatest potential.

The focus of this investigation was psychology, kinesiology, social work, and physical therapy assistant undergraduate students enrolled in a service-learning embedded course at their respective universities during the 2018 and 2019 academic years. As part of the courses, the students implemented Bingocize® in assisted living communities, day treatment centers, community centers, and long-term care facilities. Students worked in interprofessional teams to implement Bingocize® in the community during the 2018-2019 academic year to help older adults exercise while engaging in a fun and socially engaging activity.

The purpose of this qualitative investigation was to determine if Bingocize® can be effectively used to impact student attitudes about working with older adults and aging. The written reflection papers of the students were examined to explore their reactions to assisting with the Bingocize® program, their perspectives of working in a multidisciplinary team, and if they felt they benefited personally and/or professionally from working with older adults living in a residential treatment facility. The purpose of this qualitative investigation was to examine student written reflections and the impact of assisting in the Bingocize® program facilitation on their attitudes toward older adults and their preparation for work in the field.

Methodology

Design

Courses that included a service-learning component with older adults in a long-term care setting and utilized the Bingocize® program were selected for inclusion in this project.

Description of Service-Learning Projects

Students in the courses were instructed to engage in the service activities a minimum of 1 hour per week over the course of 10 weeks. Prior to beginning the service activities, students completed the Bingocize® orientation to learn how to utilize the program in their assigned long-term care setting. Staff at the assigned centers were also trained in the Bingocize® program and supported the students as the program as delivered to the older adult residents. Students were instructed to assist in the delivery of the Bingocize® program; assist the older adults as they participated in the program; and engage in meaningful interactions with the residents, such as generating excitement about the program, engaging in conversations, and demonstrating how to participate in the program.

The Assignment

Students enrolled in the designated service-learning embedded courses were assigned to write a reflection paper at the end of the semester. The writing assignment included specific question prompts such as the most surprising aspect of facilitating the Bingocize® program, the most challenging aspect, the impact of the experience, how their views about working with the elderly changed from the beginning to the end of their involvement, areas where they needed additional guidance, and lessons learned they will use in the field. After the reflection papers were reviewed by the respective instructors of record, they were submitted to the Bingocize® program administrators. This archival investigation was approved by the Institutional Review Board.

Study Population and Size

Reflection papers ($N = 109$) from four separate academic disciplines were included in this project: kinesiology ($n = 60$), social work ($n = 4$), psychology ($n = 28$) and physical therapy assistant ($n = 17$).

Qualitative Analysis

This study utilized an inductive content analysis to identify themes in the student reflections. This approach has been defined as "a research method for the subjective interpretation of the content of text data through the systematic classification process of coding and identifying themes or patterns" (Hsieh & Shannon, 2005; p. 1278).

The first group of reflection papers ($n = 60$) was read by two of the investigators to assist them in getting familiar with the content and to begin developing a list of themes and patterns noted in the reflections that were related to the purpose of the research. This allowed the investigators to highlight sentences that were linked to specific ideas and develop what Koc (2011) identified as "coding units" or what Augustin and Freshman (2016) identified as coding patterns.

After the independent review of this group of reflections, the two investigators met to discuss their list of initial codes/identified themes. The investigators discussed the codes and themes until they had reached an agreement on the primary themes. Each time they found a discrepancy in their coding, they discussed the discrepancy until an agreement was reached. After this process, four themes had been identified. The two reviewers then read the remaining three groups of reflection papers ($n = 49$) using the four identified selective codes as the predetermined themes in which to read the reflections for responses that fit those themes (Creswell, 2009). The independent reviewers met throughout the process to compare and review to ensure no other themes had emerged. The four primary themes are discussed in the results section below.

Results

From the analysis of the reflections, the researchers identified four main themes: a) obstacles/challenges associated with the intervention implementation; b) lessons learned; c) changes noted in both students and clients/older adults; and d) impact of being involved in Bingocize®. It noted that the overwhelming majority of reflections were positive, so a theme containing negative experiences did not emerge.

Obstacles/Challenges Associated with the Intervention Implementation

In this theme, students' responses highlighted the overall obstacles and/or challenges they faced while assisting with the execution of the program.

Students generally talked about challenges motivating older adults to participate in the program, adjusting the exercises to the skill level of the older adults, overcoming their initial anxiety of working in groups in the long-term care facilities, needing equipment to make the exercises accessible, microphones to ensure they were heard by the older adults, reducing the pace to meet the older adults' needs, and helping older adults with mobility and/or memory impairments.

One student stated the most challenging thing about the program was "trying to get all the residents involved." Another student stated that "I wish I could have learned more about how to deal with residents who do not want to exercise at all. I know they do not have to if they do not want to; however, I would like to know more about how to encourage them without being pushy." Another student stated that "the most challenging part of Bingocize® was slowing myself down."

Lessons Learned

Many students reported unexpected lessons, sometimes even life lessons. For example, many generally discussed how they had preconceived stereotypes about older adults, but through this program, they learned those stereotypes were not true. They had previously thought that older adults were miserable and unable to do things on their own. Students reported they learned how engaging many older adults are and that many were happy, capable, and willing to participate in the program on some level. Some reported that they learned about the different health conditions, which had been reviewed in class, that affect older adults. Some students reported they learned the older adults had positive attributes such as being motivated, they were kind, charismatic, helpful to each other, and had a desire to live life to the fullest.

One student stated, "I'm so glad that my negative assumptions about older adults were baseless/ glad I was wrong!" Another noted that this population is "very determined and ready for whatever life throws at them." Another student stated, "I have learned …that there are many benefits to lifelong exercise." One student noted, "All of the participants were from different backgrounds and so it was really interesting to get to know each one of the individuals and their story."

Changes Noted in Students and Older Adults

Students generally talked about unexpected changes in themselves and the older adults. They recognized opportunities for change in their own views and ideas about working with older adults. They reported changes in their communication skills and abilities to work with others, having more confidence, and learning to make modifications in the program to meet differing ability levels of the older adults. They also reported changes in their level of empathy and respect for the aging population.

One student stated, ". . . I've always had the idea that perhaps I am not the person to work with older adults or special needs populations because I want to work with athletes, but after this project I am much more comfortable and confident that I can work with many different groups of people." Another student stated, "Before working with the Bingocize® (sic) residents, I absolutely did not want to work with the geriatric population. After this experience though, I realized that working with geriatrics would be a great job opportunity."

Students also noted increases in participants' level of excitement as the program continued, increases in the level of engagement with the students when they arrived for the program, and evidence of enjoying their participation in the program, e.g. laughing, competing with one another, and sharing their life stories with the students. They also noted some participants improved their ability to complete the exercise(s) in the program, engage with others, and have a good time.

The students noted changes in the participants' abilities over the course of the semester, "By the end of the experience, you could see that there was an improvement in the ability of some older adults compared to when we began our sessions." Similarly, a student reported that:

"What really surprised me the most was seeing the improvement in the residents on a weekly basis; whether it was their improvement in their mobility or just the improvement in their mental state of mind as well. You could just really see the happiness radiating from the residents while they were doing their exercises in between calling numbers for their bingo game."

Impact of Bingocize® Involvement

The overall impact of participating in Bingocize® was reflected in how the students were

personally impacted by facilitating the Bingocize® program. Students reported this experience changed their overall view of older adults, and it confirmed or helped them rethink their career choices. In general, students reported they were positively impacted by their involvement in the program and recommended the experience for all students. One student stated, "Bingocize® is a funny looking word that has changed my life forever!" Another stated, "My view of this population has changed completely." Another noticed that "[the participant] lit up when I was engaged in the conversation, and that made the conversation that much more special."

Others indicated the impact on them as follows:

"This experience impacted me for the better. It gave me patience, brought me joy, and taught us all so much."

"Bingocize® is amazing because it brings a fun activity and exercise together."

"I planned to go into exercise science, but now I think I'll use my degree to manage an assisted living community."

"I found connections I never knew I needed."

Discussion

Overall, the students reported feeling grateful for the service-learning experience, found it beneficial to their professional development, and highly recommended other students be involved in Bingocize®.

The student reflections revealed participation in this program led to more positive attitudes toward older adults, and this experience increased their knowledge and skills, preparing them to better meet the needs of the population when they begin their professional practice. These student experiences substantiate numerous research studies that demonstrate the benefit of intergenerational programming in decreasing ageist attitudes. (Beauvais et al., 2015; Liu et al., 2021; Snyder, 2006). This will hopefully lead to a workforce better prepared to work with elderly clients in institutional settings. This program helped build empathy in the students, which Samra et al. (2013) suggest leads to more positive attitudes toward adults. This experience gave the students an opportunity to challenge and address their personal biases and fears of working with older adults, as well as to gain more knowledge to overcome negative attitudes toward the population.

Learning opportunities outside the classroom and with other disciplines have been shown to be beneficial in applying knowledge and skills learned in the classroom (Chorazy & Klinedinst, 2019; Nichols et al., 2020; Yancey et al., 2018) and these results indicate that the Bingocize® program positively impacts students who will, in turn, make a difference in the lives of their clients/older adults throughout their career. This is a great opportunity to connect classroom lessons with real-life application and is a great example of service learning (Chorazy & Klinedinst, 2019; Kruger & Pearl, 2016; Nichols et al., 2020). The student reflections were an important part of the process (Bringle & Hatcher, 1995; Ehrlich, 1996; Eyler & Giles, 1999; Lott et al., 1997) and gave the students an opportunity to engage in critical reflection of the impact of the program on their own learning and applications to their future careers. The review of the reflections provided some areas where instructors and Bingocize® creators can modify the program to encourage and enhance student participation.

Bingocize® is a very important program to utilize in facilities as the older adult population is growing significantly (Ortman et al., 2014; US Census Bureau, 2019). More programs are necessary to provide for the physical and emotional needs of the population, and opportunities such as this for students will help fill a gap in the workforce (Beauvais et al., 2015; Chonody et al., 2014; Horowitz et al., 2010).

Limitations and Future Research

One of the limitations of this research was different question prompts for each discipline's reflection papers were used, which affected the coding process. Student responses have highlighted the need to standardize the reflection process. In addition, different older adult communities employed different levels of training and guidance by facility staff, which affected the students' experiences, thereby affecting their feedback about the process. Finally, this was an archival study utilizing a convenience sample, thus the results may not be generalized to similar populations and programs.

Future Research

The results of this investigation suggest there are, at minimum, course-specific short-term benefits to undergraduate students who facilitate the Bingocize® program in older adult communities. Determining if and how the Bingocize® program helps students connect with information presented in *other* courses may help strengthen the department and justify adding additional experiential learning experiences to the curriculum.

More research is needed to understand if the reported student benefits of the service-learning experience extend beyond the end of the course. Surveying students at various time points after graduation may help determine if the intergenerational service-learning experience produces longer-term benefits.

More research is also needed to determine how to better prepare students before initiating the Bingocize® program. Although all the participating students, regardless of discipline, were required to complete a one-hour online training, more preparation may be necessary to ensure they can successfully implement the program. Because many of the students who participated in the Bingocize® program were not kinesiology or exercise science majors, they did not have a background in exercise modifications or motivational techniques for older adults. More information focused on communicating with older adults, especially those suffering from dementia, may be needed for students.

In summary, Bingocize® appears to be a highly beneficial program for the participating university students. They also reported that the older adults with whom they worked looked forward to their visits each week and enjoyed the interaction. Though not a goal of the current research, previous studies have shown the benefits of Bingocize® for the participating older adults (Author et al., 2019; Author & Steenbergen, 2015; Shake et al., 2018). However, this is the first study to examine student outcomes. Future research should continue to explore the participant outcomes. In conclusion, Bingocize® allows multidisciplinary students the opportunity for collaboration, real-world experience, and skills needed for future professional careers.

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