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Odyssey of the Mind: Increasing Cognitive and Social Participation in Older Adults

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Description
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As part of the Innovative Practice Project, we piloted an Odyssey of the Mind program adapted for older adults at a local retirement facility called Cornell Estates. A prior study by Parisi, Greene, Morrow and Stine-Morrow (2007) was used as a foundation when developing the program. These researchers performed a qualitative study where a senior Odyssey of the Mind program was implemented with positive results. The older adults reported satisfaction with the increased opportunities to engage in intellectual stimulating activities and to interact with others (Parisi et al., 2007).

Disciplines
Occupational Therapy

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Odyssey of the Mind: Increasing Cognitive and Social Participation in Older Adults

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Introduction

Odyssey of the Mind was originally developed as a creative problem-solving, team-based international program for students in elementary school through college. Teams compete in multiple categories that include building structures with limited materials, performing theatrical adaptations from literary classics and solving hypothetical problems that can be related to real world issues. Teams are then awarded prizes based on creativity, effective use of materials and originality (Creative Competitions, Inc., 2006).

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The aim of this Odyssey of the Mind program was to increase cognitive function by improving memory, attention and concentration. The group activities required negotiating challenges through social collaboration and reciprocal knowledge sharing. Research has shown adults value the opportunity to maintain and expand their social networks while also participating in intellectually challenging activities (Parisi et al., 2007). A growing number of studies also support intellectual exercises can provide beneficial effects on an individual’s cognition (Ball et al., 2008).

Older adults face a series of health challenges that may affect their performance in meaningful activities. There can also be psychological stressors such as changes in their finances or the loss of a close family or friend. These significant life changes can cause increased rates of depression and anxiety. The Activity Theory of Successful Aging explains that it is vital for aging individuals to continue to engage in activities, making adjustments for physical or cognitive conditions that may affect performance (Havighurst, 1961). The underlying concept is that aging adults will continue to challenge their bodies and minds, maintain meaningful relationships which will increase their energy for ongoing engagement throughout their life. Odyssey of the Mind provides an opportunity for older adults to maintain this type of engagement.

Methods

Our program involved meeting resident volunteers over a period of 8-weeks, once a week for an hour. Each meeting followed a semi-structured format involving an exercise to increase cognitive performance as well as social participation opportunities that included all the resident volunteers. The large group would then split up into two teams of approximately 2 to 4 people to work on their long-term project.
Before the Odyssey of the Mind started, a needs assessment and survey found both the residents and staff at Cornell Estates had a desire for more accessible information about people living at this facility. Therefore, the long-term project for each team was to create an original resident directory. Each team decided on the content, layout, distribution, and function of the directory. The goal at the end of the 8-week program was to create a draft or template resident directory. A final competition and celebration was held to honor the hard work of each of the resident volunteers as well as carry out anonymous voting to award the team with the best directory design. The voting was open to all the residents at Cornell Estates as well as family members.

Over the course of the 8-week program, participants had to problem-solve issues around privacy, gather data on residents, make decisions and implement plans for templates. The resident volunteers generated multiple solutions to produce a draft directory. At the end of the project, open-ended surveys were given to the volunteers to assess their overall satisfaction with the program. Demographic data was also gathered on the resident volunteers to be used for future planning of Odyssey of the Mind projects.

Demographic data was obtained from surveys distributed by hand to project participants. Surveys were distributed in an ongoing process due to changing group dynamics and fluctuating attendance. Ten surveys were returned from an unknown number that were distributed. Of these, three were discarded because they were duplicates filled out by the same people. Of the seven valid surveys, three had missing information that revealed a design flaw in the survey. Project facilitators attempted to ascertain the job title of survey respondents during their past employment, but some respondents instead chose to share the name of the company where they worked. This reflects a need for clearer communication with respect to future survey design. Another limitation of the surveys relative to this population was the overall concern with privacy, and the fact that some participants were reticent to share personal information in writing with facilitators, even with assurances of anonymity.

Data obtained from the seven completed surveys reveal the following trends. In terms of age, the average age of the respondents was 84 and the median age was 86. Females made up the majority of respondents, with a ratio of females to males of 5:2. Five out of seven respondents were college educated or higher. The average date of last employment was 1991. In terms of type of work, four respondents listed their job title or functions: school psychologist, teacher, hospital administration, and pharmacist. With respect to the high level of education of the project participants, a possible future line of inquiry is whether there is a correlation between higher levels of education and the desire to stay mentally active as an older adult.
Results

After the completion of Odyssey of the Mind group meetings and competition, the data collected was reviewed and analyzed as well as the overall process. For the first year of this project, the implementation and process was the priority versus quantitative evidence involving measurements of cognitive function and/or mental well-being. However, the overarching goals were to maintain cognitive function and create an opportunity for older adults to socialize with others. The outcomes were measured by responses on the exit surveys and informal conversations with the residents. In the future it is hoped that more quantitative data can be collected with pre- and post-measurements of cognitive functioning and/or depression screenings to assess the impact of social participation.

The exit surveys were filled out by residents on the last formal group meeting. These surveys provided valuable information regarding the resident’s favorite part of the experience. These surveys had open-ended questions and statements associated with a Likert scale rating system with quantifiers such as “highly agree” to “highly disagree.” On the open-ended questions asking about what the residents liked about the experience, many volunteers noted the social aspect of working on a team as one of the most valuable parts of Odyssey of the Mind. Others mentioned being with younger adults, creating a final product and being useful. On the Likert scale statements the residents put “highly agree” on statements such as “I would participate in Odyssey of the Mind again”; “I liked working with others on this project” and “The ‘icebreaker’ exercises were enjoyable.” The only area that got neutral or less affirmative responses was in relation to the competition portion of the project. Many residents did not think this was as important as the other parts of the project. These results are similar to the findings in the Parisi et al. (2007) that concluded older adults primarily enjoyed the programs focus on intellectual and social engagement.

Conclusion

For the final competition and celebration, the resident volunteers along with other residents of Cornell Estates came to anonymously vote for their favorite resident directory template. There was a short presentation on the final products and then the residents had time to vote. The votes were counted and there was a tie, all the individuals on both teams won a blue ribbon as a prize. This end result may further support the decreased interest or value in the competition aspect of the Odyssey of the Mind when working with older adults. However, this could also be a reflection of the environment and personal relationships shared with resident among the two teams. A question posed by the occupational therapy students, would this have been different if the competition was against another facility versus other residents within the same community? This is an area that requires further research and assessment with future projects.
There were many supports for the Odyssey of the Mind including the involvement of Cornell Estate’s staff, resident volunteer’s dedication to the project, and communication of expectations. Cornell Estate’s staff was supportive in recruiting volunteers, making announcements and distributing Odyssey of the Mind handouts. The resident volunteers were willing to take on homework outside of the group times and talking to other administrative staff on the possibility of distributing a resident directory. The resident volunteers were also flexible with changes in scheduling and group structure. This helped create fluidity in the process and ability to quickly change the project depending on the volunteer’s suggestions and input.

One of the barriers to creating a final product was the issue of privacy. Providing personal information to share with the community was not a concept readily accepted by all of the group members. Some of the participants did not want to share any information with the Cornell Estate’s community. This was taken into consideration with the final product and it was optional for individuals to be included in the directory and what type of personal information they wanted to provide. They could include their room number, phone number, interesting information about themselves, email address and photograph but this was not required. They could choose to only put their name and phone number or no information at all.

Another barrier was the ongoing participation of resident volunteers throughout the 8-week process. There were many residents that came for one or two groups but had to stop coming due to other engagements. There was also a reduction in the number of volunteers for the final three groups with approximately 2 to 3 members on each team. It was noted there was a high concentration of Pacific University programs asking for volunteers at Cornell Estates which could have impacted the ability of the members to participate in this weekly group. There may have also been volunteer fatigue throughout the duration of the project but some resident volunteers did move away during the project.

The Odyssey of the Mind for older adults at Cornell Estates provided a valuable experience for resident volunteers and us, as future occupational therapists. The first year of implementation for this project provided increased insight into the process and a foundation for future students to build upon. The resident volunteers mirrored the statements of previous subjects in the Parisi et al. (2007) research article that there is a need and desire for programs that provide opportunities for older adults to engage in cognitively challenging activities with their peers. Further assessment on the benefits of the cognitive and social activities involved in the Odyssey of the Mind can provide increased opportunities to tailor the program to the needs of the population.
References


