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# The Effect of Gratitude on Psychological and Subjective Well-being among Hospital Staff

**Alireza Sadeghi[1], Sareh Behzadi Pour[2]***

**Abstract**

**Aim:** Mental health is especially important in some occupations with harsh work conditions requiring strong personal and mental capacities. Healthcare related are jobs among such occupations. Therefore, psychological and subjective well-being is especially important in staff working in the healthcare sector. The aim of the present study is to assess whether gratitude training affects psychological and subjective well-being in hospital staffs.

**Methods**: This semi-experimental study with pre-test and post-test was performed in 2014 in 5 hospitals affiliated to Shiraz University of Medical Sciences. The total of 70 staff was randomly divided into two groups by convenience sampling method, using random block allocation. Afterwards, the participants in the experiment group had 10 group sessions of 90 minutes of gratitude training, while the control group did not receive any interventions. All participants completed Ryff's Scale of Psychological Well Being, Subjective Happiness Scale, Satisfaction with Life Scale, and Gratitude Questionnaire. The data were analyzed by multivariate analysis of covariance (Covariance) and SPSS software (version 18).

**Findings:** According to research results, there was no significant difference between the mean scores of psychological well-being, domains of psychological well-being, subjective well-being, and gratitude between the two groups at baseline. Gratitude training significantly affected all domains of psychological well-being (except for autonomy) and subjective well-being.

**Conclusion:** The findings suggest that gratitude training would be effective in enhancing psychological well-being and subjective well-being. These findings were discussed in the context of developing effective gratitude training for enhancing the psychological and subjective well-being.

**Keywords:** Gratitude, Well-being, Hospital staff

1. MA Clinical Psychology. Department of Psychology, Shiraz Branch, Islamic Azad University, Shiraz, Iran
Email: alisadeghi571@gmail.com
2. Assistant professor, Department of Psychology, Shiraz Branch, Islamic Azad University, Shiraz, Iran
Email: behzadi@iaushiraz.ac.ir

## Introduction

In recent years, the pathological approach for studying human health has been criticized. Instead of defining health as the lack of disease, new approaches emphasize on "being well" instead of "being sick or bad" [1]. The World Health Organization (WHO) defines mental health as a form of well-being in which the individual identifies his/her strength, is able to cope with stress, be engaged in effective activities, and help the society as a whole. Well-being is considered a state of complete physical, mental, and social welfare and not just lack of disease [2]. The focal point in well-being is the way with which life flourishes and reaches its highest merits and potentials [3]. Ryff defines well-being as the strife toward perfection to fulfill the individual's potential capabilities [4]. Ryff, et al. [5] have categorized the psychological well-being based on the following six factors: self-acceptance, purpose in life, personal growth, environmental mastery, positive relationships, and autonomy. The new measures probed the following dimensions: (1) the extent to which respondents felt that their lives have meaning, purpose and direction (purpose in life); (2) whether they have viewed themselves to be living in accord with their own personal convictions (autonomy); (3) the extent to which they were making use of their personal talents and potential (personal growth); (4) how well they were managing their life situations (environmental mastery); (5) the depth of connection they had in ties with significant others (positive relationships), and (6) the knowledge and acceptance they had about themselves, including awareness of personal limitations (self-acceptance) [5]. One of the areas of positive psychology is subjective well-being, which helps enhance human life. Subjective well-being has two separate components; affective (positive and negative) and cognitive that usually imply life satisfaction, and as Diener [6] believes, subjective well-being is what common people know as happiness or welfare.

Well-being results in balanced growth and heath, and facilitates the correct development of skills and potentials [7]. Based on a study by Sheldon and Lyubomirsky [8] on sustainable change for well-being, three factors are involved as: genetic background, life circumstances, and intentional activity. Since genetics and life circumstances are hardly change, intentional activities can be targeted for enhancing well-being [9].

So far, many research works revealed this fact that well-being improves by participating in intentional activities like gratitude [8] as they are beneficial in everyday life [10].

As an emotion, gratitude is a two-phase cognitive process: A) recognizing that something positive has been attained, and B) recognizing that the other, as an external

source, is influential in this attainment [11]. The construct of gratitude has been used for implying different concepts such as appreciating the help of others, wondering about the miracles of the world, performing related rituals such as praying, permanent focus on positive aspects of the life, paying attention to the mortal nature of material blessings, and comparing events with the worse ones [12].

Feeling gratitude to God, others, life and the existence could lead to mental prosperity, happiness, physical and mental health, and deeper and more satisfying interpersonal relationships [13]. Studies on gratitude and well-being show that gratitude has a strong correlation with well-being [14]. In a study by Kendler et al. [15], gratitude was correlated with the reduced risk of nicotine and alcohol dependence, panic disorder, antisocial behavior, major depression, phobias, and generalized anxiety disorder. Moreover, in another study carried out on the relationship between gratitude, depression, and religion, the researchers found that gratitude protects individuals against negative affects [16]. People who are grateful have a healthier mental and physical life [17]. Moreover, they have better and closer family interactions, and gratitude has been shown to reduce high risk behaviors such as sexual intercourse during adolescence, and prevent the use of drugs and alcohol among African-American youth [18]. Researchers have found that the increased well-being, in general, does lead to a higher efficiency in work, social interactions and health care [19]. Moreover, well-being has a positive relationship with physiological health [20]. Theoretically, viewing life as something to be grateful for strongly relates to well-being. Wood and Joseph [21] found that people with low degrees of well-being experience transient and uncontrollable instances of success and have higher degrees of depression, anxiety and negative feeling compared with others.

Grateful people have a fixed personality framework that is related to well-being [22]. These benefits are felt by the society and increase the efficacy of interpersonal relationships [23]. Emmons found that people thinking about the blessings of life and preparing a list of those blessings to be grateful about had increased levels of well-being [24].

Despite the importance of this construct for physical and mental health, gratitude has not been appropriately studied in Iran, while it is highly emphasized culturally and religiously. Currently, mental health is particularly important in some occupations with harsh work conditions requiring strong personal and mental capacities. Occupations related to health care are among such occupations. Therefore, psychological well-being and subjective well-being are especially important

for staff working in the healthcare sector. Accordingly, the aim of the current research is to systematically investigate whether gratitude training can affect psychological and subjective well-being in hospital staff.

**Methods**

In this semi-experimental study with pre-test and post-test, 70 people (aged 21-46 years) working in five hospitals affiliated to Shiraz University of Medical Sciences were selected based on multistage cluster random sampling. They demonstrated no overt signs of psychological disorder. Due to two reasons, five hospitals were chosen among 15:

1) Based on the formula that was mentioned before, the number of samples has been calculated 35 for each group. Due to the fact of losing samples, 80 staffs were chosen from different parts of the hospitals, and according to the total number of staffs and their distribution in each hospital ward, 5 hospitals were selected.

2) The Shiraz University of Medical Sciences permitted only for a maximum number of 5 to 7 hospitals.

The participants were randomly divided into intervention and control groups using block randomization. Also we obtained the informed consent of all participants. The participants in the intervention group had 10 group sessions of 90 minutes of gratitude training. The sessions were held once a week, and the study period lasted for 7 months. The packages, practices, and instructions for the sessions were in accordance with those recommended by Emmons. They were also instructed to do the practices given in the educational booklet for at least 21 days. After the end of the educational sessions and performing the practices, the questionnaires were handed to all participants in the two groups simultaneously. In this research, the following questionnaires were used:

**A) Ryff's Scale of Psychological Well Being:** This is a self-report questionnaire considered as one of the most important measures of psychological well-being. Ryff et al. [5] believe that the 84-item version defines psychological well-being better than the other versions. This measure has 6 sub-scales (autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance). The 84 items are scored based on a Likert scale of 1 (completely disagree) to 6 (completely agree).

**B) Subjective Happiness Scale (SHS):** This is a four-item 7-point scale that measures individuals' global subjective happiness [25]. The reliability of SHS was $\alpha$=0.77 in the present research. The Persian version of this scale was validated by many researchers with a Chronbach's alpha of 0.76.

**C) Satisfaction with Life Scale (SWLS):** Since well-being is anchored in specific life

domains, life satisfaction can be a general or global construct designed by Diener et al. [26]. The SWLS is a 5-item scale assessing global satisfaction with life. Scale responses range from 1 (*strongly disagree*) to 7 (*strongly agree*). A sample item is ‘‘in most ways, my life is close to ideal’’. A higher score indicates greater satisfaction with life. Previous research found a good internal consistency (α=0.87) [26], and in the present study, the scale also showed good reliability (α=0.89). The Persian version of this scale was validated by Bayani and colleagues (2007) with a Chronbach's alpha of 0.83.

**D) Gratitude Questionnaire-6 (GQ6):** The GQ6 is a 6-item scale measuring levels of dispositional gratitude [27]. It was first designed by McCullough et al. [27]. Scale responses range from 1 (*strongly agree*) to 7 (*strongly disagree*). A sample item is ‘‘I have so much in life to be thankful for’’. Higher scores indicate a greater dispositional gratitude. Previous research indicated good internal consistency (α=0.82). The present study found a similar internal consistency (α=0.84).

**E) Gratitude Training Package:** This package was based on the book entitled “Thanks! How the New Science of Gratitude Can Make You Happier” [24]. It is to be noted that this package was translated after obtaining the permission from Professor Emmons (the writer of this package).

Data were analyzed using SPSS software (version 18). Descriptive (mean, frequency, standard deviation, and percentage) and inferential statistics (multivariate analysis of Covariance) were used as appropriated.

## Results

The total number of participants were 70, including 49 women and 21 men. Also 39 were married and 31 were single. Their level of education ranged from associate degrees to PhD. We found no significant difference between the two groups with respect to age (P=0.544), sex (P=0.479), marital status (P=0.794), and the level of education (P=0.810).

**Table 1:** Demographic data of the research population

| Variable | Features | Number | Percentage |
|---|---|---|---|
| **Gender** | Female | 49 | 70 |
| | Male | 21 | 30 |
| **Ages** | 20-30 | 9 | 12.9 |
| | 31-40 | 54 | 77.1 |
| | 41-50 | 7 | 10 |
| **Marital Status** | Married | 39 | 55.7 |
| | Single | 31 | 44.3 |
| **Education** | Associate degree | 11 | 15.7 |
| | Bachelor | 51 | 72.9 |
| | MA/MSc | 7 | 10 |
| | PhD | 1 | 41 |

There was no significant difference between the mean scores of psychological well-being, domains of psychological well-being, subjective well-being, and gratitude between the two groups at baseline (Table 2).

However, significant differences were found between the two groups with respect to the mentioned variables (Table 3).

**Table 2:** Mean±SD of the research variables at baseline

| Variable | | Group | N | Mean | SD | P value |
|---|---|---|---|---|---|---|
| Psychological well-being | | Control<br>Intervention | 35<br>35 | 308.45<br>311.45 | 59.92<br>67.14 | 0.844 |
| Domains of psychological well-being | Positive relations | Control<br>Intervention | 35<br>35 | 52.48<br>50.91 | 10.59<br>12.97 | 0.560 |
| | Autonomy | Control<br>Intervention | 35<br>35 | 50.54<br>49.97 | 11.54<br>11.69 | 0.838 |
| | Environmental mastery | Control<br>Intervention | 35<br>35 | 52.94<br>53.82 | 12.54<br>13.34 | 0.776 |
| | Personal growth | Control<br>Intervention | 35<br>35 | 52.74<br>54.02 | 14.21<br>16.03 | 0.724 |
| | Purpose in life | Control<br>Intervention | 35<br>35 | 50.40<br>52.28 | 9.57<br>11.39 | 0.456 |
| | Self-acceptance | Control<br>Intervention | 35<br>35 | 49.34<br>50.42 | 7.61<br>9.12 | 0.591 |
| Domains of subjective well-being | Subjective happiness | Control<br>Intervention | 35<br>35 | 11.17<br>11.22 | 6.85<br>5.78 | 0.970 |
| | Satisfaction in life | Control<br>Intervention | 35<br>35 | 15<br>15.40 | 7.53<br>6.01 | 0.807 |
| Gratitude | | Control<br>Intervention | 35<br>35 | 25.17<br>25.62 | 9.54<br>8.38 | 0.832 |

**Table 3**: Comparison of mean scores of the domains of psychological well-being (except for autonomy), subjective happiness, and gratitude in the control and intervention groups

| Variable | | Group | N | Mean | SD | P value |
|---|---|---|---|---|---|---|
| Psychological well-being | | Control<br>Intervention | 35<br>35 | 310.25<br>374.08 | 60.74<br>67.25 | <0.001 |
| Domains of psychological well-being | Positive relations | Control<br>Intervention | 35<br>35 | 53.37<br>64.40 | 10.91<br>12.97 | <0.001 |
| | Autonomy | Control<br>Intervention | 35<br>35 | 50.37<br>51.62 | 11.55<br>11.97 | 0.094 |
| | Environmental mastery | Control<br>Intervention | 35<br>35 | 53.14<br>65.65 | 12.21<br>13.67 | <0.001 |
| | Personal growth | Control<br>Intervention | 35<br>35 | 52.77<br>65.71 | 14.38<br>15.39 | <0.001 |
| | Purpose in life | Control<br>Intervention | 35<br>35 | 51.85<br>63.40 | 9.49<br>12.13 | <0.001 |
| | Self-acceptance | Control<br>Intervention | 35<br>35 | 50.08<br>63.28 | 7.44<br>9.92 | <0.001 |
| Domains of subjective well-being | Subjective happiness | Control<br>Intervention | 35<br>35 | 11.37<br>17.05 | 6.73<br>5.78 | <0.001 |
| | Satisfaction in life | Control<br>Intervention | 35<br>35 | 15.28<br>23 | 7.35<br>6.73 | <0.001 |
| Gratitude | | Control<br>Intervention | 35<br>35 | 25.31<br>35.05 | 6.62<br>9.02 | <0.001 |

Before covariance analysis, the assumptions of the test were assessed using Kolmogorov-Smirnov's test, and the results are shown in Table 4. The distribution of the scores in the population was normal in all domains, and therefore, all pre-assumptions were confirmed. Since the significance level was set to 0.05, we used parametric tests for covariance analysis.

**Table 4**: The results of Kolmogorov-Smirnov's test for checking normality

| Variable | Group | Kolmogorov-Smirnov z | P value |
|---|---|---|---|
| **Psychological well-being** | **Control** | 0.769 | 0.062 |
| | **Intervention** | 0.688 | 0.055 |
| **Positive Relations** | **Control** | 0.852 | 0.084 |
| | **Intervention** | 0.688 | 0.404 |
| **Autonomy** | **Control** | 0.886 | 0.088 |
| | **Intervention** | 0.659 | 0.057 |
| **Environmental mastery** | **Control** | 0.367 | 0.054 |
| | **Intervention** | 0.630 | 0.122 |
| **Personal growth** | **Control** | 0.415 | 0.160 |
| | **Intervention** | 0.642 | 0.076 |
| **Purpose in life** | **Control** | 0.482 | 0.056 |
| | **Intervention** | 0.570 | 0.052 |
| **Self-acceptance** | **Control** | 0.964 | 0.922 |
| | **Intervention** | 0.745 | 0.597 |
| **Subjective well-being** | **Control** | 0.061 | 0.181 |
| | **Intervention** | 0.186 | 0.074 |
| **Satisfaction in life** | **Control** | 0.028 | 0.134 |
| | **Intervention** | 0.256 | 0.102 |

The results of covariance analysis showed that gratitude training significantly affected the psychological well-being. Furthermore, the scores of the intervention group were higher in the post-test with respect to the psychological well-being and gratitude (Table 5).

According to the F value of autonomy domain (shown in Table 4), we can conclude that the gratitude training significantly affected all domains of the psychological well-being except for autonomy.

Therefore, the participants in the intervention group had significantly higher scores in the domains of "*relation to others*", "*environmental mastery*", "*purpose in life*"," *personal growth*", and "*self-acceptance*" after the intervention compared to those in the control group. As shown in Table 4, considering a significant amount of F with respect to subjective happiness and life satisfaction, it can be concluded that our intervention significantly affected the variables of subjective well-being; also by doing gratitude practices, these people became more grateful in their life (Table 5).

**Table 5:** Results of the Covariance test for assessing the effect of gratitude on the participants' psychological well-being, domains of psychological well-being and domains of subjective well-being

| Index | Variable | Mean square | F | P-value |
|---|---|---|---|---|
| Group effect of psychological well-being | psychological well-being | 61795.71 | 304.69 | <0.001** |
| Group effect of domains of psychological well-being | Autonomy | 53.68 | 11.70 | 0.094 |
| | Positive relations | 2635.26 | 113.64 | <0.001** |
| | Environmental mastery | 2263.88 | 236.79 | <0.001** |
| | Purpose in life | 1636.53 | 138.91 | <0.001** |
| | Personal growth | 2263.42 | 211.59 | <0.001** |
| | Self-acceptance | 2235.71 | 141.70 | <0.001** |
| Group effect of domains of subjective well-being | Subjective happiness | 498.28 | 288.54 | <0.001** |
| | Life satisfaction | 821.37 | 136.311 | <0.001** |
| Group effect of gratitude | Gratitude | 1408.45 | 319.026 | <0.001** |

## Discussion

The results of the present research indicated that gratitude would be effective in all domains of psychological well-being except autonomy. This result is consistent with the findings of the previous studies, and can be interpreted on the basis of the following possibilities: A huge body of empirical research proposes that gratitude is an important factor in enhancing psychological and subjective well-being. Considering the model presented by Ryff [28], psychological well-being strives to enable individuals to fulfill their potential capabilities. In psychology, well-being is defined as a desirable human function. Individuals with a high sense of well-being experience positive emotions and evaluate their surrounding events and circumstances positively, while those with low sense of well-being evaluate these events negatively, and therefore, experience more depression, anxiety, and anger [29].

Considering the definition of gratitude that God or someone else is involved in creating pleasing events and consequences [11], hope in others and the world, in general, is created and a benevolent view is shaped. It is to be noted that we advised the participants to continue their gratitude practices for 21 days. It can be stated that gratitude becomes internalized over time, and thus leads to sustained well-being throughout the life. As shown in Emmons and McCullouge's study [30], when the participants followed the intervention's instructions on a daily basis, the positive effect of the participants did not increase, but when their intervention continued for 21 days, the findings changed significantly.

We found that gratitude affects the domains of subjective well-being and life satisfaction. This finding is consistent with previous studies. The effect of gratitude on welfare and positive affect can be explained from two perspectives. Theoretically, the effect of gratitude training is related to the nature of gratitude itself. As mentioned before, gratitude is comprised of a two-phase cognitive process: A) recognizing

that something positive has been attained, and B) recognizing that an external source influences that attainment [11]. Therefore, in our intervention, we initially tried to create awareness regarding possessions and attainments, as well as common events that are frequently happening around us and we do not pay attention to them. As a result of gratitude training, we pay attention to these events and to the sources we had not noticed previously. Thus, gratitude training increases the satisfaction and positive affect [10, 31]. Sheldon and Lyubomirsky [8] considered gratitude as one of the methods of becoming happier, which is consistent with our study.

Spiritually, gratitude is in line with happiness and in contrast to emotions such as anger, anxiety, and jealousy [27]; as such, it enables individuals to pay attention to the positive aspects of their social environment, and therefore, have higher life satisfaction. The role of gratitude is also evident in clinical psychology. Researchers believe that gratitude is also related to clinical psychology for two reasons: the high significance of gratitude in defining well-being and enhancing well-being through developing the sense of gratitude by simple practices. Seligman, et al. [10] showed that gratitude has the potential to be a powerful foundation for treatment of psychological pain and stress. Moreover, gratitude interventions are seen in clinical interventions [32]. Since healthcare staffs are the most important healthcare providers and are at risk of psychological and physical stress and complications [33], gratitude training could enhance their psychological and subjective well-being.

## Conclusion

Our research hypothesis was that gratitude might be an important ingredient for psychological and subjective wellbeing, and that it could be associated with lower distress when facing in life and work. This study helps identify gratitude's relation with other positive emotions. Gratitude was related to pride, hope, inspiration, forgiveness, and excitedness. Pride is linked with the locus dimension of causality, whereas gratitude is connected with the controllability dimension. In addition, strategies for increasing gratitude could be also a part of other validated psychotherapeutic strategies, such as the Well-being Therapy (WBT) [34], the Meaning Making Intervention [35], and the Cognitive-Behavioral Stress Management (CBSM) intervention [36].

Our study had several limitations. We could not assess the long-term effects of gratitude on well-being. Also the participants were educated, and we could not generalize the results to those with lower levels of education. It is suggested to study all social classes as well as levels of education in order to enhance

the generalized capability.

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