

## A Pilot Study Of The Impact Of An Intergenerational Program For Socially Isolated Seniors: Examining LINKages

**M. Shaw and C. Konnert**  
University of Calgary

---

An increasing number of elderly people are remaining at home long into their senior years. This is a highly vulnerable population, at risk of loneliness, isolation, depression and associated adverse health outcomes. Intergenerational social programs are intended to enable social contact, promote active participation and sharing, as well as provide a sense of meaning for seniors. The purpose of this pilot study was to examine social and health outcomes of long-term senior participants at the intergenerational organization, LINKages. Twenty-one participants completed the UCLA Loneliness Scale, Engagement in Meaningful Activities Scale, MOS Social Support Survey, the Short Form Health Survey and participated in a semi-structured interview. Results indicate that intergenerational programs do target lonely seniors, who have an average sense of engagement in meaningful activities compared with standardized norms. A stronger bond with a younger volunteer was associated an increased sense of social support. Finally, decreased loneliness, engagement in meaningful activities and sense of social support were all related to increased vitality. The study findings indicate that intergenerational programming is successful

in targeting lonely older adults and that improvements in the social outcomes, such as loneliness, support and sense of meaning are associated with better health. **Keywords:** social isolation, intergenerational, volunteering, seniors programming, successful aging.

### Introduction

Faced with an increasing older population, facilitating successful aging is increasingly important for promoting longevity, good health, activity, independent living and consequently minimizing healthcare costs that are associated with older age<sup>1</sup>. Most elderly people live at home as they age and more than 30% live alone<sup>2</sup>. This population is also the most vulnerable due to low income, high widowed status, loneliness, depression and isolation<sup>3</sup>. Isolation and loneliness are associated with a number of adverse health outcomes<sup>4-6</sup>.

*Epidemiology:* It is estimated that approximately 17% of older adults in North America report self-perceived loneliness<sup>5</sup>. Gender and marital status appear to be related to loneliness and social isolation. Non-married males report the highest extent of loneliness, followed by non-married females. For married couples, females report higher incidence of loneliness than males. Finally, widowed individuals, report the highest extent of loneliness. While

some studies have reported a relationship between loneliness and socio-economic status, suggesting that loneliness is more prevalent among lower income groups, these findings have not been consistent <sup>7</sup>.

*Interventions:* Numerous social programs have been designed and implemented in an attempt to minimize loneliness in the elderly [2, 8-9]. These programs include community empowerment interventions, self-help or educational interventions, direct services programs as well as volunteer linking interventions <sup>10</sup>. Data on the effectiveness of these interventions is widely varied <sup>11-12</sup>. A number of issues might contribute to the conflicting efficacy results of loneliness reduction interventions, including the variety of services offered, the length of time for which interventions are implemented, limitations with study design and the wide range of tools used to measure efficacy <sup>11</sup>. In addition, although the research interventions aim to reduce social isolation or loneliness, a minority of them specifically target people who are socially isolated. In most studies, social isolation is assumed in virtue of the specific client group, such as being a resident in a nursing home. Friendly visitor programs are a subtype of intervention that have the added benefit of being cost effective as they do not have to be run by a professional <sup>14</sup>. A meta-analysis of 15 studies of friendly visitor programs for socially isolated older adults found that these programs were associated with both a significant reduction in mortality and a significant reduction in admissions to long-term institutionalized care <sup>14</sup>. Friendly visitor programs specifically, target social activity and support, and some types of friendly visitor programs, such as intergenerational interventions, contain a participatory component. A review of interventions aimed at targeting loneliness found that programs containing these components, namely, participatory elements as well as social activity and support were most likely to be beneficial <sup>12</sup>.

*Intergenerational Programs and a Sense of Meaning:* A particular type of friendly visitor intervention, that is not clearly represented in the literature on efficacy of social isolation interventions, are intergenerational programs. Intergenerational programs focus on pairing participants from different generations, with the aim of developing a reciprocal relationship where both participants are able to share with and learn from one another <sup>14</sup>. Intergenerational

relationships provide the opportunity to explore common values and formulate shared agendas <sup>15</sup>. In contrast to interventions where seniors are visited by a nurse or a peer, intergenerational visitation does not make the senior feel like the sole recipient of visitation benefits but rather provides them with a participatory role and a sense of meaning, in accordance with Erik Eriksons theory of Generativity <sup>16</sup>. According to Erikson, generativity is the extension of care towards others. In this process, individuals derive meaning and purpose by passing on knowledge and wisdom to younger generations. The possible implication of this theory is that tapping into seniors desire for generativity could help to promote successful aging by enabling them to participate in meaningful activities through sharing with younger generations, while simultaneously minimizing feelings of loneliness and isolation through the building of social relationships <sup>17-18</sup>. Rowe and Kahn <sup>19</sup> define successful aging as a combination of three components: avoiding disease and disability; maintaining high mental and physical function; and sustained engagement with life which means participating in relationships with others and being productively involved in activities. Their studies on successful aging showed that older adults who scored high in mental and physical functioning were twice as likely to engage in volunteer activities as low-functioning senior adults. Some even remain productive despite limitations and chronic diseases, and this active engagement can lead to longer and healthier lives. Senior involvement in intergenerational programs has demonstrated improved feelings of self-worth, higher levels of social interaction and more prolonged ability to remain productive <sup>2</sup>. While the data gathered from these programs is promising, there is a need for more in-depth analysis into both qualitative and quantitative outcomes from intergenerational programs, in order to fully assess their benefit and role in reducing social isolation and loneliness among the elderly. The purpose of the current study is to help to identify the typical participant who elects to participate in intergenerational programing, to explore self-perceived effects of participation and to determine whether participation in intergenerational programs is related to loneliness and sense of purpose or meaning, as well as health functioning. The results from this pilot study will also be used to assess the feasibility of conducting a

long-term, randomized controlled trial in order to more accurately identify any benefits to seniors as a result of intergenerational programming. Based on prior research, it is hypothesized that seniors who are long-term participants (minimum of one year) in intergenerational programming are less lonely than the standardized population and have a higher sense of purpose and meaning in their daily activities. Higher level of involvement in intergenerational programming (as measured by self-reported commitment level, perceived bond strength with younger volunteer and perceived benefits from participation) is expected to be related to decreased feelings of loneliness, increased sense of social support and increased sense of engagement in meaningful activities. It is further expected that decreased loneliness, increased social support and higher engagement in meaningful activities will be associated with better health functioning.

*Examining Intergenerational Programs: LINKages:* LINKages Society of Alberta is a community-based registered charity that was originally founded as the Friends of Seniors Foundation in 1994. With an extensive amount of experience, LINKages is recognized for the successful implementation of programs that connect young people with seniors in a number of different living arrangements, such as seniors residences and independent-living (Appendix 7). LINKages provides the careful recruitment, screening and matching of both youth and seniors with ongoing training and support, structured activities and high expectations for regular and ongoing contact.

## Methods

*Participants:* Participants were 21 seniors, aged 60 to 92. Participants included 8 males and 13 females. Participants were members of LINKages who have been active in the program for a minimum of one year.

*Materials:* Quantitative measures fell into two categories: 1) demographic and background data, including age, gender, ethnicity, education and marital status, and 2) primary outcome measures assessed both functioning related to physical and social health as well as loneliness. These consisted of: UCLA Loneliness Scale, the MOS Social Support Survey, the Engagement in Meaningful Activities

Survey (EMAS) and the Short Form Health Survey (SF 36)<sup>20-23</sup>. Norms for the SF 36 are available for various age groups, including age 75 and over<sup>24</sup>. Measures were selected based on reliability, validity, sensitivity to change and brevity<sup>20,25-27</sup>. Measures are included in Appendices 1-6. Participants filled out a background questionnaire created by the main investigator (Appendix 1). They gave their date of birth (age) and selected from a number of categories to describe their gender, race/ethnicity, marital status, living situation (e.g., alone, with a spouse, with another adult or adults) and highest level of education. The purpose of the qualitative component of the study was to bring to light any issues or phenomena that might not have been detected by the quantitative methods, and to obtain deeper information from participants on a variety of questions, such as, their reasons for joining an intergenerational program, perceived benefits of participation, information on other volunteer activities they participate in, as well as feedback on their self-perceived loneliness and satisfaction with familial relationships (Appendix 6). Some questions in this section, such as perceived bond strength with ones younger volunteer, self-perceived loneliness, perceived program benefits and program commitment were scaled, so responses were used in the quantitative analysis.

*Procedure:* Participants were contacted by a LINKages employee via phone and e-mail and asked to participate in the study and be contacted by the researcher. Upon agreement, 26 participants were contacted via phone by the researcher and asked to set up a meeting time at their convenience. Twenty-one individuals agreed to participate in the study. Meeting times were set up with 21 individuals at their home. At the meeting, the consent form was reviewed and any questions were answered before participants began to complete other measures (Appendix 7). Participants were asked to sign the consent form and were informed that they could terminate participation at any time and this would not affect their membership at LINKages. First, demographic data was gathered from participants. The main outcome measures were then administered to participants. Finally, a semi-structured interview was administered. Participation in study took between one and two hours.

Participant Demographics	Number	Percent
Widowed	14	66.7
Divorced/Separated	6	28.6
Never married	1	4.8
Living alone	17	81.0
Living alone with assistance	2	9.5
Living with another adult	2	9.5
Have children	19	90.1

**Table 1:** *Patient Demographic Data (N=21).*

## Results

*Analysis:* Quantitative statistical analyses were conducted using SPSS statistical software Version 17.0.1. Frequencies for all study variables in the data set were examined for errors in data entry or scoring, and corrected if indicated. Items were recoded as needed to compute scale scores. Next, descriptive statistics were calculated for all variables. Correlations were run to assess the relation of demographic and other background variables to the main outcome measures.

*Demographic Data:* Twenty-one participants, consisting of 13 females and 8 males ranged in age from 60 to 92 ( $M = 76.7$ ,  $SD = 5.67$ ). All participants were Caucasian. Demographics are presented in Table 1.

*Descriptive Analysis:* The means, standard deviations, ranges and reliability for the main-outcome measures are presented in Table 2. Scores on the UCLA Loneliness Scale for this sample ( $M = 36.8$ ,  $SD = 7.7$ ) were found to be significantly higher than standardized scores for the general senior population ( $M = 31.5$ ,  $SD = 6.92$ ), indicating that participants in this sample are, on average, more lonely, compared with the general senior population ( $t(20) = 3.15$ ,  $p < .05$ )<sup>19</sup>. Results from the EMAS Engagement in Meaningful Activities Survey indicate an average score of 46.7 ( $SD = 4.2$ ), which is not statistically different from standardized senior scores on the EMAS ( $M = 48.2$ ,  $SD = 6.5$ ), indicating that seniors in this sample do not differ significantly from the general senior population in the amount of meaningful activities in which they engage<sup>26</sup>. The large standard deviations for some scales, such as Physical Functioning, Pain, Vitality and Physical Limitations indicate a large variation in health status among participants.

*Correlations Among Variables:* Note that all correlations were one-tailed. Bond strength and self-reported loneliness were negatively correlated ( $r = -.39$ ,  $p < .05$ ) but there was no significant relationship found between bond strength and the UCLA Loneliness Scale. When participants were separated based on marital status, bond strength was significantly negatively associated with scores on the UCLA Loneliness scale for widowed individuals ( $r = -.45$ ,  $p < .05$ ) but not for married/divorced or never married individuals. In addition, a strong negative association was found between scores on the UCLA Loneliness Scale and the EMAS for widowed individuals ( $r = -.81$ ,  $p < .01$ ) but not for the other groups. A significant negative association was found between UCLA Loneliness Scale scores and the Physical Functioning portion of the SF-36 ( $r = -.46$ ,  $p < .05$ ), as well as UCLA Loneliness Scale scores and the Vitality portion of the SF-36 ( $r = -.47$ ,  $p < .05$ ). EMAS was positively associated with Vitality Scores ( $r = .46$ ,  $p < .05$ ). Scores on the MOS Social Support Survey were not associated with General Health Perception or Physical Role Limitations but were positively associated with Physical Functioning ( $r = .42$ ,  $p < .05$ ) and Vitality Scores ( $r = .37$ ,  $p < .05$ ).

*Open-Ended Questionnaire Results:* Results from analysis of the 17-item open-ended questionnaire indicate an overall positive experience at LINKages. In rating their commitment to the program on a 5-point scale from 1 or "Not Committed at all" to 5 or "Highly Committed", all participants responded that they were "Highly Committed". Similarly, all participants reported finding the program either "mostly" or "highly" beneficial. There was variability in participants assessment of bond strength with their LINKages volunteer. In response to Question 13, "What other benefit do you get from participating in

Outcome Measure	N	Minimum	Maximum	Mean	Std Dev
UCLA Loneliness Scale	21	25	53	36.8	7.7
MOS Social Support Survey	21	14	26	18.9	3.1
EMAS*	21	39	55	46.7	4.2
SF-36 General Health Perception	21	30	80	60.3	13.8
SF-36 Physical Role Limitations	21	10	95	53.4	24.6
SF-36 Vitality	21	30	100	66.4	18.5
SF-36 Physical Functioning	21	25	100	61.9	23.6
SF-36 Emotional Role Limitations	21	68	92	87.1	7.9
SF-36 Pain	21	17	90	68.2	19.1
SF-36 Mental Health	21	60	100	82.4	8.6
SF-36 Social Functioning	21	60	85	76.4	11.1

**Table 2:** *Table 2 Descriptive Data on Primary Outcome Measures (N=21).*

the LINKages program?” a single theme emerged: social connectedness, including comments about meeting young people, learning about them and sharing about themselves as well as specific comments about the quality of interactions and the enjoyment of shared activities. In response to Question 8 “What did you dislike about the program or what weaknesses do you see in the program that may deter from your experience?”, most respondents commented on the rarity with which they were able to see their volunteer and the brevity of time spent together, expressing an interest in more contact. Participants also mentioned a number of suggestions for improvement, including playing board games or engaging in educational activities, like cooking classes. Eight participants (38.1%) reported being lonely on the self-reported loneliness question. All widowed participants reported losing their spouse within the last five years and expressed experiencing an increased sense of loneliness and isolation after the death of their spouse. All widowed participants reported joining LINKages as part of an effort to curtail the loneliness and negative feelings associated with the loss of their spouse. Thirteen participants (61.9%) responded that they were satisfied with the amount of time they spent with their children and grandchildren, while 8 participants reported that they were not satisfied. Participants who were not satisfied did not differ significantly in either self-reported loneliness or UCLA Loneliness Scale scores from participants who were satisfied with their kin relationships. In addition, 12 participants (57.1%) reported volunteering for other organizations in addition to LINKages and 16 participants (76.2%) reported having volunteered for

other organizations in the past. These seniors were not significantly less lonely, on either self-reported loneliness or the UCLA Loneliness Scale than seniors who reported not having volunteered elsewhere in the past. Finally, 19 participants (90.5%) reported feeling like they had a sense of being part of a community.

## Discussion

The purpose of this study was to examine the impact of senior participation in intergenerational programming on a number of health-related and psychosocial outcomes. The hypotheses were, in some cases, supported by the results and in others not supported. It was expected that after long-term participation (minimum of 1 year) in the LINKages program, older adults would be less lonely than the general senior population. This hypothesis was not supported by results on the UCLA Loneliness Scale, as on average seniors in the program scored significantly higher than the general population. In support of these results, it was also found that subjective reports of loneliness were higher in the program than in the general population: 38% compared to 17%<sup>5</sup>. While, these findings indicate that despite participation in intergenerational programming, targeted seniors are still more lonely than average, the results provide reassurance that the program is attracting the participation of lonely seniors. The findings cannot be used to conclude that intergenerational programming is ineffective in reducing loneliness. Measures were taken at a single time point and it is unclear how these scores may have changed from

baseline measures. The second hypothesis was that participants would demonstrate an above-average sense of engagement in meaningful activities. This hypothesis was not supported by the results, which demonstrated almost equivalent scores between the studied group and the general senior population. Once again, it is unclear what the baseline participant scores were, so it is not possible to draw conclusions about whether or not participation in LINKages has led to an increase in sense of meaning. Level of involvement in intergenerational programming was measured by ratings on commitment level, perceived level of benefit from participation and bond strength. It was not possible to conduct correlational analysis with levels of commitment and perceived benefit because all participants rated these very highly and subsequently, there was insufficient variability between scores. The high positive ratings do however, indicate that participants are uniformly highly committed to participating in LINKages and also consistently feel that they benefit from participation. Bond strength was the only measure of program involvement that demonstrated variability and there was a positive association with sense of social support and bond strength. It remains unclear whether these relationships represent an effect of the program. Interestingly, in a post hoc analysis in which participants were separated based on marital status, a significant negative association was found between bond strength and UCLA loneliness scales for widowed individuals. Prior research suggests that widowed individuals are more lonely than their married or separated counterparts, and this finding may help to explain the current results<sup>4</sup>. Widowed individuals may be acutely faced with Social Breakdown Syndrome<sup>27</sup> and subsequently, resilient individuals may actively choose to seek out meaningful volunteer activities, such as intergenerational programs. Social Breakdown Syndrome refers to the shrinkage of social roles and reference groups that accompany older age, as well as the presence of negative behavioral expectations. For widowed individuals, Social Breakdown Syndrome is likely more pronounced than individuals who are married or separated earlier in life via some choice of their own. Finding a sudden shift in social roles and groups may explain the higher levels of loneliness that are typical of widowed individuals. However, it may be the case that widowed individuals who

join intergenerational programs, such as LINKages, seek to overcome their increased loneliness because they are more resilient. Resilience is the capacity to maintain or regain high levels of well-being in the face of life challenges or transitions<sup>28</sup>. Thus, it may be the case that when widowed individuals are able to form a strong bond with new people (such as their volunteer), their loneliness decreases. Additional support for this theory comes from the finding of a negative association between loneliness and meaningful activities only for the widowed group. Finally, while decreased loneliness, sense of social support and engagement of meaningful activities were not consistently correlated with SF-36 health measures, they were associated specifically with increased vitality, which is an independently validated health measure<sup>29</sup>.

## Conclusion

The study findings indicate that intergenerational programming is successful in targeting lonely older adults and that improvements in the social outcomes, such as loneliness, support and sense of meaning are associated with better health. There are a number of limitations with this study. The correlational design prevents conclusions to be drawn about causality or directionality of the findings. The administration of measures to participants at a single point in time prevents the possibility of examining how scores may have changed over the course of individuals participation in LINKages, making it difficult to draw conclusions about the efficacy of the program based on quantitative data. In addition, this study examined only a single group and while comparisons with average seniors populations were made for some measures such as the UCLA Loneliness Scale and the EMAS, it was not possible to compare the sample scores with a control group for most measures. Finally, since participant numbers were not large, power may have been a problem for some correlations. Future research can seek to address the aforementioned limitations by following an incoming group of volunteers to LINKages over the course of one year, in order to track any changes in outcome measures. Baseline scores of an incoming group can be used for comparison with measures from the current group if both sets of participants are comparable on background and other

demographic measures. A randomized controlled trial can also be used to delineate the causal relationship between the intergenerational program and various health outcomes. Using research to determine the effect and feasibility of using social programs to promote successful aging is an important tool to best accommodate an aging population.

## References

1. Elkan, R., Kendrick, D., Dewey, M., Hewitt, M., Robinson, J., Blair, M., Williams, D., and Brummell, K. *British Medical Journal* 323 (71924) 2001.
2. Bullock, J., and Osborne, S. *Educational Gerontology* (25) 1999.
3. Colin J G., and Lou F. *The Journal of the Royal Society for the Promotion of Health* (126) 2006.
4. Locher J. L., Ritchie C. S., Roth D. L., Baker P. S., Bodner E. V., and Allman R. *Soc Sci Med*, 60(4), 2005.
5. Walker, D., and Beauchene, R. E. *Journal of American Dietary Association*, 91(3), 1991.
6. Hawton, A. Green, C., Dickens, A. P., Richards, S. H., Taylor, R. S., Edwards, R., Greaves, C. J., and Campbell, J. L. *Quality of Life Research* 20(1) 2011.
7. Findlay, R. A. *Ageing & Society*, (23) 2003.
8. Masi, C., Chen, H., Hawkey, L., and Cacioppo, J. *Personality and Social Psychology Review*, 15(3), 2011.
9. Andersson, L. literature. *Aging and Mental Health*, 2(4), 2010.
10. Barron, J., Tan, E., Yu, Q., Song, M., McGill, S., and Fried, L. *Journal of Urban Health*, 86(4), 2009.
11. Cattan, M., White, M., Bond, J., and Learmouth, A. *Ageing & Society*, (25), 2005.
12. Dickens, A., Richards, S., Greaves, C., and Campbell, J. *BMC Public Health* (11), 2011.
13. Weintraub, A., and Killian, T. *Journal of Applied Gerontology*, 26(4), 370-384. 2007.
14. Flora, P. and Faulkner, G. . *Journal of Intergenerational Relationships*, 4(4), 63-74. 2006.
15. Erikson, E. Oxford, England: Josiah Macy, Jr. Foundation. In Milton J. E. (Eds), *Symposium on the healthy personality* 1959.
16. Debats, D. L. *Journal of Humanistic Psychology*, 29, 30-57. 1999.
17. Vanderven, K. *Journal of Intergenerational Relationships*, 11(3), 37-41. 2011.
18. Rowe, J., and Kahn, R. *The Gerontologist*, 38(2), 151-164. 1998.
19. Russell, D. . *Journal of Personality Assessment*, 66(1), 20-40. 1996.
20. Sherbourne, C., and Stewart, A. *Soc. Sci. Med.* 32(6), 605-714. 1991.
21. Goldberg B., Brintnell S., and Goldberg J. *Occupational Therapy in Mental Health*, 18(2),1744. 2002.
22. Ware, J., and Sherbourne, C. *Medical Care*, 30(6), 473-483. 1992.
23. Ware, J., Snow, K., Kosinski, M., and Gandek, B. *Manual and Interpretation Guide*. Boston, MA: New England Medical Center, The Health Institute. 1993.
24. Lyons, R., Perry, I., and Littlepage, B. *British Geriatric Society*, 23(3), 182-184. 1993.
25. Eakman, A., Carlson, M., and Clark, F. *OTJR*, 30(3), 111-121. 2010.
26. Stansfeld, S., Roberts, R., and Foot, S. *Quality of Life Research*, 6(3) 217-224. 1997.
27. Kuypers, J. and Bengston, V. *Human Development*, 16, 181-201. 1973.
28. Kling, K., Seltzer, M., and Ryff, C. *Psychology & Aging*, 12, 288-295. 1997.

Acknowledgements: This study was funded by a Markin USRP Undergraduate Studentship (2012) at the University of Calgary