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Altruism and its Effects on Engagement in  
Older Women Residing in Senior Living Facilities

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May 2011

This scholarly project reflects individualized, original research conducted in partial fulfillment of the requirements for the Occupational Therapy Doctorate Program, The University of Toledo.

## Abstract

**OBJECTIVE.** The purpose of this study was to investigate whether altruism has an effect on older women residing in senior living facilities. It was hypothesized that the altruistic group would spend more time and make more frames and that the altruistic group would associate a higher level of meaning to the occupation.

**METHOD.** Forty residents were randomly assigned to an altruistic or non-altruistic condition with 20 participants in each condition. The elderly women were asked to paint and decorate picture frames. Residents in the altruistic condition donated their frames to a domestic violent shelter, while residents in the non-altruistic condition kept the frames for themselves. This study was conducted to determine if participants in the altruistic group would make more frames, spend more time on the occupation, and associate a higher level of meaning to the occupation as compared to the non-altruistic group.

**RESULTS.** Results indicate that residents in the altruistic group spent more making the frames ( $z = -4.409$ ;  $p < .001$ ) and decorated more frames ( $z = -4.813$ ;  $p < .001$ ). No significant differences were found in level of meaning associated to the occupation in terms of altruism between the two conditions.

**CONCLUSION.** These results indicate incorporating the concept of altruism into an occupation may increase the amount of time engaged in the occupation and the number of products produced for elderly women. However, further research is necessary to support the benefits of altruism on performance.

## Altruism and its Effects on Engagement in Older Women Residing in Senior Living Facilities

Altruism has been suggested by researchers and clinicians to increase meaning in occupations as well as to be a motivator for occupational performance. Founders of this profession, including Baldwin (1919), Dunton (1931), Fidler (1948), and Levine (1987), specifically supported the value of providing meaning to an occupation. Other researchers have documented the importance of providing meaningful and purposeful occupations including Steinbeck (1986) and Zimmerer-Branum and Nelson (1994). The definitions of meaning, purpose, and occupational performance will be given to provide a background of the basic principles of occupational therapy. In addition, the role of volunteerism and its relation to meaning and purpose will be investigated. In order to get a better understanding of the current study, a definition of altruism from a psychological perspective will follow, along with appropriate literature on altruism including its effects on performance, health, and social behavior. The current study will then be introduced.

According to Baldwin (1919), providing occupations that are meaningful and purposeful can lead to increased performance, especially in situations where voluntary effort and personal initiative on the part of the individual is encouraged. Additionally, Dunton (1931) confirmed that interest in an occupation can be therapeutically valuable and that choice should be, in some degree, left up to the patient. When selecting occupations they should be specific to the patient in order to increase the therapeutic value of the occupation (Fidler, 1996). The patient should have an understanding as well as interest in the occupation for it to be therapeutically valuable and lead to enhanced performance. According to Levine (1987), occupational therapy uses the effects of

meaningful doing to help benefit the patient. This being said, we can infer that if altruistic acts are considered more meaningful to a person they will also elicit a higher degree of purpose and an enhanced performance.

### **Definition of Meaning, Purpose, and Performance**

The Conceptual Framework of Therapeutic Occupation defines meaning as the entire interpretative experience of engaging in an occupational form. (Nelson & Jepsen-Thomas, 2003). The occupational form is the physical and sociocultural conditions external to the person at a particular time. There are both perceptual and symbolic types of meaning. Perceptual meaning interprets the physical aspect of the occupational form. Symbolic meaning interprets the sociocultural aspects such as norms, symbols, roles, or signs. Once persons have interpreted the meaning of the situation, they subsequently develop a level of purpose. Higher levels of purpose within a person will lead to an increased desire and motivation for performance. In summary, if meaning is interpreted in a situation it will lead to higher levels of purpose and an enhanced performance. In applying this knowledge, it is important to recognize what the patient considers important and meaningful when constructing a therapeutic occupation.

### **Altruism from a Psychological Perspective**

According to Hoffman (1978), altruistic behavior can be defined as behavior that promotes welfare of others without conscious regard to one's own self interests. Empathy, which is defined as a vicarious affective response to others, is why humans have an altruistic nature. It can also be inferred that altruism can increase meaning, purpose, and motivation of an occupation which can ultimately lead to enhanced performance. According to Kanny (1993), altruism is the first of seven core values and

attitudes that encompass occupational therapy. Although altruism is said to play a key role in occupational therapy there has not yet been a great deal of research conducted on the topic. The following will provide a background on the research conducted thus far on altruism and its relation to performance.

Volunteerism is considered meaningful and has been linked with enhanced performance. Yuen, Huang, Burik, and Smith (2008) explored the impact of volunteer activities with residents living in long-term-care facilities. Thirty-nine participants were randomly assigned to a mentoring group or a usual-care group. Inclusion criteria were that participants must have been aged 60 years or older, reside in long term care facility, speak English as a first language, be able to carry an appropriate conversation for a minimum of one hour, having intelligible speech, and having a Mini-Mental State examination (MMSE; Folstein, Folstein, & Mchugh, 1975) score of 19 or higher. Residents in the usual care group received the normal standard care while residents in the mentoring group tutored conversational skills to English-as-a-second-language students on a one-on-one basis for one hour, twice a week, for twelve weeks. Residents were not replaced if they chose to withdraw after notification of their group assignment. Prior to the post-intervention, 11 residents (4 from the mentoring group, 7 from the usual care group) discontinued for diverse reasons. The dependent variable was overall well-being. The multivariate nonparametric global Statistical test (GST) was used to measure the participants overall well-being ( Haung, Tilley, Woolson, & Lipsitz, 2005; as cited in Yuen et al, 2008). Overall well-being, as a global outcome construct, was measured at baseline, after intervention, and at three month follow-up using three main measurements including the Geriatric Depression Scale (Yesavage, 1983; as cited in Yuen et al., 2008),

the Life Satisfaction Index-A (LSI-A) (Neugarten, Havighurst, & Tobin, 1961; as cited in Yuen et al., 2008), and a self-rated health questionnaire. There were no significant differences between well-being in the mentoring and usual care group at baseline according to three outcome measures (self-rated health, GDS, and LSI-A). Additionally, there were no changes in the MMSE score at baseline, post-intervention, or follow-up. Significant differences supporting the hypothesis were found showing an overall higher well-being for the mentoring group as compared to the usual-care groups from baseline to post-intervention and from baseline to follow-up using the GST. The GST also revealed the mentoring group showed higher levels of well-being at both post-intervention and 3-month follow-up on the basis of mean scores compared to the usual-care control group. These results indicate that volunteerism can have a positive effect on performance. Volunteering, which is as an altruistic occupation, can promote doing “good” for others and enhancing quality of life.

An investigation completed by Hatter and Nelson (1987) examined altruism as a factor in task participation among elderly adults. They investigated whether elderly persons were more likely to participate in an activity designed to help or benefit others than an activity designed with no such altruistic purpose. Their subjects consisted of 39 residents from a retirement home who averaged 83.2 years of age. All of the participants were invited to take part in a cookie-decorating occupation. The participants were divided into two groups according to the wing of the building in which they lived. The altruistic group was invited to make cookies as a gift for a local preschool and the non-altruistic group was invited to decorate cookies for themselves. The result was greater attendance of those in the altruistic group compared to those in the non- altruistic group. Of the 39

subjects that chose to participate, 25 were chosen to be in the altruism group. The outcome of this study indicate that there was an increased likelihood of participation in elders living in long term care facilities when the occupation is perceived to be beneficial to others.

Getz (1987) investigated altruism and its effects on activity productivity in elderly women living in skilled-care nursing facilities. The thirty-three participants were randomly assigned to eight groups. Four of the groups had an altruistic condition which consisted of making stationery for children who had been abused. The occupation included stenciling the child's initials on top of the paper. The other four groups had a non-altruistic condition where they stenciled their own names on top of the paper. Throughout the altruistic condition there were reminders of the meaning of the occupation and how much the children needed the gift. Pictures of the children were also provided to put an emphasis on the children who were receiving the stationary. The participants were allowed to take as many breaks as they felt necessary. Getz found that individuals in the altruistic group not only made more pieces of stationery but also spent significantly more time participating in the stationery making occupation. This study indicates that altruism can be both motivating and meaningful to this population in the context of participating in a stenciling occupation.

The relationship between altruism and performance was investigated by Mattox (1995). The participants included 172 retired community dwellers. The participants were randomly assigned to an altruistic or non-altruistic condition. The participants in the altruistic group were asked to make Halloween decorations for children, highlighting the child's approval of the decorations. Unlike past studies, the participants were measured



on their attendance. The results did not show a significant difference between the altruistic and non-altruistic groups in terms of attendance. This suggests that further investigation should be conducted on what is considered to be a meaningful occupation to participants.

A study by Brown, Consedine, and Magai (2005) examined health in the elderly and its relationship to altruistic performance. The data were taken from a larger population-based study on health and older Americans. The participants in the study included four ethnic groups made up of 1,118 older adults living in Brooklyn, New York. The ethnic groups included; African American, Caribbean, Eastern European, and European American. All participants received \$20.00 to participate. Since there were significant differences in age, income, marital status, and education across ethnicity these variables were treated as covariates in the primary analysis. The participants were given and received measurements of social support. The Network Analysis Profile (Cohen & Sokolovsky, 1979; as cited in Brown et al., 2005) was used in face-to-face interviews to assess social network variables. The NAP is a measurement of the participants' social networks including relatives, friends, acquaintances, and neighbors. The participants were asked to name each member of their social networks with whom they had engaged in material and/or emotional support exchanges within the last three months. The participants then rated each of those members as giving support, receiving support from the participant, or equally exchanging support with the participants. The Comprehensive Assessment and Referral Evaluation (CARE) instrument (Goldon, Teresi, & Gurland, 1984; as cited in Brown et al., 2005) was used to measure the participants' physical health and functional mobility. The results from this study showed that giving more

support (engaging in an altruistic act), as shown by the CARE, increased life expectancy of the participants, but levels of receiving support (acts of altruism) were not linked to those conditions. Since the social networks were not interviewed, all effects of giving social support were not seen as perceived levels of actual altruism. However, the perception of giving support to others without expecting anything in return is an altruistic occupation, which in this study could be indicated to ultimately lead to better health.

Cipriani, Faig, Ayrer, Brown, and Johnson (2006) investigated altruistic activity patterns among residents residing in long-term nursing homes. The study consisted of eleven participants including 10 female and 1 male, all of which were over 65 years and Caucasian, from two long-term nursing homes. To participate in the study the participants were required to reside in the nursing home for at least six months. The participants revealed common altruistic activities prior to living in the nursing home and common altruistic activities they participate in during their stay. These activities were identified by 6 or more of the participants, who determined that immediate family and/or friends coinciding with social engagement were the primary focus behind all activities. They also found that a shift or decline in performance of altruistic activities was caused by changes in physical health and lack of opportunity. These results reveal that it is critical for the therapist and other professionals to consider the opportunity for social engagement, the reinforcing nature of the activity, and satisfaction of expectation when choosing altruistic activities for residents in long-term care facilities.

Cipriani (2007) completed a literature review of six studies to investigate altruistic activities among older adults living in long term care facilities and to explore implications of this research in practice. Additionally, he examined three models of

practice including: The Model of Human Occupation (Kielhofner, 2004); The Person-Environment-Occupation Model (Strong, Rigby, Stewart, Law, Letts, & Cooper, 1999); and The Lifestyle Performance Model (Fidler, 1996) to determine how altruistic behaviors could be included as part of the evaluation process. This review resulted in six primary points that can be used to assist occupational therapists in developing interventions to meet altruistic needs. These points include: (1) One should not assume that all residents of an LTC facility have the need to be altruistic; (2) having a choice to engage in the activity or not once it is designed is important, but having the opportunity presented by the therapist in the first place may be the key to facilitation of such activities; (3) the question of who to serve provides many opportunities, with research indicating a promising lead that intergenerational help may be particularly satisfying; (4) altruistic activities can have recipients from the community, but also can include peers in the residence; (5) there is some research which indicates residents, once provided with the idea, can be active planners of the type of activities engaged in, including what to do, whom to do it for, and the length of time of participation; and (6) the opportunity for social engagement is of major importance (Cipriani et al, 2007). It is important for practitioners to be conscious of interests that would encourage older adults in long term care facilities to engage in altruistic activities. These activities can lead to higher levels of satisfaction and an overall better quality of life.

Providing occupations that incorporate altruism have been shown to possess many positive outcomes including enhanced performance. Hatfield (2008) investigated the effects of altruism and performance on females in long-term care and assisted living facilities. The participants included thirty-five female senior citizens. She hypothesized

that participants in the altruistic group would perform the occupation for a longer period of time, would relate a higher level of meaning to the product, and would relate a higher level of meaning to the occupation. The women were randomly assigned to either an altruistic or non-altruistic group. The women in the altruistic group were asked to color and fill therapy pillows for donation to a local domestic violence shelter. The women in the non-altruistic group were asked to color and fill pillows to keep for themselves. The results revealed that people who engaged in altruistic occupations both increased their time engaging in the occupation, as well as, allotted a higher level of meaning to the end product. This study overall supports the hypothesis that meaning and performance is enhanced with altruistic occupations. There were a couple of limitations in this study that are necessary to address. The researcher was unable to entirely isolate the altruism variable, so effects could possibly be the result of other variables, such as peer pressure from participants or researcher bias. Another limitation is that the results may not generalize to other types of products, participants, and recipients due to its focus on elderly women in long-term-care facilities and the specific occupation of making pillows for domestic violence victims. The lack of reliability and validity of the meaningfulness questionnaire, as well as the deficient number of items on the questionnaire, resulted in another major limitation in this study.

### **Current Study**

Thus far, research conducted on altruism as a motivating factor in terms of participation in occupation is inconclusive. Meaning is a key term in occupational therapy. It is assumed that the more meaning a person allocates to an occupation the more purpose and motivation they obtain to perform the occupation (Nelson & Jepsen-Thomas,

2003). Some past studies indicate the benefits of altruistic occupations, whereas other studies do not signify the value of altruism and its affect on performance. Therefore, the current study will be conducted in hopes to get a better understanding of altruism's effect on performance.

The purpose of the current study was to explore the idea of adding meaning to an occupation to enhance performance. This study was conducted to determine whether altruism is considered as a meaningful occupation to the participants. The occupation consisted of decorating picture frames. Elderly women living in long term care or assisted living facilities were assigned to one of two conditions. The women assigned to the altruistic condition were asked to decorate picture frames for victims of domestic violence. The frames were used to place a picture of their loved one in. Women in the non-altruistic condition were asked to decorate frames for themselves. The amount of time spent participating in the occupation and the meaning assigned to the occupation was measured to indicate the significance of an altruistic occupation in terms of performance. To address the limitation discussed in the previous study an adapted meaningfulness scale, found in an article by Clark, Eakman, Carlson, and Clark (2009), was used to measure the level of meaning allotted to the occupation.

It was hypothesized that:

1. Participants in the altruistic group will spend more time and make more frames;  
and
2. Participants in the altruistic group would associate a higher level of meaning to the occupation.

## Method

### Participants

The participants consisted of older adults recruited from senior housing. Forty participants took part in the occupation with twenty in each condition. To be included in the current study participants had to be female, 65 years old or older, show no signs of any neurological condition, and possess all physical abilities needed to perform the occupation of painting and decorating picture frames. A self report from the participant along with validation of this report from staff members determined whether participants meet the inclusion criteria. Both groups consisted of all Caucasian females. Sixty eight percent of the participants were widowed, 5% were single and 5% were married, while 7.5% were divorced. Fifteen percent of participants did not report their marital status. The mean age for the altruistic group was 8 years old (range 65-92,  $SD=7.2$ ), ranging from 65 to 92-years-old with a standard deviation of 7.2. The mean age for the non-altruistic group was 81 years old (ranging 67-90,  $SD=6.6$ ).

### Materials

Materials used for the frames included: (a) wooden pre-made frames; (b) pink, blue, green, and yellow acrylic paint; (c) foam stickers with multiple designs; (e) foam paint brush; (f) ribbon; (g) a hot glue gun; (h) gemstones; (i) a stop watch; (j) a demographic questionnaire; and (k) a meaningfulness scale.

A demographic questionnaire was completed by each participant to determine age; ethnicity, gender, and marital status (see Appendix A.) A meaningfulness scale was completed at the end of the occupation to determine the level of meaning attributed to the occupation and to investigate differences between levels of meaning reported by

participants in the altruistic condition as compared to the non-altruistic condition. The questions on the meaningfulness scale were adapted from the Engagement in Meaningful Activities Survey (EMAS) for older adults (Goldberg, 2002; as cited in Eakman et al., 2009). This meaningfulness scale reflects the construct of meaningful activity. Eakman, Carlson, and Clark (2009) found the EMAS demonstrated favorable psychometric properties and had good internal consistency. The adapted scale consisted of eleven items that have been slightly modified from the EMAS to measure the level of meaning allotted to the occupation. The first item was removed and others were modified to better fit this study. The scale was modified to reflect the meaningfulness of the picture frame activity. “This activity,” was added to the beginning of all of the items. A five-point scale was used to score this survey with scores ranging from 11-55. The five-point scale is as follows; 1= Never, 2= Rarely, 3= Sometimes, 4= Usually, and 5= Always (see Appendix B.)

### **Procedures**

Participants received informed consent upon arrival. Once informed consent was discussed and granted participants were randomly assigned to an altruistic or non-altruistic group based on which building they live. The participants then received a demographic questionnaire (see Appendix A.)

The altruistic group was directed to paint and decorate picture frames for women and children living in a domestic violence shelter. They were also given a narrative about the shelters purpose and mission. The non-altruistic group was directed to paint and decorate frames to keep for themselves.

Each group consisted of up to four people, all receiving the same condition. The groups were limited to four to enhance instruction. The occupation consisted of two steps: (1) painting the frames, and (2) decorating the frames using a variety of materials.

For both groups, the participants were instructed to continue to work on the frame for as long as they would like. Time was measured using a stop watch; if the participant stopped performing the occupation she was given a verbal prompt to encourage her to continue working on the frame. Prompts included; “Would you like to continue painting/decorating the frame for yourself/woman/child?” If participant answered “No” to the verbal prompt the occupation of decorating a frame was ended and duration was recorded. Participants were also asked “Are you sure that you do not want to continue working on the frame for yourself/woman/child?” If the participant answered “Yes” to either of these the duration was recorded. Breaks were permitted during the occupation and the time was recorded at the beginning and end of each break. Time was recorded using a stop watch and each participant had her own assigned stop watch. Breaks were suggested if the participant appeared fatigued and/or frustrated. Participants were asked, “Are you tired?” and told they were permitted to take a break if they would like. After four minutes, the participants were asked “Are you ready to work again?” in order to reengage them in the occupation. If participant responded “No” prompts discussed earlier were used to encourage them to continue participating. The time was stopped once the participant indicated through a verbal statement they would like to take a break and was restarted once the participant verbally states they would like to re-engage in the occupation again (see Appendix C and D for group protocols). Once the participant stated he/she was finished participating, the timer was stopped and the time was recorded. The



participant then received a meaningfulness scale based on the occupation of making frames.

The occupation was implemented at the residency of the participants, at approximately the same time of day for each group. Non-participating residents were not permitted in the room during the occupation.

### **Data Analysis**

A simple experimental design was used. The dependent variables included: time spent working on the frames (time was measured using a digital stopwatch with split timing), number of frames made (recorded on the same form as the time record), and meaningfulness questionnaire scores. Questionnaire scores were assessed using a meaningfulness scale adapted from the Engagement in Meaningful Activities Survey (EMAS) for older adults (Goldberg, 2002; as cited in Eakman et al., 2009). Because data were skewed, a Mann Whitney  $U$  was used to analyze the data. Cohen's effect size  $d$  was also calculated.

### **Results**

The variables analyzed for the study include duration of time, number of picture frames made, and level of meaning allotted to decorating frames. With the exception of the amount of meaning allotted to decorating the frames, all hypotheses were supported by the results.

Results of the study reveal that participants in the altruistic group performed longer and produced more picture frames than participants in the non-altruistic group. See Table 1 for a summary of the data. A significant difference was found between the groups for performance time ( $z = -4.409$ ;  $p < .001$ ). The altruistic group spent more time

decorating frames ( $M = 3873.60$  seconds) than the non-altruistic group ( $M = 2105.00$  seconds). The effect size was 1.91. Additionally, there was a significant difference between the groups in terms of the number of picture frames decorated ( $z = -4.813$ ;  $p < .001$ ). The altruistic group made more frames ( $M=2.93$ ) than the non-altruistic ( $M= 1.15$ ). The effect size was 2.1.

Results did not support the hypothesis that participants in the altruistic group will associate a higher level of meaning to decorating frames as defined by a meaningfulness scale adapted from the Engagement in Meaningful Activities Survey (EMAS) for older adults (Goldberg, 2002; as cited in Eakman et al., 2009). A statistically significant difference was not found between the altruistic and non-altruistic group ( $Z = -.595$ ;  $p > .05$ ). For a summary of data from each item on the meaningfulness scale see Table 2.

### **Discussion**

The purpose of this study was to determine if altruistic activities result in an overall increased performance for elderly women residing in senior living facilities. More specifically, this study investigated the amount of time spent on the occupation, the number of items fabricated, and the amount of meaning the participants allotted to the occupation. The results of this study support the hypothesis in that individuals in the altruistic group spent more time on the occupation and fabricated a larger number of items than participants in the non-altruistic group. These results imitate findings in previous studies showing that elderly female participants demonstrate increased performance if the activity was for an altruistic cause ( Hatfield, 2008; Hatter & Nelson, 1987; Getz, 1987). The hypothesis that the altruistic group would associate a higher level of meaning to the occupation was not supported.

Adding meaning and purpose to an activity for therapeutic intervention has long been a primary focus for the profession of occupational therapy. According to Nelson and Jepsen-Thomas (2003) adding meaning to an occupation improves performance. One of the major aspects of the current study is to increase performance in elderly women living in senior living facilities utilizing the concept of altruism. According to Hoffman et al. (1978) it can be inferred that altruism can increase meaning, purpose, and motivation for an occupation leading to an enhanced performance. The results clearly suggest that participants in the altruistic group were more motivated to perform the occupation, as supported by the increased time spent on the occupation and increased number of picture frames made as compared to the non-altruistic group. Additionally, these results address the potential benefits of altruism and enhanced motivation for performing occupations. Although the results indicate that the occupation of decorating picture frames was equally meaningful to both the altruistic and non-altruistic groups, the altruistic group displayed increased performance with the understanding that their picture frames would be donated to women and children in domestic violence shelters.

Cirpriani et al. (2006) determined that immediate family and/or friends coinciding with social engagement were the primary focus behind all activities of residents in long-term nursing homes. Additionally, Cipriani et al. (2007) completed a literature review of six studies to investigate altruistic activities among older adults living in long term care facilities that resulted in six primary points that can be used to assist occupational therapists in developing interventions, one of which is the major importance of providing social engagement. In the current study, decorating the frames in a social group may have provided the participants in the altruistic group with a higher perceived sense of social

contribution to society, in addition to an improved sense of social success from engaging in the context of the group. The increased time spent on the occupation and increased number of frames made by the altruistic group versus the non-altruistic group suggests the altruistic group may have had a higher perceived sense of social contribution and social success.

The results of this study indicate that providing an altruistic component to occupational interventions for elderly women residing in senior living facilities may increase performance in terms of amount of time spent on a given occupation and number of items fabricated. These results also suggest that elderly women who participate in occupations that provide an altruistic component may experience increased therapeutic outcomes from an occupation. Many women living in senior living facilities have limited opportunities to socially connect and contribute to society. Providing these women with an opportunity to do this can allow them to feel a sense of competence and value for their contribution. Overall, these results from this and other previous studies suggest that occupational therapists should consider choosing occupations that provide an altruistic component for increased participation for elderly women residing in senior living facilities.

There was not a significant difference found between the two conditions in terms of the level of meaning associated to the activity according to the meaningfulness scale. However, it is clear that the participants in the altruistic group were more motivated to perform the occupation, as shown by the increased time spent decorating the frames and the increased number of frames produced as compared to their counterparts in the non-altruistic condition. Although the meaningfulness scale measured the overall value of the

occupation itself, it did not specifically address the meaning of why they were making the frames. Therefore this may have caused the participants to disassociate the idea of actually 'doing the activity' from the actual 'reason or purpose for doing the activity.' Future research should ensure that the meaningfulness survey specifically addresses the 'purpose for completing the activity.' Another reason a significant difference in meaning may not have been seen between the two conditions could be due to the fact that some of the participants in the non-altruistic occupation were still making the frames with the idea of giving them to their loved ones (e.g. grandkids). Although the researcher explained several times that the participants were to keep the frames for themselves when they were completed, many participants in the non-altruistic group independently came up with the idea to give the frames away to loved ones constituting an altruistic act. This suggests that although the non-altruistic condition was not intended to have an altruistic factor, the participants still possessed a perceived sense of altruism by planning on giving their frames away to others. This perceived sense of altruism in the non-altruistic group may have contributed to increased meaning for the occupation.

### **Limitations**

One limitation to this study was that the principle researcher administered the occupation during both conditions. Having the knowledge of the study and conducting the activity with both groups could unintentionally lead to researcher bias even though attempts were made to isolate the variable of altruism. Peer pressure or group influence was another limitation of the study. Group members and peers, especially in the altruistic condition could have played a role in motivating the rest of the members in the group to continue working leading to increased time spent and products made. A final limitation of

the study was that results cannot be generalized beyond elderly women residing in senior living facilities in Northwestern Ohio. The results also may not be generalized to other types of products, participants, and recipients due to the limited population sample and specific activity that was used for this study.

### **Future Research**

Future research to determine the effects of altruism on performance is necessary. Future research in this area should consider expanding geographical locations and populations to better generalize results. Additionally, future research might investigate the different outcomes of men versus women in regards to performing altruistic acts. Another idea to consider in future research is a single participant study to control for group influences and peer pressure. Future research may also consider providing two separate researchers that are blind to the study to implement each of the conditions to reduce researcher bias. Future research should also ensure that the meaningfulness survey specifically addresses the 'purpose for completing the activity

### **Conclusion**

For the current study, altruism was shown to improve performance in terms of the amount of time spent on the occupation and number of items fabricated. These results may be useful to occupational therapists designing interventions for elderly women residing in senior living facilities. The outcomes of this study indicate that adding an altruistic component to therapeutic interventions may increase motivation for a task. Additionally, adding an altruistic component addresses the client's inherent need to socially contribute to the community therefore facilitating a more holistic approach to treatment.

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Appendix A

Demographic Questionnaire

**Gender:**

Male\_\_\_\_\_

Female\_\_\_\_\_

**Marital Status:** \_\_\_\_\_

**Age:** \_\_\_\_\_

**Ethnicity:**

Caucasian\_\_\_\_\_

African American\_\_\_\_\_

American Indian\_\_\_\_\_

Asian\_\_\_\_\_

Hispanic\_\_\_\_\_

Other\_\_\_\_\_

## Appendix B

Number of Frames made: \_\_\_\_\_

Total time: \_\_\_\_\_

House: (circle one below)

Luther Hills    Lutheran Homes

## Meaningfulness Scale

Directions: Please circle a number from one to five that best reflects your reaction to the statement.

1. This activity reflects the kind of person I am.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Always

2. This activity expresses my creativity.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Always

3. This activity helps me achieve something which gives me a sense of accomplishment.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Always

4. This activity contributes to me feeling competent.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Always

5. This activity is valued by other people.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Always

6. This activity helps other people.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Always

7. This activity gives me pleasure.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Always

8. This activity gives me a feeling of control.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Always

9. This activity helps me express my personal values.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Always

10. This activity gives me a sense of satisfaction.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Always

11. This activity has just the right amount of challenge.

1	2	3	4	5
Never	Rarely	Sometimes	Usually	Always

## Appendix C

## NON-ALTRUISTIC PROTOCOL

## I. Introduction: Self and occupation

Hi, we are occupational therapy students from the University of Toledo. Today we are going to be decorating wooden picture frames. You can place pictures of your loved or yourselves in this frame to place in your rooms. This is a picture frame. We'll teach you how to decorate a frame. First, I need you to read and sign this form. (Hand the consent form out and read out loud while subjects follow along.) Do you want to be in the study and make a picture frame? (Have the participants sign, and then you date the form. You then write the participants name on the questionnaire).

## II. Teach/ Demo

**First**, we need to select the color you would like to paint your picture frame. (Show them choice paint colors.)

**Second**, we need to uncap the chosen color and squeeze some onto a paper plate.

**Third**, we use the foam brushes to apply the paint onto the frames. (Let the frames dry.)

**Fourth**, choose a variety of foam stickers, gemstones, and ribbon to decorate the frames with.

**Fifth**, use the hot glue gun to apply the materials chosen onto the frame.

## III. Practice

Now, let's practice on this frame.

**1st** Choose the color of paint and squeeze onto the plate. More? Enough?

Too Much? Great, that is the perfect amount of paint

**2nd** apply the paint onto the frame using the foam brush and make sure to get the corners (Point as you apply the paint.) More? Enough? Too much?

Good, that is the perfect amount of paint.

**3rd** allow the paint plenty of time to dry.

**4th** apply foam stickers, gemstones, and ribbon onto the frame with the glue gun (Point). Just apply one dot of glue for each item. (Point)

**5th** Do you like it? It needs another gemstone here/ a ribbon over here/ I think its good/ etc. (adjust accordingly).

**6th** You all did a great job and this was just practice!

#### IV. Data Collection

Now you can decorate a frame by yourself

1. Here is a wooden frame.
2. Now, you can choose the color you would like to paint your frame.
3. Next squeeze some paint onto the paper plate in front of you. (once the paint is on the plate, **TIME BEGINS** in seconds)
4. Good. You can begin painting the frame with the foam brush.
5. Go ahead and let the paint dry as you choose the materials you would like to decorate your frame with.
6. Once the frame is dry apply the materials how you would like them onto the frame using the glue gun. Use one dot of glue per item.
7. Do you like it? I think it's good/ needs something here/ more color/ etc.

8. Once participant has verbally indicated she is finished with the occupation  
Researcher will state, "Good Job." Thanks for participating in this study.  
(Monitor escorts participants out. Researcher records **TOTAL TIME** in  
seconds. Time will be measured with a stop watch)

#### Monitor

The monitor is responsible for escorting the participants out of the room.  
Makes certain the frame is placed on participant's bedroom table. Ask  
participant what/ if any picture they would like to place in the frame.  
Make sure assistant properly records the **TIME**. Obtain any materials the  
assistant may need.

#### Problems

1. Fatigue

Are you tired? You make take a break if you would like one.

(Record **TIME** [in seconds] and wait five minutes) After five minutes, ask  
the participant if they are ready to work again. (Record total **Time** break  
lasted in seconds)

2. Off Task

Prompt them back to the task at hand. Looks like you need some  
paint in the corners/ you could use a couple more gemstones over here.

3. Remember

**Lock** wheelchair when participant arrives

**Unlock** wheelchair before participant leaves

**Speak** LOUDLY and SLOWLY

**Teach** one frame and **Practice** one frame

**Guide**, do not take over

**TIME** in seconds

**Record beginning and ending times**

**Follow** Protocol at all times.



## Appendix D

## ALTRUISTIC PROTOCOL

The following protocol will be used, once informed consent has been signed by all participants.

## I. Introduction: Self and Occupation:

Hi, we are occupational therapy students at the University of Toledo. Today, we'll be decorating wooden picture frames for abuse women and children. The families are all from Toledo. They can use these picture frames to display pictures of their loved ones in their rooms at the shelter. Many of them do not get to see their loved ones often, so it will be nice for them to have something to display a picture in. Here is a picture of the shelter they live in. This is a picture frame. We'll teach how to decorate the picture frame.

First, I need you to read and sign this form. (Hand out the consent forms and read them out loud while the participant follows along.) Do you want to participate in this study and decorate a picture frame for an abused women or child? (Have the participant sign the form, but you date the form. You then write the participants name on the questionnaire).

## II. Teach/ Demo

Would you like to decorate a frame for a woman, female child, or male child? Which of these colors would you like to paint your frame? (Show color choices.)

**First**, we need to select the color you would like to paint your picture frame. (Show them choice paint colors.)

**Second**, we need to uncap the chosen color and squeeze some onto a paper plate.

**Third**, we use the foam brushes to apply the paint onto the frames. (Let the frames dry.)

**Fourth**, choose a variety of foam stickers, gemstones, and ribbon to decorate the frames with.

**Fifth**, use the hot glue gun to apply the materials chosen onto the frame.

I bet a woman or child will really like this picture frame!

## III. Practice

Now, let's practice on this frame.

**1st** Choose the color of paint and squeeze onto the plate. More?

Enough? Too Much? Great, that is the perfect amount of paint

**2nd** apply the paint onto the frame using the foam brush and make

sure to get the corners (Point as you apply the paint.) More?

Enough? Too much?

Good, that is the perfect amount of paint.

**3rd** allow the paint plenty of time to dry.

**4th** apply foam stickers, gemstones, and ribbon onto the frame with the glue gun (Point). Just apply one dot of glue for each item.

(Point)

**5th** Do you like it? It needs another gemstone here/ a ribbon over here/ I think its good/ etc. (adjust accordingly).

**6th** You all did a great job and this was just practice. I bet you a woman/child will really enjoy this picture frame!

#### IV. Data Collection

Now you can decorate a frame by yourself

1. Here is a wooden frame.
2. Now, you can choose the color you would like to paint your frame.
3. Next squeeze some paint onto the paper plate in front of you. (once the paint is on the plate, **TIME BEGINS** in seconds)
4. Good. You can begin painting the frame with the foam brush.
5. Go ahead and let the paint dry as you choose the materials you would like to decorate your frame with.
6. Once the frame is dry apply the materials how you would like them onto the frame using the glue gun. Use one dot of glue per item.
7. Do you like it? I think it's good/ needs something here/ more color/ etc.
8. Once participant has verbally indicated she is finished with the occupation Researcher will state, "Good Job." Thanks for participating in this study. The woman/child will be grateful for this

picture frame you have made for her/him. She/he can use it to place pictures of loved ones in, and/ or to decorate her room with. (Monitor escorts participants out. Assistant records **TOTAL TIME** in seconds.)

### Monitor

The monitor is responsible for escorting the participants out of the room.

Makes certain the frame is placed on participant's bedroom table. Ask participant what/ if any picture they would like to place in the frame.

Make sure assistant properly records the **TIME**. Obtain any materials the assistant may need.

### Problems

#### 1. Fatigue

Are you tired? You may take a break if you would like one.

(Record **TIME** [in seconds] and wait five minutes) After five minutes, ask the participant if they are ready to work again. (Record total **Time** break lasted in seconds)

#### 2. Off Task

Prompt them back to the task at hand. Looks like you need some paint in the corners/ you could use a couple more gemstones over here.

#### 3. Remember

**Lock** wheelchair when participant arrives

**Unlock** wheelchair before participant leaves

**Speak** LOUDLY and SLOWLY

**Teach** one frame and **Practice** one frame

**Guide**, do not take over

**TIME** in seconds

**Record beginning and ending times**

**Follow** Protocol at all times.

Table 1

*Mean and standard deviation of time, number of frames made, and total meaningfulness allotted to decorating frames.*

Dependent Variable	Altruistic		Non-Altruistic	
	M	SD	M	SD
Performance time (s)	3873.60	1390.63	2105.00	616.87
Number Frames	2.92	1.34	1.15	.366
Frame Meaning	44.94	8.16	44.12	6.50

*(Note: n=40)*

*\* All data are rounded to the second decimal*

Table 2

*Mean and standard deviation of each of the 11 items on the meaningfulness scale.*

Dependent Variable	Altruistic		Non-Altruistic	
	M	SD	M	SD
1. This activity reflects the kind of person I am.	3.90	.96	3.21	1.23
2. This activity expresses my creativity.	3.85	1.04	3.45	1.19
3. This activity helps me achieve something which gives me a sense of accomplishment.	4.10	1.02	3.90	1.12
4. This activity contributes to me feeling competent.	3.95	1.10	3.85	1.27
5. This activity is valued by other people.	4.10	.79	3.45	1.19
6. This activity helps other people.	4.21	.79	3.63	1.26
7. This activity gives me pleasure.	4.56	.71	4.50	.79
8. This activity gives me a feeling of control.	3.90	.93	4.00	1.19

9. This activity helps me express my personal values.	4.16	.83	3.89	1.20
10. This activity gives me a sense of satisfaction.	4.42	.90	4.10	1.15
11. This activity has just the right amount of challenge.	3.84	1.12	4.16	1.07

---

(Note: n=40)

*\*All data are rounded to the second decimal point.*

\* A five-point scale was used to score this survey. The five-point scale is as follows;  
1= Never, 2= Rarely, 3= Sometimes, 4= Usually, and 5= Always