

How to Cite:

Feize, A., Nekavand, M., & Moghaddam, L. F. (2022). The effect of emotion regulation training on psychological well-being and school burnout of nursing students. *International Journal of Health Sciences*, 6(S1), 7924–7933. <https://doi.org/10.53730/ijhs.v6nS1.6685>

The effect of emotion regulation training on psychological well-being and school burnout of nursing students

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Abstract--Purpose: Understanding the importance of psychological well-being and school burnout in nursing students, as young human resources with high job sensitivity, the present study aimed to study the effect of emotion regulation training on nursing students' psychological well-being and school burnout. Design/methodology/approach: This experimental-interventional study was conducted at Kurdistan University of Medical Sciences (n = 381). Ninety nursing students were selected by stratified random sampling according to inclusion criteria. The participants were placed in two case groups (n = 45) and control (n = 45). Emotion regulation training was designed and implemented for the case group. Data collection tools included self-design demographic questionnaires, school burnout of Brusso scale, and psychological well-being of Warwick Edinburgh scale. The validity and reliability of the tools were evaluated and confirmed. The data were collected before and one month after the intervention for both groups. Finally, they were analyzed using SPSS-v24 software. Findings: The mean (\pm SD) of psychological well-being scores of the participants in the intervention group before and after the implementation of emotion regulation training were 47.91 (5.70) and 55.35 (4.99), respectively. The score of school burnout of the participants in the intervention group before and after emotion regulation training were 61.24 (9.13) and (8.93) and 46.91, respectively. The paired and independent sample T-tests results showed a statistically significant difference within before and

after the training ($p < 0.05$) and between the case and control groups ($p < 0.05$), respectively. Originality: Improving the level of psychological well-being and reducing school burnout using emotion regulation training was observed in this study.

Keywords---Psychological well-being, School burnout, Emotion regulation, Nursing student.

Introduction

Today, all segments of society are inexhaustibly associated with psychological issues, including students. This is a crucial issue among students because those are looking for various educational and personal goals, which is sometimes due to different challenges and obstacles in achieving these goals (Fata and Kiani, 2020). One of the common challenges identified among students is depression (Masoudi Asl, 2012) which can cause school burnout (Lee and Ashforth, 1996).

Burnout is a type of emotion exhaustion syndrome, depersonalizing, reduced personal integrity, and ineffectiveness. This syndrome is caused by chronic stress, role overload, time constraints, and a lack of necessary and supportive resources for performing (Kasen *et al.*, 1990; Rudman and Gustavsson, 2012). When school burnout is a serious and common problem in students, the importance of this issue is fundamental. The symptoms of this disorder include lack of interest in the curriculum, inability to continue attending classes, not participating in classroom activities, feeling meaningless in classroom activities, and feeling incapable of learning the lessons. Burnout, in addition to the adverse effects it has while other long-term effects, students who experience burnout are less likely to master job responsibilities in the future and have a higher tendency to leave their job (Rudman and Gustavsson, 2012). In addition, students who feel higher school burnout are likely to experience internal and external behavioral problems, psychosomatic problems, lower quality of life (Kasen *et al.*, 1990). As noted, many factors affect the creation of school burnout. Psychological well-being is an influential factor in school achievement and can prevent school burnout (Hoseini Amiri and Abbasi, 2018).

Psychological well-being is related to one's assessments of his/her life, which includes the individual's cognitive and emotion reactions to the events and judgments about his or her life satisfaction (Joshani, 2016). Those with positive well-being have a higher sense of responsibility, a higher level of communication with the patient, less burnout and education, and a desirable level of psychological health (Dyrbye *et al.*, 2012). The sense of psychological well-being is one of nursing students' most critical aspects of health because their job is related to the human body and psyche. So that if there is no cure for it, it may have unpleasant consequences such as school burnout, dropping out of school, taking psychotropic drugs, addiction, inability to social communicate, or even suicide and much more severe consequences (Dyrbye *et al.*, 2012). One of the proposed solutions is emotion regulation training (Chervonsky and Hunt, 2019).

Emotion regulation training means reducing and inhibiting negative emotions and how to use them positively. Emotion regulation strategies are related to reducing negative emotions and emotion events, increasing the social self-efficacy of individuals in the field of social, emotion, educational adjustment, increasing friendly behavior, increasing social problem solving, and sometimes changing social goals. Recently, psychologists have found that emotion regulation is one of the strategies that can affect social, emotion relationships and school burnout of students with learning disabilities (Jahani Hashemi *et al.*, 2006; Labrague *et al.*, 2018; McCarthy *et al.*, 2018; Tennant *et al.*, 2007). Understanding the importance of the feeling of psychological well-being and school burnout in nursing students, as young human resources with high job sensitivity, the results of this study can be effective in improving micro and macro educational, social, cultural, and health planning and ultimately promoting the health of the society.

Materials and Methods

This experimental-interventional study was conducted at the Faculty of Nursing and Midwifery of Kurdistan University of Medical Sciences (n = 381). After gaining the approval of the ethics committee, the list of all nursing students' emails with their current semester studying number was obtained, and sampling was started. The sample size (n) was calculated using equation (1).

$$n = \frac{2\sigma^2 \left(Z_{1-\frac{\alpha}{2}} + Z_{1-\beta} \right)^2}{(\mu_1 - \mu_2)^2} \quad (1)$$

Where μ is the mean of score for dependent variable in case and control group, σ the standard deviation, α the level of error and β the test power. Ninety nursing students were determined using mentioned above equation. The stratified random sampling was carried out based on the school semester of the nursing students for dividing the entire population into homogeneous groups. Random samples are then selected from each semester according to their size. The first stratum (2nd semester) was sampled with a ratio of 17% (n = 8), the second stratum (3rd semester) with a ratio of 31% (n = 14), the third stratum (5th and 6th semesters) with the same ratio was 31% (n = 14), the fourth stratum (7th and 8th semesters) with a ratio of 20% (n = 9). Finally, the participants were placed in two case groups (n = 45) and a control (n = 45).

The study's inclusion criteria were as follows: employment in the 2nd to 8th semester of bachelor's degree in nursing, lack of participation in similar courses, and not having a current and recurrent history of mental and physical illnesses. Exclusion criteria included an absence of more than one session, severe psychological disorders during the study such as the death of family members, divorce, and unwillingness to continue participating in the research.

The data were collected via three questionnaires, including self-design demographic questionnaires (age, sex, marital status, semester, inhabitancy, and occupation status), school burnout of Brusso scale (Bresó *et al.*, 2007), and psychological well-being of Warwick Edinburgh scale (Tennant *et al.*, 2007). Two relative coefficients of Content Validity Ratio (CVR) and Content Validity Index

(CVI) were used to assess the content validity of Persian version of questionnaires. The acceptable CVR value for the 15-person panel is 0.49. In this study, all used items had more CVR than 0.49. The permissible CVI value was 0.79, higher than the permissible limit for all three questionnaires was confirmed. After evaluating and confirming the validity of the studied instruments, the questionnaires were distributed randomly among 15 nursing students of Kurdistan University of Medical Sciences. Their Reliability was estimated by calculating Cronbach's alpha. Cronbach's alpha value was 0.782 for the psychological well-being scale and 0.791 for the school burnout scale, which was higher than the permissible amount of scientific trust (0.7) and thus gained the ability to use in this study.

The application for participation in this study was sent to students by email. Because of the COVID-19 pandemic, the questionnaires were designed online, and they were sent privately to the participants through Google's form. After data collection, demographic characteristics, school burnout, and psychological well-being scores of each individual were recorded for both intervention and control groups. The collected data at this stage was named "before". Eight sessions were held in a 45-minute video conference on the WhatsApp messenger platform by a therapist with a certificate of "on-site emotion regulation techniques" for the intervention group. No educational measures were taken for the control group during this time. The questionnaires were resent to both groups one month after the intervention, and the participants' scores were re-recorded in each scale. The collected data at this stage was named "after". Finally, the effect of educational intervention on two scales of psychological well-being and school burnout was assessed by comparing the mean scores between (case vs. control) and within (before vs. after) the groups.

The software used for data analysis in this study was SPSS-24. Frequency, percentage, mean, and standard deviation are used in descriptive statistical analysis, and paired t-test, independent t-test, Chi², and Fisher's exact tests were used in analytical statistics.

Ethical considerations

This study confirmed with ethics code of IR. IAU. TMU. REC.1399.569 is registered in Islamic Azad University Tehran Medical sciences. The aim of this study was to explain it clearly to all subjects including control and intervention. Participants in the study were asked to participate and opt out of the study whenever they were free, and were assured that their non-participation would not disrupt their education and career. Participants in the study were assured that their personal information was confidential.

Results

The demographic characteristics of the intervention and control groups were compared. The results of this comparison showed mean (\pm SD) age of the participants in the intervention and control group was 21.88 (2.72) and 23 (3.5) years, respectively. There was no significant difference between the groups for comparing the mean age (p -value = 0.097). For gender variable distribution between the intervention (female 56.8%, male 42.2%) and control group (female

60%, male 40%), there was no statistically significant difference (p -value = 0.83). Most students had single marital status, so 91.1% of the intervention group and 93.3% of the control group were single (p -value = 0.69). In addition no statistically significant difference in the distribution number of semesters variable in the intervention and control groups (p -value = 0.89). Participants in intervention groups (84.4%) and control groups (87.8%) did not have a specific profession (p -value = 0.72). Another demographic variable for subjects in this study was inhabitancy, in which more than half of the intervention and control group members lived with their families. There was no statistically significant difference in the frequency distribution of this variable (p -value = 0.39).

The results of comparing psychological well-being and school burnout score within (before and after the intervention) and between (intervention and control groups) were shown in Table 1 and Figure 1. Running the paired sample T-test results for the before and one month after the emotion regulation intervention showed a significant statistical difference ($p < 0.001$) in the intervention group for both variables. In the control group, there was no statistically significant difference in the mean score of both them psychological well-being (p -value = 0.916) and school burnout (p -value = 0.281) at the pre-test and post-test.

The statistically significant difference between the mean score of psychological well-being and school burnout in the intervention group one month after emotion regulation training and the post-test in the control group was confirmed by an independent T-test ($P < 0.001$). Comparing the mean score of both variables between the intervention group before the training and the pre-test of the control group did not show a significant difference ($P > 0.05$).

The boxplots in Figure 2 show psychological well-being and school burnout scores separately from the semesters before and after the educational intervention. As can be seen, school burnout decreased, and psychological well-being increased significantly in all semesters due to educational intervention. The results of the Chi-square test showed significant independence between dependent variables (psychological well-being and school burnout) with demographic variables, i.e., age groups, gender, inhabitancy status, marital status, job status, and student semesters ($P > 0.05$).

Discussion

This study aimed to determine the effect of emotion regulation training on psychological well-being and school burnout in nursing students of Kurdistan University of Medical Sciences in 2020. During education, nursing students are affected by clinical and school stressors. These factors include lack of preparation for tests, large assignments, high education costs, lack of personal needs, heavy work, care for patients, being criticized by educators, facing dying patients, and fear of practical errors (Labrague *et al.*, 2018). Sometimes students are also skeptical about decision-making, and lack coexists between ideas, facts, or feelings of inadequacy. These conditions affect nursing students' physical and mental health and will lead to a decrease in their performance (Jahani Hashemi *et al.*, 2006). In this regard, different types of coping strategies are used to manage this issue (McCarthy *et al.*, 2018). Emotion regulation training is one of those

strategies that was used in this study to improve mental well-being and school burnout of nursing students.

The assessment of psychological well-being in the present study showed that the mean (SD) of psychological well-being scores of the participants in the intervention group before and after the implementation of emotion regulation training was 47.91 (5.70) and 55.35 (4.99), respectively. Since the cut-off point for this variable is 14-70, it can be said that the state of psychological well-being in the intervention group was at a low level before the intervention. In their study on nursing students and a group of non-independent women in a traditional society, Bridie *et al.* (2018) concluded that stress levels among nursing students were high and mental stress levels were low (McCarthy *et al.*, 2018). Also, Zhuang *et al.* (2020), by reviewing 12 studies, concluded that in nursing students, stress levels are high and mental well-being levels are low (Li and Hasson, 2020). Tagharobi *et al.* (2012) reported low levels of mental well-being of nursing and midwifery students in Kashan university. All of these findings follow the results of this study (Tagharrobi *et al.*, 2011).

In this study, by emotion regulation training, the mean score of mental well-being of nursing students in the intervention group increased significantly within before and one month after the intervention. This indicates the effect of the educational intervention of emotion regulation on students' well-being level. Improving well-being levels can be one of the best ways to cope with stress among nursing students (Veiskarami *et al.*, 2018). In the results of the Sara Lebanese *et al.* (2017), study, reduction of depression symptoms, worry occurred with emotion regulation training, and the level of mental improvement increased, which indicates the effect of the emotion regulation training program (LeBlanc *et al.*, 2017). The meta-analysis study of Kraiss *et al.* (2020) investigated the effect of emotion regulation training on psychological well-being among patients with mental disorders; the results of their study showed that emotion regulation training could effectively improve mental well-being in patients with mental disorders (Kraiss *et al.*, 2020). By examining the effectiveness of an emotion regulation intervention on psychological well-being of nursing students, Mehrabi *et al.* (2017) found that before the intervention, students' mental well-being scores were downward, which could improve the mental well-being of the intervention group by teaching emotion regulation (Mehrabi *et al.*, 2017).

This study investigated the variable of school burnout among nursing students. The mean score of participants about school burnout in the intervention group before and after the implementation of emotion regulation training was 61.24 (9.13) and 46.91 (8.93), respectively. This indicates that students' school burnout before the intervention was high compared to after the intervention. Recently, Fallah Chai *et al.* (2020) stated that a significant percentage of medical students experience school burnout (Falahchai *et al.*, 2020). Dehghani *et al.* (2018) studied the effect of emotion regulation training on school burnout. Their study results showed a positive effect of emotion regulation training on school burnout so that after education, the level of school burnout among students decreased (Dehghani *et al.*, 2018). Dadashzadeh *et al.* (2020) examined the effect of emotion-based education on school burnout. This study showed a positive effect of emotion regulation training and a reduced level of school burnout among students

(Dadashzadeh Kalesar *et al.*, 2021). The effect of emotion regulation training on school burnout among Shahrekord University of Medical Sciences students was investigated by Veiskarami *et al.* (2018). They concluded that by teaching emotion regulation, the level of school burnout among students could be reduced (Veiskarami *et al.*, 2018). Cathy Winter *et al.* (2020) reported that emotion regulation training could significantly reduce the level of school burnout in male and female students (Vinter *et al.*, 2020). This finding is in accordance with results of this study. After implementing emotion regulation training, the score of school burnout significantly decreased (mean difference of -14.33, p -value < 0.001); this indicates the effect of the educational intervention on students' school burnout level.

By reviewing the study literature, it can be understood that emotion regulation plays a crucial role in individuals' mental health and social, psychological, familial and communicative performance; disruption can lead to various psychological damages. One of the possible factors in the development of depression and also one of the consequences of depression is emotion regulation disorder (Salehi, 2017, Zemestani *et al.*, 2013). Nowadays, in universities and higher centers to eliminate school burnout and increase psychological well-being and other problems related to the environment and society, emotion regulation training among students can play a significant role (Dehghani *et al.*, 2018). Therefore, one of the treatments that can affect students' mental health is emotion regulation training which can reduce depression, especially burnout, by increasing their level of well-being (Stoeber *et al.*, 2011). Emotion regulation, in addition to positive effects on mental well-health, improves physical health (English *et al.*, 2017).

Conclusion

The findings of this study about the effect of emotion regulation education on psychological well-being and school burnout of students indicated the effectiveness of the educational intervention. Therefore, positive changes have been made in the intervention group in improving psychological well-being and reducing school burnout using emotion regulation training among nursing students of Kurdistan University of Medical Sciences. Understanding, it can be stated that the main hypotheses of this study with the theme of "emotion regulation training affect the mental well-being of nursing students of Kurdistan University of Medical Sciences" and "Emotion regulation training affects school burnout of nursing students of Kurdistan University of Medical Sciences", confirmed.

Acknowledgement

This article has been extracted from a master's thesis in mental health nursing. This study was registered with the code IR. IAU. TMU. REC.1399.569 at Islamic Azad University Tehran Medical sciences. The authors want to thank students for their participation in the study.

Funding: Islamic Azad University Tehran Medical sciences.

Conflicting Interest: The authors declare that they have no conflict of interest.

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