

Original Article

Effectiveness of Interaction with Children on Happiness among the Elderly: A Pilot Study

Josmitha Maria Dsouza¹, Jacintha Veigas², Neevan DR Dsouza³, Shrinivasa Undaru Bhat⁴

Abstract

Objective: Happiness is a crucial component of human lives. It is thus logical to assume that considering satisfaction and joy will produce profitable outcomes. The study intended to examine the effectiveness of interaction with children on happiness among the elderly. **Methods:** We chose 20 institutionalized elderly and assigned them randomly to experimental and control groups. We used the happiness rating scale to test the happiness levels among the elderly. We chose children for interaction based on their attitudes towards the elderly. Then the experimental group elderly interacted with the children twice a week for four weeks.

Results: The paired 't' test calculated for the experimental (P value= < 0.001) and control group (P value= 0.472) implied that the interaction with children is useful to enhance elderly happiness. **Conclusion:** We thus recommend that the educational curriculum include the children's visit to the elderly homes. Also, establishing children's homes and the elderly homes under one roof can benefit either group.

Keywords: Aged; communication; elderly homes; interaction; well-being

Bangladesh Journal of Medical Science Vol. 21 No. 02 April'22 Page : 318-322
DOI: <http://doi.org/10.3329/bjms.v21i2.58064>

Introduction

Family is the cornerstone of the Indian community.¹ The elderly reap joy from their families and children.² Most elderly seek happiness in their homes, being surrounded by their children and grandchildren.³ Investigations in diverse contexts reveal that the elderly fancy living in their own homes and communities.⁴ However, with the changing economics, modernization, and globalization, the youth are on the move for distinct identities. Most seek a better life outside their houses, wholly forsaking their old parents with none to attend them.⁵ We see an erosion of the conventional thought of responsibility and the kids' commitment towards

their aged parents.⁶ The joint family practice is transformed into a nuclear family, with inadequate space for the elderly. Consequently, we force the elderly to shift to the nursing homes, where they count their end days⁷ and suffer from loneliness and feelings of inadequacy.⁸ A study conveyed to review the relationships between depression, loneliness, and sociability in the elderly reported a significant connection between depression and loneliness.⁹

Population aging is a global trend that has meaningful and far-reaching implications.¹⁰ We identify aging by the heterogeneous deterioration of various bodily functions.¹¹ Advancements in health and decline in fertility have inflated the old population.

1. Mrs. Josmitha Maria Dsouza, Research Scholar, Nitte (Deemed to be University), Nitte Usha Institute of Nursing Sciences (NUINS), Mangalore, India. josmithadsouza@gmail.com
2. Dr. Jacintha Veigas*, Professor, Nitte (Deemed to be University), Nitte Usha Institute of Nursing Sciences (NUINS), Department of Community Health Nursing, Mangalore, India. jacintha@nitte.edu.in
3. Dr. Neevan DR Dsouza, Associate Professor, Nitte (Deemed to be University), KS Hegde Medical Academy (KSHEMA), Biostatistics, Mangalore, India. neev22@yahoo.co.in
4. Dr. Shrinivasa Undaru Bhat, Professor, Nitte (Deemed to be University), KS Hegde Medical Academy (KSHEMA), Department of Psychiatry, Mangalore, India. shrinivasabhat@nitte.edu.in

Correspondence: Dr. Jacintha Veigas*, Professor, Nitte (Deemed to be University), Nitte Usha Institute of Nursing Sciences (NUINS), Department of Community Health Nursing, Mangalore, India. jacintha@nitte.edu.in

This scenario is a growing concern that vouches for priority consideration for financial and social strategies to become senior citizen-friendly. In 2011, there were 98 million older residents in India, and the estimate may rise to 143 million by 2021.¹²

We attempted this pilot study to observe if the interaction with children can enhance elderly happiness. The elderly who have no connection with their family members and are left with none to converse with them may have this requirement filled with the children's interaction. Thus, the research can represent the concept of establishing the elderly homes and orphanages under one roof, as the two groups can take care of each other. Furthermore, both the elderly and children will locate someone to spend time with them. We have observed that the grandchildren's impacts on the grandparents have remained under-researched while comparing the latter effect on grandchildren. So we have attempted an interaction session between the children and the elderly. We developed a structured interaction module, which included various activities that initiated communication between the children and the elderly. This paper evaluates the effectiveness of the interaction with children on happiness among the elderly.

Materials and methods

Design and participants

We utilized an experimental pre-test, post-test control group design to evaluate the effectiveness of interaction with children on elderly happiness. The elderly above 65 years of age, residing in selected elderly homes of Mangaluru, India, were the study participants. We excluded those with severe bodily and mental impairment. We preferred children between 7-11 years from a children's home in proximity to the elderly home.

Procedure followed

Twenty elderly chosen by simple random sampling technique were distributed equally in the experimental and control groups. We interviewed both groups to assemble their demographic data and also pre-test happiness levels. The happiness rating scale used to measure happiness had two sections, first was on demography. The next had five domains, like positive emotions, relationship and support, autonomy, values and purpose, and health. We scored each item on a five-point rating scale ranging from one to five.

We chose the children based on their views towards

the elderly as assessed by the attitude towards the elderly scale. The scale had five sections like inclination, hygiene and moral values, ability to accept change, interest and knowledge, and involvement. Fifteen children responded to the attitude scale. We then chose ten children who had a positive attitude towards the elderly and trained them to communicate with the elderly based on the interaction module.

The children-elderly communication took place twice a week for four weeks for about 45-60 minutes. The interaction activities included pairing the elderly with children, storytelling, games, riddles, action songs, artwork, craftwork, and celebration of a festival. We closely monitored the sessions and ensured the safety of the participants. We gave them the liberty to swap their partners as required, but none opted for this. Following the four weeks of intervention, we carried out the post-test assessment of happiness levels in both experimental and control groups.

Statistical analysis

Descriptive statistics (mean, SD) were calculated for continuous data and frequency (percentage) for categorical data to learn the study population's distribution. We evaluated the intervention's effectiveness by the improved mean post-test scores of happiness compared with the pre-test. The 't' test was applied to test for the significant change in the experimental and control groups' happiness levels, $P < 0.05$ was considered significant. Data were analyzed using SPSS software version 20.

Ethical approval: The NITTE University Central Ethics Committee endorsed the study. We sought permission from the Directors of the elderly homes and children's homes. We acquired written informed consent from the elderly, obtained assent from the children, and their legal guardian gave the written consent. Participants were allowed to refuse participation at any time, although there were no withdrawals from the study

Results

Table 1: Demographic characteristics of the samples n=20

Sl. No.	Variables	Experimental Group	Control Group
		Frequency (%)	Frequency (%)
1	Gender		
	a) Male	8 (80)	10 (100)
	b) Female	2 (20)	0 (0)

Sl. No.	Variables	Experimental Group	Control Group
		Frequency (%)	Frequency (%)
2	Marital Status		
	a) Married	5 (50)	5 (50)
	b) Unmarried	5 (50)	4 (40)
	c) Divorced/ Separated	0 (0)	1 (10)
3	Education		
	a) No formal education	3 (30)	5 (50)
	b) Primary education	5 (50)	4 (40)
	c) Secondary education	0 (0)	1 (10)
	d) Graduate and above	2 (20)	0 (0)
4	Type of family		
	a) Nuclear	4 (40)	3 (30)
	b) Joint	2 (20)	4 (40)
	c) No family	4 (40)	3 (30)
5	Financial source		
	a) Supported by family	3 (30)	2 (20)
	b) Pension	1 (10)	1 (10)
	c) Savings	1 (10)	0 (0)
	d) None	5 (50)	7 (70)
6	Duration of stay		
	a) 0 - 6 months	1 (10)	1 (10)
	b) 6 - 12 months	2 (20)	4 (40)
	c) 1-2 years	1 (10)	3 (30)
	d) > 2 years	6 (60)	2 (20)
7	Contact with family		
	a) Yes	4 (40)	4 (40)
	b) No	6 (60)	6 (60)

Sl. No.	Variables	Experimental Group	Control Group
		Frequency (%)	Frequency (%)
8	Co-morbidities present		
	a) Yes	7 (70)	7 (70)
	b) No	3 (30)	3 (30)

The mean age of the experimental group elderly is 68.10 ±6.26, and that of the control group is 67.40 ±12. As described earlier (table 1), most of the participants are males in both groups. Half (50%) of the total participants in either group are married. Around 50% of the experimental group participants completed primary education, while 50% in control have no formal education. Most (60%) elderly in either group have no connection with their families. Seventy percent of the elderly in either group presented with co-morbidities.

Table 2: Comparison of happiness score in the experimental and control group n=20

Group	Pre-test level of happiness Mean (SD)	Post-test level of happiness Mean (SD)	P-value
Experimental	75.9 (11.59)	128.1 (15.68)	< 0.001*
Control	77.4 (13.08)	78.8 (11.612)	0.472

*- significant P < 0.05

The pre-test mean (SD) in the experimental group is 75.9 (11.59) and in the control group is 77.4 (13.08). The post-test mean (SD) in the experimental group is 128.1 (15.68) and that of the control group 78.8 (11.612). The experimental group's happiness level increased significantly post-test (P <0.001), whereas the control group has no significant improvement. The significant difference within the experimental group indicates that the interaction between the children and the elderly is useful to enhance the elderly's happiness.

Discussion

In the present pilot study, the age-wise pattern indicated that the mean age of the elderly was 68.10 ±6.26 and 67.40 ±12 in experimental and control groups. Around 50% of the experimental group participants completed primary education, while 50% in the control had no formal education. Fifty percent of the respondents in either group were married.

The current findings are consistent with a study led

in Thailand to appraise the factors impacting life happiness among the elderly. The study disclosed that about 61.4% of the participants' mean age was 68.8 years, 96.1% completed elementary education or lower, and approximately 50.2% were married.¹³

The majority of the study participants were males in experimental (80%) and control groups (100%). The aforementioned is in agreement with a study conducted in Iran to find an association between social support and happiness among the elderly. This study involved 74% of men.¹⁴

The pre-test mean (SD) in the experimental group was 75.9 (11.59). The happiness level increased significantly post-test ($P < 0.001$). In contrast, in the control group, the mean (SD) was 77.4 (13.08), which had no significant post-test improvement. These findings infer the effectiveness of the children and elderly interaction on elderly happiness.

The results are comparable to a study conducted to examine the positive psychology group interventions on life satisfaction among older adults. The scores of meaning of life ($t = 3.85$, $p = 0.373$) and life satisfaction ($t = 4.10$, $p < 0.001$) in the study group raised significantly, whereas in the control group there was no notable difference between pre and post-test scores of life satisfaction ($t = 0.434$, $p = 0.671$) and meaning of life ($t = 0.922$, $p = 0.573$).¹⁵

Similarly, a study conducted to assess a therapeutic recreation program's impact on partner and group activity in the institutionalized elderly showed significant improvements in sociality ($t = -4.719$, $p = 0.002$) and social relationships ($t = -5.353$, $p = 0.001$) of the elderly post-intervention.¹⁶

The outcomes are consistent with a study conducted to estimate group art therapy's influence on cognition, depression, and quality of life in the elderly. The level of perception in the experimental group elderly

improved significantly compared to the control group ($t = 6.72$, $p < 0.001$). The intervention also served to decrease the depression levels ($z = -4.55$, $p < 0.001$) and raise the quality of life ($t = -2.39$, $p < 0.05$) of the study group elderly.¹⁷

Conclusion

The study highlights the necessity to design and implement possibilities for the elderly to associate with the children and include various recreation ventures in elderly homes to hold the aged delighted. It can, therefore, help advance the happiness, joy, and satisfaction among the institutionalized elderly. The study will break the ground for investigation with larger samples and children of varying ages. The conclusions are inspiring and may justify a more robust consideration of such interventions to advance the elderly well being. The findings can be evidence to the concerned professionals to outline the elderly home framework and children's home under one roof.

Conflict of interest

None declared

Authors' contribution

All four authors conceptualized the study. JMD and JV were involved in data acquisition. JMD and NDD performed data analysis. JMD and SUB drafted the manuscript while JV and NDD critically revised the manuscript. All authors read and approved the final version of the manuscript.

Source of fund

This research did not receive any specific grant from any funding agencies.

Acknowledgment

We thank the study participants for their participation and cooperation throughout the study.

References

1. Morgan LA and Kunkel SR. Aging, society, and the life course. *Springer Publishing Company* 2007.
2. Tammsaar K, Laidmäe VI, Tulva T and Saia K. Family caregivers of the elderly: Quality of life and coping in Estonia. *European Journal of Social Work* 2014;**17** (4):539-55.
3. Islam S, Rahman A, Mahmood AK, Mamun A and Khondoker MF. Old Home and Caring Elderly Population: Need or Dilemma. *Bangladesh Journal of Medical Science* 2019;**18** (3):453-7.
4. World Health Organization. World report on ageing and health: World Health Organization. 2015.
5. Sachs JD, Layard R and Helliwell JF. World Happiness Report 2018.
6. Dubey A, Bhasin S, Gupta N and Sharma N. A study of elderly living in old age home and within family set-up in Jammu. *Studies on Home and Community Science* 2011;**5** (2):93-8.
7. Raju SS. Studies on ageing in India: A review, UNFPA. 2011. Retrieved from <http://isec.ac.in/BKPAI%20Working%20paper%202.pdf>
8. Acharyya A. Depression, loneliness and insecurity feeling among the elderly female, living in old age homes of Agartala. *Indian J Gerontol* 2012;**26** (4):524-36.
9. Singh A and Misra N. Loneliness, depression and sociability in old age. *Ind Psychiatry J* 2009;**18** (1):51.
10. Rathor MY, Khattak MMAK, Yusof NM. End-of-life: Old age in contemporary society, self-perception of aging and an Islamic perspective. *International Journal of Human and Health Sciences* 2019;**3** (2):64-73.
11. A Mishal Aly. Drug prescribing to the elderly patients. *International Journal of Human and Health Sciences* 2018;**1** (2):65-9.
12. HelpAge India. (2014). State of elderly in India-2014. Retrieved from <https://www.helpageindia.org/wp-content/themes/helpageindia/pdf/state-elderly-india-2014.pdf>
13. Nanthamongkolchai S, Tuntichaivanit C, Munsawaengsub C, and Charupoonphol P. Factors influencing life happiness among elderly female in Rayong Province, Thailand. *J Med Assoc Thai* 2009;**92** (7):S8-12.
14. Moeini B, Barati M, Farhadian M and Ara MH. The association between social support and happiness among elderly in Iran. *Korean J Fam Med* 2018;**39** (4):260.
15. Kashaniyan F and Khodabakhshi KA. Effectiveness of positive psychology group interventions on meaning of life and life satisfaction among older adults. *Elderly Health Journal* 2015;**1** (2):68-74.
16. Kim H. The effectiveness on sociality and social relationship by therapeutic recreation based on partner and group activity in the institutionalized elderly. *J Exerc Rehabil* 2018;**14** (3):356.
17. Choi YH and Jeon EY. Effects of art therapy on cognition, depression, and quality of life in elderly. *Journal of Korean Academy of Community Health Nursing* 2013;**24** (3):323-31.