Original Research

New Holistic Enrichment Program Utilizing Maslow's Hierarchy of Needs Designed for Institutionalized Residential Care Facilities

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Abstract

Background: The growing aging population requires care support resources which engage older adults in many different aspects of human functioning and experiences [1]. The purpose of this applied research project was to develop, and pilot test a holistic enrichment program manual used with Institutionalized Residential Care Facilities (IRCF) that encompasses motor skill, social, cognitive and self- enrichment outcomes, and to pilot test the enrichment program manual to be both cost-effective and a time savings to IRCFs.

Methods: The enrichment manual is based on the theory of Maslow's (1943) Hierarchy of Needs while integrating holistic care through training modules. In the needs analysis phase, the researcher anticipated that information from individual interviews with Enrichment Directors (ED) would assist in the development of the enrichment manual. Open-ended questions were constructed to learn how ED participants implement needs through programs; the researcher also expected to discover some activities to incorporate into the manual. During the project development phase, the researcher used books, videos, web resources, and training manuals to investigate training, holistic care, and activities further. After the completion of the manual, the researcher followed up with a feedback interview phase. The needs analysis phase consisted of ten ED participants, and the feedback
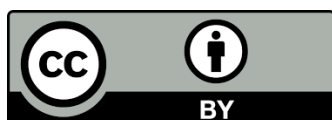
interview phase included nine ED participants. Through a qualitative research approach, the enrichment manual developed, and pilot tested with a group of ED participants.

Results: The results show that an enrichment manual derived from Maslow's (1943) Hierarchy of Needs creates streamlined programming, is cost-efficient, implements new activities for residents, advances staff knowledge, and helps in the overall staff training.

Conclusions: Enrichment programs and the impact on the physical and mental well-being of the aging population is a field that needs exploration. The developmental improvements on activity programming will help professional activity support a higher number of the aging population to active, memory support, dementia care, and sensory care. Creating a solid foundation in constructing enrichment programs that implement cognitive, motor, social, and self-enrichment. Allowing more time to plan, more one on one time with clients, individualized attention, and reduce programming stress by creating enrichment manuals which will be cost-efficient. Developing the same concept society uses for an academic institution with enrichment programming. Incorporating activity programs with staff training compared to lesson plans will provide a knowledgeable and efficient staff.

1. Introduction

The goal of the applied research project was to both develop and to assess the effects of the program manual for an Institutionalized Residential Care Facilities (IRCF) setting in improving residents' programming activities and staff knowledge/training while maintaining cost and time efficiency for the site. In 2005 the U.S. Census Bureau (2014) predicted that older adults living in skilled nursing facilities would grow by 11.2% for ages 85 to 89, by 31% for ages 90 to 94, and by 38.2% for those 100 years and older. The term "Institutionalized Residential Care Facilities" (IRCF) is used to define assisted living, nursing homes, home care facilities, or long-term care facilities because of the broad meaning in the industry [2]. Residents living in IRCF are faced with limited capabilities, such as mobility and cognitive function [3]. An effective enrichment program is crucial to support and maintain residents' positive, fulfilling quality of life outcomes [1].

Abraham Maslow's (1943) psychological need-based theory of human motivation, known as a "hierarchy of needs," is the basis for the present applied research project's enrichment program manual (refer to Table 1 for the resultant enrichment manual's table of contents). It is imperative for an IRCF to fulfil the needs on the entire pyramid of Maslow's Hierarchy of Needs (i.e., physiological, safety, love/belonging, esteem, and self-actualization levels of needs) for residents' physical and mental well-being [4]. The specific focus of this applied research project was to develop a holistic enrichment program manual that utilizes the conceptual framework of Maslow's theory. The developed and pilot-tested new manual is intended for use with IRCF that encompasses cognitive, motor skill, social, and self (emotional) enrichment outcomes which

reflect field-related areas of training [4]. Please refer to Table 2's matrix of Maslow's theory and the associated four areas of enrichment.

Table 1 Enrichment Manual's Table of Contents

Introduction how to use the manual	An introduction discusses the theory for the basis of the program and critical factors why it was created. Learn how the program was designed and how to navigate the program.
Background to manual's purpose	The in-depth explanation of Maslow's Hierarchy of Needs and why an enrichment program was centered around the theory.
Module 1 cognitive enrichment	Explanation of cognitive enrichment exploring the benefits and positive effects on the residents through learning objectives, case studies, activities, and review training.
Module 2 Motor enrichment	Explanation of motor enrichment exploring the benefits and positive effects on the residents through learning objectives, case studies, activities, and review training.
Module 3 social enrichment	Explanation of social enrichment exploring the benefits and positive effects on the residents through learning objectives, case studies, activities, and review training.
Module 4 self-enrichment	Explanation of self- enrichment exploring the benefits and positive effects on the residents through learning objectives, case studies, activities, and review training.
Enrichment activity calendar	Color-coded activity calendar was displaying three weeks of activities from 9:30 am till 9:00 pm, using all the information and data obtained by research.
Enrichment activity description	Color-coded activity description of the calendar divided up day by day.
Example of a full day enrichment program	The detailed description of one day on the calendar which includes step by step instructions on how to perform the activities and how to utilize time during the day.

Table 2 A Matrix of Maslow's Theory and Four Areas of Enrichment

Maslow's Hierarchy Higher-Level Needs	Cognitive Enrichment	Motor Enrichment	Social Enrichment	Self-Enrichment
Self-Actualization Problem-solving, Creativity,	Allows individuals the opportunity to learn, retain,	Give people the capability to use their muscles	Essential to stimulate a social environment	Give resident's as much freedom to help

Acceptance, Purpose, Meaning and Potential	and reasoning skills. Essential for healthy aging	and nerves to create the movement to develop and maintain fitness	where relationships can grow to keep people sharp and involved	develop events, activities, programs, and clubs to support multiple needs
Self-Esteem Confidence, Independence, Respect, Achievement	Encompasses experience purpose, meaning and inner potential which motivates the brain	Exercise reduces stress, more energy, improve daily activities, and improves self-esteem	Being social results in happiness which can fight illnesses and help people stay positive	Stimulates the resident's inner potential while striving for independence
Love/Belonging Friendship, Family, Affection, Connection	Cognitive loss affects the individual, family, friends, in addition to health and personality	Group exercise encourages other and can motivate a group to live a healthier lifestyle	Opportunities to be social become harder compared to younger years which is why IRCF need to promote	Organizing a variety of club and groups will create a community among people that have things in common

1.1 Maslow's Hierarchy of Needs

The higher-level needs of love/belonging, esteem, and self-actualization can be more complicated for an IRCF to achieve [5], perceived physiological and safety needs. Every person is different and, therefore, it is more complicated for an IRCF to fulfil their needs of love, belonging, esteem, and self-actualization [6]. IRCF should recognize and acknowledge the higher-level needs to ensure residents are offered activities for their quality of life fulfilment [6].

Maslow's need theory is a solid foundation for constructing an affirmative program for IRCF, staff, program directors, and residents. Maslow's (1943) theory provides focus in areas of understanding human behavior to be the framework of program manual [7]. The suggested hierarchy plays an essential role in the design of activities for aging adults. In this theory, Maslow indicated that physiological needs are at the base of the pyramid (lower-level needs) because of its importance for the human race to survive, including breathing, nourishment (foods), water, sleep, homeostasis, and excretion [8]. The theory suggested that a person's security need is fulfilled when a person is secure in one's body, mind, health, and environment [5]. Maslow (1943) purported that human behavior is primarily motivated by something biological, social, environmental, or situational. Higher level needs become desired needs driven by a conscious action rather than instinctive action [5].

Once the residents' physiological and safety needs become gratified, the other sequential needs will be desired than love, belonging, and self-esteem [8]. By taking an enrichment program and dividing the hierarchy of needs into four categories of cognitive, motor skill, social, and self-enrichment, residents' have the opportunity to satisfy each sequential drive required for their state of gratification [5]. Motor skill enrichment can fulfil the safety need by using exercise to

promote older adults' perceptions of positive health. It will give the residents a perceived sense of security over their bodies to feel strong, fight disease, increase balance, and healthy lifestyle [8]. Motor skill enrichment supports self-esteem and confidence which supports other needs of hierarchy [8]. Social enrichment is a need that has to be incorporated into an enrichment program to promote social interaction. IRFC enrichment programs ideally should create activities that will give residents the opportunity to build friendships and a family environment [8]. Love and belonging is the core factor in our cognitive development [8]. In our society, this need is a part of the essential path to self-actualization [5]. The idea that positive enrichment activities will systematically affect the residents' well-being which will allow the individual to strive to obtain the following needs of love/belonging, self-esteem, and self-actualization [5].

Activities that support achievements, self-esteem and spiritual needs is an important trait to encourage self-enrichment [8]. Promoting respect and respect for others through enrichment programs can give residents' heightened feelings of confidence, independence, and freedom [8]. IRCF should support a person's self-esteem to maintain a quality of life [4]. Self-actualization is the last need where a person is considered "finally human" [5]. Cognitive enrichment is what makes us unique, and our previous experiences shape our acceptance of our living environments [8]. Activities should engage creativity, problem-solving, morality, and spontaneity [8]. Humans have the motivation to work toward unity to become a whole person, striving to be a person with values, goals, kindness, love, and a purpose [5].

In examining Maslow's theory, Simon, Berwig, and Heinrich (2013) [9] found that residents' needs are satisfied on a physical basis because of the help with their physical functioning, yet the holistic social interactions were not present during the treatment process. IRCF have the responsibility to meet the needs of residents to foster their highest-level quality of life. Failing to do so will hurt residents' emotional, physical, and mental health [1].

The applied research project developed, and pilot tested an enrichment program manual with IRCF Enrichment Directors (ED), also referred to as Activity Coordinators or Activity Directors. The directors can use the manual to satisfy residents' higher-level needs by implementing activities focusing on cognitive, motor skill, social, and self (emotional) enrichment. An enrichment calendar with color-coded activities developed for the project focused on four areas of enrichment to be accomplished on a daily basis. By using a color-coded calendar, the ED participants can easily apply and understand Maslow's theory of all human behavior needs in activity programming.

The challenge for many residents living in IRCF is that they are experiencing some degree of cognitive impairment, and the loss of independence and autonomy is an issue that needs to be addressed through activity programming [10]. IRCF are faced with residents feeling depressed which can affect their mental and physical well-being [4]. Maslow states that human needs motivate our development and are a part of our human nature; and when not met can cause dysfunction or dissatisfaction in life no matter what age [8]. Enrichment programs require a broad audience range that caters to each resident's individuality to motivate their personal development [8]. Staff training is a crucial component to promote a definite sense of security and belonging to residents which in turn motivates employees at work [7]. Mager et al. (2012) concluded that providing training and team support at the facility created an environment of open communication and reduced stress among staff. This focus, in turn, relates to systems theory. Improving the needs of the staff can have a positive effect on the resident's quality of care.

1.2 Holistic Care

The concept of holistic care is consistently used in research to emphasize that staff has a vital role in satisfying the multi-dimensional needs of aging clients [11]. Holistic quality of care suggests the integration of physical needs with mental and social needs as a caring focus [12]. Holistic care services for older adults can be established and enforced through upper management by setting the standard of expectations within IRCF employee performance reviews [13]. In some cases, it can be challenging to accomplish if clear objectives are not expressed [13]. Not communicating these guidelines can become confusing for the IRCF employees [13]. For example, a CNA expresses her enthusiasm when a resident moved to a wheelchair by herself; however, another CNA expresses her concern because the risk of the resident falling is not worth her job [13]. Training in gerontology is necessary for those individuals providing quality care to older adults [11].

The social needs of human beings play a critical part in life satisfaction [14]. The IRCF should support both the individual's social and physical health [14]. A five-year longitudinal study in a nursing home discovered that social support influences a person's cognitive coherence [15]. If an older adult is showing signs of depression, these symptoms may exacerbate the rate of cognition and functional performance declines [3].

If individuals feel they have lost control over their lives, it will change their feelings toward life satisfaction and well-being [16]. Well-trained IRCF staff can assist older adults in developing their feelings of personal control through well-designed activities, encouraging these adults' personal choices and opinions, self-expression, group participation, and physical activity as reflected in Maslow's theory [4].

1.3 Enrichment Program Design Factors

When ED participants encourage older adults' active participation in a social setting in the four areas of music, art, exercise, and games, it alters an individual's feelings of belonging and self-esteem [17]. Inspection and regulation of each program will ensure each IRCF offers the best for its residents [4]. The researcher recognized that creating an enrichment program based on a needs-based theory that enhances a person's well-being will give the IRCF program both a focus and a goal of achieving beneficial holistic care for aging residents.

2. Method

2.1 Participants

2.1.1 Selection process. ED participants were recruited by the researcher using the recruitment processes of conducting outreach emails, doing "cold calling," and utilizing contact referrals. The researcher identified the resultant number of ED participants located at ten different IRCF facilities through a series of screening questions to identify the required minimum of five years of job experience and level of education to qualify. ED participants who were selected currently working in IRCF from well-designed enrichment programs. The ten subjects participated in both the "needs analysis" (i.e., pre-project development) and "Interview phase" (i.e., post project development) phases, which both ranged approximately one hour in participation duration. One out of the four

participants were male. Two participants had more than fifteen years' experience while the other eight participants had five years' experience. All of the participants were certified ED.

2.2 Materials

2.2.1 Needs analysis phase. The researcher developed ten open-ended questions for the needs analysis phase adapted from Kvale's work [18]. The ten questions were open-ended to encourage the participant to verbalize their thoughts, ideas, and opinion regarding IRCF activity-based programming, and were used to collect information for the development of an effective enrichment activity program (refer to Table 3 interview phase questions).

2.2.2 Project development phase. The process in developing the enrichment manual began by investigating enrichment programs that support the four critical areas of enrichment: (1) cognition, (2) motor skills, (3) social, and (4) self (emotional). Reference materials collected through Internet searches, library searches, and books related to the development of an enrichment manual. Topics investigated were Aging Changes and Needs, Enrichment Activities, Maslow's Theory, IRCF, training, and holistic care reference books used and training program manuals. Books provided information regarding program ideas regarding craft, trivia material, music, games, art, and exercise. There were books with quizzes and trivia questions that have already been generated. Referencing books that already created activity programs for seniors helped guide the researcher in implementing Maslow's theory. Books and published manuals provided an abundant amount of material to generate an enrichment program.

Table 3 Interview Phase Questions

1. How do you incorporate cognitive enrichment into your program? If you do not incorporate cognitive enrichment, what ideas or thoughts might you have to incorporate cognitive enrichment?
2. How do you incorporate motor skills enrichment into your program? If you do not incorporate motor skills enrichment, what ideas or thoughts might you have to incorporate cognitive enrichment?
3. How do you incorporate social enrichment into your program? If you do not incorporate social enrichment, what ideas or thoughts might you have to incorporate social enrichment?
4. How do you incorporate self-enrichment into your program? If you do not incorporate self-enrichment, what ideas or thoughts might you have to incorporate cognitive enrichment?
5. How do you support love/belonging (friendship, family, intimacy, connections)?
6. How do you support self-esteem (confidence, achievements, respect for others, relationships)?
7. How do you support self-actualization (morality, creativity, spontaneity, acceptance, purpose, meaning and inner potential)?
8. Do your programs and activities have a defined goal? If so how?
9. What activities or program make a positive impact and residents enjoy?
10. What would you like to see in the manual and what would be useful to you?

Data collection included enrichment internet sites related to activities and care training to assisted in the data collection for the program manual (CDC, 10 Most Common Types of Dementia,

Memory Jogging Puzzles for Alzheimer's and Dementia Patients, Activity Ideas That Work, Activity Professional, Ideas for Activity Directors, National Association of Activity Professionals, and Nursing Home Activity). The researcher reviewed relevant websites and selected templates, photographs, and calendars to reference and implement. By utilizing the Internet-based resources, the researcher was able to investigate a variety of enrichment activities through articles, blogs, activity sites, Pinterest, and YouTube. For example, Pinterest was a website used for crafts, games, themes, and food ideas to incorporate into the enrichment calendar. Also, the Illinois Department of Aging, Illinois Department of Public Health, National Certification Council for Activity Professionals, and Medifecta websites were reviewed for information to develop training information for the ED participants to incorporate holistic care.

Video sources used are the 5 Day Fit Pilates, Healthy Learning DVD, Sit and be Fit, Tai chi for pack pain, the power of tai chi, Walk away the pounds, and Zumba fitness to develop an exercise program into the program manual. The video topics investigated ranged from the issues of aging issues, physical and mental exercises, crafts. Video visually showed the researcher how yoga, tai chi, and other forms of exercise integrate into an enrichment program. This form of research uncovered the information that was not necessarily found in other research resources. Seeing the movements created a clear understanding, and videos were integrated into the actual training manual (e.g., YouTube videos offered a wide range of information regarding the physical and mental aspects of aging).

2.2.3 Post-manual Interview phase. The purpose of this phase was to pilot test the newly-developed IRCF manual. After the researcher presented the enrichment program manual, the ED participants were asked to provide detailed feedback regarding the information presented. The open-ended pilot test questions consisted of ten questions and lasted approximately forty-five minutes (refer to Table 4 for the post-interview phase questions). The questions were developed by the researcher with the assistance of books referencing interviews and qualitative research. Conducting open-ended questions, gave the researcher the opportunity to understand the effectiveness of the enrichment manual. A few items were added for the participants to expand on their thoughts regarding the enrichment program manual.

Table 4 Post-Manual Interview Phase Questions

1. How do you think the enrichment program manual implemented cognitive enrichment?
2. How do you think the enrichment program manual implemented motor skills enrichment?
3. How do you think the enrichment program manual implemented social enrichment?
4. How do you think the enrichment program manual implemented self-enrichment?
5. Why or why not do you consider breaking down the needs by cognitive, motor skills, social, and self-enrichment a productive way to meet Maslow's theory?
6. What would you change or add to the program?
7. What did you learn from the enrichment program manual?
8. Why or why not do you think this manual will save time and money in organizing an enrichment program?
9. What are your thoughts about the gerontology training that was implemented into the enrichment manual program?
10. How do you think this training will affect holistic care?

2.3 Procedure

2.3.1 Needs analysis phase. The day of each open interview phase the researcher went to the ED participants' IRCF to conduct the one-on-one interview and started with an introduction to the Enrichment Director participant, discussed the goal of the project, and administered the consent form. The researcher reviewed the consent form with the ED participant and answered any questions he/she had. Once the ED participant signed the consent form, the researcher proceeded with the ten questions.

The researcher read aloud each question to generate a discussion between the researcher and the ED participant. The topics related to IRCF activities programs and staff training needs. Once the researcher felt that the participant finished with one question, then the researcher proceeded to the next question. When the ED participant had no new comments, the open-ended questions concluded.

The researcher took notes during the discussion and used an audio device to record any comments. An audio device was activated after the participant's consent was obtained. At the end of the conversation, the researcher answered the participants' questions and thanked each ED participant for their time.

2.3.2 Project development phase. During the project development phase, a collection of multiple resources assisted with the construction of the manual. The ED participants' feedback from the needs analysis phase helps direct the researcher in conceptualizing the program and were incorporated with collected information from books, videos, Internet, and IRCF best practices of companies within the field. Information was retrieved from journals, videos, training manuals, articles, blogs, books, websites, films, and magazines. Topics researched for training purposes were holistic care, elder care, elder abuse, Belmont report, the meaning of home, ageism, and stereotyping. The researcher analyzed activity schedules from other IRCF, which helped clarify enrichment activities effectiveness. The research also was investigating what makes an effective enrichment program: could it be budget, training, access to support and resources? The researcher found that all of these factors contributed to a higher quality program. Time for programming and the number of employees for activity departments play a role in the quality of the program.

The researcher also used resources found on the Internet, such as photographs and calendars. The enrichment manual was created from all the above sources and which focuses on fulfilling Maslow's Hierarchy of Needs with integrating staff training and holistic care.

2.3.3 Post-Manual Interview phase. On the days of the individual feedback interviews, the researcher met the ED participants at their respective IRCF. The researcher greeted the participant and explained the process of the meeting (i.e., introduction, independent manual review, manual review, ten questions with comments and feedback, the participant was thanked for their time). After the opening, the researcher allowed the ED participant the necessary time required to review the enrichment program manual content. The participant finished examining the enrichment manual independently, and then the researcher discussed the manual with the participants. During this period, the researcher asked prompted open-ended questions were generated for discussion and feedback. Each interview lasted forty-five minutes. The items designed to allow the participant to express their opinions openly and freely regarding their thoughts regarding the manual. What they liked about the manual and how to improve the

manual. ED participants were encouraged to discuss the positives and negatives of the program. During this period, the ED participants were invited to give detailed feedback regarding the content of the manual and the associated training process. Utilizing a qualitative research design, pilot study feedback during this phase were content analyzed at the word, phrase, and thematic levels following [19] qualitative methodological approach.

3. Results

Through a two-phase qualitative process, the enrichment manual was developed. The purpose of the project was to both design and pilot test the newly-developed manual. After the researcher presented the enrichment program manual, the ED participants were asked to provide detailed feedback regarding the information. An IRCF thrives on committees' and residents' involvement to encourage self-enrichment. Residents' participation improves attendance rates and general involvement in activities. "Enrichment Director feels the excitement when the residents feel a part of something" which gives them life satisfaction. Residents' involvement with committees gives them purpose, an activity to look forward to and that they were a part of something they created. The committees' ranged from special events, men's club, women's club, entertainment, birthday, and art. Feedback from the needs analysis phase used to help construct the activities and program calendar for the training module. The information collected during the "needs analysis" phase greatly assisted in the development of the enrichment programs subsequent content (refer to Table 5 for results from interviews "needs analysis" phase participants). The program manual discusses the critical value of implementing committees in the training portion of the program manual and also reiterated in an example program activity calendar.

Organizing the modules into four categories of cognitive, motor skills, social, and self-enrichment focused on the materials needed to design the enrichment manual. Collected materials assisted in the development of the overview training, case studies, activities, quiz, and calendars. Compiling research from multiple disciplines enabled this contribution of an enrichment training manual that focuses on holistic care and centered on Maslow's Hierarchy of Needs. The enrichment program manual includes a cover page, table of contents, and introduction into how to use the manual, explanation to the manuals theory, modules, calendars, program description, and an example of a full day of an enrichment program. ED participants gave helpful feedback in response to the created enrichment program manual (refer to Table 6 themes from "post-interview phase"). One of the ED participants stated it was "great to have step by step explanation. Activities and programs were organized and easy to understand. Participants were pleased to see some of their program suggestions within the manual (e.g., newspaper news, group trivia games, and puzzles).

Table 5 Themes from Interviews with "Needs Analysis" Phase Participants

Theme	Theme Description	Sample Quotes
Mental Aerobics	-Games number one activity for cognitive enrichment -Games support self-enrichment providing residents with accomplishment	"engaged with games to help them use their minds" "stimulate group discussion which promotes mental health" "games are

		tailored to cognition level."
Physical Aerobics	-Most commonly used as a theme for motor skills enrichment is exercise programs (Yoga or Tai Chi) -Fine motors skills are supported through crafts, cooking, cards, and games	"important to keep residents moving and not just sitting still during a program" "motor skills are used during activities that promote the movement, for example, bowling or ring toss."
Tailored Activities	-Special events like birthday, seasons, entertainers, outings, and holidays to encourage social activity -Special groups and clubs bring residents together for a specific reason and common interest	"special events reinforce self-enrichment because it gives residents the feeling of gratification." "putting together a theatre production can get residents involved by acting, set design, stage a crew, costumes."
Social Activities Achievement Experiences	-Group discussions, win a prize, finishing a project, and build committees -Creating activities that involve group participation -Residents volunteer to run programs -Motivate activities with prizes to feel gratification	"ED participants feel excitement when residents feel a part of something" "socialization keeps people alive and well" "encourage social conversations by using Ted Talk Lectures followed by group discussion."

Table 6 Themes from "Post-Interview Phase"

Theme	Theme Description	Sample Quotes
Cognitive Enrichment	-The training section of the manual demonstrated positive, clear and specific reasons to implement -Greater understanding of mental aerobics	"great to have step by step explanation." "manual easy to understand" "mental aerobic games need to have the specific task purpose" "promoting mental health."
Motor Skills Enrichment	Training was successful in stressing the importance to maintain a healthy lifestyle -Makes residents feel strong and improves balance	"suitable exercises programs in the calendar (yoga, tai chi, jazzercize, and weight-lifting)" "keep people alive and healthy" "manual offers a variety of new programs"
Social Enrichment	-Social enrichment satisfactory to ED participants with integrating training with a well-designed activity program -Manual is beneficial to directors by supplying an objective with specific	"variety of social activities being offered with cooking clubs, discussion groups, committees, and games" "the manual displays a range of social interactions for a diverse audience" "being social

	tasks and outcomes	creates friendships"
Self-enrichment	Expressed with having activities that give residents purpose (e.g., committees, special events, and games) -Trips give residents enjoyment and self-worth which provides people with excitement and anticipation	"residents have so many different personalities; by offering multiple activities can achieve self-enrichment." "enrichment activities make the residents feel special" "inviting family to visit and participating in the events."

4. Discussion

An enrichment manual based on Maslow's Hierarchy of Needs theory that incorporated modules of cognitive, motor skills, social and self-enrichment created a valid enrichment program. ED participants felt that it was essential to organize a well-designed activities calendar to give the residents purpose and things to look forward to [1]. The findings suggest that games are the most popular activity during the needs analysis phase that ED participants use to implement all four modules. The second most used activity theme was special events to incorporate social and self-enrichment. Although other topics were expressed, the frequency of the ideas was independent of the group of ED participants. The researcher anticipated a more common response from the ED participants. However, many of the responses were different from each of the ED participants. This result gave the researcher multiple themes to investigate in the project development phase. The needs analysis and focus group phase gave the researcher the ability to construct an enrichment manual that was well received by the ED participants. Music, exercise, games, and art therapy are a few available program activities within an enrichment program that can foster Maslow's need hierarchy and are cost-effective [20]. The following section explores specific enrichment activities that can further apply Maslow's theory in practice.

4.1 Music

People use music for a variety of reasons, such as for exercising, relaxing, achieving spiritual inspiration, and celebrating holidays [21]. Music can place individuals in a positive mood and bring back forgotten memories [22]. In any IRCF site, incorporation of music through an individual approach or a group setting is feasible. In assessing music therapy outcomes among residents with dementia, the study showed how the participants did show signs of being less apprehensive and displaying lower anxiety, which results in being less flustered [22]. IRCF can organize activity clubs for residents to play instruments and to create groups for specific genres of music preferences, increasing social interaction, making the residents feel like they are a part of a community [21]. A music program can be run by IRCF residents, allowing the opportunity for residents to choose musical selections, which will encourage autonomy and active participation [23].

4.2 Exercise

An environment that promotes a healthy lifestyle will increase physical function [24]. People partake in physical activities for a variety of reasons, whether to stay in shape or other motivations

(e.g., social engagement) [25]. Cognitive loss can result in the older adult deteriorating physically, which is why exercise is invaluable in every care program [25]. Older adults living in an IRCF should have a program that is easily executable without frustration [26]. Tai Chi and Yoga are exercises for adults in later stages of life because they consist of low-impact movement and soft breathing techniques [27]. In an IRCF, these types of exercise have proven to increase a person's self-esteem and mental state, which is as important as the physical benefits [16]. Older adults will feel better about themselves, ultimately decreasing depression and enhancing their quality of life [28]. The loss of motor skills can cause the deficient use of energy which puts more pressure on muscles and less capable of operation [29]. Keeping active can minimize these effects and help maintain physical capabilities with the proper energy usage [29].

4.3 Games

Games can help with cognitive enrichment because residents may apply their problem-solving skills [30]. A study by Hayslip and colleagues found that there are benefits to mental aerobics for resident's dealing with impairment and it was apparent over the redundant implementation through activities [31]. A cognitive control study found that older adults who participated in "mental training" games (e.g., quizzes, puzzles, and memory recognition tasks) showed that they developed a higher level of cognitive function that helped with everyday activities [32]. Melby-Lervag and Hulme (2016) [33] found that mental training does have benefits to a residents' cognitive function. An observational study found that residents who played games with their colleagues (e.g., Blackjack and Poker) displayed higher levels of happiness opposed to the residents that did not play games [34]. Interactive computer activities like Wii games (e.g., yoga, tennis and bowling) may not only benefit the participants' physical fitness, but the type of games can increase individuals' task function, memory recollection and attention awareness [35]. Games can help with cognitive enrichment because it is applying their problem-solving skills [30].

4.4 Art

The goals of art activities are to gain physical strength in the upper body and hands, to reduce stress, and depression, and to increase socialization and enjoyment [4]. It may be hard for older adults or dementia patients to discuss topics about thoughts of death, past trauma, and pain management but art can help residents express feelings through art therapy [36]. When older adults have cognitive impairment or function loss due to a stroke, art may be the only form of possible communication, and it can help individuals' expression of feelings and thoughts [37].

Artistic expression can be accomplished in a variety of techniques, for example, through free drawing, adult coloring books, still life, sculpting, and woodworking. Art produced in watercolor, pastel, markers, color pencils, and clay can give new life to art activities by using different materials [37]. Enrichment programs can incorporate different activities of gardening, pottery, woodworking, knitting, and crafts [38]. A study regarding art-related activities therapy demonstrated how a residents' paintings changed over time as they aged and needed to adapt to their physical changes, the resident adapted to the changes by using a sponge rather than a paintbrush to create a painted picture [37]. The resident changed their technique to compensate for the aging-related loss of function and maintained the satisfaction of creating art which created

a feeling of accomplishment [37]. Art activities can range in complexity and, manipulate in response to functional capability, but the enjoyment of creating art should not be lost [37].

4.5 Application of Project

Research can further investigate the feasibility of outsourcing an enrichment program manual for usage within IRCFs. Investigating the enrichment coordinators' and residents' responses to the enrichment manual can explore if an enrichment manual can be beneficial to the enrichment department. IHCF that lack resources and budget will benefit from outsourcing an enrichment program to provide a productive program that affects the individual's social needs and is cost efficient for the facility [39]. DerGurhian (2007) [40] discovered that healthcare facilities that utilized outsource services to be cost-effective provides a higher level of service and stronger satisfaction among their patients. A study collected data from 203 companies from different industries that have an outsourcing rate higher than 50%. The data concluded that the companies that implemented outsourcing scored higher levels in supplier management, capability, performance, and guidance [41].

4.6 Limitations and Future Research

The limitation of this project is that the results of the enrichment program manual are based on a small focus group. A larger sample group could provide a broader perspective. The researcher felt that the feedback focus group may have biased because of the prior needs analysis phase, relationships were formed, and the ED participants may not have wanted to give feedback that may be negative to the manual. The wording of "enrichment manual" could have turned away ED participants because of the title. Further research can be conducted on regular training within an enrichment department and how it affects the staff and residents. How can proper training impact the enrichment coordinators which will directly improve the enrichment and activities conducted?

5. Conclusion

Enrichment programs would benefit from incorporating Maslow's Hierarchy of Needs with a well-developed plan of activities that can affect the residents' quality of life, by incorporating cognitive enrichment, motor enrichment, social enrichment, and self-enrichment [6]. Enrichment department staff often lack in training and education because of low salary wages within the gerontology field which can lead to turnover. Due to the inability to feel positive about the work the individual is conducting. Supporting enrichment department staff with training can build employee satisfaction which will reflect the quality of care.

The benefits of using an enrichment manual include streamlining programming, introducing new activities, cost efficiency, advanced knowledge, and training resources. The needs analysis phase guided the researcher to new themes that were not previously anticipated which makes the ED participants' needs analysis an asset in developing the program. ED participants did learn Maslow's theory and information from the modules which may affect how they plan activities. The result revealed that an enrichment manual could have a positive impact on the enrichment department, residents and gerontology field.

Author Contributions

Ms. Fahy was the primary researcher in the study. Dr. Hollis-Sawyer was a supporting research investigator.

Competing Interests

The authors have declared that no competing interests exist.

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