

# Effectiveness of Educational Intervention on the Level of Happiness among the Middle-Aged Women

Samaneh Zanjani<sup>1</sup>, Roya Sadeghi<sup>2</sup>, Davoud Shojaeizadeh<sup>3</sup>, Ali Montazeri<sup>4</sup>, Mohammad Hossein Taghdisi<sup>3</sup>

<sup>1</sup>PhD. Student of Health Education & Promotion, Department of Health Education and Promotion, School of Public Health, International Campus, Tehran University of Medical Sciences (IC-TUMS), Tehran, Iran, <sup>2</sup>Associate Professor, Department of Health Education and Promotion, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran, <sup>3</sup>Professor, Department of Health Education and Promotion, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran, <sup>4</sup>Professor, Health Metrics Research Center, Iranian Institute for Health Sciences Research, ACECR, Tehran, Iran

## Abstract

**Background:** The pursuit of happiness is a main aim for many people. Though, astonishingly slight scientific research has attentive on the question of how happiness can be improved and then continued, perhaps because of cynicism caused by the concepts of genetic determinism and hedonic adaptation. However, developing sources of positivity exist concerning the possibility of enduring increases in happiness. Considering the responsibility of women in multiple roles, increasing happiness can help them to improve their mental health. Therefore, the present study was conducted to determine the effect of educational intervention on level of happiness among middle-aged women referred to health houses in Tehran.

**Materials and Methods:** In this quasi-experimental study, 200 middle-aged women at the health houses of Tehran in 2015-2016 were randomly divided to case and control groups. Planning for the educational program was done according to 8 steps to happiness program. Before implementing the program, valid and reliable Authentic Happiness Inventory (AHI), were completed for both groups. The experimental group received the educational intervention (ten sessions-one session in a week), and both groups were followed up 6 months after intervention (the previous questionnaire were filled out for them again). Finally, the obtained data were analyzed by SPSS 24 software using Analysis of covariance (ANCOVA) test and Multivariate regression test at significant level of  $P \leq 0.05$ .

**Results:** The findings showed significant differences between experimental group and control group in Mean scores of happiness were significant after intervention ( $P \leq 0.001$ ).

**Discussion:** The findings of present study confirmed the effectiveness of the educational program on increase happiness level in the Middle-aged women. However, more studies are needed for further information to confirm study results. Study results were posed the necessity of tailoring specific interventional programs to achieve happiness.

**Key words:** Educational intervention, Happiness, Authentic Happiness Inventory (AHI), Middle-aged women

## INTRODUCTION

Researchers find happiness as a positive feeling, life satisfaction, and a lack of negative emotions (1). Ruut Veenhoven states: Happiness refers to the degree to which a person judges about the desirability of his overall quality of life. In other words, happiness means how much a person

likes his life (2). After years of research, Lyubomirsky and his colleagues achieved the most important determinants of person's happiness. In this regards, 50% of the people's happiness are taken place via genetic factors which are regarded as set point factors. 10 percent of the difference in happiness is related to the difference in the circumstantial factors (nationality, geographic factors, cultural conditions, demographic factors, life situation variables) (3). An important factor that accounts for the remaining 40 percent is Intentional Activity. Reaching happiness neither depends on our genetic structure modification nor changing circumstances, but on our voluntary activities. Therefore, 40% talent is under our control and we can reduce or increase our happiness with the work we do daily and

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Month of Submission : 07-2017  
Month of Peer Review : 07-2017  
Month of Acceptance : 08-2017  
Month of Publishing : 08-2017

**Corresponding Author:** Davoud Shojaeizadeh, Department of Health Education and Promotion, School of Public Health, Tehran University of Medical Sciences, Tehran, Iran. E-mail: Shojaei@sina.tums.ac.ir

the things we think of. This is good news and it means that we can live happier by doing some solutions (3, 4). The most important step in achieving happiness is the maintenance of the body and mind. To achieve this, you need to consider the nutrition program, your sleep habits and your physical fitness. Further, do the exercises like Find a Meaning/Goal, Kindness and Altruism, Find Your Strengths and Solutions, Gratitude, Forgiveness, Mindfulness, Create Social Networks (5). Research shows a strong and positive relationship between happiness and the consumption of vegetables and fruits. People who consume fruits and vegetables each day are classified into very happy people (6, 7).

Physical activity reduces anxiety and stress and is one of the most effective ways to increase happiness (8). Participation in sports activities such as walking has a positive effect on individual health and psychological well-being (9). Studies show that we can keep our creativity happier and better by choosing natural environments (10, 11). Martin Seligman's research shows that happy people are very social, and their romantic relationships and other social relationships are stronger than others, and they are less alone than the other people. They are more outspoken and consistent and less nervous (12). In general, cheerful and better people will take care of themselves better. People who are happier with life (closely related to optimism) are more likely to go on a diet, do not smoke and exercise regularly. According to a research, happy people have better sleep than those who do not have good happiness. Optimists are actively engaged in avoiding bad events, while pessimists are passive (13). Considering the important role of Intentional Activity to achieve happiness and considering the limited studies conducted in Iran on ways to increase happiness and the role of educational interventions in this area, especially in women, and the need to look at a process to this phenomenon, This study was designed and conducted to evaluate the effectiveness of educational intervention on the level of happiness in middle aged women.

## MATERIALS AND METHODS

This study was quasi-experimental and case-control. The statistical society included the middle-aged women (people 40- 60 years old) at the health houses of 5 regions in Tehran, which were selected by draw. 10 health houses were randomly selected. In each region, members of one health house were randomly assigned to the case group and those of other health house were assigned to the control group. Sample size was calculated by the software Open Epi Version 3.01. To determine the appropriate sample size with power of 0.80 and a significance level of 0.050 using methods of Kelsey for case-control studies, so

sample size was determined 95 for each group. In order to reach the required number of subjects, 210 volunteers entered the study, and in the end 200 remained. Data collection tool was Authentic Happiness Inventory (AHI). The questionnaire has 24 items and there are 5 sentences below each question, each one selects the best term that indicates his state of affairs during the last week. Each score is from 1 to 5. Score 5 represents the highest level of happiness. None of the items scored in reverse order. The minimum and maximum scores are 24 and 120, respectively. Alpha Cronbach: This tool has been designed by its designers to be 0.92. The questionnaire was returned by the research team in Persian language and used after determining the validity and reliability ((alpha =.91) to conduct the study.

Questionnaire was filled out at two stages of pre-test and at the end of the six-month educational intervention in an interview in both groups of case and control. Prior to holding educational sessions, the researcher initially focused on providing educational content. The materials were collected using books and guidelines on how to get happiness and how to achieve it, interviewing some middle-aged women and paying attention to their needs and interviewing psychology professors and mental health professionals. Finally, the eight-step program for happiness which has been used in Australia was used as the basis for educational intervention (48). The program was localized according to the social, cultural and religious context of Iran. Based on the changes that were made with the opinion of five mental health professionals, educational content was developed based on this program. Educational intervention was carried out for 10 weeks (one session per week). Mean duration of each session was 75 minutes (ranging 60-90 minutes). The headings of the curriculum were determined for each session and included subjects like introduction to happiness, the role of nutrition, physical activity and laughter therapy in rising happiness, introduction to the role of social support and create social networks as an important element in spiritual strengthening. Practice random acts of kindness and gratitude, learning forgiveness, finding strengths and solutions. Introduce mindfulness, relaxation behaviors and respiratory exercises as a perfect way to reach peace. At the end, reflecting, reviewing and renewing this journey.

Educational pamphlets about introduction to happiness, ways to increase it were prepared. Lecture and Q and A sessions were held to increase participants' knowledge. Group discussion about happiness and positive experiences after practicing mindfulness, deep breathing and writing the letters of gratitude and forgiveness were held to change their attitude. In addition, participants shared their positive

experiences at the beginning of each session in order to experience and reinforce replacement for others. Moreover, friends and family members were allowed to attend educational sessions and one session was held for Q and A with families and friends in order to increase their support.

After executing educational program, the effect of this program was evaluated on happiness level. The collected data were analyzed by descriptive statistics (tables, mean, median...), analytic statistics using SPSS 24 software. To analyze the happiness before and after the intervention, analysis of covariance (ANCOVA) test was used and the multivariate regression test was used to investigate the relationship between happiness and demographic factors.

## RESULTS

Mean age of women in the case group and the control group was 50.27, and 50.41 years, respectively. Totally, both groups were similar in background characteristics. Statistical tests did not find any differences between the two groups [Table 1].

Before intervention, mean happiness score was  $68.61 \pm 9.81$ , and  $68.54 \pm 10.18$  in the case and the control group, respectively. The difference was not significant. After intervention, mean happiness score in the case group reduced to  $69.27 \pm 9.61$  analysis of covariance (ANCOVA) test showed a significant difference between the two groups ( $P < 0.001$ ) [Table 2].

In order to assess relationship between Happiness and demographic factors Multivariate regression analysis was utilized. Study results were revealed, there were significant association between Happiness, age, Chronic disease and Educational levels ( $p < 0.001$ ) [Table 3].

## DISCUSSION

Study results revealed a weak relationship between Happiness and demographic factors. With increasing age, the average score in happiness decreases. research by Baetschmann(2015) in Germany indicated that life satisfaction and happiness reduce in middle-aged people and till 55 years old, but happiness increases after middle-aged people and reaches to peak till 70 years old (14).

To analyze the happiness before and after the intervention, analysis of covariance (ANCOVA) test was used and the multivariate regression test was used to investigate the relationship between happiness and demographic factors. Research by Cooper et al 2011 also found that people living with their husbands in the 1970s are happier than

**Table 1: Demographic variables and the women health related characteristics**

| Variable           | Percent  |             |
|--------------------|----------|-------------|
|                    | Case (%) | Control (%) |
| Age groups         |          |             |
| 40-47years         | 36       | 33          |
| 48-54years         | 35       | 34          |
| 55-60years         | 29       | 33          |
| Marital status     |          |             |
| Single             | 6        | 6           |
| Married            | 83       | 84          |
| Widow              | 5        | 7           |
| Divorced           | 6        | 3           |
| Chronic disease    |          |             |
| Disease            | 38       | 40          |
| No disease         | 62       | 60          |
| Educational levels |          |             |
| Less than diploma  | 9        | 11          |
| Diploma            | 35       | 37          |
| Associated diploma | 24       | 24          |
| Bachelor           | 26       | 24          |
| Master&upper       | 6        | 4           |

**Table 2: Result of analysis of covariance**

|                  | Sum of Squares | Df  | Mean square | F        | Sig.   | Observed power a |
|------------------|----------------|-----|-------------|----------|--------|------------------|
| Happiness Groups | 19364.429      | 1   | 19364.429   | 19596.05 | 0.001  | 1.000            |
| Error            | 13.045         | 1   | 13.045      | 13.201   | 0.001* | 0.951            |
| Total            | 194.671        | 197 | 0.988       |          |        |                  |
|                  | 971224.000     | 200 |             |          |        |                  |

a. Computed using alpha=0.05

**Table 3: Correlation between happiness with demographic factors**

| Happiness | Age    | Marital status | Educational levels | Chronic disease |
|-----------|--------|----------------|--------------------|-----------------|
| r         | -0.125 | 0.055          | 0.385              | -0.359          |
| P         | 0.039* | 0.315          | 0.001*             | 0.001*          |

\*Significant at 0.05 by Pearson correlation coefficient

other age groups (15). Given the fact that in the present study, middle-aged people were evaluated, the results with this research are consistent. Also, Frijters, Beatton (2012) stated that, given the economic conditions, happiness is at the lowest level until the age of 50, then it increases to 60 and decreases again in aging (16). Lacey et al (2006) concluded that individuals with a higher age would be less likely to have happiness, but the results of self-reporting of these individuals about happiness show a higher level of happiness in the elderly (17). In the present study, correlation analysis using Pearson correlation coefficient showed that there is a reverse correlation between happiness and chronic disease, so that the average score of happiness decreases with chronic disease. This finding is fully consistent with the research by Liu et al (2016).

He concluded that middle-aged women with chronic illnesses and women with less health had a lower level of happiness (18). The results of this study showed that there is a reciprocal correlation between happiness and education level, and with the increase in the level of education, the average score of happiness score also increases. This finding was also confirmed in Baetschmann research (2015) (14). The present study showed that training methods for achieving happiness, including meaning in life and Mindfulness, has an effective role in increasing happiness. This finding has also been confirmed in Seear (2006), Goyal *et al.* (2014), Seear, Vella-Brodrick (2013) King (19, 20 and 21). The present study has a number of limitations that should be noted. The use of self-reported data may lead to measurement errors including under and over reporting of Happiness. Data was obtained from Tehran, so, results of this study might not be generalizable to other groups of middle-aged women.

## CONCLUSION

The findings of this study showed that demographic factors play a role in the level of happiness among middle-aged women. Therefore, recognizing these factors will contribute to better educational planning for increasing happiness and mental health. Further, the findings suggest that training appropriate methods can increase the level of happiness in individuals, and this requires more attention to the issue of education to promote mental health and its components such as happiness.

## ACKNOWLEDGEMENTS

The authors of this article need to know that thanking all the dear ladies who came to the health houses who participated in this study, thanked the social workers, community centers and health houses of different areas of the municipality of Tehran for cooperation. This article is based on the results of a PhD thesis study at the International Campus, Tehran University of Medical Sciences (IC-TUMS), Tehran, Iran, and registered in Iranian Registry of Clinical Trials (IRCT2015052522404N1). The authors declare that they have no competing interests.

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**How to cite this article:** Zanjani S, Sadeghi R, Shojaeizadeh D, Montazeri A, Taghdisi MH. Effectiveness of Educational Intervention on the Level of Happiness among the Middle-Aged Women. *Int J Sci Stud* 2017;5(5):202-205.

**Source of Support:** Nil, **Conflict of Interest:** None declared.