

Research Paper

Effect of Healthy Lifestyle Educational Programs on Happiness and Life Satisfaction in the Elderly: A Randomized Controlled Trial Study

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ABSTRACT

Objectives Like the global population, the Iranian population is aging rapidly. Measures should be taken to maintain aging population healthy and happy. The present study evaluated the effects of active education of healthy lifestyle on happiness and life satisfaction of the elderly people.

Methods & Materials In this randomized controlled trial, 96 elderly people aged 60-70 were conveniently recruited from a health center in Isfahan Province, Iran. The subjects were randomly allocated to an intervention and a control group. Participants in the intervention group were provided with lifestyle educations in 4 two-hour sessions. Happiness and life satisfaction were assessed before and 2 months after the intervention. Study data were analyzed by SPSS using the Independent samples t-test and Paired t-test, Mann Whitney U test, Wilcoxon signed-rank test, Chi-squared test and Pearson correlation analysis.

Results The lifestyle education program significantly improved happiness scores from 36.80 to 43.11 and life satisfaction scores from 12.96 to 16.02 ($P < 0.001$). Happiness was positively correlated with life satisfaction ($r = 0.719$; $P < 0.001$).

Conclusion Active participation in healthy lifestyle education programs can improve happiness and life satisfaction among elderly people.

Extended Abstract**1. Objectives**

Aging is growing rapidly in the world population as well as in Iran [1]. Aging reduces abilities and sometimes leads to a feeling of worthlessness and dependence on others. Such matters decrease satisfaction and happiness in the aged groups [2, 3].

Therefore, there is a need for interventions to keep the elderly healthy and happy [4, 5]. Several studies investigated happiness and life satisfaction in the Iranian elderly population [3, 6, 7]. However, the impact of education of healthy lifestyle using educational packages of the Iranian Ministry of Health [8] on the happiness and life satisfaction in the elderly remains unknown. Thus, the current study evaluated the effect of these healthy lifestyle educational packages on the happiness and life satisfaction of the elderly in Iran.

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2. Methods & Materials

This was a randomized controlled trial study conducted in 2016, on 96 elderlies referring to Comprehensive Health Services Center in Isfahan Province, Iran. The samples were selected using convenience sampling method. The subjects were randomly divided into the trial (n=48) and control (n=48) groups. Inclusion criteria were being 60-70 years old (because of the need for a relative ability to exercise), having consent to participate in the study, having ability to communicate verbally and to exercise according to a physician.

The data collection tool was a 3-part questionnaire; first part surveyed demographic characteristics through 10 items; second part was the Persian version of Life Satisfaction Index-Z (LSI-Z), and the third part was the Persian version of Oxford Happiness Inventory (OHI). The validity and reliability of the Persian versions of these tools have already been determined [9, 11]. Before conducting the intervention, the questionnaire was completed by the researcher on behalf of samples through interviewing. Then, 3 groups of 16 subjects were formed and presented group training sessions for almost 2 hours per day.

Each educational subject was provided in 2 sessions. The topics of sessions were selected based on the Ministry of Health's educational package on healthy lifestyle in the elderly, focusing on sports and physical activity, proper sleep, marital relationships, stress management, and happy life. Two months after the intervention, all the participants were interviewed again and the post-

test questionnaires were completed for them. Collected data were analyzed by Independent t-test, Paired t-test, Pearson correlation coefficient, Wilcoxon signed-rank test, Chi-squared test and Mann-Whitney U test at a significance level of promotion. This study was approved by the Ethics Committee of Isfahan University of Medical Sciences (code: IR.MUI.REC.1395.3.712).

3. Results

Of total 96 samples, 48 were in the trial group and 48 in control group. Three samples in the trial group did not attend classes due to personal reasons and withdrew from the study. In the trial group, 66.7% of samples were female, 71.1% married, 33.3% retired, 15.6% illiterate, and 35.6% with fair income. In the control group, these values were 52.1%, 87.5%, 27.1%, 14.6%, and 33.3%, respectively. In terms of these characteristics, no significant differences were between the 2 groups ($P>0.05$).

The Independent t-test and Paired t-test results of the pretest mean score of life satisfaction were 12.96 ± 5.42 in the trial group and 12.2 ± 4.55 in control group. Thus, in both groups, life satisfaction was less than half the maximum achievable score (26). Pretest mean scores of happiness in these groups were 36.80 ± 14.61 and 37.02 ± 10.68 , respectively; both less than the average of the maximum score (87). Pretest mean scores of life satisfaction and happiness were not significantly different between the 2 groups ($P>0.05$). After the intervention, the subjects' mean score of life satisfaction increased 3.06 units, and the mean score of happiness 6.31 units.

Table 1. Items of Life Satisfaction Questionnaire, which had a significant positive change after intervention, and the percentage of positive

Items	r	P
As I grow older, things seem better than I thought they would.	44.4	<0.001
Most things I do are boring or monotonous.	44.4	0.007
This is the dreariest time of my life.	33.3	0.001
The things I do are as interesting to me as they ever were.	28.8	0.001
Compared to other people, I get down in the dumps too often.	22.2	0.006
I have made plans for things I'll be doing a month or a year from now.	20	0.021
Compared to other people of my age, I make a good appearance.	15	0.008
I am just as happy as when I was younger.	6.6	0.025

This increase in both variables was significant ($P < 0.001$). This change in both variables also caused a significant difference ($P < 0.01$) between the two groups after the intervention with respect to these variables.

The Pearson correlation coefficient revealed a strong, positive and significant correlation between happiness and life satisfaction. This correlation was observed after the intervention ($r = 0.719$, $P < 0.001$). Wilcoxon signed-rank test results indicated that improvement in life satisfaction score was not observed in all items of LSI-Z. It also revealed that in only 8 items out of 13 items (Table 1), participants had a significant difference. In addition, the improvement in these 8 items was not the same and varied from 6.6% to 44% ($P < 0.01$). In OHI, only in 24 items out of 29 (e.g. sense of optimism about the future, sense of control in life, feeling happy, and finding everything amusing and beautiful), participants showed significant improvement after the intervention whose scores ranged between 6.6% and 37.7%.

4. Conclusion

The study results indicate that the active participation of elderly people in healthy lifestyle education programs can increase their happiness and satisfaction with life. Educational programs provided in health centers should involve the elderly in decision making and prevention or health promotion programs. In this case, these interventions will have more satisfactory results. Such interventions should also be continued to have long-lasting results. The high number of items in questionnaires that made the elderly tired, and the lack of time and manpower were the limitations of this study. Group and participatory training and use of reminiscing technique which encourage participation and the acceptance of training by the participants were among the advantages of this study.

Ethical Considerations

Compliance with ethical guidelines

This study has been approved by Research deputy of the School of Health (code: 395712), and the Research Ethics Committee of Isfahan University of Medical Sciences (code: IR.MUI.REC.1395.3.712).

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Authors contributions

Conceptualization, methodology and validation: Fereshteh Zamani and Akbar Hasanzadeh; Investigation and formal analysis, Resources, and draft preparation: Mohammad Mohammadi Mehr; Editing: Tayebeh Farsihi; and Supervision and project administration: Fereshteh Zamani.

Conflict of interest

The authors declared no conflict of interest.

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