The Effect of Mindfulness-Based Breathing and Music Therapy Practice on Nurses' Stress, Work-Related Strain, and Psychological Well-being During the COVID-19 Pandemic

A Randomized Controlled Trial

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Infectious diseases cause psychological problems for health care workers and especially nurses. Nurses who provided coronavirus disease-2019 (COVID-19) patients with care experience negative feelings such as stress, work-related strain, discomfort, and helplessness related to their high-intensity work. The aims of this study are to investigate the effect of the mindfulness-based breathing and music therapy practice on stress, work-related strain, and psychological well-being levels of nurses who provided COVID-19 patients with care. This randomized controlled trial was conducted in a COVID-19 department at a university hospital in Turkey. Nurses who care for patients infected with COVID-19 were randomly divided into an intervention group (n = 52) and a no-treatment control group (n = 52). The intervention group received mindfulness-based breathing and music therapy. In data collection, the Personal Information Form, State Anxiety Inventory, Work-Related Strain Scale, and Psychological Well-Being Scale were used. The data from the study showed that mindfulness-based breathing and music therapy decreased stress and work-related strain (P < .05) and increased psychological well-being (P < .05). The control group showed no statistically significant changes on these measures (P > .05). The mindfulness-based breathing and music therapy practice reduced nurses' stress and work-related strain and increased psychological well-being during the COVID-19 pandemic. **KEY WORDS:** breathing therapy, COVID-19, mindfulness, psychological well-being well-being, stress, work-related strain Holist Nurs Pract 2022;36(3):156–165

INTRODUCTION

Coronavirus disease (COVID) emerged in China in 2019 and spread to the entire world in a short period. As of December 2, 2020, the World Health Organization reported a total of 67.3 million cases.

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Along with this rapid spread, the pandemic turned out to be a global health problem. On the same date, the number of reported cases was 828 295 in Turkey, and Turkey ranked among the top along with the rise in its number of daily cases.¹ COVID-19 created an unprecedented demand for health and social care services across the world due to being a new virus, its high prevalence in the general population of several countries, its seriously infectious structure, and the resulting high morbidity and mortality rates. Besides having a high number of critical patients at hospitals, giving treatment and care to the patients testing positive raised the demand for the health staff, particularly nurses, in the society, nursing homes, and mental health services.² In this process, the nurses did not only have an increase in workload, but also were forced to adapt to new protocols. The complicated

nature of the care and new ways of working are potentially quite stressful for nurses.³ The nurses often started to provide end-of-life care and became the person who met all the needs of the patients who did not share the same setting with anyone, including their families. Also, the continuation of this process for a year led the nurses to feel hopelessness and burnout.⁴ During the course of the pandemic, the change in the nurse-to-patient ratios, providing a high-risk group with care, the risk of being infected with the disease, the lack of treatment and vaccine for the disease, the change in the work system, providing the patients with care for busy and long hours by using protective equipment, and the likelihood of spreading the virus to other patients or the families caused the nurses to have feelings such as stigmatization, fear, anger, anxiety, uncertainty, work-related strain, and burnout. During similar outbreaks such as severe acute respiratory syndrome (SARS) and Middle East respiratory syndrome (MERS), as compared with the other groups of health workers, nurses had the highest occupational stress and high-level anxiety related to occupational stress.^{5,6} In this context, the nurses who provided patients with care during SARS and MERS outbreaks were exposed to extraordinary levels of stress associated with a high risk of infection, stigmatization, and uncertainty and had a high priority in accessing comprehensive psychological support during and after these outbreaks. The studies performed similarly today during the COVID-19 pandemic also demonstrated that health service providers who offered treatment and care to COVID-19 patients in the front lines had higher risks of psychological problems such as anxiety, depression, insomnia, and the stress. Being isolated, working in high-risk positions, experiencing a new and uncertain process, and contacting infected people are the common reasons for psychological problems. During the course of the COVID-19 pandemic, the nurses who have direct contact with a potentially fatal virus are confronted with high anxiety about personal and family health and the stress of balancing this anxiety with ethical obligations of continuing to provide nursing care.⁷⁻⁹ Ensuring the psychological safety of nurses who played a pioneering role in all these processes, lowering their stress levels, increasing the psychological support, and developing a strategy of initiatives are of utmost importance in the struggle with the COVID-19 pandemic. If stress is not properly managed, it does not only give rise to psychological problems for the care providers, but can also cause the

nurses to make medical errors and negatively affect patient safety.⁷⁻¹⁰

Mindfulness-based interventions are among the methods developed for coping with stress today.^{10,11} In mindfulness practice, attention is focused on breathing, body sensations, thoughts, and emotions.¹² Mindfulness exercises are launched by focusing on breathing after getting seated in an armchair. During breathing, efforts are made to feel the state of being in that moment and to make this state the focal point. Focusing on breathing serves as the groundwork for mindfulness-based practices, and it is performed for raising individual awareness, promoting self-control, and reducing the effect of stress factors.¹³ Shapiro et al¹⁴ reported that the mindfulness-based stress reduction program developed the person's ability to cope with stress-producing factors by enhancing self-control and flexibility in emotions and thoughts. The study conducted by Mackenzie et al¹⁵ with nurses indicates that applications including mindfulnessbased practices reduced the stress and occupational depreciation experienced by the nurses.

Music has always played a highly important role in the regulation of emotions, the enhancement of psychological well-being, and the promotion of human welfare, and hence, has helped to raise the stress threshold and reinforce immunity. In previous systematic analyses, it is stated that music reduced stress and anxiety, raised the quality of sleep, lowered fatigue, and enhanced well-being.¹⁶⁻¹⁸ In a meta-analysis that examined 9 randomized controlled studies, it was found that music reduced stress and pain.¹⁹ As indicated in the relevant literature, music therapy is also used for reducing workplace strain and improving mental state, performance, attention, and concentration.²⁰

Research data are needed for developing evidence-based strategies to protect nurses' psychological health, raise the quality of their lives, and facilitate their adaptation to this busy process. Previous studies show that nurses had high-level stress, anxiety, strain, and burnout. However, there is scarcely any evidence-based study that evaluated the effectiveness of the initiatives reducing nurses' stress, anxiety, strain, and burnout levels.

This study aims to investigate the effect of the mindfulness-based breathing and music therapy practice on stress, work-related strain, and psychological well-being levels of the nurses who play a crucial role in the struggle against COVID-19.

Research hypotheses

Hypothesis 1: The practice of mindfulness-based breathing and music therapy is effective in reducing nurses' stress levels.

Hypothesis 2: The practice of mindfulness-based breathing and music therapy is effective in raising nurses' well-being levels.

Hypothesis 3: The practice of mindfulness-based breathing and music therapy is effective in lowering nurses' work-related strain levels.

METHODS

Study design

Designed as a randomized controlled experimental study, the research complied with the guidelines designated as per the Consolidated Standards of Reporting Trials (CONSORT) checklist.

Ethical considerations

For performing the study, the ethical endorsement was obtained from the Ethics Committee of Istanbul Sabahattin Zaim University (No: 2020/12). Further, the research participants were asked to fill in the informed consent forms. The study conformed with the principles of the Declaration of Helsinki.

Participants

The study was performed in December 2020 at a university hospital in Istanbul, Turkey, with the participation of nurses who provided COVID-19 patients with care.

Inclusion criteria

Nurses who were 18 years or older, volunteered to participate in the study, had no psychiatric diagnoses, had no communication problem, and had no course or practice about coping with anxiety, strain, and stress were included in the study.

Sample size and randomization

The sample size was calculated by using the GPower 3.1.9 software. The sample size required for the effect size of 0.5 and the margin of error of 0.05 was estimated as a minimum of 45 participants for each group. Given the estimated sample size and the data values obtained from an analogous study in the literature,^{18,21} a power analysis was conducted. As per the estimated sample size, the power value was

identified as 94.6% via the power analysis. Considering also the likely data losses during the study, the sample size was designated as 55 participants for each group.

The participants who agreed to take part in the research were assigned to the study groups through an internet application. Assuming that set 1 and set 2 would successively represent the intervention and control groups, the numbers from 1 to 110 were randomly assigned to the 2 study groups. Via the internet application, the assignment order of the nurses who made up the research sample was randomly designated. Three nurses from the intervention group and 3 nurses from the control group who did not want to participate in the research were not included in the evaluations. Thus, a total of 104 nurses took part in the research (52 nurses in the intervention group and 52 nurses in the control group) (Figure).

Data collection and measurement instruments

In the collection of research data, the Personal Information Form, State Anxiety Inventory, Work-Related Strain Scale, and Psychological Well-Being Scale were used. The survey form created through Google Forms was utilized as the data collection tool. The survey form that provides self-access and facilitates the data collection and follow-up by preventing the same person from making multiple data entries was created through Google Forms. To get anonymous answers and ensure the confidentiality of the survey data, e-mail and electronic IP address registries were disabled.

Personal information form

The form, which covered the age, gender, marital status, education level, weekly and daily work duration of the participants, was developed by the researchers.

State Anxiety Inventory

The State Anxiety Inventory (STAI-I) was developed in 1970 by Spielberger et al²² for identifying the individuals' stated anxiety levels. The validity and reliability test for the inventory was performed in Turkish by Öner and Le Compte.²³ The inventory measures the individuals' anxiety levels. In the inventory composed of 20 items, each item is scored with a 4-point Likert scale, and the scores to be obtained from the inventory range from 20 to 80 points. A high inventory score indicates that the person has high-level anxiety, whereas a low inventory

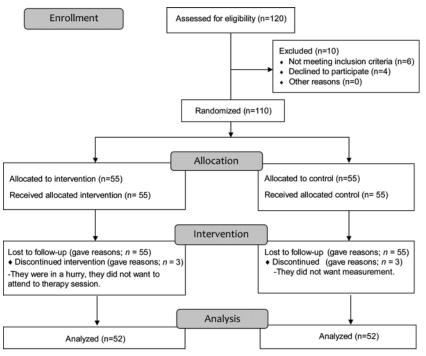


FIGURE. CONSORT flow diagram.

score shows that the person has low-level anxiety.^{22,23} In the inventory, the scores to be obtained between 0 and 19 points, 20 and 39 points, 40 and 59 points, 60 and 79 points, and 80 points or above consecutively refer to no anxiety, mild anxiety, moderate anxiety, severe anxiety, and very severe anxiety, respectively. The Cronbach α coefficient was calculated as 0.93 for the inventory. Under this study, it was found as 0.87 for the inventory.

Psychological Well-Being Scale

This scale developed by Diener et al²⁴ for measuring psychological well-being level has 8 items. The validity and reliability test for the scale was performed in Turkish by Telef.²⁵ It defines the significant elements of the human function ranging from having positive relations to having feelings of efficacy and a meaningful and purposeful life. The scale items are scored between 1 and 7 points (1 = I)strongly disagree; 7 = I strongly disagree). All scale items are positively worded. The scores to be obtained from the scale range from 8 points (if "I strongly disagree" is chosen for all items) to 56 points (if "I strongly agree" is chosen for all items). As the measure of internal consistency, the Cronbach α coefficient was calculated as 0.87. A high scale score demonstrates that the person has a high level of psychological well-being. Under this

study, the Cronbach α coefficient was found as 0.85.

Work-Related Strain Scale

This scale was developed by Revicki et al,²⁶ the validity and reliability test for the scale was performed by Aslan et al,²⁷ and the scale was adapted to Turkish in 1996. The scale has 18 items and is a 4-point Likert-type self-report scale. Its items are scored between 1 and 4 points ("absolutely appropriate," "somewhat appropriate," "somewhat inappropriate," and "absolutely inappropriate"). The minimum and maximum scores to be obtained from the scale are respectively 18 and 72 points. As the score obtained from the scale increases, the work-related strain also goes up. The Cronbach α coefficient was calculated as 0.85 for the original version of the scale while it was found as 0.82 under this study.

Procedure

At the beginning of the study, the nurses were randomly assigned to the intervention and control groups. Before the assignment of nurses to the study groups, they were asked to express their consent to participate in the study after being informed about the study via online meetings held through the internet. After the study came to an end, the participant nurses were advised to continue to continue with mindfulness-based breathing and music therapy. The research data were collected online with the survey form created through Google Forms, and the online meetings were held via Zoom (software).

Control group

After the nurses in the control group completed the online Personal Information Form, State Anxiety Inventory, Work-Related Strain Scale, and Psychological Well-Being Scale, they were asked to relax in a quiet and calm setting for the next 30 minutes. At the end of this period, the participant nurses were asked once again complete the online State Anxiety Inventory, Work-Related Strain Scale, and Psychological Well-Being Scale.

Intervention group

Of the 52 nurses who had mindfulness-based breathing and music therapy in the intervention group, 9 subgroups were formed. One of these 9 groups was composed of 4 nurses while 8 of them had 6 nurses. After the Personal Information Form was completed online by nurses in the intervention group, the time schedule for the meetings was designated in cooperation with participants in each subgroup. Moreover, during the session, they were asked to relax in a setting as quiet and calm as possible. The certified therapist provided the nurses with mindfulness-based breathing and music therapy. First, in the pretest phase, the nurses in each subgroup were asked to complete the State Anxiety Inventory, Work-Related Strain Scale, and Psychological Well-Being Scale through Google Forms. Mindfulness-based breathing and music therapy was applied to each subgroup of nurses for approximately 30 minutes in a single session. At the end of the therapy session, in the posttest phase, the participant nurses completed the State Anxiety Inventory, Work-Related Strain Scale, and Psychological Well-Being Scale once again.

Mindfulness-based breathing and music therapy was applied to the participant nurses by following these steps:

First, information about the session and content of mindfulness-based breathing and music therapy was presented to the participant nurses.

Next, the participant nurses were informed about how breathing would be able to reduce stress with its calming effect on the body and mind. Then, to start the breathing exercise, they were asked to be seated comfortably (unbuckling the belt, unbuttoning, and taking off their shoes) and closing their eyes. They were invited to leave all their concerns about the future and their self-judgments aside and concentrate on the moment and the present setting. The participant nurses were instructed to focus first on their breaths and then on each part of their bodies. They were told to focus on their bodies extensively and attentively for developing both concentration and mental flexibility about their bodies. They were asked to focus their attention on each body part step by step, combine their breaths and body awareness, and subsequently feel the breathing on each point of the body. The participant nurses were invited to focus on their emotions, feel their emotions, and realize them during breathing exercises. To ensure that the group members could distance themselves from their thoughts, the "TV screen" metaphor was employed. They were asked to imagine a situation that recently made them feel saddened, stressed, and strained. When they felt that the negative thoughts gave rise to negative emotions, stress, and strain, they were asked to bring an imaginary TV screen in front of their eyes and think that they watched this negative incident on TV. During the entire session, the participant nurses listened to light piano music as background music. In the end, they were instructed to breathe 3 times and open their eyes.

Data analysis

In the statistical analysis of the research data, number, percentage, frequency, and mean (range) were used. Further, the independent-samples t-test, Mann-Whitney U test, and χ^2 test were utilized in the identification of the statistically significant differences between groups. To determine the intragroup differences, the Wilcoxon signed rank test was utilized. Statistical significance was identified if the P value was lower than .05 (P < .05). All measurement results were evaluated by the other blinded researcher who was not told which participants were in which group.

RESULTS

Upon the review of the mean age of the nurses in the intervention and control groups (successively 27.55 ± 5.24 and 29.11 ± 6.57 years), it was found that there was no statistically significant difference between the 2 groups (P > .05, Table 1). Likewise, as per the comparison of the intervention and control groups in

TABLE 1. Breakdown of Descriptiv	e (Sociodemographic) Char	acteristics by Study Grou	up (N = 104)	
	Intervention Group (n = 52)	Control Group (n = 52)	_	
Characteristics	$ar{\mathbf{x}} \pm \mathbf{S}\mathbf{D}$	$ar{\mathbf{x}} \pm \mathbf{S} \mathbf{D}$	Test	P ^a
Age	$\textbf{27.55} \pm \textbf{5.24}$	29.11 ± 6.57	t = -1.335	.185
Duration of professional experience, y	4.65 ± 4.91	6.44 ± 6.03	t = -1.657	.101
Duration of clinical experience, y	2.25 ± 1.82	2.55 ± 2.56	<i>t</i> = -0.691	.491
Work duration/wk, h	$\textbf{58.75} \pm \textbf{11.23}$	$\textbf{62.51} \pm \textbf{21.55}$	<i>t</i> = -1.118	.266
	n (%)	n (%)	χ ²	Pb
Gender				
Female	40 (77)	12 (23)	0.537	.626
Male	43 (83)	9 (17)		
Marital status				
Single	32 (32)	28 (28)	0.383	.826
Married	68 (68)	72 (72)		
Education level				
University degree	32 (61.6)	40 (77)	2.175	.103
Master degree	20 (38.4)	12 (23)		
Service unit where the nurse worked				
Intensive care service	21 (40.4)	18 (34.6)	0.429	.810
Pandemic service	22 (42.3)	25 (48.1)		
Emergency service of the pandemic	9 (17.3)	9 (17.3)		
hospital				
Whether the nurse willingly chose the ser				
Yes	38 (73)	71.1 (83)	0.048	.827
No	14 (27)	28.9 (17)		
Nurse's satisfaction with the service unit	where he/she worked			
Yes	11 (21.2)	7 (13.5)	1.075	.438
No	41 (78.8)	45 (86.5)		

^aIndependent-samples t test, P < .05.

 $^{b}\chi^{2}$ test was used.

terms of gender, marital status, education level, duration of professional experience in years, duration of clinical experience in years, weekly work duration in hours, and the service unit where the nurses worked, it was ascertained that there was no statistically significant difference between the 2 groups (P > .05, Table 1); in other words, the participant nurses were homogeneously assigned to the study groups and hence, the 2 groups had similar characteristics.

As per the intergroup comparison of the intervention and control groups in terms of stress scores, it was identified that, between the 2 groups, there was no statistically significant difference in the means of stress scores before the therapy was applied to the intervention group (P > .05). On the other hand, after the therapy, the intervention group obtained lower mean of stress scores than the control group and this difference was statistically significant (Table 2) (P = .010). Upon the intragroup comparison of the means of pretest and posttest stress scores of the nurses in the intervention group, it was discerned that,

following the therapy, the mean of stress scores of the nurses in the intervention group increased in the post-test phase and this difference between the means of their pretest and posttest stress scores was statistically significant (P < .001). Upon the intragroup comparison of the means of pretest and posttest stress scores of the nurses in the control group, it was found that there was no statistically significant difference between the means of pretest and posttest stress scores (P > .05, Table 2). These results verify hypothesis 1.

According to the intergroup comparison of the intervention and control groups in terms of psychological well-being scores, it was found that, between the 2 groups, there was no statistically significant difference in the means of psychological well-being scores before the therapy was applied to the intervention group (P > .05). However, after the therapy, it was found that the intervention group obtained a higher mean of psychological well-being scores than the control group and this difference was

TABLE 2.	Comparison of Stress Scores of th	ne Study Groups (N = 104)			
Scale STAI-I	Intervention Group (n = 52) $\bar{x}\pm SD$	Control Group (n = 52) $\bar{x} \pm$ SD	z	P ^a	95% CI
Before	51.86 ± 15.89	51.28 ± 13.38	-0.322	.747	-5.13 to 6.29
After	42.90 ± 11.75	50.36 ± 14.48	-2.593	.010	-12.79 to 2.13
Z	-3.160	-0.754			
P ^b	.002	.451			

Abbreviations: CI, confidence interval; STAI-I, State Anxiety Inventory-I. ^aMann-Whitney U test.

^bWilcoxon signed rank test.

statistically significant (Table 3) (P = .036). As per the intragroup comparison of the means of pretest and posttest psychological well-being scores of nurses in the intervention group, it was identified that, after the therapy, the mean of the psychological well-being scores of nurses in intervention group increased in the posttest phase and this difference between the means of their pretest and posttest psychological well-being scores was statistically significant (P < .001). Upon the intragroup comparison of the means of pretest and posttest psychological well-being scores of nurses in the control group, it was ascertained that there was no statistically significant difference between the means of pretest and posttest psychological well-being scores (P > .05, Table 3). These results verify hypothesis 2.

Upon the intergroup comparison of the intervention and control groups in terms of work-related strain scores, it was discerned that, between the 2 groups, there was no statistically significant difference in the means of work-related strain scores before the therapy was applied to the intervention group (P > .05). On the other hand, after the therapy, it was found that the intervention group obtained a lower mean of work-related strain scores than the control group and this difference was statistically significant (Table 4) (P = .030). According to the intragroup comparison of the means of pretest and posttest work-related strain scores of nurses in the intervention group, it was identified that, in the wake of the therapy, the mean of the work-related strain scores of nurses in the intervention group increased in the posttest phase and this difference between the means of their pretest and posttest work-related strain scores was statistically significant (P < .001). Upon the intragroup comparison of the means of pretest and posttest work-related strain scores of nurses in the control group, it was ascertained that there was no statistically significant difference between the means of pretest and posttest work-related strain scores (P > .05, Table 4). These results verify hypothesis 3.

DISCUSSION

Across the world, an extraordinary struggle is still in place against COVID-19. In this struggle, the nurses are health workers who are positioned on front lines. During the course of the pandemic, the change in nurse-to-patient ratios, providing a high risk group with care, the risk of being infected with the disease,

TABLE 3. Comparison of Psychological Well-Being Scores of the Study Groups (N = 104)					
Scale Psychological Well-Being	Intervention Group (n = 52) $\bar{x} \pm$ SD	Control Group (n = 52) $\bar{x} \pm SD$	Z	P ^a	95% CI
Before After Z P ^b	$\begin{array}{c} 39.84 \pm 8.48 \\ 46.76 \pm 7.22 \\ -4.110 \\ .000 \end{array}$	$\begin{array}{c} 41.34 \pm 11.08 \\ 41.61 \pm 12.10 \\ -0.576 \\ .565 \end{array}$	1.409 2.095	.159 .036	-5.33 to 2.33 1.27 to 9.03
Abbreviation: CI, confidence inter ^a Mann-Whitney <i>U</i> test. ^b Wilcoxon signed rank test.	rval.				

^bWilcoxon signed rank test.

Scale Work-Related Strain	Intervention Group (n = 52) $\bar{x}\pm$ SD	Control Group (n = 52) $\bar{x} \pm SD$	Z	P ^a	95% CI
Before	42.03 ± 9.85	41.55 ± 7.46	-0.417	.677	-2.91 to 3.88
After	37.32 ± 5.62	40.71 ± 7.87	-2.172	.030	-6.04 to 0.72
Z	-2.242	-1.017			
P ^b	.025	.309			

^aMann-Whitney U test.

^bWilcoxon signed-rank test.

the lack of treatment and vaccine for the disease, the change in workflows, providing patients with care for busy and long hours by using protective equipment. and the likelihood of spreading the virus to other patients or the families caused the nurses to have feelings such as stigmatization, fear, anger, anxiety, uncertainty, work-related strain, and burnout.²⁸ During the COVID-19 pandemic, the nurses who have direct contact with a potentially fatal virus are confronted with high anxiety about personal and family health and stress of balancing this anxiety with ethical obligations of continuing to provide nursing care. As these circumstances continued through the pandemic, nurses felt unwell and experienced work stress and burnout.^{29,30}

In the relevant literature, in a meta-analysis that examined 12 studies, it was stated that, of the health workers, 23% had stress and 22.8% exhibited depression symptoms due to COVID-19. In the same study, it was reported that nurses had these symptoms more intensely than other health workers.³¹ In another meta-analysis, results of 93 studies were analyzed, and it was determined that 37% of the nurses had anxiety, 35% of them had depression, and 43% of them had sleep problems during the COVID-19 pandemic.²⁹ The studies stress the importance of providing comprehensive support strategies for reducing the psychological effect of the COVID-19 pandemic on nurses under the circumstances of the pandemic. Nevertheless, even though a high number of studies talked about stress, anxiety, and depression problems experienced by nurses,^{29,32-34} just a few studies evaluated the effectiveness of initiatives aimed at the elimination of these symptoms.^{18,35}

In numerous studies, it is asserted that mindfulness-based breathing and music therapy reduced stress and anxiety, raised the quality of sleep, lowered fatigue, and enhanced well-being.³⁶⁻⁴⁰ However, in these studies, the effectiveness of music and mindfulness-based breathing therapy was evaluated assuming that they were separate activities. This study is one of the few studies in which 2 methods were used at the same time and the effectiveness of the 2 methods was simultaneously evaluated. In a similar vein to the results of the studies in the relevant literature, in this current study, it is inferred that this easy and inexpensive method, which could be used any time, had positive effects on nurses' stress, work-related strain, and psychological well-being.

Strengths and limitations of the study

The most important strength of the study is that it was designed as a randomized controlled study. Moreover, currently, it is the study with the largest sample size in the relevant literature. This is the first study that evaluated the effect of mindfulness-based breathing and music therapy on nurses' stress, work-related strain, and psychological well-being. Lastly, another strength of the study is that mindfulness-based breathing and music therapy was applied to nurses in all subgroups of the intervention group by the same therapist. However, the limitation of the study is that the long-term effects of mindfulness-based breathing and music therapy were not evaluated and the therapy was applied in a single session.

CONCLUSION

Ensuring the psychological safety of nurses, lowering their stress levels, increasing psychological support, and developing a strategy of initiatives during the COVID-19 pandemic are of utmost importance in the struggle with the COVID-19 pandemic. It was found that mindfulness-based breathing and music therapy reduced nurses' stress and work-related strain levels and enhanced their psychological well-being. Moreover, mindfulness-based breathing and music therapy, which was analyzed in this study, was welcomed and continued by the nurses even after the study. This therapeutic practice can be used for reducing stress and work-related strain of all health workers including nurses throughout the world and for enhancing their psychological well-being.

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