ISRCTN18008877 https://doi.org/10.1186/ISRCTN18008877

Training program to strengthen nurses' psychological empowerment using neuro-linguistic programming techniques

Submission date
03/07/2025

Recruitment status
No longer recruiting

Registration date
07/07/2025

Overall study status
Completed

Last Edited
17/12/2025

Condition category
Mental and Behavioural Disorders

[ ] Prospectively registered
[ ] Protocol
[ ] Statistical analysis plan
[X] Results
[ ] Individual participant data

Plain English summary of protocol

Background and study aims
Nurses often face high levels of stress, workload, and emotional demands in clinical settings, which can negatively impact their sense of control, motivation, and job satisfaction. Psychological empowerment is known to help nurses feel more confident, autonomous, and engaged in their work. This study aimed to examine whether a structured training program based on Neuro-Linguistic Programming (NLP) techniques could improve nurses' psychological empowerment. NLP is a communication-based method that helps individuals change unhelpful thinking patterns and behaviors. The study also explored nurses' perceptions of empowerment and their experiences with the training.

Who can participate?
The study was open to full-time registered nurses working in a foundation university hospital in Istanbul, Türkiye. Eligible participants had completed institutional orientation and were not involved in other psychological or professional development programs during the study period. All participants provided informed consent before joining the study.

What does the study involve?
The study had two parts: a quantitative evaluation and a qualitative focus group. In the quantitative part, 70 nurses were randomly selected from a group of 128 eligible staff. They were assigned to either the intervention group or the control group using a method based on the alphabetical order of their surnames. The intervention group attended a structured NLP-based psychological empowerment program, consisting of five 3-hour sessions held once a week over 5 weeks. The training included techniques for improving self-awareness, goal setting, emotional regulation, and communication. The control group received no training during the study. In the qualitative part, two focus group interviews were conducted. One group met before the training to discuss their views on empowerment and training needs, and another group met one month after the training to share their experiences and perceived changes.

What are the possible benefits and risks of participating?
Participants in the intervention group may benefit from improved communication skills,

confidence, and coping abilities. These improvements can contribute to increased job satisfaction and a stronger sense of professional identity. There were no known physical or psychological risks associated with participation. Participation was voluntary, and nurses were free to withdraw at any time without any consequences.

Where is the study run from?
The study was conducted at a foundation university hospital in Istanbul, Türkiye, which is accredited by international healthcare quality standards and provides diverse clinical services.

When is the study starting and how long is it expected to run for?
May 2020 to January 2023. The data collection and training program took place over a total period of approximately 4 months.

Who is funding the study?
The study was not funded by any external organization. It was conducted by the research team as part of an academic project within the institutional framework.

Who is the main contact?
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Public, Scientific, Principal investigator

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Additional identifiers

Study information

Scientific Title
Improving nurses’ psychological empowerment through structured neuro-linguistic programming training: a quasi-experimental mixed-methods approach

Acronym

NLP-PE

Study objectives
The primary objective of this study is to evaluate the effectiveness of a structured neuro-linguistic programming (NLP) training program in enhancing psychological empowerment among clinical nurses.

Secondary objectives include examining changes in the four dimensions of psychological empowerment - meaning, competence, self-determination, and impact - as well as exploring nurses' subjective experiences of empowerment before and after the intervention through qualitative focus group interviews.

Ethics approval required
Ethics approval required

Ethics approval(s)
Approved 22/05/2020, Yeditepe University Clinical Research Ethics Committee (İnönü Mah. Kayışdağı Cd. No:326/A, Ataşehir, İstanbul, 34755, Türkiye; +90 (0)2165780000; turgay.celik@yeditepe.edu.tr), ref: 1221

Primary study design
Interventional

Study design
Convergent mixed-methods quasi-experimental design involving both quantitative and qualitative components

Study type(s)
Efficacy, Quality of life, Treatment

Health condition(s) or problem(s) studied
Psychological empowerment deficits among clinical nurses

Interventions
Seventy full-time registered nurses were randomly assigned to either an intervention group (n = 35), which received a structured NLP-based psychological empowerment training, or a control group (n = 35), which received no intervention.

The participants were allocated to either the intervention or control group using a systematic assignment method: based on the alphabetical order of surnames, nurses were numbered, and those with odd numbers were assigned to the intervention group, while even-numbered nurses were assigned to the control group. This approach provided a structured, unbiased allocation mechanism that helped maintain balance between groups while considering operational feasibility within the hospital.

Group 1 – Intervention group
Name of intervention: Structured NLP-Based Psychological Empowerment Training
Type: Behavioral / Educational
Details: A structured neuro-linguistic programming (NLP) training program delivered over five 3-hour sessions (total 15 hours) in one week. The program was designed using the ADDIE model and included techniques such as anchoring, reframing, meta-model questioning, perceptual

positions, and well-formed outcomes. The sessions were conducted face-to-face by a certified NLP trainer and a nurse educator during non-shift hours. The aim was to enhance nurses' psychological empowerment across four dimensions: meaning, competence, self-determination, and impact.
Frequency and duration: 5 sessions, each 3 hours, over 1 week (total: 15 hours)
Delivery mode: In-person (face-to-face, group format)
Who delivered the intervention: Certified NLP practitioner (also a nurse educator)

Group 2 – Control group
Name of intervention: No intervention (Control group)
Type: None
Details: Participants in the control group did not receive any intervention during the study period. They completed the Psychological Empowerment Scale (PES) at baseline and 1-month follow-up only. No placebo, alternative training, or attention-control was administered.

Quantitative data were collected at three timepoints: pretest, immediate posttest, and one-month follow-up using the Psychological Empowerment Scale (PES).

Qualitative data were obtained through pre- and post-intervention focus group interviews with a subset of participants (n = 12) to explore subjective experiences and perceived changes.

Intervention Type
Behavioural

Primary outcome(s)
Psychological empowerment levels measured using the Psychological Empowerment Scale (PES) at three timepoints: T1 (Pretest): before the intervention, T2 (Immediate Post-test): after the final session, and T3 (Follow-up): 1 month after the intervention. The PES assesses four subdimensions: meaning, competence, self-determination, and impact. Scores are based on a 5-point Likert scale. Higher scores indicate higher psychological empowerment. Group differences and changes over time were evaluated using appropriate statistical tests.

Key secondary outcome(s)
Subjective experiences of psychological empowerment, collected through semi-structured focus group interviews conducted pre- and post-intervention with a purposive sample of nurses from the intervention group (n = 12). Thematic analysis was used to explore changes in participants' perceptions of meaning, competence, self-determination, and impact. Key themes included role clarity, emotional regulation, professional confidence, and goal orientation.

Completion date
15/01/2023

Eligibility

Key inclusion criteria
1. Full-time registered nurses employed at the participating university hospital
2. Completed institutional orientation and actively working in clinical care units
3. Aged 18 years or older
4. Able to communicate in Turkish

5. Provided informed consent to participate in the study
6. Not participating in any other psychological or empowerment-related training programs during the study period

Participant type(s)
Health professional

Healthy volunteers allowed
No

Age group
Mixed

Lower age limit
18 Years

Upper age limit
99 Years

Sex
All

Total final enrolment
70

Key exclusion criteria
1. Nurses currently participating in any other psychological or professional development training programs
2. Part-time, per diem, or temporary contract nurses
3. Administrative or non-clinical nursing staff
4. Inability to attend all training sessions (for the intervention group)
5. Refusal to provide informed consent
6. Presence of serious physical or mental health conditions that could interfere with participation

Date of first enrolment
10/10/2022

Date of final enrolment
14/01/2023

Locations

Countries of recruitment
Türkiye

Study participating centre
Yeditepe University Hospital
İçerenköy Mah. Hastahane Sok. No:4 D:4/1 Ataşehir
Istanbul

Türkiye
34752

Sponsor information

Organisation
Yeditepe University

ROR
https://ror.org/025mx2575

Funder(s)

Funder type
Other

Funder Name
Investigator initiated and funded

Results and Publications

Individual participant data (IPD) sharing plan

IPD sharing plan summary
Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Results article		15/12/2025	17/12/2025	Yes	No
Other files			04/07/2025	No	No
Other files			04/07/2025	No	No