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ABSTRACT
The need for a manual and activity guide for use with Montessori activities available at a facility was identified during discussions with key staff members of a long-term care home in Ontario, Canada. This agency offers 170 single-resident accommodations for a geriatric population with a variety of needs, from physical and medical needs, to behavioural and emotional needs, such as residents with dementia. The population in this facility has a wide age range, from approximately 45 years old to over 100 years old. A Montessori activity room was already present in the home, but the materials were not labelled and there were no guidelines on how to use each activity to benefit the residents of the facility; therefore the room was not being used to the best of its ability in order to serve the residents. Also, many of the activities that were present in the room were not age-appropriate for an adult or geriatric population. The activity coordinator at the agency recommended cleaning, reorganizing, and repurposing the room to use activities that followed the Montessori Method of working with residents with dementia. Research was conducted on the principles of Montessori-Based Programming for Dementia, and activities were chosen for inclusion in the manual based on their adherence to these principles as well as the availability of required materials at the home. Research indicates that volunteers are able and willing to run Montessori-based activities, so the manual was designed in order to provide education on working with clients with dementia, as well as the Montessori Method, from the perspective of somebody that is new to the home. Research also indicated that Montessori-Based Activity Programming can have a variety of benefits to residents of long-term care facilities, ranging from a decrease in depressive and anxious episodes, as well as increased engagement with activities available at the facility (Jarrot, Gozali, Gigliotti, 2008). A list of requirements to include in the manual was created, with the help of the activity and volunteer coordinators. This manual was then created and revised based on feedback by staff at the home and supervisors of the project. The goal is that, by providing this guide and the required materials in one location, visitors to the home, including family members and volunteers, will be more likely to assist residents to engage with activities that will be enriching to the residents’ overall quality of life. Prior research has indicated that individuals with dementia who participate in Montessori-based activities may see beneficial results in terms of their mood and behaviour. Previously established research has indicated that residents who participate in Montessori-Based Activity Programming are likely to benefit in terms of their engagement with the activities, and in terms of their observed levels of agitation, among other negative emotions and behaviours (Femia, 2006). The manual is a total of 25 pages long and offers 15 different activity guides for use with residents.
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CHAPTER I: INTRODUCTION
The creation of a manual to facilitate Montessori-Based Activity Programming (MBAP) for long-term care residents is directly related to programming at the agency. The manual includes several different sections, such as the history of MBAP, tips for working with a geriatric population with multiple disorders, and activity guides for specific activities that are available in the home. This manual will mostly be used by visitors with residents with dementia, but may also be used with residents with undisclosed illnesses. Montessori-Based Activity Programming has been shown to effectively decrease reactive behaviours and negative moods in people with dementia, while increasing engagement and pleasure during recreational activities (Mahendra, Hopper, Bayles, Azuma, Cleary, & Kim, 2006). The manual will be used by family members of residents and volunteers in order to provide the skills and knowledge required to run Montessori-based activities with residents of the home with minimal assistance from staff members. The need for such a manual, as well as the selection of new activities, was discussed with key staff members involved with recreational activities and the coordination of volunteers. It was determined that a manual would be a useful tool for volunteers and family members to have access to. Key staff reported that the manual would be also be useful for providing a level of education to other staff members, most of whom are not educated in the field of recreational therapy. The selection and purchase of new activities was required because most of the items that were already present in the facilities activity room were inappropriate for Montessori-based activities: for example many items were not age appropriate, some were missing pieces, and for others there were no proper instructions. All activities chosen to be explained in the manual and purchased for the activity room were based on research. Having this manual available in the activity room will provide education and guidance for staff, and will allow visitors to the facility to run MBAP activities with clients, which will improve the quality of life as well as reduce emotional and behavioural disturbances in participating residents (Mahendra, Hopper, Bayles, Azuma, Cleary, & Kim, 2006).

CHAPTER II: LITERATURE REVIEW
As rates of dementia and related illnesses rise, families are increasingly turning to long-term care services to provide care for elders (Jarrott, E., Gozali, T., Gigliottia, C., 2008). A population-based study from the United States has shown that 61% of people with dementia displayed one or more behavioural or emotional disturbances in the prior month, including agitation and irritability (Van der Ploeg, E., Walker, H., O’Connor, D.W., 2014). Studies also suggest that clients in long-term or day care programs experience even greater levels of behavioural disturbances (Van der Ploeg, E., Walker, H., O’Connor, D.W., 2014).

Research suggests that a psychosocial intervention involving activities tailored to the individual’s background, interests, and skills is effective at reducing such behavioural disturbances (Van der Ploeg, E., Walker, H., O’Connor, D.W., 2014). However, activities in many long-term care settings mainly offer activities that are inadequate for the residents’ individual needs. For example, activities may not be age appropriate, they may be too difficult or they may simply be uninteresting for the resident. Also, many facilities mainly offer group activities, which are largely inaccessible for residents with greater cognitive impairments. It is therefore suggested that the addition of individualized, one-on-one activity programming, may lead to fewer behavioural disturbances in residents with dementia (Orsulic-Jeras, S., Judge, K., S., Camp, C., J., 2000).

Another barrier to proper care for clients with dementia is the belief that “because persons have dementia, they are incapable of learning new things, incapable of showing anything but decline…” (Malone, M., L., Camp, C., J., 2007, p. 151). This belief may prevent staff from designing activities that appeal to an individual’s remaining cognitive strengths, such as their spared memories, largely because their strengths are not recognized. This is the main principle of Montessori-based activity programming for individuals with dementia; individualized activities which are designed to promote an individual’s level of overall functioning (Malone, M., L., Camp, C., J., 2007). Certain memories
and abilities are preserved well into dementia, and it is important to incorporate some of this “spared capacity” (Elliot, G., 2012) into activities for residents with dementia. Activities will also be varied, and options will be given for variations of individual activities, so as to provide a further level of individualization. Staff will also be informed of which activities residents seemed to prefer, and this will be noted in resident’s care plans so as to keep a record of which activities are suitable for individual residents.

**Population**

This manual was designed for a population in a long-term care home with a wide age range and a variety of medical and psychological diagnoses. Dementia is very common among this population, which is why much of the focus of research was placed on programming specifically for dementia. Residents with dementia often have deficiencies in language, task performance, recognizing familiar objects, and executive function; and the ability to function normally day to day is ultimately interrupted due to severe and worsening memory impairments. (Elliot, G., 2007). Research has pointed out, however, that procedural memory (memory involving performance as opposed to language) is largely spared in dementia, along with the sense of smell and touch, and physical abilities including range of motion and strength (Elliot, G., 2012). Therefore, it is important to keep this “spared capacity” in mind as a strength when designing individualized activity programs. For example, many of the activities included in the manual have been designed to incorporate the use of sensory input, especially touch, as well as the opportunity to practise motor skills such as range of motion or grip strength.

**History and Principles of Montessori-Based Activity Programming**

Dr. Maria Montessori (1870 – 1952), the inventor of the Montessori education method, was the first female physician in Italy (Elliot, 2012). Her work with impoverished and disabled children forms the cornerstone for much of today’s research on recreational therapy for people with dementia, including Dr. Cameron Camp’s 1999 MBAP manual (Camp, 1999). Dr. Camp became interested in Dr. Montessori’s work while pursuing research for on a memory-based intervention for people with dementia. Dr. Camp states that he began to find similarities between his own research and the theories and principles followed by Dr. Maria Montessori (Camp, 2010). In fact, Dr. Camp’s work follows the same principles that were developed by Dr. Montessori in the 1800’s. The principles of Montessori-Based Activity Programming are as follows: using materials that are familiar and aesthetically pleasing, progressing from simple to complex, progressing from concrete to abstract, structuring materials so that participants will work from top to bottom and from left to right, using as little vocalization as possible while demonstrating activities, making activities self-correcting, taking advantage of learning and memory that is largely unconscious, automatic, effortless, and appear early in an individual’s development, using external cues, breaking down activities into component parts, and only participating in activities that are meaningful to the client (Elliot, G., 2007). After changing research directions to pursue what would become MBAP for dementia, Dr. Camp undertook two initial studies that found promising results from Montessori-based activities (Judge, Camp, and Orsulic-Jeras, 2000). These initial successes prompted other researchers to begin looking at MBAP for dementia and related illnesses as well (Camp, 2010).

**Common Research Findings**

Since Dr. Camp’s original studies on MBAP for dementia, numerous other researchers have conducted studies on Montessori-Based activities in long-term care homes for residents with dementia. The results from a selection of these studies are summarized below. Camp and Schneider (2002) completed a study in which nine residents in a long-term care home participated in Montessori-based activities with individuals who had volunteered to help out at the home and with the concurrent research. Results from this study indicated that the use of Montessori-
Visitor Assisted Montessori Activity Manual

Based Activity Programming was associated with increases in several forms of active participation, and subsequent decreases in forms of passive participation in dementia patients. Volunteers also reported feeling “less burden” from pre to post test. All volunteers stated that they had observed positive behavioural changes in residents and that they would recommend that this program be continued, as well as recommend the training to volunteers at other homes.

Elia Femia published an evaluation in 2006 that was completed for the Alzheimer’s Awareness and Care Program in order to assess the impact of Montessori-Based Activity Programming in 4 adult day service centers. The participants’ mood and behaviours were assessed throughout the intervention period. This study showed that MBAP programming was associated with higher levels of constructive engagement and helping behaviour when compared to traditional activities. MBAP programming was also associated with lower levels of passive or non-engagement, as well as lower levels of difficulty with the task over time. Results also displayed that there was a decrease in “positive behaviour” in traditional activities over time, as opposed to a slight increase in positive behaviour in MBAP activities. These differences were largely evident at both the 3- and 6-month checkup, although at 6-months the changes were more reportedly more distinct. During this study, staff were also given a survey to complete at the 3- and 6-month periods in order to determine staff satisfaction with Montessori-Based Activity Programming. A total of 17 staff responded to this survey, from various backgrounds, ranging from activity staff to the center directors. Staff were reportedly very satisfied with the program as it was implemented, but suggested two areas for improvement. Staff reported that more table space would have been optimal, as well as having a dedicated area without too much noise or activity. Also, staff had originally noted that some of the activities appeared to be juvenile, but as the program continued the program became widely accepted by all staff members participating. The author notes that at the 6-month check-in these staff members no longer commented that the activities were inappropriate for adult residents. The staff were also asked to comment about observation they had made of residents participating in the program. Generally staff believed that the program was having a beneficial effect on the residents at the home. By the 6-month period of intervention staff mostly agreed with the statement that MBAP participants were easier to handle after having participated in MBAP activities. Staff also rated the program as appearing to be enjoyable for the residents. The final important item that staff commented on was their willingness to continue the program, and 9 out of 10 staff members recommended that it continues, providing a high level of social validity. The findings in this study about the participant’s mood were conducted qualitatively, by outside observation. Several reports of the beneficial effects of MBAP are reported, such as the observation that one client would not participate in any activity at the beginning of the intervention period, but over time the individual became capable of staying focused for a short period of time without prompting from the instructor. Many residents were reportedly only engaging passively in the beginning, but showed increased at the 3- and 6-month periods. This study can be concluded with a quote from the author: “MBAP provide meaningful activities that can improve and adult day participant’s engagement and mood, which arguably, can provide a greater sense of self-worth, purpose, and quality of life”.

A within-subject design of participants from two adult day-care centers showed that the use of MBAP is associated with slower cognitive decline in comparison to traditional interventions (Vance, D., E., Johns, R., N., 2002). This study displayed that scores in permanence, attention, “concept”, memory, and depression were all beneficially and significantly associated with an MBAP intervention compared to traditional interventions.

Orsulic-Jeras, Judge, and Camp (2000) completed a study in a long-term care home with a population of 16 residents, with “advanced dementia” in order to evaluate levels of observed engagement across several categories, as well as observations about the participant’s perceived level of pleasure while participating in MBAP activities in comparison to traditional activity programming. This article provides a description of what traditional programming may look like in long-term care homes, as well as reasons why these activities may not be appropriate for residents with moderate to severe levels of
dementia. This study found that there was significantly higher engagement, less passive engagement, and higher perceived levels of pleasure observed in participants of MBAP sessions, as compared to a control group receiving only traditional activity programming. The author of the study states that displays of anger and sadness almost exclusively occurred during traditional activities in comparison to levels observed during MBAP activities. Examples of traditional programming included “storytelling, trivia, exercise, current events, movies, discussion groups”, and various musical programs. This study also showed that it was possible for regular activity staff at long-term care homes to run Montessori programming as a part of their regular activity schedule, without an increased burden on staff. The author notes that volunteers have also been able to successfully run Montessori-based activities in other similar studies.

Jarrot, Gozali, and Gigliotti, (2008) conducted a study in order to compare the engagement and affect of 10 participants with dementia during Montessori-based and traditional activities in an adult day program. Participants in this study served as their own controls, and were observed during both MBAP and traditional activity programming. Four measures of engagement were analysed: constructive, passive, self, and non-engagement. Affect was assessed with the use of a standardized rating scale in order to measure the duration of five type of affect displayed during activities: pleasure, interest, anger, anxiety/fear, and sadness. Each emotion was rated using guidelines on facial and vocal expressions to rate each category from 1-5 according to the duration of each display of emotion. Over a ten week period, with each activity type presented three times per week, the author determined that engagement was significantly affected by the use of MBAP activity programming as opposed to traditional programming. Levels of constructive engagement were higher during MBAP, and levels of passive, self, and non-engagement were significantly lower during MBAP. The beneficial effects on the participants’ affect, however, could not be determined. Observed levels of pleasure appeared to be roughly equal across all activities, although the author does note that almost all displays of negative emotion were during traditional activities, although this does not provide significant evidence that MBAP improves affect and emotion in participants. More research is necessary to determine whether participants’ emotions can be improved through the use of Montessori-based activities in long-term care or adult day care settings with dementia patients.

Mahendra, Hopper, and Bayles (2006) conducted an analysis of five different studies in order to summarize the evidence for the efficacy of Montessori-Based Activity Programming. The studies were judged to provide stage II and stage III evidence supporting the use of MBAP interventions for people with dementia. Overall, there were 74 participants across the five studies analysed. All participants had a diagnosis of “probable or possible Alzheimer’s disease”. The primary purpose of these studies was to investigate the potential effects of an intervention using Montessori principles on the behaviour, cognitive function, and mood of individuals with a diagnosis of dementia. Outcome measures ranged from performance on psychometric tests, to ratings on observational scales, to ratings on both mood and engagement in activities. Three of the five studies were given a “low” treatment fidelity rating, and two of the five received a “moderate” fidelity rating. The author notes that the treatment fidelity could have been increased if the author’s included specific information on the types of activities used during traditional programming. Also, none of the studies implemented manipulation checks to ensure that the program was being properly implemented across time. Inter-observer agreement was only reported for two of the studies, but both of these studies reported high IOA, with levels of 90% and 95% reported. The analysis concludes by suggesting characteristic which seem to make resident’s a good candidate for MBAP, and also provided a list of suggestions for future research directions. Overall, these 5 studies showed that Montessori-based activities can be effectively used in an intervention for people with a diagnosis of dementia in order to enhance engagement in specific tasks, improve the ability to individually perform tasks when taught using Montessori principles, enhance positive affect and reduce negative affect, and improve the ability to participate in group settings. The author notes that there is little evidence that the results of psychometric tests can be beneficially altered.
with an MBAP intervention, although this is not the main purpose of MBAP in the case of long-term care residents with dementia.

Doll therapy was implemented as one of the main activities in the home, both because of the availability of materials and because of the vast amount of research supporting its use with a population of elders with dementia. One such study was conducted by Mackenzie, James, Morse, Mukaetova-Ladinska, and Reichelt (2006) in order to examine the implementation and effects of doll therapy in a long-term care setting. This study followed 37 participants with a diagnosis of dementia over a 3 to 6 week period. Participants were monitored by staff, and those faculty members were interviewed in order to determine both the agency perception of the program and the perceived effects for the residents. The results of these surveys indicate that residents tended to be more active, show increased interaction with staff and other residents, appeared happier, appeared less agitated, and were reportedly more accepting of personal care routines during the intervention period. Other perceived benefits included less wandering and an improvement in speech. Also, 45 out of 46 care staff members, who were not involved in the intervention but had frequent interactions with the residents, believed that there was a clear benefit to the continued use of doll therapy in the home.

Research has also been conducted on the viability of having volunteers conduct Montessori activities in long-term care settings without staff supervision. In this study, Van der Ploeg, Walker, and O’Conner (2014) recruited 19 nursing home volunteers in order to study whether volunteers to a long term care home were able and willing to assist with personalized activities with residents with severe dementia and associated behavioural problems, such as agitation. The volunteers participated in training to learn the principles and procedure for applying MBAP. Volunteers were specifically assigned residents that had a diagnosis of dementia, complicated by “frequent, non-aggressive behaviours”. Study participants were asked to pay at least six 30-minute visits to their assigned resident over a period of three weeks. Participants completed rating scales to determine their knowledge and attitudes about the program and dementia in general before and after the intervention period. The volunteers were also interviewed following the 3-week intervention regarding their experiences and beliefs about this type of individualized activity intervention. 16 of the volunteers completed the program, with 8 volunteers exceeding the number of required visits. Most participants derived satisfaction from engaging with residents with challenging behaviours, and reported being pleased to learn about this program. The author notes, importantly, that the volunteers that did not complete the required number of visits displayed lower levels of dementia knowledge at the onset of intervention in comparison to participants who completed the study. Overall, the author suggests that, with some training and staff supervision, volunteers remain a largely unused resource that could be effectively incorporated into future interventions to increase the number of long-term care residents receiving individualized activities.

**Gaps in Literature**

Several gaps were noted in the available literature. One flaw in many of the studies was that traditional activity programming was not accurately defined. It would have been very useful if the authors defined traditional programming that was often used as a control when testing Montessori-based interventions. If this definition was included, it would have helped to determine which activities to include in the manual, and which had proven to be less effective. A second important note is that, although all of the activities were designed with Montessori principles in mind, not all of the activities had specifically been used and tested in previous research. Therefore, it is not possible to know whether all activities will be as effective as one-another. Finally, although another manual for MBAP is in existence (Camp, 1999), it lacked some of the aspects found in the current manual being developed. The current manual is being developed specifically for this agency, and only uses materials that are available in the building. Also, since the manual developed by Dr. Camp was developed in 1999, it is 19 years old at this point and much more research has been done since then, for example, there has been a lot of advancement in the field of doll therapy for dementia patients. It was therefore determined that a
manual specific to this agency would be more useful than a generic manual that is nearing 20 years old, although this manual was used in order to help guide the formatting of the current manual.

**Research Summary Statement**
Overall, research has determined that Montessori-Based Activity Programming is effective at improving the mood and engagement in activities of long-term care residents with dementia, while reducing the rate of reactive behaviours. Research has also shown that volunteers are capable of running such programs with minimal staff assistance. Therefore, the creation of a manual for visitors and family members to run Montessori-based activities with residents may help to curb reactive behaviours, improve the mood and improve engagement of residents who choose to participate. This will hopefully have the effect of improving the residents’ quality of life in the home, overall.
CHAPTER III: METHOD

Activity Development
Activities included in the manual were chosen based primarily on research, and secondarily on the availability of materials or funding to purchase necessary materials. For example, doll therapy is one of the dominant activities that was prioritized for inclusion in the manual because there is a vast amount of research showing its efficacy in long-term care settings and there has been research conducted on the proper guidelines for implementation of a doll therapy intervention. Guidelines for Use of Dolls and Mechanized Pets as a Therapeutic Tool (Understand Alzheimer’s Educate Australia) was one such article that was used to help format and assist to develop the activity procedure for the doll therapy activity guide included in the manual. Also, Dr. Camp’s 1999 manual was used as inspiration for several of the activities explained in the manual. Activities that have not been directly researched in the past have all been developed based on Montessori principles. For example, each activity has “extensions” that will allow the individualization of the activity, as well as variation in difficulty of each activity. One such example is in the mirror cleaning activity, an extension for this activity is to have the resident clean their eye-glasses or windows in the building as opposed to hand mirrors. After creating a list of research-based activities, the manager of recreational services was consulted to decide on the final list of included activities. The purpose of this step was to gather input from other professionals who have greater knowledge of potential risk factors that may exclude the inclusion of some activities. For example, a baking activity was discarded based on input from the supervisor stating that volunteers would not be allowed to use the kitchen without supervision from staff members. Ultimately these activities will be read by a second reader to ensure clarity in the writing and the procedure.

Manual Organization and Design
This manual was written at a Grade 10 reading level. The manual was organized into six sections. The sections to the manual were all approved by the supervisor of recreational services, and she was also consulted throughout the design of the manual for input on the required format and material to be included.

The purpose of the manual was explained first (Appendix A). This was included so that readers know what to expect, and they will know immediately whether the manual will be helpful for them. The sections section is called “Barriers to Traditional Programming for Residents with Dementia. This section includes tips for working with people with dementia and a basic summary of the barriers that make traditional group programming hard to access for people with dementia. This section also includes a legend for codes that are later used in the activity guide section of the manual for specific areas of difficulty. For example, a code of “V” means that an activity may be difficult for residents that have difficulties with their visual acuity. The next section is a brief biography of Dr. Maria Montessori, followed by a section on the principles of MBAP. The individual activity guides follow, which are sorted alphabetically. The final section is named “More Information” and includes the names and contact information of staff members that can provide assistance, as well as several references that provide more information about Montessori-based programming.

Intended Use of the Manual
The manual will be placed in the activity room on the secure floor of the care center. The reasoning for placing the manual on this floor is that there is a higher number of residents with dementia, and this population will be the most likely to benefit from the use of MBAP. Also, this floor has the highest rate of reactive behaviours, and since Montessori activities have been shown to decrease negative behaviours, this will be where the activity guide has the most benefit in terms of reducing these behaviours. The manual is intended to be used by visitors to the facility (either volunteers or family members) who wish to run recreational activities with residents. The manual will help provide the knowledge and basic skills necessary to run these activities, and will guide readers through
activities step-by-step. Initially the users of the manual may need staff supervision because of the nature of working with people with dementia. However, if the user is a family member or someone who is familiar with working with people with dementia this may not be a necessary step. Along with the physical copy that is available in the activity room there will be an electronic copy available on file at the agency. This manual will be available to any staff member, volunteer, or family member that requests it. This will increase the likelihood that the document is read by as wide of an audience as possible. With visitors and family members able to run MBAP without staff supervision, the residents of the agency may be able to benefit from some of the positive effects shown in research. Ultimately, the purpose of the manual is to increase the residents’ quality of life by increasing their mood, decreasing reactive behaviours, and increasing their enjoyment and participation in recreational activities.
CHAPTER IV: RESULTS

Summary
This manual was created with the purpose of providing education and guidance to volunteers and family members or resident’s on the topic of Montessori-based activity programming for people with dementia. Before beginning the manual, and throughout the production of each section, key staff members of the agency were consulted to give the writer feedback and suggestions. The ultimate goal is that visitors to the home will be able to run activities that are covered in the manual. Each activity was created or chosen for inclusion in the manual because they all follow the principles of Montessori programming, and many of the activities had specifically been researched and proven to benefit people with dementia. The manual was created following the proposal outlined in the method section. Only a few steps were not followed, due to time constraints and recommendations by key staff members at the agency. The manual includes several sections of educational material, as well as a large section covering each individual activity. The educational sections were comprised of the following: the “Purpose” section on page 2, a short biography of Dr. Maria Montessori on page 2, “Principles of Montessori-Based Programming for Dementia” on page 3, “Barriers to Traditional Activity Programming for Residents with Dementia” on page 3, General tips for working with residents with dementia on page 4, and a guide to beginning and ending Montessori activities on page 5. Starting on page 6 are the specific activity guides, which include sections such as the purpose, risk factors, materials required, and the steps to each activity. There are a total of 15 suggested activities at the time of submission. After the activity guides is a section noting who the visitor may contact for more information, as well as the references used for the creation of the manual.

Final Design
In total, the manual is 25 pages long, excluding the title page. This is an appropriate length for a manual intended for people of a varying education level in the field of recreational therapy or behavioural psychology. There are 15 individual activity guides available in the manual, offering a variety of activities which can be customized to meet individual residents’ needs. There are several sections in the manual that are educational in nature. These sections cover the background of MBAP as well as the general knowledge needed to run these activities with residents who have dementia. The main section of the manual is the activity guide section, which will be used in conjunction with the educational sections in order to effectively run the activities.
Strengths While Creating and Implementing The Manual
The author of the manual notes that there were many strengths, as well as limitations, that should be noted when discussing the creation and implementation of an activity guide for visitors of a long-term care, or similar, facility. First of all, the author notes that it was of benefit to have upwards of a month to research the topic of Montessori Activity Programming. In order to properly teach others how to implement an intervention, it is of utmost importance that the teacher (or author of a guide) fully understands the purpose, procedure, and intended outcomes. This research helped the author to choose activities that would be appropriate for inclusion into such a manual. A second strength that was noted was the availability of peers that were able to brainstorm and collaborate on the creation of a manual. There was not a co-author to the manual, but the ideas and feedback given by these individuals assisted greatly in a variety of ways; from learning about the purpose of the manual from the Activity Coordinator, to feedback on how to effectively write a manual from the professor supervising the author.

Limitations, Ethical Issues and Challenges While Creating The Manual
There were many limitations to note in the creation and implementation of this activity guide. The first limitation, and perhaps most important, was the lack of time when creating the manual. The author notes that there was a large amount of time dedicated to research and self-education, and not enough time dedicated to the creation of the manual itself. Although a strong knowledge base is a strength when implementing an intervention, the lack of time to actually implement the intervention is a limiting factor. A faculty strike that occurred in the middle of the project was a second reason for time being a limitation; five weeks of process was slowed down due to this occurrence which was out of the control of the author. Another factor, which is related to the lack of time, is that the activity room at the facility was not ready for use until six weeks after the author began to create the manual. The room needed to be cleaned, renovated, and painted before the activities could be purchased which would ultimately be needed to use the activities described in the manual. The fact that the room was being renovated also lead to a third limitation, which was the lack of resources. Not only were there not many materials that could be used for Montessori activities, but there was a limited budget available for the purchase of new materials. Research on the implementation of Montessori-based interventions also note that the activity room should be a large and open design. Space available in the facility was therefore yet another limiting factor. The room was only about 10 feet by 16 feet, which meant that activities needed to be chosen for inclusion based partially on the availability of storage space, and space to perform the activity. If a larger room had of been available, a larger number of activities could have been chosen for inclusion in the manual. A fourth factor that the author notes is that the Activity Coordinator, who was acting as the author’s site supervisor, left her position temporarily before the manual was finished. Therefore, the activity coordinator was not available at the time of implementation of the manual. This could be a limiting factor in effectiveness because the Activity Coordinator is very knowledgeable in both Montessori approaches to dementia in general, as well as this specific manual and its’ intended purpose and procedures. Some activities that have proven to be effective at treating this population needed to be excluded because of policies at the agency as well as safety concerns. Also, the author considered adding appendix items to the manual that would be used to guide interviews with residents in order to gauge their interests and skills, but time constraints made this task impossible.

Contribution to the Field of Behavioural Psychology
The creation and ultimate implementation of this manual helps to further the research that has been done on Montessori-based approaches to mental health in geriatric clients. Specifically, this intervention should help to show that Montessori-Based Activity Programming can be effectively taught through a written medium to visitors of long-term care home, to be used with residents of the home. Ultimately, this will also help to show that visitors to long-term care homes are willing and able
to assist with Montessori-Based Activity Programming, and that such assistance is helpful to staff members of the facility as well as beneficial to the residents of the facility.

**Recommended Areas for Future Research**

Further research should be conducted on whether or not visitors are willing to assist with activity programming in homes on a long-term basis, and whether volunteers are more likely to assist if there is an activity guide and written procedure available to them. Research should also look into which Montessori-Based Activities seem to provide the most beneficial effects for clients, and whether different activities may have different benefits. For example, it is the author’s hypothesis that activities such as doll therapy may have greater emotional benefit for clients than an activity that is based on physical movement such as bead stringing. However, a bead stringing activity may be more suitable for an individual that wants to improve upon his or her range of motion or other physical skill, as opposed to an emotional-based activity such as doll therapy. A final recommended area for future research is whether Montessori principles can be applied in other areas of long-term care homes in order to provide some of the same benefits noted with Montessori-based activities. For example, whether Montessori principles could be used to help improve the calorie intake of residents who do not eat or attend many meals. Ultimately there are many directions that can be taken with future research because the use of Montessori principles in a geriatric population has been a relatively recent phenomenon.

**Revisions**

Several revisions were made to the manual due to time constraints and feedback from key staff members at the agency. The first revision involved specifically noting the risk factors for each activity, as opposed to creating a coding system and including a legend at the start of the manual. This was done in order to increase the probability of reader’s seeing the risk factors before starting each activity. Instead of having to return to a previous section of the manual, the reader is now able to note the risk factors of each activity without leaving the specific activity guide being utilized at the time. The second revision made to the manual involved changing a “baking” activity into an “ingredient measuring” activity, in order to avoid the risk of having volunteers use the oven without supervision. Staff at the agency noted that volunteers were not allowed to use the oven, so it was determined that this activity would be of little use unless it was changed to omit this step. A third major revision to the original plan was that activities were not sorted into sections, or sorted by difficulty. Each activity was not put into a separate category because of time constraints. Originally each activity was meant to be sorted into categories such as “arts and crafts, self-care, etc.” Numerous smaller revisions were made to the manual, such as including changing the format of each activity guide to be more readable and user-friendly than the original format supplied by the agency. A final change worth noting is that the planned general activity guide section was changed to “Beginning and Ending Each Activity” in order to be titled more precisely, and because each specific activity guide already contained enough guidance on running the activities themselves. The more important aspect was determined to be how the volunteer or family member opens and closes the activity, such as by thanking the individual before ending the series of activities.

**Summary**

The goal of creating a manual for visitors on the topic of Montessori-Based Activity Programming for residents with dementia was to assist volunteers and family members of residents to organize and run activities for residents of the facility. Since research has shown significant benefits for clients with dementia who participate in Montessori-based interventions, the provision of such instructional materials should ultimately have a benefit on the quality of life of the residents of the home who choose to participate in the activities provided. The agency has begun to use the Montessori activities that were
chosen for inclusion, and the manual should assist visitors of the home to be able to help staff to continue to run this program.
REFERENCES

*Add ursuluc and Camp and Shneider


Montessori-Based Activity Programming for Dementia in Long Term Care: An Activity Guide

Developed and written by Chris Jenkins
Honours Bachelor of Applied Arts in Behavioural Psychology, Fourth Year
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2017

This guide is subject to change, based on the changing needs of staff and residents, and based on the removal or acquisition of activities in the “Montessori-Room”

For use only at Rideaucrest Long-Term Care Centre
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Purpose of this Manual

The intent of this manual is to provide a basic understanding of the principles used in Montessori-based activity programming for individuals with varying degrees of dementia. The activity guides included in this manual have specifically been designed in order to preserve and promote the use of skills that are used in residents’ daily lives, as well as to provide a feeling of independence and order for the participants. It is important to note that Montessori activities are open-ended; so they do not have a definite end point. The hope is that by becoming familiar with the principles and techniques used in Montessori programming, visitors and volunteers at the home will be able to successfully run these activities with residents without supervision from staff members.

Maria Montessori (1870 – 1952)

Dr. Maria Montessori was the first female physician in Italy. She specialized in pediatric rehabilitation. She spent most of her life working with children who were typically living in poverty and labelled as “unteachable”. She began her work in a psychiatric institute in Rome and began to believe that the children there could be taught fundamental life skills through the creation of an organized, supportive environment, as well as through the provision of sensory and motor training using instructional materials that were familiar to them through real-work experience. Dr. Montessori’s philosophy focused on creating independence, a sense of meaning and contribution to society, and increasing the self-esteem of her young clients. Although her work is largely known today to be used with young children in private schools, the same principles have been adapted by Dr. Cameron Camp for use with a population of clients with dementia and related illnesses. Many studies have demonstrated that activities built around these principles can have beneficial effects for clients with dementia in terms of an increased mood, engagement with activities, and a lower
level of reactive or problematic behaviours. The activities in this manual have been designed with the principles in mind in order to recreate some of these beneficial results in our residents.

**Principles of Montessori-Based Activity Programming**

- Use real life materials wherever possible
- Use materials that are aesthetically pleasing
- Progress from simple to complex tasks
- Progress from concrete to abstract activities
- Structure materials so that participants work from left to right, and from top to bottom; mimicking the way we read in the Western world.
- Arrange materials from largest to smallest, and from most to least.
- Allow learning to occur in sequence (i.e. observation, recognition, then recall or demonstration).
- Break activities down into parts when necessary
- Use as few words and verbal explanation as possible when introducing and explaining activities.
- Match your speed of movement to the speed of the participants when presenting activities.
- Make activities self-correcting (i.e. make it hard or impossible to fail the task). For example, if doing picture matching, put coloured dots on the back of each picture to indicate that they are properly matched (or not).
- Have the participants create something useful, whenever possible (i.e. caring for the environment, scooping ice cream, pouring drinks, creating decorations).
- Adapt the activity and environment to the needs of the participant.
- Let participants choose the activity, whenever possible.
- Accommodate for vision problems and other issues related to old age and dementia (i.e. memory).

**Barriers to Access to Traditional Activities**

Residents with dementia have a particular need for individualized activities for several reasons:

- Group-based activities are often not accessible for non-verbal residents
- Activities are often seen as infantilizing or simple “busy work”
- Staff time limitations mean that too few activities are often provided, especially one-on-one activities.
- Activities may be too simple to be interesting, or too difficult to complete if not matched to the individual’s skill level.
- Research has indicated that volunteers are often discouraged from interacting or running activities with residents with higher levels of dementia or related disorders.

**Tips for Working with Residents with Dementia**

- Be aware that dementia has drastically different symptoms for different people. If you are not familiar with the resident that you are working with, it may be helpful to ask staff for tips with working with that specific resident.
- One such effect that dementia has is on memory. Residents can often misremember things, or have memories that seem “stuck in the past”. For example, a client may continue to talk about her need to get home and look after her kids, although in reality her kids have graduated from college and are adults. It is important not to confront such residents with reality, and instead simply acknowledge and show empathy for the person’s feelings and then try to redirect or distract the resident.
- Be flexible. Sometimes people with dementia need additional prompting or simply more time to do things. Remember that with dementia behaviour can vary greatly from day to day, or even based on the time of day. For many people with dementia, the end of the day can prove the most difficult.

- If a resident is verbally aggressive, back off and try to distract them, for example: “I see that you have a picture of a child in your hand, can you tell me about him?” If the resident continues to be verbally aggressive or moves towards you in a threatening manner, simply give them space and time and consider working with another resident for the day. If an individual is out of control, push the emergency button present on the wall of the room you are in and call for help. Remember, however, that dementia can seem scarier than it is, and some residents may act aggressively without meaning you any harm. If you feel more comfortable with some training, ask an activity coordinator or other staff member if they could sit in with you in order to supervise when you are getting to know a resident for the first time.

- If any physical incident occurs, or if the resident falls or has any other potential injury, make sure to report it to staff.

- How you approach a person with dementia is just as important as the words that you are saying. Maintain an open and non-threatening posture, use a soft but clear tone of voice, use empathy, and give residents their own space if you are not familiar with them already.

- When explaining each activity, use as little verbal explanation as possible. It is better to show the resident what to do as opposed to explaining it.
Beginning and Ending Each Activity

- Prepare the activity before asking the resident to join you.

- Always ask the resident if they would like to help you before the activity. At the end of each activity, ask them if they would like to help you with it again in the future.

- Always thank the resident for his or her help.

- If the resident does not engage in the activity right away, it might be helpful to demonstrate the activity for them. For example, you may start by simply colouring in the presence of the resident, before asking them to help you choose a colour. If they help choose colours, you may then choose to ask them to help you finish the activity.
### Activity: Assisted Reading

<table>
<thead>
<tr>
<th>Objectives:</th>
<th>This activity’s purpose is to practise and improve cognitive and verbal skills, as well as visual acuity. It may also function as a centerpiece for discussion, thus practising social skills as well.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Factors:</td>
<td>-</td>
</tr>
<tr>
<td>Resources/Materials Required:</td>
<td>- A book or story of some sort that is of interest to the participant, and specific to the resident and reader’s skill level. There are books available on the book shelf in the TV room on each floor, and the activity coordinators can provide more simple stories if necessary.</td>
</tr>
<tr>
<td>Setup:</td>
<td>- Have the resident assist you in picking out a book. Instead of asking them to specifically choose a book, it may be easier to explain the topic of a couple of books and give them a choice of topic.</td>
</tr>
</tbody>
</table>
| Procedure: | 1. This activity will begin by holding the book up or setting it on a table in front of the participant and assistant.  
2. You will begin by reading the first page of the book. The pages may only be a sentence long, or it may be a full page in a novel depending on the participant’s reading level.  
3. After reading the first page, hand the book to the participant or set it on the table in front of them and ask them to read the second page, pointing at where to begin.  
4. If the participant is capable of reading most of the page on their own, continue taking turns reading, assisting the participant with difficult words as needed.  
5. If the participant is having trouble reading the book, either choose a simpler reading material, or read several pages to the participant and then ask them questions based on the material to begin a discussion. |
| Program Extensions and Notes: | - Be sure that the reading material is printed in a large font so that it is easily readable without the resident straining their eyes to see it.  
- Discussing the reading material can be a very beneficial process, and will be an important extension to this activity. Start by asking basic questions about the material itself, and move to asking more abstract questions, such as whether the material brings up any memories from the participant’s past. |
Activity: Baking

NEEDS EDITED TO BECOME “INGREDIENT MEASURING” without use of oven

Objectives:
The purpose of this activity is to give residents an opportunity to practise their fine motor skills and range of motion by pouring liquid and powdered ingredients, as well as to promote grip strength while stirring the ingredient mixture. The participant will also experience the smells and taste associated with baking.

Risk Factors:
- Any sharp object should be handled solely by the instructor and kept out of reach of the participant.
- Heat may also be a risk factor. If you choose to use the oven, have the participant sit down at the table and instruct them that the oven is not to be touched. Keep an eye on the participant the entire time to ensure that problems do not arise.
- If the resident is going to be eating the results of baking, or having a drink with you, be sure to ask the staff whether they are able to eat baked goods or drink liquids without being thickened. Some residents may need thickener added to drinks, or may be unable to eat certain food consistencies.
- Ensure with staff that the resident does not have a food allergy to any of the included ingredients.

Resources/Materials Required:
- Two large bowls, one for dry ingredients and one for wet ingredients.
- Measuring cups
- Measuring spoons
- A wooden spoon for mixing
- One or two baking trays
- 1 cup of creamy peanut butter
- 1 cup of (packed) brown sugar
- 1 cup of white sugar
- 1 cup of softened butter
- 2 eggs
- 1 teaspoon of baking soda
- 1 teaspoon of baking powder
- 1 teaspoon of vanilla extract
- 2 and a half cups of flour

Setup:
- Ask activity staff to gather the ingredients for you from the kitchen
- Place all ingredients on the table in front of the resident, along with both bowls, the wooden spoon, and measuring cups and spoons.

Procedure:
1. Recipe directions: Cream butter, peanut butter and both sugars together.
2. Add eggs, one at a time, beating well.
3. Add baking soda, powder and vanilla.
4. Stir in flour.
5. Roll into balls, roll in sugar. Flatten cookies, using a fork, in a criss-cross pattern.
6. Bake on ungreased cookie sheet at 350 degrees for 6-7 minutes or adjust to suit your oven and size of cookies!
7. Begin the activity by explaining that you are going to be baking peanut butter cookies, and that you have all the ingredients but you need help putting them together.
8. The ingredients will all be pre-measured, but you can still have the resident “double-check” the measurements of the baking soda, baking powder, flour, and vanilla.
9. Preheat the oven to 350 degrees Fahrenheit, or ask the staff to do so for you.
10. First, ask the resident if they would like to help crack the eggs. Allow them to attempt the first egg on their own, and if they are capable of doing it, allow them to continue with the second egg.
11. Now ask them to double check the baking soda and powder, as well as the vanilla, and mix them into the eggs with the wooden spoon.
12. Next, do the same with the flour.
13. Once flour has been added, ask the resident to continue stirring until the mixture is smooth. If the resident begins to slow down or get tired, you may need to help.
14. Next, wash your hands and instruct the resident to do that same.
15. After washing your hands, you may begin rolling the “dough” into approximately 24 small balls and placing them on the baking tray.
16. Place into the preheated oven for about 6 minutes, then let cool before eating.
17. Make sure to ask the staff to lock up the kitchen after you are done, and give them any dirty dishes to be taken to the dish room.

Program Extensions and Notes:
- For this activity guide we have used peanut butter cookies as an example, but you may use any recipe you like. More complicated recipes may be used with residents with baking experience, or very simple recipes may be used with residents with minimal experience.
### Activity: Clothes Pins

<table>
<thead>
<tr>
<th>Objectives:</th>
<th>The purpose of this activity is to provide an opportunity for the resident to practise their fine motor skills, especially the pincer grip used to open and place clothes pins. This activity will also develop hand-eye coordination.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Factors:</td>
<td>-</td>
</tr>
</tbody>
</table>
| Resources/Materials Required: | - Several piles of clothes pins, separated by colour.  
                          - A plastic or paper cup. |
| Setup:               | - Separate the clothes pins by colour, if you choose to do so, and place them in piles on the table in front of the resident and yourself |
| Procedure:           | - Pick up a clothes pin, squeeze it to open it, and place it on the top of the cup.  
                          - Pick up a second clothes pin and repeat the process, placing this clothes pin on the cup directly beside the first pin.  
                          - Pick up a third pin and hand it to the resident.  
                          - Push the cup slightly closer to the resident and point to the clothes pins that you have already placed in order to prompt them to do the same.  
                          - If they successfully complete this step, you can now ask them to pick up another and continue the process until the cup is full.  
                          - If the resident has difficulty placing their own clothes pin, pick up your own and demonstrate the process again. If they continue to have difficulty, you may choose to have them hold the cup while you pin the rest of the clothes pins on, so that this activity can still be considered successfully completed, and the resident gains a feeling of satisfaction from helping. |
| Program Extensions and Notes: | - To increase difficulty, you may choose not to sort the clothes pins by colour during the setup, and instead to ask the resident to place the clothes pins around the cup in a specific colour pattern.  
                          - You may also choose to use several cups, one for each colour. |
## Activity: Coloured Building Blocks

<table>
<thead>
<tr>
<th>Objectives:</th>
<th>The purpose of this activity is to promote range of motion and visual discrimination of different colours.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Factors:</td>
<td>-</td>
</tr>
</tbody>
</table>
| Resources/Materials Required: | - A bin for storage of the blocks  
- A pile of coloured building blocks |
| Setup: | - Set the bin or pile of blocks on a large table, within reach of yourself and the resident, leaving a space large enough to build a structure in front of the participant. |
| Procedure: | - Take a building block from the pile, and place it in front of the resident, with the “knobs” for the next block facing up.  
- Take a second building block from the pile and set it directly beside the first block length-wise.  
- Take a third block and hand it to the resident, inviting them to place it on top of the two others. Demonstrate that it should be placed in the middle of the two, in a brick-like pattern, so as to lock the two base blocks together. If they place it in the wrong location, either move it, or place a fourth block in order to lock the pieces together.  
- Continue handing pieces to the resident and directing them on where to place the blocks. You will continue placing blocks yourself so as to help increase the structural integrity and assist the resident. If they wish to work on it alone, however, allow them to do so and provide praise on the job they are doing.  
- Once all the blocks are used, you may choose to build a new structure or put the blocks away in the bin and being another activity. |
| Program Extensions and Notes: | - For increased difficulty, you may wish to build a structure that is sorted into a specific colour pattern. For example, blue on the bottom, then red on top of that, then green on the very top.  
- Note that there are extra blocks available in storage. Ask the activity coordinators if you need more.  
- If the resident is having difficulty physically placing the blocks, they may find enjoyment from simply assisting you with choosing the colour and placement of each block. If this is the case, you still want to behave as if it was a team effort, and thank the participant for helping you. |
# Activity: Colouring

**Objectives:**
The purpose of this activity is to practise fine motor skills and range of motion, as well as to provide a calming outlet for creativity residents.

**Risk Factors:**
- Coloured pencils or crayons can be an attractive item for residents to take with them back to their room, so be sure to put all materials away properly after this activity.

**Resources/Materials Required:**
- Coloured pencils, crayons, or markers (provide a variety of colours)
- Colouring books or sheets (available from activity coordinators, just ask the staff)

**Setup:**
- Set two chairs side by side at a table, with a stack of colouring sheets or a colouring book.

**Procedure:**
- Sitting at the table with the resident, place one of the simple colouring sheets in front of the resident.
- Now ask the resident what colour the picture should be. If they provide an answer, pick that colour up and colour a small portion before handing the pencil or crayon to the resident to continue.
- If the resident is unable to choose from the variety of colours, separate two colours from the pack and ask the resident to choose from the two colours. Demonstrate the colouring process and then hand the pencil or crayon to the participant.
- If the participant continues colouring on his or her own, you may choose to start colouring a different section of the same sheet, or simply provide praise and occasional prompting for the participant to continue.
- Once the resident is done with the first sheet, you may provide them an option to choose between two of the remaining sheets (keeping in mind that too many choices can be confusing or frustrating). You may need to continue to assist the resident with choosing colours.

**Program Extensions and Notes:**
- Remember that any result is positive as long as the resident is actively engaging in the activity. It does not matter if they are colouring inside the lines, etc.
- This activity may be extended by using paint, or by colouring/painting various surfaces, such as wooden blocks or small rocks. The activity coordinators have access to various materials which could be used.
## Activity: Discussion Pictures

<table>
<thead>
<tr>
<th>Objectives:</th>
<th>The purpose of this activity is to provide an opportunity for the resident to practise their long-term memory of people, places, and things, as well as their communication skills.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Factors:</td>
<td>-</td>
</tr>
</tbody>
</table>
| Resources/Materials Required: | - A folder of pictures with people, places, things or ideas that are familiar to the residents (personal pictures may be used by family members, and may prove to be more effective in some cases, but may make the resident emotional in others).  
- A table and two chairs |
| Setup: | - Obtain or print large (full-page if possible) pictures of photographs that will be familiar to the resident and the individual running the activity.  
- Set two chairs beside each other at a table and sit down with the resident participating in the activity. |
| Procedure: | - Sitting beside the resident at a table, with the folder of pictures to your side, take the first picture and hold it up to display to the resident.  
- Ask the resident a basic question about the picture, such as, “Do you remember this person?”  
- If the resident responds to your first question, continue to ask questions and hold a simple conversation about the idea presented in the picture.  
- After the resident becomes quiet, or the conversation has gone on for several minutes, present the next picture to the resident.  
- Continue this process until the stack of pictures has run out or the resident appears to be uninterested. |
| Program Extensions and Notes: | - As noted above, it is important for the individual running the activity to have a basic knowledge of the ideas presented in each picture so that a basic two-way conversation can take place. It is acceptable, however, if you only know enough to ask the participant basic questions that they may have the answer to. Remember that no answer is inherently wrong, and the purpose of this activity is to provide an opportunity for social interaction that is not always present. |
### Activity: Doll Therapy

**Objectives:**
The purpose of this activity is to provide participants with a sense of order and comfort, as well as to alleviate distress. This particular activity can be particularly effective for residents who have had prior experience with young children. It is important to note that this activity is inevitably open-ended, and there are a varied and countless number of ways that a resident may successfully interact with a doll.

**Risk Factors:**
- Be aware that residents will react very differently from one another when presented with a doll. Some residents may display a negative reaction, in which case it may be appropriate to put the doll away and redirect the participant to another activity. It may be helpful to ask the staff to check the participant’s file for any potential negative history with children (for example, a miscarriage or child that passed away) before beginning this activity.
- After the activity is over, please use a sanitizing wipe to wipe down the doll’s hands, feet, and head. Place any baby clothing used into a small bag and give it to staff in order to be sent to the laundry room. All items are labelled and will be returned to the proper room.

**Resources/Materials Required:**
- One therapy doll
- One extra pair of clothes to fit the doll (if the resident wished to dress or change the doll)
- Crib/Bassinette
- Changing Table

**Setup:**
- Place a clothed doll into the bassinette, or onto the change table, and place a small blanket over it. It may be necessary to clothe the doll before the resident enters the room.

**Procedure:**
- This activity will begin by introducing the resident to the doll. As always, you will begin by inviting the resident to come with you to participate in an activity. In this case you might say, “Do you want to come help me change the baby?”, or something similar.
- Direct the resident towards the doll. Gauge their reaction upon seeing it.
- If the resident has a positive reaction, begin a basic conversation by saying “Isn’t he/she cute?”
- After about half a minute, if the resident has not touched the doll yet, pick it up in a life-like fashion and rock it back and forth.
- Now ask the resident if she would like to hold the “baby”. Remember to call it whatever the resident calls it, whether that is a doll or a baby.
- You may hand the resident the empty bottle, and if she takes it and holds it to the baby’s mouth, ask the resident to sit down and feed her for a while.
- After a few minutes you may ask if the resident wants to help change the baby. As noted above, this activity is very open-ended and as long as there is interaction between the resident and the doll, the activity is considered successful.
- At the end of the activity you may either ask the resident if she wishes to keep the doll for now, or if she wishes to place her back in the crib.

| Program Extensions and Notes: | - Note that you should allow the resident to choose whether the doll is a real baby or simply a toy. Beneficial effects can be had whether they believe it is real or not. One approach you may take if asked if it is real is to redirect the participant to answer the same question, or simply tell them that it is whatever they want it to be. If they do recognize that it is a doll, center the activity on discussing how life-like it is, and move on to discussing the resident’s own experience with children. |
Activity: Flower Setting

<table>
<thead>
<tr>
<th>Objectives:</th>
<th>The purpose of this activity is to help the participant develop and interest in aesthetics and caring for the environment, as well as to enhance skills needed for visual discrimination.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Factors:</td>
<td>-</td>
</tr>
<tr>
<td>Resources/Materials</td>
<td>- A tray or basket for the flowers</td>
</tr>
<tr>
<td>Required:</td>
<td>- Lay about a dozen flowers in a row on a table or in a tray.</td>
</tr>
<tr>
<td>Setup:</td>
<td>- Pick up the first flower, and place it in the container. You may use the container in the hall outside of the Montessori activity room labelled for such a purpose.</td>
</tr>
<tr>
<td>Procedure:</td>
<td>- Ask the resident to pick up the second flower and place it into the same container.</td>
</tr>
<tr>
<td></td>
<td>- Ask the resident to choose a third flower to add to the container, and continue until all of the flowers are used or the container is full.</td>
</tr>
<tr>
<td>Program Extensions</td>
<td>- If the resident does not follow your request to place a flower in the container, or if they do not have the range of motion required to do so, you may simply ask them which colour they would like you to place next. Have the resident guide you on where to place the flowers.</td>
</tr>
<tr>
<td>and Notes:</td>
<td>- If the resident displays an interest in this activity, it may be beneficial for them to take care of real plants, such as one in the home or their room.</td>
</tr>
</tbody>
</table>
Activity: Folding

<table>
<thead>
<tr>
<th>Objectives:</th>
<th>Folding is a life skill that most residents will be familiar with. This activity may be used to enhance the coordination and motor skills of the resident, as well as to create a sense of independence and order in the lives of participants.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Factors:</td>
<td>- The main concern with this activity is hygiene. All fabric and clothing used should be set aside and ultimately given to staff to be washed. Items are already labelled and will be properly returned to the correct room.</td>
</tr>
</tbody>
</table>
| Resources/Materials Needed: | - One empty basket for folded laundry  
- Anywhere from 3 to several dozen towels (depending on resident’s speed at folding) OR pairs of children’s pants and shirts (matching, if possible) |
| Setup: | - Lay the items to be folded out flat on a table. If using pants and shirts, separate the pants into one pile and shirts into another.  
- When first presenting the activity, it may be helpful to start with only three items, and build from there if the resident is interested in continuing the activity. |
| Procedure: | - Begin by holding the item up with both hands by the top (i.e. hold a towel by the top, pants by the waist, or a shirt by the shoulders).  
- Fold the item in half length-wise (i.e. fold the towel in half, or fold the pants/shirt vertically) and then lay it down on the table.  
- Fold the item in half again, in the opposite direction (i.e. fold the towel into ¼ of its original size, or fold the pants/shirt horizontally).  
- Show the resident how the item looks when it has been completely folded.  
- Invite the resident to try folding a second item (it is likely easiest to begin with towels, but just make sure it is the same type of item that was demonstrated previously).  
- Once the resident has completed the item, ask them if they would like to continue folding items.  
- At the end of the activity, be sure to thank the resident for participating and ask if they would like to continue this activity another time in the near future. |
| Program Extensions and Notes: | - Programming may be extended by inviting the client to help put the clothes away in drawers or hang them up at the end of the activity.  
- Always end the activity by thanking the client and asking them if they would like to participate again another day. |
### Activity: Lock and Key Matching

<table>
<thead>
<tr>
<th>Objectives:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- This activity will promote the use of fine motor skills, increase finger strength and dexterity, and provide an opportunity to practise using short-term memory.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Risk Factors:</th>
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<tbody>
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<td>-</td>
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</table>

<table>
<thead>
<tr>
<th>Resources/Materials Required:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- 2 to 6 pairs of locks and matching keys</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Setup:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Set the locks in a row horizontally and place the keys in a small pile, both in front of the resident. Make sure that all locks are in a closed position.</td>
</tr>
<tr>
<td>- Coloured dots should be visible at first, but after the second or third session the locks and keys should be turned over or covered with tape to hide the markings.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Procedure:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Pick up the first lock, and using the coloured dots on each, find the matching key.</td>
</tr>
<tr>
<td>- Demonstrate that the key fits the lock and is capable of opening it. Set this lock aside, open, and with the key still inside.</td>
</tr>
<tr>
<td>- Now do the same with each lock until there is one left.</td>
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<tr>
<td>- Invite the resident to pick up the remaining lock and key.</td>
</tr>
<tr>
<td>- Instruct the resident to turn the key to unlock the lock.</td>
</tr>
<tr>
<td>- After each lock is open, remove each key, lock them all, and reorganize into a row and pile.</td>
</tr>
<tr>
<td>- Begin the second session by handing the first lock to the participant, and inviting them to look for the matching key. Assist as needed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Program Extensions and Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- If the activity is too difficult at first, you may instruct the resident to strictly look for matching colours, instead of using trial and error.</td>
</tr>
<tr>
<td>- This activity’s difficulty level can be modified by changing the number of locks and keys, and perhaps adding in keys that do not match any of the locks to be sorted out of the pile.</td>
</tr>
</tbody>
</table>
## Activity: Measuring Spoons

<table>
<thead>
<tr>
<th>Objectives:</th>
<th>The purpose of this activity is to give the resident an opportunity to practise using their cognitive skills in order to arrange objects from largest to smallest, and vice versa.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Factors:</td>
<td>-</td>
</tr>
</tbody>
</table>
| Resources/Materials Required: | - Six or eight plastic measuring spoons, each for a different volume.  
- A container to hold the spoons |
| Setup: | - Place the spoons in front of the participant, spread out, so that they are clearly visible. |
| Procedure: | - Begin by placing the largest spoon on the left side of the table. The flat portion of the bowl should be facing the table so that the spoon does not wobble.  
- Now place the next largest spoon to the right of the first spoon, in the same orientation, with the bowl portions lining up horizontally.  
- Next, hand the 3rd largest spoon to the participant and ask them to place it next to the first two spoons.  
- If the participant does not place the spoon in the correct place or position, adjust it and show the resident how it looks now.  
- Continue handing spoons to the participant in this way, in order, until the activity has been completed once.  
- Now, remove all of the spoons except for the first (the largest) one.  
- Invite the participant to look through the remaining spoons and to choose one. Allow them to complete the task as independently as possible, providing help as needed. |
| Program Extensions and Notes: | - Once this activity has been perfected, ask the resident to sort the spoons from smallest to largest.  
- Many other common household items can be used for sorting based on size, such as: bowls, candles, tools, etc.  
- If the resident is having trouble, a template may be created by tracing the spoons in the correct order. The resident may then receive visual prompts in order to help them complete the activity without as much assistance.  
- For more advanced activities, a second set of spoons may be added (of a different colour or type) that needs to be separated from the first type. The result will be two rows of spoons that match. |
Activity: Mirror Cleaning

<table>
<thead>
<tr>
<th>Objectives:</th>
<th>The purpose of this activity is to give the resident an opportunity to practise using motor skills, both fine and gross, as well as hand-eye coordination. Cleaning, in general, is a life skill that is familiar to all residents, and may be useful in their own lives outside of activity programming.</th>
</tr>
</thead>
</table>

| Risk Factors: | - Care must be taken so that the mirrors are not dropped or broken.  
- Materials used must be sanitized or sent to the laundry department after use before being used again due to the shared nature of materials.  
- Supervision must be constant so that the cleaning solution is not used inappropriately. For instance, even if it is only soapy water, it is of utmost importance that the solution is not consumed in any manner. |
|---|---|

| Resources/Materials Required: | - One handheld mirror  
- One small cloth for cleaning  
- One small pump/spray bottle filled with cleaning solution (or water/vinegar in a 75/25 ratio, to be provided by staff) |
|---|---|

| Setup: | - Smudge the mirror to make it appear dirty  
- Place all of the materials on a table or tray in front of the resident |
|---|---|

| Procedure: | - Pick up the mirror and invite the resident to look at it with you.  
- State that the mirror appears to be dirty.  
- Ask the resident to point to the smudge or dirt.  
- Pick up the spray bottle and spray half of the mirror.  
- Clean half the mirror with small circular motions with the cloth.  
- Invite the participant to clean the other half of the mirror in the same manner. If the resident has any difficulty with the entire process, break it down into steps. For example, ask them to spray the mirror first, and then demonstrate the cleaning technique with the cloth again before asking them to finish the job. |
|---|---|

<table>
<thead>
<tr>
<th>Program Extensions and Notes:</th>
<th>- The resident may enjoy cleaning other glass items in the same way, for example, their own mirrors, reading glasses, or windows.</th>
</tr>
</thead>
</table>
Activity: Nut and Bolt Matching

<table>
<thead>
<tr>
<th>Objectives:</th>
<th>The purpose of this activity is to provide an opportunity to practise fine motor skills as well as visual and cognitive skills.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Factors:</td>
<td>- The main risk with this activity is that it uses small parts, which could be considered a choking hazard. Begin by warning the participant that the materials are not to be placed in their mouth. Be sure to supervise closely at all times.</td>
</tr>
</tbody>
</table>
| Resources/Materials Required: | - Ask the activity coordinator to provide you with the nuts and bolts activity box, containing the required components.  
- A small table on which to perform the activity. |
| Setup: | - If the nuts and bolts are not already unscrewed, then unscrew them before the activity.  
- Separate the nuts into one pile and the bolts into another pile. |
| Procedure: | - Pile the nuts and bolts into two separate piles.  
- Pick up a large nut and a large bolt and demonstrate how to screw them together  
- Set the completed piece aside.  
- Repeat the demonstration for a medium sized nut and bolt, and set aside.  
- Ask the participant to pick up any bolt.  
- Hand them a matching nut and ask them to screw them together. At the same time, you demonstrate screwing another nut and bolt together, in time with their actions.  
- If you notice the participant is unable to complete the task, then complete it for them. Be cognisant of the participant’s interest level.  
- Ask the participant to set the completed piece aside, with the other completed pieces from your demo.  
- Hand the participant a bolt and ask them to pick up a matching nut.  
- Visually confirm that the nut and bolt match. If not, then offer the participant a matching nut and put the incorrect nut back into the pile.  
- Then ask the participant to screw the matching nut and bolt together.  

If the participant fails to screw the matching nut and bolt together, then re-demonstrate the process.  

- Ask the participant to pick up any matching nut and bolt, screw them together, and then set them aside in the completed pieces pile.
- If they successfully complete the above step, invite the participant to screw together the remaining matching nuts and bolts, and set the completed pieces aside.
- If the participant has any difficulty matching nuts and bolts, you may need to provide guidance or assist them.
- When all of the nuts and bolts are screwed together, invite the participant to put them back into the activity box.
- At this point the activity is completed.

<table>
<thead>
<tr>
<th>Program Extensions and Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>- A template may be used by tracing the size of the nuts and bolts that match to decrease the difficulty of the task.</td>
</tr>
<tr>
<td>- Additional sizes or a larger volume of nuts and bolts may be used in order to increase the difficulty of this task.</td>
</tr>
<tr>
<td>- Ask the participant to sort the different sized nuts and bolts into three piles (large, medium, and small).</td>
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</tbody>
</table>
Activity: Stringing Beads

<table>
<thead>
<tr>
<th>Objectives:</th>
<th>The primary purpose of this activity is to promote the use and development of fine motor skills, such as the ability to grip and manipulate small objects.</th>
</tr>
</thead>
</table>

| Risk Factors: | - Begin this activity by explaining to the individual that the objects are not edible. Be aware that even given a verbal reminder, the participant will need to be supervised during the activity to make sure that beads are not swallowed or used inappropriately.  
- Materials used for this activity will be stored in a separate area and should be given to staff immediately after the termination of a session. |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|

| Resources/Materials Required: | - A string (preferably with a firm point at one end, such as a shoe string)  
- Large wooden beads provided by the activity coordinators.  
- A container to hold materials |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------|

| Setup: | - Tie a knot in one end of the string. Tie it opposite the firm point used for threading through beads.  
- To prepare strings to be used, simply cut a shoe string in half, creating two threads with a point on one end of each. |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|

| Procedure: | - Present the basket of materials to the participant.  
- Hold the bead in one hand, demonstrating that there is a hole in it.  
- Hold the string in the opposite hand, and push the tip of the string through the bead.  
- Grip the string on the other side, which has now been pushed through the hole in the bead, and pull it through until the bead contacts the knot at the end of the string.  
- Repeat the process with a second bead in clear view of the participant, showing each step slowly.  
- Invite the participant to do the next bead.  
- If the participant is capable of doing the third bead, invite them to continue selecting beads and placing them on the string.  
- If the participant has difficulty, break the activity down further into steps and demonstrate again. |
|----------------|----------------------------------------------------------------------------------------------------------------------------------|

| Program Extensions and Notes: | - Note that this activity may be difficult for individuals with vision problems or pain in the hands caused by an illness like arthritis.  
- Participants who are having difficulty at first may choose to simply help with small steps in the process, such as selecting the next bead or pulling the string through the bead after you have already threaded it for them.  
- If the participant is displaying a firm grasp of the concept, you may choose to have the resident string the beads by colour, shape, or another pattern. |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------|
# Activity: Wooden Template Puzzles

<table>
<thead>
<tr>
<th>Objectives:</th>
<th>The purpose of this activity is to provide visual stimulation and practise visual discrimination between shapes and objects.</th>
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</thead>
<tbody>
<tr>
<td>Risk Factors:</td>
<td>-</td>
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</tbody>
</table>
| Resources/Materials Required: | - One or more wooden puzzles from the activity room. Make sure that all pieces are there before beginning.  
- A tray for the puzzle pieces |
| Setup: | - Set each of the puzzles pieces in a tray, in the order that they appear on the board. For example, if the “elephant” piece was in the top left of the puzzle, place it on the top left of the tray. This step will assist participants with placing the pieces correctly at first. |
| Procedure: | - Hold the board up in front of the participant so that they can clearly see that there are different objects on it.  
- Next, point to the tray with puzzle pieces and tell the resident that you need to put the pieces on the board.  
- Pick up the first piece and show the resident what the object is while naming it, for example “Can you see where the elephant goes?”  
- Now look at the board with the resident for 5 to 10 seconds before placing the piece in the correct spot.  
- Pick up a second piece and repeat the same process, asking the resident to point to where it should go. This time give the resident about 30 seconds to look for the correct spot before placing it yourself.  
- Pick up the third piece and hand it to the resident. Ask them if they think that can find the place for that piece.  
- If the resident has not found the correct spot within 30 to 45 seconds, point to it and allow them to place the piece in the puzzle. Correct the alignment if necessary to fit into the space.  
- If the resident properly places the piece, continue the activity in this way until you have completed one or more puzzles. If the resident has trouble placing the piece after you point to the correct spot, complete the activity while giving the resident about 30 seconds to help find each piece, and if the resident has not properly pointed to the spot for a piece by the time the puzzle is completed, begin a new activity. |
| Program Extensions and Notes: | - Difficulty can be increased by presenting a skilled resident with two puzzles at the same time, and presenting the puzzle pieces in one pile without sorting them beforehand. |
- Difficulty may be decreased by beginning with some of the pieces already in place. Residents may find it slightly less difficult even if you simply present them with each puzzle piece, instead of having them pick which one to place. Too many choices can be confusing.

Who to see for more information?

References???