Effectiveness of a Psychoeducational Group Intervention Infused with Psychodrama to Enhance Group Processes and Alleviate Burnout among Public Institution Call Center Employees: A Pilot Study

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Abstract

This quasi-experimental study examines the effectiveness of a psychoeducational group intervention program consisting of psychoeducation sessions and group exercises based on psychodrama warm-up activities resulting from the needs of public sector call center agents in the workplace. Forty municipality call center employees from two municipalities (intervention and control groups) completed pre- and post-test measures before and after the intervention program. Within the scope of the study in sociodemographic form, the Brief Psychological Resilience Scale (BPRS), Maslach Burnout Inventory (MBI), Warwick-Edinburgh Mental Well-Being Scale (WEMWBS), Organization-Based Self-Esteem Scale (OBSES), Group Cohesion Scale (GCS), and Group Atmosphere Scale (GAS) were used. A follow-up session and follow-up test for the intervention group took place one month after the completion of the intervention sessions. The intervention group showed significant pre-to-post-test short-term effects on psychological resilience and pre-to-follow-up long-term effects on group atmosphere scores. However, there was no significant change in burnout, well-being, or organization-based self-esteem scores. Moreover, no significant difference was noted in the control group from pre- to post-test, except for the decrease in the group atmosphere scores.

Keywords: Burnout, Resilience, Mental well-being, Self-esteem, Group support, Call center

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Introduction

Public sector call centers in Turkey started to develop at the beginning of the 21st century, establishing municipalities as a conduit for updates, complaints, and problem-solving (Mert, 2017). According to the Call Center Association's Turkey call center 2018 market data (2018), 96.000 people are employed in the call center sector, and 11% are public sector call center employees.

Call center work requires multiple tasks simultaneously, which can be exhausting and stressful (Ferreira & Saldiva, 2002). In addition to stressful work conditions, call center employees' behaviors are limited by display rules, which creates emotional dissonance (Ashill et al., 2009; Wegge et al., 2006). Emotional dissonance can be defined as the difference between the emotions that are felt and expressed (Wegge et al., 2010). Emotional dissonance becomes significant, especially for call center employees with high incoming calls, leading to emotional exhaustion (Molino et al., 2016).

According to Leiter (1989), emotional exhaustion resulting from emotional dissonance is the first step of the burnout process. Burnout is a work-related psychological impairment involving three phases: emotional exhaustion, depersonalization, and diminished personal accomplishment (Maslach et al., 1997; Awa et al., 2010; Maslach et al., 2012). Burnout is included in ICD-11 under the "Problems related to work and unemployment" group as a factor affecting health (ICD-11 for Mortality and Morbidity Statistics, 2019). In addition to ICD-11, the WHO Diseases and Related Disorders Statistical Classification System lists burnout syndrome under the category of life management problems (WHO, 2004). This work-related psychological impairment negatively affects organizations and employees (CDC, 2014; Jourdain & Chênevert, 2015). The level of emotional exhaustion was found to be related to depression, while the stress of burnout increases the risk for physical illness, Post-Traumatic Stress Disorder (PTSD), and General Anxiety Disorder (GAD) (Bianchi et al., 2014; CDC, 2014).

Subsequently, organizations and researchers are increasingly interested in finding ways to reduce burnout (Osatuke & Belton, 2013). Despite its importance, few studies have been conducted on the effectiveness of burnout interventions for public sector call center employees (Bond et al., 2008; Le Blanc & Schaufeli, 2008; Tjosvold et al., 2014). Some of these interventions were based on cognitive behavioral therapy (CBT), and others on positive psychology principles (Lagerveld et al., 2012; Maricuțoiu et al., 2016; Morse et al., 2012). However, to our knowledge, a psychoeducational group program with group exercises mainly based on psychodrama warm-up techniques has not been conducted before.

Group psychodrama interventions conducted with non-call center employees to reduce burnout were found to be effective (Kähönen et al., 2012; Özbaş & Tel, 2016; Salmela-Aro et al., 2004). According to Blatner (2004), the principles and action techniques introduced by psychodrama can complement other approaches to nourish the creativity and spontaneity of participants. Given that previous studies have demonstrated the effectiveness of group psychodrama in reducing burnout, this study incorporates psychodrama warm-up techniques as a supplementary component of the psychoeducational group program aimed at mitigating burnout. As a pilot study, this research is an initial attempt to evaluate the efficacy of a psychoeducational group intervention program for public sector call center employees at risk of burnout, utilizing psychodrama warm-up techniques as group exercises. Pilot studies are often used to address uncertainties related to the applicability of intervention trial strategies or to assess the preliminary impacts of the intervention (Pearson et al., 2020). The insights derived from this pilot study will contribute to the development of a more comprehensive intervention research project to address burnout and its associated factors among call center employees.

According to Kotzé and Lamb (2012), burnout, psychological well-being, and dealing with stressful work demands can be predicted by looking at the internal and external resources of the person. For that reason, the present study utilizes a comprehensive theoretical framework of the job demand-resources (JD-R) model (Bakker et al., 2003; Demerouti et al., 2001; Schaufeli & Bakker, 2004; Schaufeli et al., 2009). The central assumption of the JD-R model is that job demands elicit an energy deficiency response, whereas job resources increase the motivational process (Bakker & Demerouti, 2016). The third variable in the JD-R model is personal resources related to job resources, contributing to the motivational process by decreasing burnout (Huang et al., 2016). Using this framework, the present study examines the effectiveness of a group intervention program to increase personal and job resources by increasing mental well-being and decreasing burnout among public sector call center employees.

Personal resources such as resilience and self-efficacy are found to be open to change through interventions (Luthans et al., 2006). Psychological resilience (Kotzé & Lamb, 2012; Mayordomo et al., 2016) and organization-based self-esteem regarding self-efficacy (Gardner & Pierce, 1998; Lee, 2003; Xanthopoulou et al., 2007) are the

personal resources addressed in this study, while group atmosphere and group cohesion are the job resources considered as forms of team support.

The present study aims to foster the personal and job resources of call center employees with a psychoeducational intervention that utilizes group psychodrama techniques. As a part of this pilot intervention study, we hypothesize that the intervention program will effectively decrease burnout symptoms, such as emotional exhaustion and depersonalization, while increasing personal accomplishment, another component of burnout symptoms. Secondly, we hypothesize that the implemented intervention program will effectively increase psychological resilience, organization-based self-esteem, mental well-being, group cohesion, and atmosphere. Moreover, we expect all these enhancements will be sustained at the 1-month follow-up test. At the same time, the participants in the control group will display no significant differences in terms of these variables.

Method

Recruitment

Data for the present study was collected at a Psychotherapy Practice and Research Center in Istanbul. Participant recruitment was facilitated through convenience sampling by an existing partnership with two municipalities' call centers and was conducted in November 2019 in the province of Istanbul, Turkey. One municipality in Istanbul applied to our center because their employees needed support due to burnout.

The second municipality was recruited based on its similarities to the first recruited municipality in terms of the workplace and newly developed service approaches. The first municipality, which applied to us, was selected to recruit the intervention group participants, while the control group participants were recruited from the second municipality. The participants of the intervention and control groups were knowingly selected based on the municipality they work for to facilitate positive relationships among call center agents who work within a team as a part of the same organization. Due to ethical considerations, the control group participants were given the choice to obtain the same benefits of group intervention as a waitlist condition group. However, in the second municipality, participants did not request further benefits.

Participants

Forty individuals (20 individuals per municipality) indicated an interest in participating in the project. Overall, 90% of all participants ($n = 38$) who indicated interest completed the study with pre-posttest measures (Figure 1). Data from participants in the intervention group ($n = 19$) and control group ($n = 19$) were used for all participant characteristics reported in the results section and all analyses conducted within the study.

Procedure

The authors' University Ethics Committee approved the research protocol. Participants were assigned to two conditions (intervention and control) according to the municipality they worked for. All study participants signed informed consent forms and completed socio-demographic and pre-test measures. Participants in the intervention group were randomly assigned into two distinct groups (due to the ethical consideration of not disrupting municipality work by removing all the call center agents from the line at once). These two intervention groups completed sessions on different days of the week (the first group of nine participants on Mondays and the second group of ten participants on Thursdays). The intervention was held in six sessions over six weeks. Each session was identical for both intervention groups regarding content and flow and lasted 135 minutes. Attendance was taken at each session, and being absent for more than one session was considered a dropout. At the end of six weeks, participants from both the control and intervention groups completed post-test measures. One month later, intervention group participants were invited to a follow-up session. At the beginning of the follow-up session, participants completed follow-up test measures.
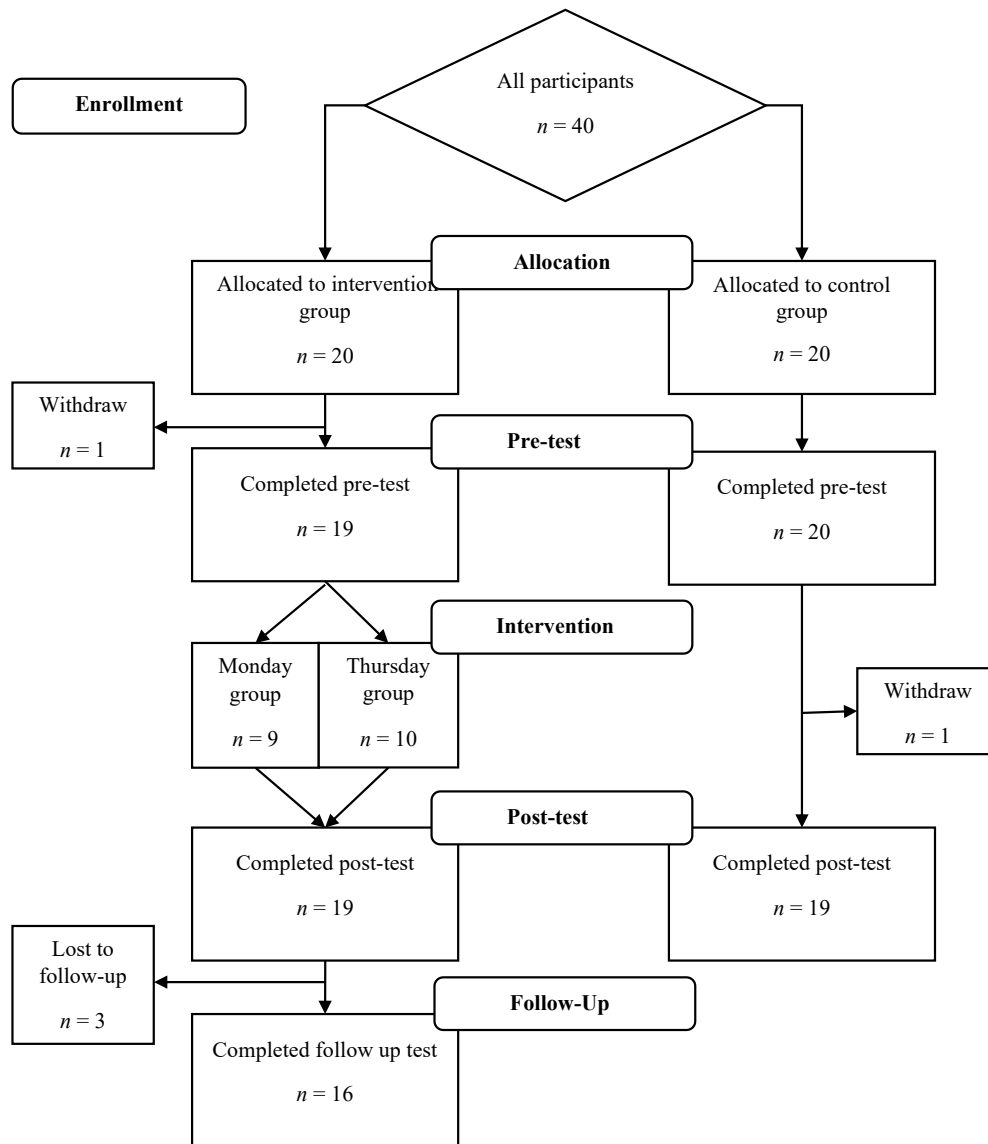
Figure 1. Flowchart of Participants

Formulation of the Psychoeducational Group Intervention Program

The intervention program was planned according to the three-phase intervention research model of Goldenhar et al. (2001). Initially, the psychosocial needs of the target population were determined by semi-structured interviews conducted with the target group according to the literature regarding the psychosocial needs of call center employees. Afterwards, the project team developed a tailored psychoeducational group intervention program consisting of psychoeducation and group exercises that were primarily based on psychodrama warm-up techniques. The intervention program was implemented by this article's third author, a clinical psychologist and FEPTO-certified psychodrama group psychotherapy co-psychotherapist. The effectiveness of the program was assessed with pre-posttest and follow-up measures.

Psychoeducational groups are groups where learning a psychological concept or subject is the primary emphasis (Gladding, 1995). Psychoeducational groups are an amalgamation of educational groups and group therapies. Therefore, they encapsulate many features of each in that these groups primarily emphasize awareness and cognition following emotions and behavior (Brown, 2004, p. 5). A variety of formats are used by psychoeducational groups (Brown, 2004, p. 98). The present study's psychoeducational group program comprises psychoeducational presentations and group exercises. Group exercises improve comfort levels and create an environment for experiential learning and relaxation (Jacobs et al., 2011, p. 220).

The psychoeducation and group exercise contents of the intervention program were selected based on the needs of the target group of the study (*Table 1*). Each session consisted of 45 minutes of psychoeducation and 90 minutes of group exercises. Four of the six sessions included a psychoeducation session. Psychoeducation sessions were aimed at introducing fundamental concepts and techniques related to the main topics of the session. In each group exercise session, the facilitator presented exercises primarily based on psychodrama warm-up techniques to consolidate psychoeducational contents through experiential means. Psychodrama warm-up activities were utilized to nurture participants' creativity and spontaneity to enhance well-being (Blatner, 2004, p. 1). At the end of each psychoeducational group session, group members shared their opinions and feelings regarding psychoeducation and group exercises.

Table 1. Intervention Program

Session	Psychoeducation Content	Group Exercises
1st Session		Introduction and warm-up Psychodrama warm-up techniques Analysis of group structure Determining the specific needs of the groups
2nd Session	Knowing oneself and self-esteem Psychological resilience	Self-confidence sculpture exercise
3rd Session	Definitions and sources of stress Flow Theory Dealing with stress	Stress spectrogram Common stresses list Make your advertisement
4th Session	Emotional awareness Dealing with negative emotions Emotion regulation skills	Emotional awareness spectrogram A walk in the forest Meeting of emotions Waxwork
5th Session	Need to belong Love, being loved, needs to be accepted Close relationships Effects of group relationships on our mental well-being	Belonging spectrogram Group tree, animal, human Build up something Drawing exercise
6th Session		Closing the group and ending

Measures
Self-report measures (pen and paper) were used for this study.

Demographic Questionnaire
Participants self-reported their age, gender, marital status, number of children, education, vocational education of call center job, and years of experience in the public sector call center.

Brief Psychological Resilience Scale (BPRS)
The BPRS is a 6-item, one-factor scale developed by Smith et al. (2008) for measuring psychological resilience and adapted into Turkish by Doğan (2015). A 5-point Likert scale is used to rate items. Higher scores on the scale represent higher psychological resilience. The internal consistency coefficient was .83 in the Turkish adaptation study.

Organization-based Self-esteem Scale (OBSE)
The OBSE was developed by Pierce et al. (1989) as a 10-item, one-factor scale that measures the participants' organization-based self-esteem. The Turkish adaptation of the scale was completed by Akalın (2006). The scale is rated on a 7-point Likert scale, and the Cronbach alpha coefficient was .93. A high score indicates high organization-based self-esteem.

Maslach Burnout Inventory (MBI)
The MBI is a 22-item scale developed by Maslach and Jackson (1981), and İnce and Şahin (2015) completed an adaptation of the MBI-EF (educator form) for the Turkish population. This scale measures the burnout level of the participants. The original scale consists of three subscales: emotional exhaustion, depersonalization, and personal accomplishment. In contrast to emotional exhaustion and depersonalization, the personal accomplishment subscale items are reverse-coded. Higher scores in all of the subscales depict a higher risk of burnout. Cronbach alpha coefficients were .88 for emotional exhaustion, .76 for depersonalization, and .74 for personal accomplishment. This study used this scale with some modifications to the adapted Turkish- form. First, the word "students" in specific questions was replaced with the word "recipients," just like in the Maslach Burnout Inventory Human Services Survey (Maslach et al., 1997). Secondly, the 7-point Likert scale was turned into a 5-point Likert scale like a previous Turkish-adapted version of the Maslach Burnout Inventory (Ergin, 1992). The modification in the original scale from 7 points to 5 points has also been based on literature, which suggests that a 5-point scale tends to be easily comprehensible and less complex for participants and helps them to convey their opinions, which can be used to improve the rate and quality of responses along with decreasing the 'frustration level' of participants with an increased number of items (Babakus & Mangold, 1992; Marton-Williams, 1986). Due to these changes, test-retest reliability was checked for this scale.

Warwick-Edinburgh Mental Well-Being Scale (WEMWBS)
The WEMWBS is a 14-item, one-factor scale developed by Tennant et al. (2007) for measuring participants' mental well-being and adapted for the Turkish population by Keldal (2015). Items are rated on a 5-point Likert scale, and the Cronbach alpha coefficient is reported to be .83. A high score on this scale represents enhanced mental well-being.

Group Cohesion Scale (GCS)
The GCS is a 5-item, one-factor scale developed by Price and Mueller (1986) to measure the cohesion perceptions of group members. Alsancak (2010) conducted the Turkish adaptation study, and the Cronbach alpha coefficient was .92. Higher scores indicate a higher degree of group cohesion.

Group Atmosphere Scale (GAS)
The GAS is a 9-item, one-factor semantic differential scale developed by Fiedler (1967) to measure group members' perceptions regarding the group atmosphere. Alsancak (2010) adapted the scale for Turkish populations with six items with a Cronbach alpha coefficient of .93. Higher scores on this scale show a good group atmosphere.

Data Analysis
The data were collected and analyzed using the Statistical Package for the Social Sciences (SPSS) version 20 (IBM, 2011). Since there were a small number of participants in the intervention ($n = 19$) and control ($n = 19$) groups ($n < 30$), the hypothesis that data should be normally distributed (one of the essential assumptions for carrying out a parametric test) was deemed unusable (Tabachnick & Fidell, 2007). Therefore, non-parametric tests were used to analyze pre-test and post-test scores statistically. Scores were measured for each participant in the intervention and control groups, and the Mann-Whitney U (MWU) test was used to analyze between-group differences in pre-test and post-test measurement scores for the intervention and control groups. The Mann-Whitney U test was used to determine the similarity of intervention and control group scores at the beginning of the study to preclude the possibility of overlooking the significant differences between the groups, which can become a confounding variable. In addition to MWU, the Friedman test detected significant changes in the intervention group's pre-post-follow-up scores. This analysis enabled the testing of the potential effects of the intervention on the proposed intervention objectives by comparing scores from three different time points. Finally, the Wilcoxon signed-rank test was used to compare the within-group differences between the pre- and post-test scores of the control group and to perform a post hoc analysis of the intervention group's pre-post-follow-up scores. This analysis enabled us to test the potential effects of the implemented intervention on the intervention group from pre-to-follow-up tests and the lack of significant changes in the control group, as hypothesized in this study. The *p*-value was set to .05 for all analyses, except for the post hoc Wilcoxon signed rank test following the Friedman test. The *p*-value was set to .017 for the post hoc test with Bonferroni correction. Effect sizes are reported for significant effects as the *r* proposed by Cohen (1988) with a formula for the Wilcoxon signed-rank test and Kendall's W for the Friedman test according to the instructions for non-parametric tests (Fritz et al., 2012). Cut-off values for r effect sizes are as follows: A large effect is .5, a medium effect is .3, and a small effect is .1 (Cohen, 1988). Kendall's W effect sizes are as follows: .2 is a slight agreement, .4 is a fair agreement, .6 is a moderate agreement, and .8 is a substantial agreement (Landis & Koch, 1977).

Results

Through matched group assignment, thirty-eight participants were assigned to the intervention and control groups, nineteen participants per group. Descriptive data regarding gender, marital status, having children, education status, vocational training, vocational experience, and age are provided in Table 2. The intervention and control groups did not differ regarding socio-demographic variables except vocational training ($p = .04$).

Table 2. Socio-demographic data descriptives for intervention (IG) and control (CG) group participants

	IG ($n = 19$)	CG ($n = 19$)	U	p
1.Gender			152	.326
Female	13	10		
Male	6	9		
2. Marital Status			176.50	.892
Single	11	7		
Married	7	12		
Divorced	1			
3. Having children			152	.215
Yes	2	5		
No	17	14		
4. Education			155.50	.438
High school	6	2		
Associate degree	5	7		
Undergraduate degree	6	10		
Graduate degree	2			
5.Vocational training			142.50	.037*
Yes	15	19		
No	4			
6. Experience			151.50	.149
Less than 5 years	15	18		
6 to 10 years	3	1		
More than 10 years	1			
7. Age (year) **	28.32 ± 5.59	29.26 ± 3.54	142.50	.265

**Mean score ± Standard Deviation
*Significant difference
Note: Both intervention groups (Monday and Thursday) were analyzed together.

Seventeen of the nineteen participants in the intervention group completed all six sessions; sixteen of the nineteen participants completed pre-, post-, and follow-up measures; and three participants did not complete follow-up measures. According to the analysis conducted on pre, post, follow-up scores of two intervention groups (Monday and Thursday), no significant difference was found between groups in terms of psychological resilience (Pre: $U = 35$, $p = .411$; Post: $U = 35.500$, $p = .434$; Follow-up: $U = 27$, $p = .739$), emotional exhaustion (Pre: $U = 44$, $p = .935$; Post: $U = 38.500$, $p = .594$; Follow-up: $U = 19.500$, $p = .254$), depersonalization (Pre: $U = 45$, $p = 1$; Post: $U = 40.500$, $p = .712$; Follow-up: $U = 18.500$, $p = .210$), personal accomplishment (Pre: U = 37.500, p = .538; Post: U = 36, p = .460) ; Follow-up: $U = 29.500$, $p = .956$), organization based self-esteem (Pre: $U = 42.500$, $p = .838$; Post: $U = 45$, $p = 1$; Follow-up: $U = 27$, $p = .744$), mental well-being (Pre: $U = 34.500$, $p = .390$; Post: $U = 34.500$, $p = .387$; Follow-up: $U = 25$, $p = .585$), group cohesion (Pre: $U = 31$, $p = .250$; Post: $U = 34.500$, $p = .385$; Follow-up: $U = 15$, $p = .098$) and group atmosphere scores (Pre: $U = 37.500$, $p = .539$; Post: $U = 41.500$, $p = .757$; Follow-up: $U = 18$, $p = .188$). For that reason, the results of the intervention group have been presented as one group ($n = 19$).

There were modifications in MBI, such as changing the word "student" and the Likert scale levels. For that reason, intraclass correlation coefficient (ICC) estimates were calculated for the control group pre-test and post-test repeated measures data to see the test-retest reliability of MBI. The ICC was based on a single measurement, absolute agreement, two-way mixed-effects model. ICC estimates and p-values are presented in Table 4. In

addition to ICC estimates, Spearman Rho correlation coefficients are calculated for control group T1 (Time 1) and T2 (Time 2) MBI subscale scores and presented in Table 3.

Table 3. Spearman's Rho correlation coefficients of MBI subscales for control group participants at T1 (pre-test) and T2 (post-test).

	r_s	p
EE	.672*	.002
DP	.688*	.001
PA	.233	.359

Notes: Results with significant p values

Table 4. Intraclass correlation coefficient estimates for MBI items

Item No	Pre-test Post-test ICC	p	Item No	Pre-test Post-test ICC	p	Item No	Pre-test Post-test ICC	p
1	.627*	.001	10	.409*	.036	19	.302	.111
2	.467*	.019	11	.654*	.001	20	.063	.400
3	.504*	.011	12	.248	.155	21	-.188	.208
4	.335*	.045	13	.234	.146	22	.506*	.014
5	.515*	.006	14	-.145	.717			
6	.590*	.003	15	.082	.372			
7	-.193	.788	16	.671*	.001			
8	.512*	.009	17	-.161	.773			
9	.268	.136	18	.420*	.037			

Notes: * Results with significant p values

The Mann-Whitney U test between intervention and control group pre-test data was conducted to test whether groups were equivalent in terms of variables in the study. Groups were equivalent in terms of psychological resilience ($U = 160.500$, $p = .557$), emotional exhaustion ($U = 138.500$, $p = .219$), depersonalization ($U = 168.500$, $p = .725$), personal accomplishment ($U = 163$, $p = .624$), organization-based self-esteem ($U = 145.500$, $p = .304$), and mental well-being levels ($U = 151.500$, $p = .396$). On the other hand, there was a significant difference between groups in group cohesion ($U = 86.500$, $p = .006$) and group atmosphere ($U = 39$, $p = .001$) pre-test scores. The mean scores of the control group participants' pre-test group cohesion and group atmosphere were higher than the pre-test group cohesion and group atmosphere mean scores of the intervention group participants'.

The findings of the present study are as follows: The n, mean, and standard deviation values for the pre-test and post-test scores of the control group on the study measures were examined using the Wilcoxon signed-ranks test. The descriptive statistics are presented in Table 5. When we examine the results for the control group in Table 5, we find that control group participants' pre-test and post-test scores on scales of psychological resilience, emotional exhaustion, depersonalization, personal accomplishment, mental well-being, organization-based self-esteem, and group cohesion did not differ significantly. In contrast, group atmosphere scores decreased significantly ($z = 2.41$, $p = .016$, $r = .55$) from the pre-test ($Md = 28$) to the post-test ($Md = 27$).

Tablo 5. Control group median scores and Wilcoxon signed rank test results

Measures	Test	n	Md	z	p
Brief Psychological Resilience	Pre-test	19	20	1.22	.221
	Post-test	19	22		
Emotional Exhaustion	Pre-test	19	12	.197	.844
	Post-test	19	11		
Depersonalization	Pre-test	19	9	.325	.745
	Post-test	19	10		
Personal Accomplishment	Pre-test	19	9	.974	.330
	Post-test	19	8		
Organization Based Self Esteem	Pre-test	19	59	.74	.461
	Post-test	19	60		

	Test	n		χ^2	p
Mental Well-being	Pre-test	19	62	.94	.348
	Post-test	19	62		
Group Cohesion	Pre-test	19	21	.89	.373
	Post-test	19	21		
Group Atmosphere	Pre-test	19	28	2.41*	.016
	Post-test	19	27		

Notes: * Results with significant *p* values

Analysis of the intervention group results (Table 6) using the Friedman test did not reveal any significant effect of intervention on emotional exhaustion. $\chi^2(2) = 1.97$, $p = .37$, depersonalization $\chi^2(2) = 4.40$, $p = .109$, personal accomplishment $\chi^2(2) = 4.38$, $p = .11$, mental well-being $\chi^2(2) = 3.55$, $p = .17$, organization-based self-esteem $\chi^2(2) = .83$, $p = .66$, and group cohesion scores $\chi^2(2) = 5.15$, $p = .08$.

Tablo 6. Intervention groups pre-post-follow up median scores and Friedman test results

	Test	n	Md	χ^2	p	Kendall's *W*
Brief Psychological Resilience	Pre-test	19	19	12.43*	.002	.39*
	Post-test	19	22.5			
	Follow Up	16	18			
Emotional Exhaustion	Pre-test	19	21.5	1.97	.374	.06
	Post-test	19	22.5			
	Follow Up	16	25			
Depersonalization	Pre-test	19	12	4.44	.109	.14
	Post-test	19	9.5			
	Follow Up	16	12			
Personal Accomplishment	Pre-test	19	18	4.38	.112	.14
	Post-test	19	16.5			
	Follow Up	16	16.5			
Organization Based Self Esteem	Pre-test	19	49	.83	.659	.03
	Post-test	19	61			
	Follow Up	16	60			
Mental Well-being	Pre-test	19	56	3.55	.169	.11
	Post-test	19	65			
	Follow Up	16	61			
Group Cohesion	Pre-test	19	16	5.15	.076	16
	Post-test	19	20			
	Follow Up	16	20			
Group Atmosphere	Pre-test	19	17	11.08*	.004	.35*
	Post-test	19	30			
	Follow Up	16	24.5			

Notes: * Results with significant *p* values

On the other hand, test results revealed a significant effect of the intervention on the psychological resilience and group atmosphere scores of the intervention group from pre-test to post-test and follow-up tests. According to test results, there was a significant difference between the pre-test, post-test, and follow-up scores in terms of psychological resilience, $\chi^2(2) = 12.43$, $p = .002$, Kendall's $W = .39$. A post hoc analysis with Wilcoxon signed-rank tests was conducted with a Bonferroni correction applied, resulting in a significance level set at $p < .017$. The median psychological resilience scores for the pre-test, post-test, and follow-up were 19, 23, and 18, respectively. There was no significant difference from the pre-test to the follow-up test ($Z = 1.19$, $p = .23$). However, there was a significant increase from pre-test to post-test ($Z = 2.66$, $p = .008$) and a significant decrease from post-test to follow-up test ($Z = -3.14$, $p = .002$).

There was a significant effect of the intervention on the group atmosphere scores of the intervention group $\chi^2(2) = 11.08$, $p = .004$, Kendall's $W = .35$. According to the post hoc analysis results, the median group atmosphere scores were 17, 30, and 24, respectively. There was no significant difference between post-test and follow-up scores ($Z = -1.20$, $p = .23$). On the other hand, there were significant increases from pre-test to post-test ($Z = 3.22$, $p = .001$) and pre-test to follow-up scores ($Z = 2.42$, $p = .016$).

Discussion

The present study developed and examined the effectiveness of a psychoeducational group intervention program with psychodrama warm-up techniques designed to reduce burnout and enhance mental well-being and group relations among public sector call center employees. The main aim of the study was to decrease depersonalization and emotional exhaustion while increasing personal accomplishment, organization-based self-esteem, psychological resilience, mental well-being, group atmosphere, and group cohesion scores. One of the essential findings of this study was that exposing public sector call center employees to a group intervention program had significant short-term effects on psychological resilience and long-term effects on the group atmosphere. First, we hypothesized that the implemented intervention program would effectively reduce burnout symptoms, such as emotional exhaustion and depersonalization, while enhancing personal accomplishment, another burnout component. However, this hypothesis is not supported, as no significant change in burnout scores was observed. Second, we anticipated the program would boost psychological resilience, organization-based self-esteem, mental well-being, group cohesion, and group atmosphere. This hypothesis is partially validated by increased psychological resilience and an improved group atmosphere. As anticipated, control group participants showed no significant differences.

Our primary hypothesis posited that the intervention program would reduce participants' emotional exhaustion and depersonalization while enhancing personal accomplishment. Although the results indicated decreased emotional exhaustion and depersonalization, the changes were not significant. In previous studies, intervention programs to reduce burnout were successful at reducing emotional exhaustion (Allexandre et al., 2016; Freedy & Hobfoll, 1994; Gerber et al., 2013; Günüşen & Üstün, 2010; Meesters & Waslander, 2010) and depersonalization (de Vente et al., 2008; Saganha et al., 2012). Some studies were also successful at increasing personal accomplishment (Gorter et al., 2001). The lack of significant changes in burnout scores following the intervention program, contrary to what the literature suggests, could be attributed to the limitations of the study, such as the small sample size and the lack of randomization. Another thing that needs to be monitored here could be that we did not find the test-retest reliability significant in the subscale Personal Accomplishment of the Maslach Burnout Inventory. This subscale is reverse-coded, and the test's reliability can be flawed in such subscales (Suárez Álvarez et al., 2018). Future studies that will use this scale should consider this result. Furthermore, the absence of organizational interventions during the process might be another factor contributing to the insignificant changes in burnout scores. Schaufeli and Buunk (2004) suggest that the optimal approach to combating burnout involves a combination of individual and organizational interventions. Organizational interventions, such as modifications to workload, employees' perceptions of work, and the work execution process, have been demonstrated to reduce burnout (Awa et al., 2010). However, organizations often resist organizational interventions as they necessitate systemic changes. Consequently, as in our study, most interventions are conducted individually (Schaufeli & Buunk, 2004; Schneider et al., 2013).

Inconsistent with previous studies that used group intervention programs to enhance well-being, the group intervention program for public institution call center employees did not improve the mental well-being of participants when comparing the pre-, post-, and follow-up test results (Fledderus et al., 2010; Josefsson et al., 2014; Page & Vella-Brodrick, 2013; Pots et al., 2014). This might suggest that group psychoeducational interventions using psychodrama warm-up activities cannot increase well-being comprehensively, as mental well-being is considered a combination of various elements such as positive affect, psychological functioning, and interpersonal relationships (Tennant et al., 2007). The reasons for these contradictory findings are not clear, but possible explanations could include varying levels of engagement with psychoeducational learning outcomes outside the intervention process or external events occurring in the participants' everyday lives.

Furthermore, the intervention program effectively increased participants' psychological resilience, consistent with Salehi and Shokri's (2016) study on increasing resiliency through psychodrama. However, this increase was not sustainable, according to the results of the follow-up tests. Van Hove et al. (2015) found that programs aimed at improving resilience tend to exhibit lower effect sizes, and effects may diminish over time. The pattern in the present study supports the findings of this meta-analysis. This lack of sustainable effects might be due to the non-use of learned skills over time (Vanhove et al., 2015). On the other hand, organization-based self-esteem, a form of self-efficacy, did not change significantly at the end of the intervention. This might be because organization-based self-esteem requires changes in the organizational system, or it might have already been high at the beginning of the intervention as a result of the organization's permission to join the study during work hours. These are only speculations on probable causes, and further research can be conducted to examine the effect of psychoeducational group interventions on organization-based self-esteem.

The present study utilized an intervention program in which psychodrama warm-up techniques were used as group exercises. These exercises required group members to interact and share (Brown, 2004, p. 99). As a result of the

intervention program, group atmosphere scores increased significantly among participants, implying that group members developed positive relationships. At the beginning of the study, the control group's group atmosphere scores were higher than the intervention group's. This difference suggested that participants in the intervention group had fewer positive experiences than the control group's participants. However, by the end of the intervention program, the intervention group's group atmosphere score increased, whereas the control group's score decreased. This outcome demonstrates the effectiveness of the intervention program in positively enhancing group relations.

On the other hand, according to the study results, the intervention group's group cohesion score changed marginally significantly. From an individual's perspective within a group, three structural constituents form connections: individual-individual, individual-group, and individual-leader. The intricacy of these multilevel relationships, in combination with the dynamic interaction among group members, gives rise to a complex framework regarding group cohesion (Burlingame et al., 2011). The lack of change in group cohesion scores in the intervention group might be attributed to the intricate interplay of these interpersonal relationships. The possible effect of group interaction and the number or frequency of group sessions on group cohesion (Burlingame et al., 2018) suggests that these factors may make the intervention less effective at improving group cohesion. Researchers should re-examine the methodical limitations associated with sampling, as they may have influenced this outcome.

Limitations

A larger sample size would have been more desirable for the present study. At the same time, large-scale and high-quality trials are needed to consider the group intervention primarily based on psychodrama warm-up practices for decreasing burnout in public institution call center employees as an evidence-based treatment. Further studies can be conducted to replicate these findings. It is worth mentioning that the current research was carried out with public sector call center employees from two municipalities in just one city. Therefore, the results should be cautiously generalized to other public sector call center employees across municipalities and cities. The statistical analyses used in this study are mainly non-parametric due to the lack of a normal distribution. Non-parametric tests might increase the risk of Type I error while decreasing the power of the study (Roy et al., 2013). Due to this limitation, the study results should be interpreted accordingly.

Moreover, although the intervention and control groups were similar in most of the baseline measures (seven out of nine), participants were not randomly allocated into groups. This was due to the objective of strengthening workplace relationships by grouping participants from the same organization. Additionally, dividing the intervention group into two separate groups could be a confounding variable. Despite the random allocation of members within these two groups and the absence of significant differences in pre-, post-, and follow-up results, Furthermore, studies should involve organizations to foster sustainable effects, as the follow-up results indicated a need for long-term effects, except for the group atmosphere.

Conclusion

The outcomes of this pilot study suggest that a psychoeducational group intervention program, which utilizes psychodrama warm-up techniques, can effectively improve resilience and enhance group relationships among public sector call center employees. This six-session program, combining psychoeducational content with group exercises based on psychodrama warm-up techniques, demonstrated long-term improvements in a group atmosphere and short-term enhancements in psychological resilience.

Recommendations

The results of the present study provide preliminary evidence that a suitable psychoeducational group intervention, incorporating essential psychodrama elements, can enhance certain aspects of psychological resilience and group atmosphere in public sector call center environments. However, additional modifications are necessary to develop an intervention program targeting burnout, well-being, organization-based self-esteem, and group cohesion.

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Author (s) Contribution Rate

First Author: Conceptualizing, methodology, supervision, analysis, interpretation of data, writing the original draft, and reviewing the manuscript in the publication process
Second Author: Literature review, data collection, analysis and interpretation of data, writing the original draft, reviewing the manuscript in the publication process
Third Author: Intervention design and implementation, interpretation of results, writing review of the original draft

Ethical Approval

Ethical permission (date: 14.11.2019, no: 2019/22-4) was obtained from the Ibn Haldun University Ethics Committee for this research.

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