**STUDY PROTOCOL**

# The Effect of Balint-Based Group Intervention on Burnout and Communication Skills in Nurses

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## Background

Nurses experience burnout as a response to prolonged exposure to stressors (Hetherington et al., 2024). Burnout encompasses emotional exhaustion, depersonalization as a self-protective mechanism, withdrawal from communication when feeling inadequate, and a diminished sense of personal accomplishment (Zhang et al., 2020). A comprehensive meta-analysis reported that approximately three out of ten nurses experience burnout, highlighting the considerable prevalence of this issue (Li et al., 2024). The increasing prevalence of burnout in the nursing profession negatively impacts not only nurses' mental health but also their ability to communicate effectively (Cohen et al., 2023). Burnout substantially reduces nurses' capacity for therapeutic communication by impairing empathy and active listening skills (Mao et al., 2024; Yang et al., 2021). Hetherington et al. (2024) reported that burnout causes nurses to experience conflicting emotions and engage in increased avoidance behaviors. Additionally, higher communication competence among nurses has been found to be associated with lower levels of burnout (Lee et al., 2022). Challenges related to burnout and communication threaten not only nurses' mental well-being but also patient safety and the quality of care (Zhang et al., 2020). The COVID-19 pandemic has particularly highlighted the increased need for interventions aimed at improving nurses' well-being (Cohen et al., 2023). In this context, implementing programs that alleviate nurses' emotional burden and enhance their therapeutic communication skills is essential for promoting effective coping strategies and improving patient satisfaction (Li et al., 2024; Zhang et al., 2020). Various approaches, including Emotional Freedom Techniques (Dincer & Inangil, 2021), Mindfulness-Based Stress Reduction training (Talebiazar et al., 2025), and the Communicating Oncologic Prognosis with Empathy Guide (Lippe et al., 2020), have shown positive outcomes. However, despite these results, burnout and patient-nurse relationship problems continue to increase among nurses (Cohen et al., 2023). A meta-analysis has highlighted that health policies should prioritize protecting healthcare workers, in addition to improving working conditions (Quesada-Puga et al., 2024). In this context, Balint therapy has been proposed as a novel and effective counseling approach to support nurses.

In Balint groups, nurses explore strategies to better manage challenging patient–nurse relationships and enhance their interpersonal skills (Huang et al., 2020). These groups are particularly effective in raising awareness of the emotions and thoughts associated with patients perceived as "difficult" (Yousefzadeh et al., 2024). Balint-based interventions also provide social support by creating a relatively safe environment while respecting nurses' professional experiences (Lv, 2023). Moreover, considering nurses' working conditions, Balint-based interventions are regarded as easily implementable, time-efficient, and evidence-based approaches (Yang et al., 2021).

## Rationale

Previous studies have primarily examined the effectiveness of Balint therapy among residents and medical students (Huang et al., 2020a; McCarron et al., 2024). In recent years, there has been growing interest in implementing Balint groups with nurses (Lu et al., 2020). Existing literature indicates that Balint therapy is effective in reducing burnout and enhancing self-efficacy (Shan et al., 2024), improving communication skills (Yang et al., 2021), and promoting quality of work-life among nurses (Huang et al., 2020). However, further research is needed to examine the long-term effects and sustainability of this intervention among nurses. To the best of our knowledge, this study represents the first application of a Balint-based intervention with nurses in the country, highlighting a gap in the literature regarding its effectiveness. Given the demanding working conditions of nurses, a Balint-based group intervention may provide meaningful support for their psychosocial well-being and facilitate positive patient care outcomes.

The current study aims to measure the effect of a Balint-based group intervention on burnout and communication skills in nurses. The research hypotheses are as follows:

H0-1: There is no significant difference in burnout levels between the intervention and control groups.

H0-2: There is no significant difference in communication skills between the intervention and control groups.

## Study design

The study used a two-arm parallel-group randomized controlled design with pre-test and post-test measurements and follow-up assessments at one and three months.

## Methods

Participants were nurses recruited through purposive sampling in 2025. A power analysis was conducted to determine the required sample size for the intervention and control groups. Based on a previous study examining the effect of Balint group training on burnout (Huang et al., 2020), the minimum required sample size was calculated as 28 participants, with an alpha ($\alpha$) level of 0.05, an effect size (d) of 1.70, and a power of 99%. Considering the nurses' shift schedules, potential attrition was anticipated.

All nurses working in hospitals across various cities nationwide where the study was conducted were invited to participate through announcements posted on social media platforms. The inclusion criteria were: (i) having worked as a nurse in the same clinical setting for at least one year and (ii) providing informed consent to participate. The exclusion criterion was the presence of a communication impairment that could hinder participation (e.g., hearing or speech disorder). The criteria for discontinuation from the study included: (1) voluntary withdrawal, (2) missing at least two sessions, and (3) incomplete or missing data on the study instruments.

A total of 50 nurses contacted the research team and underwent eligibility screening. Of these, 17 declined participation after learning that session attendance was mandatory, and three did

not meet the inclusion criteria. Ultimately, 30 nurses who met the inclusion criteria were enrolled in the study, taking anticipated attrition into account.

**Randomization and prevention of bias**

Participants were randomly assigned to either the intervention or control group at a 1:1 ratio using simple randomization. An independent academic not involved in the study generated a random number list via a computer program to minimize selection bias. Eligible nurses were then sequentially allocated to the intervention (n = 15) and control (n = 15) groups according to the random sequence. Group assignments were determined using a lottery method conducted by two independent academics unaffiliated with the study. The letter "X" represented the intervention group, while "Y" represented the control group. Due to the nature of the Balint group intervention, blinding of participants and researchers was not feasible. Nevertheless, allocation concealment was maintained: data were coded (Group X/Group Y) and analyzed by an independent statistician blinded to group assignments to minimize bias.

**Procedure**

This study will be conducted on an online platform from December 2024 to May 2025. Participating nurses received an online information form and a voluntary consent form. After reviewing the information, participants provided electronic consent. Only those who consented were included in the online intervention sessions.

Intervention group sessions were held once a week, each lasting 45–50 minutes, without disrupting nurses' rest periods or shift schedules. The intervention group was organized as a closed group. Session days were scheduled according to nurses' weekly work schedule. The groups were facilitated by two academically qualified researchers specializing in psychiatric nursing, each trained in psychotherapy techniques, including psychodrama and cognitive behavioral therapy. Sessions were conducted online in a quiet environment, with the screen layout designed to allow participants to see one another clearly. Nurses participated in Balint-based group counseling for six weeks. Post-tests were administered immediately after the final session (Session 6). The first follow-up assessment was conducted one month after the intervention, and the second follow-up assessment took place three months post-intervention.

**Intervention**

The intervention in this study consisted of nurse-led group counseling based on the Balint approach. The primary objectives of a Balint group are to deepen understanding of the nurse–patient relationship, enhance nurses' awareness of their own emotions, thoughts, and behaviors within that relationship, and provide a supportive environment for participants (Huang et al., 2020). In this study, weekly sessions followed a structured format adapted from the recommendations of the International Balint Federation (https://www.americanbalintsociety.org/reference_library.php). The first session included an additional 30 minutes to explain the study's purpose and procedures, establish a confidentiality agreement, and clarify group rules and expectations (e.g., maintaining confidentiality, being respectful and non-judgmental, ensuring all members have an opportunity to speak, and

attending sessions punctually). This preparation ensured that participants were fully prepared to engage in the intervention.

Phase 1 (Case Presentation): In each session, a different group member (the case presenter) shared a case involving a patient interaction that elicited intense or challenging emotions (e.g., distress, helplessness, frustration, anger). The case presenter elaborated on their feelings, thoughts, and behaviors regarding the situation, providing details about when, where, and how it occurred.

Phase 2 (Exploration): Group members asked questions to better understand the dynamics of the nurse–patient relationship in the case, while avoiding direct advice or criticism. The case presenter clarified ambiguous points and had the opportunity to explore their own experiences more deeply.

Phase 3 (Group Discussion): The group leader asked the case presenter to temporarily withdraw and remain silent during the discussion. Group members then discussed various aspects of the nurse–patient relationship, sharing their own feelings and perspectives. The group leader encouraged members to explore their emotions in depth and guided the discussion toward the dynamics of the nurse–patient relationship. By preventing criticism directed at the case presenter, the leader ensured a safe environment and effectively managed session time.

Phase 4 (Feedback): After the discussion, the case presenter rejoined the group to share new perspectives and emotional insights gained from the discussion. Group members then provided general evaluations of the process and highlighted their learning points.

Phase 5 (Closing): The group leader summarized the prominent themes that emerged during the session, offered a brief evaluation, and concluded the session in a structured manner.

**Control group**

Nurses in the control group continued their routine work schedules and did not receive any additional training or psychosocial support during the study period. Data collection instruments were administered to the control group concurrently with the intervention group. Because the nurses in the control group were employed at different hospitals and were unfamiliar with one another, the risk of information sharing between groups was minimized. After the study was completed, the control group was informed about the intervention; however, no additional counseling services were provided due to scheduling constraints related to their working hours.

**Outcome measures**

The Participant Information Form was prepared by the researchers based on literature (Huang et al., 2020; Elzain et al., 2023). This form consists of seven questions to determine participatians age, gender, educational status, marital status, physical and mental health status, years of employment.

Primary Outcome Measure: The Maslach Burnout Inventory (MBI) was developed by Maslach and Jackson (1981), and its Turkish validity and reliability were established by Ergin (1992). The MBI is a self-report instrument used to assess burnout levels and consists of 22 items across

three subscales: Emotional Exhaustion, Depersonalization, and Personal Accomplishment. Each item is rated on a 0–4 scale. Higher scores on the Emotional Exhaustion and Depersonalization subscales indicate greater burnout, whereas higher scores on the Personal Accomplishment subscale indicate lower burnout. In this study, the Personal Accomplishment subscale was reverse-coded so that all subscales aligned in the same direction, with higher total scores reflecting higher levels of burnout. Ergin (1992) reported Cronbach's alpha (α) coefficients for the Emotional Exhaustion, Depersonalization, and Personal Accomplishment subscales as .83, .65, and .72, respectively. In the present study, Cronbach's alpha coefficients for the pre-test, post-test, first follow-up, and second follow-up assessments were .85, .89, .87, and .88, respectively.

Secondary Outcome Measures:The Communication Skills Scale for Health Professionals (CSSHP) was developed by Leal-Costa et al. (2016), and its Turkish validity and reliability were established by Mendi et al. (2020). The scale is a self-report instrument designed to assess the communication skills of health professionals. It comprises 18 items across four subscales, with each item rated on a 1–6 Likert scale. Higher scores indicate better communication skills. Mendi et al. (2020) reported Cronbach's alpha (α) values for the subscales ranging from .72 to .79. In the present study, Cronbach's alpha coefficients for the pre-test, post-test, first follow-up, and second follow-up assessments were .89, .88, .92, and .92, respectively.

**Statistical analysis**

Data analysis was conducted using IBM SPSS Statistics for Windows, version 26.0 (IBM Corp., Armonk, NY, USA). The dataset was screened for missing values and assessed for normality assumptions prior to analysis. Differences between the intervention and control groups were examined using Pearson's chi-square test for categorical variables and the independent samples t-test for continuous variables. Fisher's exact test was applied when the expected cell count was less than five. A two-way mixed ANOVA was performed to evaluate between-group, within-time, and group × time interaction effects. Bonferroni correction was applied for multiple comparisons. Effect sizes were reported using Cohen's d for within-group comparisons and partial eta squared ($\eta^2$) for the mixed ANOVA. The interpretation of partial eta squared values followed the classifications proposed by Cohen (1992): $\eta^2 \geq .01$ was considered small, $\eta^2 \geq .06$ moderate, and $\eta^2 \geq .14$ large. Statistical significance was set at $p < .05$.

**Ethical considerations**

Ethical approval for this study was obtained from the Bilecik Seyh Edebali University Non-Interventional Clinical Research Ethics Committee (19.09.2024 – 280361). Prior to participation, nurses were provided with detailed information about the purpose of the study, the procedures to be performed, and the voluntary nature of participation. Informed consent was obtained electronically from all participants via an online consent form. Participants were assured of confidentiality, the right to withdraw from the study at any time, and that their personal information would not be shared.

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**Flow diagram**