

A Service-Learning Program Designed to Prepare Students to Meet the Leisure Needs of Older Adults with Dementia: A Case Report

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Abstract

Service-learning programs combine volunteer service with educational activities. Such programs provide recreation educators with an avenue for heightening students' awareness of and ability to serve under-recognized groups such as community-dwelling older adults with dementia. This article reports on the design, implementation, and evaluation of a service-learning program entitled "The At-Home Recreation Program." The program focused on dementia, dementia care, and recreation. Students majoring in therapeutic recreation registered for a two-semester hour course that consisted of six-weeks classroom instruction and eight weekly sessions in the home of an older adult with dementia. Statistically significant gains were found in students' knowledge of dementia and perceived ability to communicate and use recreation activities with older adults with dementia. Considerations for the design and evaluation of similar service-learning programs are discussed.

Keywords: service-learning, therapeutic recreation, evaluation

Biographical Information

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Introduction

Over the past decade there has been increased interest in service-learning on the part of communities, universities, and the federal government (Estes, Wilson, & Toupence, 2001; Waterman, 1997). Service-learning programs combine volunteer service with educational activities. Support for service-learning in higher education lies in its purported ability to prepare students for their civic responsibility of acknowledging and addressing unmet societal needs (Wutzdorff & Giles, 1997).

Service-learning programs provide recreation educators with an avenue for heightening students' awareness of the leisure needs of individuals with disabilities. For example, students may learn about the leisure needs of older adults with dementia and their family members through a service-learning program that combines education and service with an older adult with dementia. The increasing numbers of older adults with dementia who are electing to live in the community with their family members (Alzheimer's Association, 2001; Ory, Yee, Tennstedt, & Schulz, 2000), as well as family members' need for information on meaningful recreation pursuits for their relatives (Buettner & Langrish, 1999; Lawton, Moss, & Duhamel, 1995), speaks to the societal need that may be met by such a service-learning program.

In order to prepare future therapeutic recreation specialists who are able to address the leisure needs of older adults with dementia, the University of Iowa designed, implemented, and evaluated an innovative service-learning program entitled the "At-Home Recreation Program." The purpose of this paper is to report on the design, implementation, and evaluation of the educational component of this service-learning program.

Background Literature

Service-Learning

Traditionally faculty in higher education have viewed civic responsibility and service to be natural outcomes of the learning environment. In recent years, however, faculty have questioned whether or not community service is readily engaged in by alumni (Waterman, 1997; Wutzdorff & Giles, 1997). Over the past two decades many faculty across the country have worked towards shaping service-learning opportunities that allow undergraduate students to be active in addressing social needs. Such efforts have been undertaken to prepare students for life-long civic responsibility within their communities.

The Commission on National and Community Service (National and Community Service Act, 1990) defines service-learning as a method:

- (A) under which students learn and develop through active participation in thoughtfully organized service experiences that meet actual community needs and that are coordinated in collaboration with the school and community;
- (B) that is integrated into students' academic curriculum or provides structured time for the student to think, talk, or write about what the student did and saw during the actual service activity;
- (C) that provides students with opportunities to use newly acquired skills and knowledge in real-life situations in their own communities; and
- (D) that enhances what is taught in school by extending student learning beyond the classroom and into the community and helps to foster the development of a sense of caring for others.

Recreation and leisure studies curricula have a long history of student service through enrollment in internships that serve as the capstone course of their education. With the resurgence of service-learning in education, recreation educators have been afforded the opportunity to re-examine how service may enhance the learning environment prior to the internship (Estes, Wilson, & Toupence, 2001; Ralston & Ellis, 1997; Williams & Lankford, 1999).

Educators have identified a variety of student outcomes following participation in service-learning programs. These outcomes range from a heightened understanding of how theory informs action to enhanced readiness for a professional career in community service (Lipka, 1997). Leaders in service-learning call for evaluation studies documenting outcomes in regards to the student, the university, and the community (Lipka, 1997; Bradley, 1997).

Dementia Education

The demographic profile of older adults in the United States, along with risk factors for dementia, speak to the need for health care providers who are able to provide services to individuals with dementia (Evan, Funkenstein, Albert, Sherr, Cook, Chown, Herbert, Hennekens, & Taylor, 1989; Ory, Yee, Tennstedt, & Schulz, 2000; U.S. Census Bureau, 1997). The U.S. Census Bureau (1997) projects that the older adult segment of the population will double by 2050 and that those older adults who are 85 years of age or older represent the fastest growing segment of the older population. Given that the prevalence rate of dementia in the 85+ segment of the population is in the excess of 40%, the need for dementia services and health care providers who are knowledgeable about dementia is evident. Recent studies have found, however, that health care providers know little about dementia or the care of individuals with dementia (Barrett, Haley, Harrell, & Powers, 1996; Beall, Baumhover, Novak, Edwards, Plant, & Pieroni, 1992).

University educators can be pro-active in preparing students, future health care providers, to work with older adults with dementia. Mace (1996) suggests that if educational programs are to prepare future health care providers to serve older adults with dementia, they must foster knowledge acquisition and application of that knowledge. Therefore, it is essential that university curricula in the area of dementia promote active learning. Service-learning, which combines classroom instruction with service, may provide an effective means of preparing students to work with older adults with dementia.

Recreation Needs of Community Dwelling Older Adults with Dementia

Although the literature on caregiving is replete with studies ascertaining the level of burden and stress experienced by caregivers (e.g., Aneshensel, Pearlin, Mullan, Zarit, & Whitlatch, 1996; Rabins, 1997), little data is available on the daily time use of caregivers in relation to that of the care-receiver (i.e., older adult with dementia). In one of the few studies specifically designed to document daily time use of caregivers, Moss, Lawton, Kleban, and Duhamel (1993) used "yesterday interviews" to examine what, where, and

with whom caregivers were spending their time the previous day. In addition, they interviewed caregivers regarding the daily time use of older adults (Lawton, Moss, & Duhamel, 1995). These studies have found that caregivers living with older adults with dementia spend approximately 10 to 15% of their time in direct caregiving tasks, 50% engaged in other obligatory activities, and 35% in discretionary activities. Caregivers' reports on the daily time use of older adults with dementia paints a picture of little activity or variability in day to day life. For instance, 62% of the day involved discretionary activities consisting primarily of resting and television viewing, 12% obligatory activities, 9% perseverative behavior, and 17% help from the caregiver. When caregivers were asked to identify an activity during the past month that their relative with dementia had found pleasurable, only one-half could identify an activity (Lawton, personal communication, 1995). When identified, these pleasurable activities tended to be either eating or recreation.

In response to the lack of notable pleasurable experiences or variability in the daily lives of older adults with dementia and demands on family members for caregiving, there has been a call for the design of in-home interventions aimed at enhancing the occurrence of pleasurable activities in the lives of community dwelling older adults with dementia and their caregivers (Buettner & Langrish, 1999; Lawton, 1994; Lawton, Moss, & Duhamel, 1995; Whitehouse & Rabins, 1992; Wilhite, 1992). Shared recreation activities have the potential to foster positive interactions between the caregiver and older adult with dementia, add variety and novelty in the daily lives of older adults with dementia. Independent recreation participation on the part of older adults with dementia may provide them with enjoyable experiences in daily life and respite opportunities for the caregivers.

Purpose of the At-Home Recreation Program

In order to prepare future therapeutic recreation specialists who are knowledgeable and skilled in dementia care, as well as address the leisure needs of community-dwelling older adults with dementia and their caregivers, the University of Iowa developed an innovative service-learning program entitled the "At-Home Recreation Program." The primary purpose of this service-learning program was to provide students majoring in therapeutic recreation with classroom instruction on dementia care and direct application of that knowledge when working with an older adult with dementia and his or her caregiver. A secondary purpose was to provide community-dwelling older adults with dementia and their caregivers with an in-home recreation program designed to enhance shared and individual recreation behaviors.

Design and Implementation of the At-Home Recreation Program

Participants

Over the course of three semesters, undergraduate and graduate students majoring in therapeutic recreation at the University of Iowa were invited to participate in the

service-learning program. During the first classroom session students' consent for participation in the evaluation component of the program was secured.

Participants in the program also included community-dwelling older adults with dementia and their caregivers. Potential participants were identified through partnerships with the Alzheimer's Association East Central Iowa Chapter, Cedar Rapids Aging Services, and Iowa City Visiting Nurse Association. The older adults with dementia were 60 years of age or older, resided in the community, had a diagnosis of dementia, and scored between 10 and 24 on the Mini-Mental State Exam (MMSE; Folstein, Folstein, & McHugh, 1975). This range of MMSE scores was used to identify older adults with mild to moderate level cognitive impairments and allowed for the exclusion of older adults with severe impairments (Teri, Larson, & Reifler, 1998). This criterion allowed the content of the in-home program to be designed specifically for individuals with mild to moderate levels of cognitive impairment and targeted the education content for the university students.

Following referrals from the community agencies, a teaching assistant in the Leisure Studies Program at the University of Iowa contacted the caregivers via the telephone to arrange for a meeting in the home with both the caregiver and older adult with dementia. During this meeting, the teaching assistant or a faculty member secured informed consent for participation in the program and gathered baseline data on the functioning of the older adult with dementia. Information gathered was shared with the student identified to go into the home.

Service-Learning Program

Students registered for a two-semester hour course. Students participated in classroom instruction during the first six weeks of the semester. Course content focused on an overview of dementia, the caregiving experience, creating partnerships with older adults and their caregivers, communicating with older adults and caregivers, means of role modeling and reinforcing caregivers' behaviors that foster recreation participation of older adults with dementia, therapeutic recreation activities, adaptation of recreation activities, and designing recreation activity areas in the home environment (see Table 1).

Following the six weeks of classroom instruction, the student participated in the service component of the program. Each student was paired with a community dwelling older adult with dementia and his or her caregiver and conducted eight weekly sessions in their home during the remaining nine weeks of the semester. Each of the in-home sessions lasted 1 to 1-1/2 hours. The eight in-home sessions were designed to engage the older adult and caregiver in shared, positive recreation experiences. Students role-modeled ways to engage the older adult with dementia in recreation and also talked with the participants about means of enhancing their in-home recreation. Content for each session is outlined in Table 2. Following each weekly session the student completed a log that called for reflection on his or her learning and service.

TABLE 1
Content of Educational Course

Week 1.	Content: What is dementia? Stages of Dementia Difficulty Behaviors
Week 2.	Content: Caregivers: Role, burden, daily stressors and uplifts View and discuss videotape "Complaints of a Dutiful Daughter"
Week 3.	Content: Communication with older adults with dementia Creating partnerships with older adults with dementia and their caregivers
Week 4.	Content: Benefits of recreation in daily life Adaptation of recreation activities
Week 5.	Content: Designing home environments to foster successful participation in recreation activities
Week 6.	Content: Review and discuss eight week program Recreation resources Communication with project staff
Weeks 7-15.	Content: Implementation of At-Home Recreation Program Weekly contact with project staff
Final Exam.	Content: Debriefing and Course Summary Evaluation of class Celebration!

A course manual was developed for the program that included information on the topics covered during classroom instruction and outlines for each of the eight in-home recreation sessions. The outlines for each session (see Table 3) contained information as to how the student may model engaging the older adult with dementia in a selected recreation activity. Each session stressed the importance of the social relationships developed between the student, older adult with dementia, and care-giver. These social relationships were thought to heighten the older adults' and caregivers' commitment and engagement in the program, as well as their interest in continued engagement in recreation pursuits upon completion of the eight week program.

During the eight weekly in-home sessions, the faculty member and teaching assistant affiliated with the program were available to discuss any problems or issues that arose. Students communicated with the faculty member and teaching assistant via weekly brown-bag meetings on campus and weekly one-to-one interactions to discuss their experiences. In addition, students completed a weekly log after each session. The weekly logs required students to reflect on the in-home session and identify what went well, what did not go well, and recommendations for the next sessions. At the end of the

TABLE 2

*Outline of the At-Home Recreation Program***Week #1: Individual and Shared Recreation Interests**

- Initial socializing, getting to know one another
- Introduction to the program
- Administration of modified Pleasant Events Schedule (Teri & Logsdon, 1991)

Week #2: Engagement in a Shared Recreation Activity

- Greetings, reminder of identified pleasant events
- Participate in identified pleasant activity
- Plans made for next session

Week #3: Engagement in a Shared Recreation Activity

- Greetings, discuss independent time use over past week
- Participate in identified pleasant activity
- Plans made for next session

Week #4: Modification of the Home Environment

- Greetings, discussion of activities engaged in over past week
- Identify location older adult with dementia spends time
- Evaluate and modify environment for independent recreation
- Plans made for next session

Week #5: Engagement in a Shared Recreation Activity

- Greetings, discuss recreation participation over past week
- Participate in identified pleasant activity
- Plans made for next session

Week #6: Reconsideration of the Home Environment

- Review modifications of environment and addition of recreation resources in environment
- Discuss use of environment and resources
- Consider need for further alterations

Week #7: Engagement in a Shared Recreation Activity with Family & Friends

- Greetings, introduction of new family or friend participants
- Participate in identified pleasant activity
- Discuss possible recreation/social activities for the future

Week #8: Review and Plan

- Greetings, discuss recreation participation over past week
- Discuss recreation plans for continued in-home participation
- Participate in short pleasant activity

TABLE 3

Outline of One Session of the At-Home Recreation Program

WEEK 2: Engagement in a Shared Recreation Activity. This week you will facilitate the participation of the older adult and caregiver in a shared recreation interest. As the activity leader, you will want to model for the caregiver means of engaging the older adult in an activity. We will provide you with ideas of ways you may role model how to structure an activity for successful participation.

Please remember that your enthusiasm for a shared experience is contagious - have fun! Also, when possible, be supportive of the positive actions on the part of the older adult and caregiver.

Your main **OBJECTIVES** for the second meeting will be to complete the following tasks:

- You will want to begin by asking about the “independent activity” to **find out about the recreation participation of the caregiver and older adult during the past week.**
- You may begin by **reminding the older adult and caregiver why the activity was selected for today’s session.** It may be the activity that was selected by the older adult and caregiver during last week’s session. Another possibility is that, due to lack of time last week, you selected the activity based on their responses to the Pleasant Events Schedule.
- Be sure to ask the older adult and caregiver where they want to participate in the selected activity. Be sure to consider lighting, distractions, and the arrangement of furniture. **Design the environment for successful participation** in the selected recreation activity. (This is the focus of Week 4 - so, here is your opportunity to role model means of designing the environment for positive engagement in a recreation activity!)
- Okay. You are ready to engage in the selected recreation activity. **Model behaviors that keep the older adult engaged** in the activity. These behaviors may be as simple as asking questions of the older adult or touching his or her arm to cue participation (you may find it helpful to review information in “Communications” section of the manual.) Remember to provide **reinforcement for the caregiver** when he or she displays behaviors that keep the older adult engaged.
- Remember to **wrap up participation** (i.e., stop) in the selected activity before anyone becomes tired, bored, or distracted.
- At this point it is important to consider what you will all be doing next week. Based on the interests of the older adult and caregiver indicated on the Pleasant Events Schedule, suggest 2 to 3 shared activities to be engaged in during the next weeks session. Ask the older adult and caregiver to **select one activity.**
- If a second copy of the Pleasant Events Schedule has been made, give one copy to the older adult and caregiver. If you feel it is appropriate, go over the results of the Pleasant Events Schedule. Point out to the caregiver and older adult those **activities that they both enjoy and participate in together.**

semester students and faculty convened to evaluate the program and celebrate the students' accomplishments.

Program Resources

The Therapeutic Recreation Lab at the University of Iowa houses recreation resources that students used during the in-home sessions. Staff resources consisted of a faculty member and a half-time teaching assistant (20 hours per week). During the semester prior to the implementation of the program, the faculty member and teaching assistant worked on the development of the course manual and initiated contact with community agencies. During the three semesters of the program implementation, the faculty member was responsible for teaching the six-week course, facilitating discussion during the weekly brown bag meetings, and meeting with students to discuss their in-home sessions. The teaching assistant was responsible for communicating with the caregivers, checking out equipment in the Therapeutic Recreation Lab, participating in the weekly brown bag meetings, meeting with students to discuss their in-home sessions, and collecting students' weekly logs.

Evaluation Methods

Process and outcome evaluation were used to describe students' experiences in the home and to assess the impact of the program on students' knowledge and skill. Both qualitative and quantitative data were used to describe the learning process and assess student outcomes (Henderson & Bedini, 1995). More specifically, process evaluation consisted of students' completion of weekly logs reporting on what went well and what did not go well during each in-home session, as well as weekly ratings of how well the manual prepared them to conduct the in-home session (1=poor, 2=fair, 3=good, 4=very good, 5=excellent). The outcome evaluation examined the impact of the program on students' knowledge of dementia (Alzheimer's Disease Knowledge Test, Dieckmann, Zarit, Zarit, & Gatz, 1988) and perceived skill in communication and use of recreation activities (Skeff, Stratos, & Bergen, 1992).

The Alzheimer's Disease Knowledge Test (Dieckmann, Zarit, Zarit, & Gatz, 1988) is a twenty item multiple choice scale. Internal consistency was found to be high based on alpha coefficients ranging from .71 to .92. The test has been found to effectively discriminate between students based on their level of coursework in gerontology and between students and professionals.

Based on the work of Skeff and colleagues, a scale to measure perceived skill in communication with individuals with dementia and effective use of recreation activities with individuals with dementia was developed. Upon completion of the semester students were asked to complete a retrospective pre-rating and post-rating at the same point in time. Skeff and colleagues support such an approach when "the educational intervention may increase their understanding of the dimensions being rated and/or their insight into their own level of functioning on those dimensions, particularly when the interven-

tion aims to define more clearly the concepts in questions" (Skeff, Stratos, & Bergen, 1992, p. 351). Two items were used to measure perceived skill in communication ("Ability to communicate with an older adult with dementia" and "Ability to interact with both the caregiver and older adult with dementia") and five items were used to measure perceived skill in the use of recreation activities ("Ability to modify recreation activities in order to match the activity to the skill level of the older adult with dementia," "Ability to modify a home environment to increase independent recreation on the part of the older adult with dementia," "Ability to explain the benefits of recreation to caregivers of older adults with dementia," "Ability to engage an older adult with dementia in a recreation activity," "Ability to assist an older adult with dementia in making recreation resources for the home"). For each item the student would rate his or her skill level (1=poor, 2=fair, 3=good, 4=very good, 5=excellent). The alpha reliability for communication was .77 and .89 for use of recreation activities.

Finally, in order to fully understand students' learning experiences over the course of the semester, a sub-sample of students was asked to respond to two open-ended questions. The sub-sample consisted of all the students enrolled in the course during the second and third semesters it was offered. The first question was "What was the most memorable, positive experience during the eight in-home sessions? Please describe the experience." The second question was "What was the most difficult or challenging experience during the eight in-home sessions? Please describe the experience."

Evaluation of the At-Home Recreation Program

Participants

Twenty-four students participated in the service-learning program over three semesters. Participants ranged in age from 19 to 52 and their average age was 23.4 ($sd=6.8$). Twenty-one of the participants were female (87.5%) and three were male (12.5%). Twenty-three of the students were undergraduates (95.8%) and one was a graduate student (4.2%).

Process Evaluation

During the course of the eight week in-home program, students completed a log following each session. Students reported on what went well and what did not go well during the visit. Such information shaped the one-to-one discussion with the faculty member or teaching assistant, as well as discussions during the optional brown bag lunches. In each log students were also asked to reflect on what they would do during the next session; allowing them to draw on the strengths and weaknesses of the most recent visit when planning for the next session.

The weekly logs from twenty-two students, those who completed logs for each of the in-home sessions they conducted, were analyzed. These 22 students completed a mean average of 7.4 ($stdev=.95$) in-home sessions. Two students (9%) completed 5 sessions, 1 student (4.5%) completed 6 sessions, 6 students (27.5%) completed 7 sessions,

and 13 students (59%) completed all 8 in-home sessions. Reasons for not conducting all eight sessions included illness or hospitalization of the care-receiver or care-giver. Students responses to the question as to what went well and what did not go well were classified into categories. The data were then grouped under several broad umbrella terms (see Tables 4 and 5).

Students reported what went well on 155 of the 162 logs, resulting in a response rate of 96%. The reports on what went well fell within three broad categories: (a) activity related, (b) discussion related, and (c) other (see Table 4). The highest frequency of responses fell within the category of activity related and occurred when the "care-receiver enjoyed the activity/was fully engaged in the activity" (n=49). The second and third highest frequency of responses fell under the broad category of discussion related, including "general conversation went well" (n=33) and "conversation with care-receiver went well" (n=21).

TABLE 4

Student Logs: "What went well during the in-home session?"

ACTIVITY RELATED	78
Care-receiver enjoyed activity/was fully engaged	49
Everyone engaged in activity	12
Generally went well	10
Caregiver more involved/helped involve care-receiver	3
Family participated (in addition to caregiver)	2
Care-receiver plans to practice over next week	1
Tried second activity and it went well	1
DISCUSSION RELATED	65
General conversation went well	33
Conversation with care-receiver went well	22
Care-giver reported buying games	4
Conversation with family/friends went well	3
Conversation with caregiver went well	3
OTHER	12
Caregiver worked to arrange home environment	8
Everything	2
Flexibility with plan for session	1
Caregiver completing PES (care-receiver non-verbal)	1
TOTAL	155

Students reported less frequently on what did not go well ($n=119$; 73% response rate) in comparison to number of reports on what went well ($n=155$). In forty-one additional logs, however, students indicated that "all went well." The reports on what did not go well fell within four broad categories: (a) activity related, (b) discussion related, (c) people related, and (d) other (see Table 5). The most frequently cited problems, falling within the broad category of activity-related, included the care-receiver being bored or uninterested ($n=20$) and the care-receiver not understanding the activity ($n=12$). Another frequently cited problem, under the broad category of people related, was the care-receiver being sleepy or sick ($n=18$). Students' reports on what did not go well resulted in many more categories than was found with the reports on what went well during in-home visits. Such diversity of responses, in particular the numerous responses under the category of people related, speaks to the unique nature of the family unit. Furthermore, the findings speak to students' concerns with the experiences and well-being of the family members during each session.

Finally, each log contains a question as to how well the manual had prepared the student for the in-home session. Based on a 5-point scale, students' average rating as to how well the manual prepared them for the home visit was 3.6 ($sd = .84$), which placed them midrange between "good" and "very good."

Outcome Evaluation

Paired t-tests were used to assess change in knowledge of dementia and perceived skill in communication and use of recreation activities. Students' knowledge of dementia ($t=6.18$, $df=23$, $p<.001$), perceived skill in communication ($t=13.4$, $df=23$, $p<.001$), and perceived skill in the design and implementation of recreation activities ($t=12.7$, $df=23$, $p<.001$) were found to increase significantly (see Figure 1).

Fifteen students, all participants during the second and third semester of the program, responded to two open-ended questions (most positive and most difficult experiences during the in-home sessions). Responses to the two open-ended questions were classified into categories. The most frequently reported positive experiences included sessions when the care-receiver became absorbed in an activity (6 students) and the relationship established with the care-receiver and caregiver (reported by 5 students). The importance of the social relationship is reflected in the following quote: "I think the most positive part of my experience was when the care-receiver said to me "Where have you been?". This made me feel really good about what I was doing. The whole experience was great! I learned a lot participating in this class. Both the caregiver and care-receiver enjoyed my presence and looked forward to the next visit. That is rewarding in itself." Other positive experiences included sessions when the care-receiver was very alert and responsive (2 students), opportunity to teach a caregiver to break activities into sequenced steps (1 student), ideas that emerged when completing logs (1 student), and the "whole experience" (1 student).

TABLE 5

*Student Logs: "What did not go well during the in-home session?"**

ACTIVITY RELATED	51
Care-receiver was bored/uninterested	20
Care-receiver did not seem to understand activity	12
Caregiver did not participate	7
Environment not conducive	4
Family members had difficulty with activity	3
Short duration	2
Did not do planned activity	1
Equipment failure (VCR)	1
Student kept winning	1
DISCUSSION RELATED	22
Caregiver dominated conversation	7
Family fighting/yelling/critical comments	5
Reported no interests	4
Student spoke too fast/frustrated	3
Care-receiver talked about death	1
Care-receiver called self 'dummy'	1
Caregiver wanted student to 'push' care-receiver	1
PEOPLE RELATED	37
Care-receiver sleepy/sick	18
Caregiver sleepy/sick	4
Family forgot visit	4
Care-receiver in bad mood/distracted	3
Care-receiver non-verbal	2
Care-receiver more confused than usual	2
Care-receiver hard of hearing	1
Caregiver distracted	1
Care-receiver went out for walk and got lost (just prior to student's arrival)	1
Family eating dinner during visit	1
OTHER	9
Difficulties modifying the home environment	7
Difficulties with Action Plan	2
TOTAL	119

• Students reported in 41 logs that "all went well."

Reported difficult and challenging experiences included: times when the caregiver or care-receiver did not want to participate (4 students), activity was too complex for care-receiver (3 students), care-receiver was experiencing medical problems (2 students), student had difficulty communicating with the care-receiver (2 students), coming up with ideas for recreation activities (1 student), and care-receiver making jokes about a student's ethnicity (1 student). One student's reflection speaks to the learning that occurred even during difficult experiences: "When my care-receiver didn't want to participate (on certain nights) I wasn't sure what to do. But it worked out o.k. when I just relaxed with the situation."

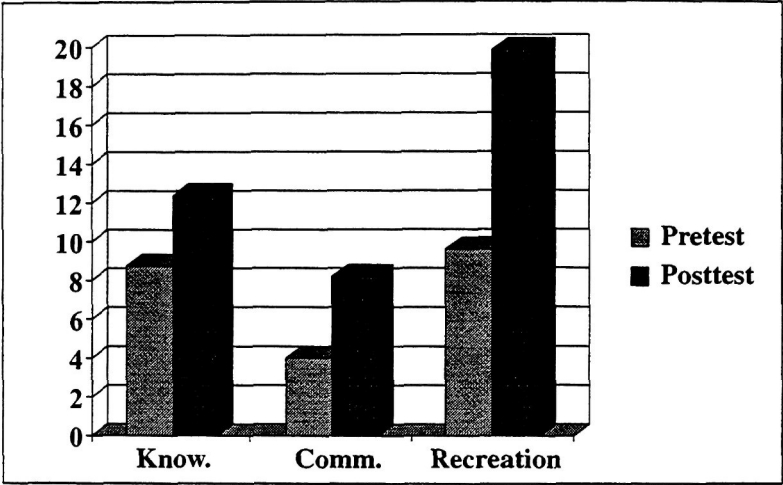


Figure 1: Outcome Evaluation*

*Knowledge $t=6.18$, $df=23$, $p<.001$
Communication $t=13.4$, $df=23$, $p<.001$
Recreation $t=12.7$, $df=23$, $p<.001$

Discussion

Students' knowledge and perceived skill in dementia care and the provision of a recreation program were significantly enhanced following participation in the At-Home Recreation Program. These findings speak to the importance of service-learning opportunities that pair classroom instruction with the direct application of knowledge when working with older adults with dementia. When reflecting upon our findings and experiences, two topics emerged that may be of importance to faculty who are considering the development of similar programs. These two topics, the role of faculty and evaluation, will be discussed in this section.

Role of Faculty

Although the At-Home Recreation Program consisted of only six weeks of traditional classroom teaching, the remaining weeks required a high level of commitment on

the part of the faculty member and teaching assistant. That commitment was based on the desire and responsibility for enhancing the learning of both students and family members who participated in the program. Students' learning during the service component of the program was directly linked to time spent reflecting upon and discussing their experiences. Family members learned about recreation and reflected on their quality of life as a result of their interactions with students. Therefore, the learning and benefits experience by students and families were closely linked. The university commitment to supporting students through weekly brown-bag lunches, as well as 1:1 interactions, resulted in students reflecting on and sharing their experiences. Such exchanges were key to fostering learning, maintaining enthusiasm among the learners, and ensuring a quality program for the older adults with dementia and their caregivers.

Weeks one and eight of the in-home portion of the program, in particular, were the most time-intensive for the faculty member and teaching assistant. Although dementia and communication were addressed in the classroom portion of the program, many students had never interacted with an individual with a cognitive impairment prior to going into the home. Discussions following the first in-home visit were important in acknowledging the students' success in communication and helping students consider additional strategies for enhancing communication.

Students developed close relationships with the older adults and caregivers with whom they worked. Therefore, the termination of these relationships that occurred in the final session (week eight) was difficult for everyone. Given that most therapeutic recreation specialists work in environments where termination of services is a common occurrence, this provided another important learning experience. Prior to the last in-home session, time was spent discussing how to honor and celebrate the time the student, older adult, and caregiver spent together, as well as means of expressing how sad it was to come to the end of the program. Many older adults and caregivers also expressed sadness at seeing the students leave and they also worked to acknowledge the special nature of the in-home program by taking students out to lunch, sharing a special dessert, or taking pictures.

Evaluation

Further work is needed to fully understand the impact of the At-Home Recreation Program on the students and family members. In terms of students, comparison of participants to students who do not engage in the service component of the course would further our understanding of the program's impact on knowledge and perceived skill. Additional qualitative data may better our understanding of the concepts learned as a result of participation. For instance, informally many students reflected on the social context of the recreation activities. They discussed at length that the benefits did not appear due to the specific activity, rather how the activity supported the relationship and conversation among the caregiver, older adult, and student. Such reflections may have long term impacts on how students view the benefits of therapeutic recreation interventions.

Leaders in the area of service-learning speak to the need to understand the long-term impact of service-learning on students' civic responsibility and action (Bradley, 1997; Waterman, 1997). Longitudinal data may better answer such questions and address whether or not our communities and society at large benefit from citizens who have participated in service-learning programs.

The evaluation of service-learning programs would benefit from the development of instruments to measure students' perceived gains in skills and knowledge. Skeff and her colleagues propose measuring learners' pre-test skill retrospectively (Levinson, Gordon, & Skeff, 1991; Skeff, Stratos, & Bergen, 1992). They have undertaken a line of research to verify the sensitivity and validity of such measures. A similar line of inquiry measuring perceived skills among recreation students may help us to consider the benefits and possible drawbacks to using such measures within our discipline.

Evaluation of the program's impact on the lives of older adults with dementia and their caregivers is also needed. Informally, many caregivers have spoken appreciatively of the students' abilities to engage their relative in conversation and meaningful activity. We have attempted to conduct qualitative interviews to examine the long-term impact of the program on the family. However, interviews following termination of the program are seldom possible given the frailty of many of the older adults. Many of the older adults were hospitalized or placed in nursing homes within several months of completing the in-home program. Continued efforts are needed to understand the impact of service-learning programs on the lives of community participants.

Conclusion

Service-learning programs provide recreation educators with an effective approach to heightening students' awareness of and ability to serve under-recognized groups. The At-Home Recreation Program at the University of Iowa has been effective in increasing students' knowledge and skill in dementia care and providing a recreation program for community-dwelling older adults with dementia and their caregivers. Such programs demand a commitment to a learning environment that goes beyond the traditional classroom and reaches out to our communities. Service-learning provides recreation educators with an important educational approach to preparing future generations of professionals who are able to address society's leisure needs.

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