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A QUASI-EXPERIMENTAL STUDY PROTOCOL EVALUATING A NURSE-LED SPIRITUAL INTELLIGENCE TRAINING PROGRAM FOR CLINICAL NURSES IN CENTRAL GUJARAT

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ABSTRACT

Background: Clinical nurses frequently experience heavy workloads, emotional demands, ethical dilemmas, and occupational stress, which may reduce resilience and empathy, contributing to burnout and compromised patient care. Spiritual intelligence (SI), encompassing meaning, compassion, self-awareness, and ethical values, has emerged as a potential strategy to enhance psychological well-being and professional competence. However, evidence regarding structured nurse-led SI training programmes, particularly in India, remains limited. This study aims to evaluate the effectiveness of a nurse-led spiritual intelligence training programme on resilience and empathy among clinical nurses in Central Gujarat. Methods: This protocol describes a quantitative, quasi-experimental, non-randomized control group study involving 300 registered clinical nurses (150 intervention; 150 control) recruited through purposive sampling from selected private hospitals in Central Gujarat. Baseline and post-intervention assessments will be conducted using a socio-demographic questionnaire, the Brief Resilience Scale (BRS), and the Toronto Empathy Questionnaire (TEQ). The intervention group will receive a structured five-day Nurse-led Spiritual Intelligence Training Programme, while the control group will continue routine practice. Data will be analysed using descriptive and inferential statistics to evaluate intervention effectiveness and associations among study variables.

Keywords: Clinical Nurses, Spiritual Intelligence, Resilience, Empathy, Nurse-Led Intervention, Continuing Nursing Education, Quasi-Experimental Study.

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INTRODUCTION

The healthcare environment has become increasingly complex due to rising patient acuity, workforce shortages, technological advancements, and growing expectations for safe, compassionate, and patient-centred care. Clinical nurses, who constitute the largest segment of the healthcare workforce, play a pivotal role in delivering holistic care that encompasses physical, psychological, emotional, and spiritual dimensions. Beyond clinical competence, nursing practice requires resilience, empathy, ethical decision-making, and effective interpersonal communication to provide high-quality patient care. However, the demanding nature of clinical practice exposes nurses to excessive workloads, rotating shifts, emotional labour, ethical dilemmas, and frequent encounters with suffering and death, placing them at increased risk of stress, burnout, compassion fatigue, and reduced job satisfaction. These challenges adversely affect nurses' well-being, professional performance, and the quality and safety of patient care.

Resilience has emerged as a key psychological resource that enables nurses to adapt positively to adversity, recover from stressful situations, and maintain professional functioning despite workplace challenges. Resilient nurses demonstrate greater emotional regulation, adaptive coping, work engagement, and professional commitment while experiencing lower levels of burnout and psychological distress. Consequently, resilience is increasingly recognized as an essential competency that supports both nurses' well-being and healthcare quality. Similarly, empathy is a fundamental component of nursing practice, facilitating therapeutic relationships, compassionate communication, patient satisfaction, and improved clinical outcomes. Nevertheless, prolonged occupational stress and emotional exhaustion may diminish nurses' capacity for empathy, highlighting the need for interventions that strengthen both resilience and empathetic practice.

Traditional continuing nursing education has primarily focused on enhancing clinical knowledge and technical competencies, with comparatively less attention given to psychological resilience, reflective practice, and emotional well-being. In response, holistic approaches to professional development have gained increasing attention, particularly those aimed at strengthening nurses' internal psychological resources. Among these, spiritual intelligence (SI) has emerged as a promising construct for promoting resilience, empathy, and overall professional well-being. Spiritual intelligence extends beyond religious beliefs and refers to the capacity to derive meaning and purpose from experiences, maintain ethical values, demonstrate compassion, exercise self-awareness, and make value-based decisions in everyday life and professional practice. By fostering emotional balance, reflective thinking, gratitude, and ethical sensitivity, spiritual intelligence enables nurses to respond more effectively to the complex emotional and interpersonal demands of healthcare.

Growing evidence suggests that higher levels of spiritual intelligence are associated with improved resilience, empathy, communication skills, emotional regulation, professional competence, job

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satisfaction, and reduced occupational stress among nurses. Educational interventions incorporating reflective learning, mindfulness, storytelling, ethical discussions, and experiential learning have demonstrated positive effects on nurses' psychological well-being and spiritual care competence. These findings indicate that spiritual intelligence is not merely an inherent personal characteristic but a competency that can be developed through structured educational programmes. Furthermore, nurse-led educational interventions offer practical advantages by ensuring contextual relevance, facilitating peer learning, and promoting the integration of acquired knowledge into routine clinical practice.

Despite these encouraging findings, several gaps remain in the existing literature. Most studies have adopted cross-sectional or correlational designs that describe associations rather than evaluating the effectiveness of structured interventions. Intervention studies have predominantly focused on stress reduction, job satisfaction, or spiritual care competence, while relatively few have simultaneously examined resilience and empathy as primary outcomes. In addition, many programmes have been facilitated by psychologists or external educators, with limited evidence regarding the effectiveness of nurse-led spiritual intelligence training. Evidence from India, particularly Gujarat, is also scarce, despite increasing recognition of occupational stress and burnout among healthcare professionals. Considering the cultural diversity and organizational characteristics of Indian healthcare settings, there is a need for context-specific interventions that are practical, culturally appropriate, and sustainable.

To address these gaps, the present study proposes a structured Nurse-Led Spiritual Intelligence Training Programme for clinical nurses working in selected private hospitals of Central Gujarat. The programme integrates reflective journaling, mindfulness exercises, guided discussions, storytelling, role-play, ethical decision-making, gratitude practices, and individualized action planning to strengthen self-awareness, resilience, and empathetic communication. A quantitative quasi-experimental non-randomized control group design will be used to evaluate the effectiveness of the intervention using standardized measures of resilience and empathy. The findings are expected to provide evidence supporting the integration of spiritual intelligence training into continuing nursing education and professional development programmes, thereby contributing to the development of a resilient, empathetic, and psychologically healthy nursing workforce.

CONCEPTUAL FRAMEWORK

The present study is grounded in the premise that Spiritual Intelligence (SI) functions as a psychological resource that enhances nurses' capacity to cope with workplace stress, regulate emotions, derive meaning from professional experiences, and establish compassionate therapeutic relationships. The intervention is designed to strengthen specific domains of spiritual intelligence through structured educational activities, which are expected to improve two primary outcomes: resilience and empathy.

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The programme integrates principles of experiential learning, reflective practice, mindfulness, and value-based nursing education. Reflective journaling, storytelling, role-play, ethical discussions, gratitude exercises, and mindfulness practices encourage participants to develop self-awareness, emotional regulation, ethical sensitivity, and interpersonal understanding. These competencies collectively facilitate greater resilience in stressful situations and more empathetic interactions with patients.

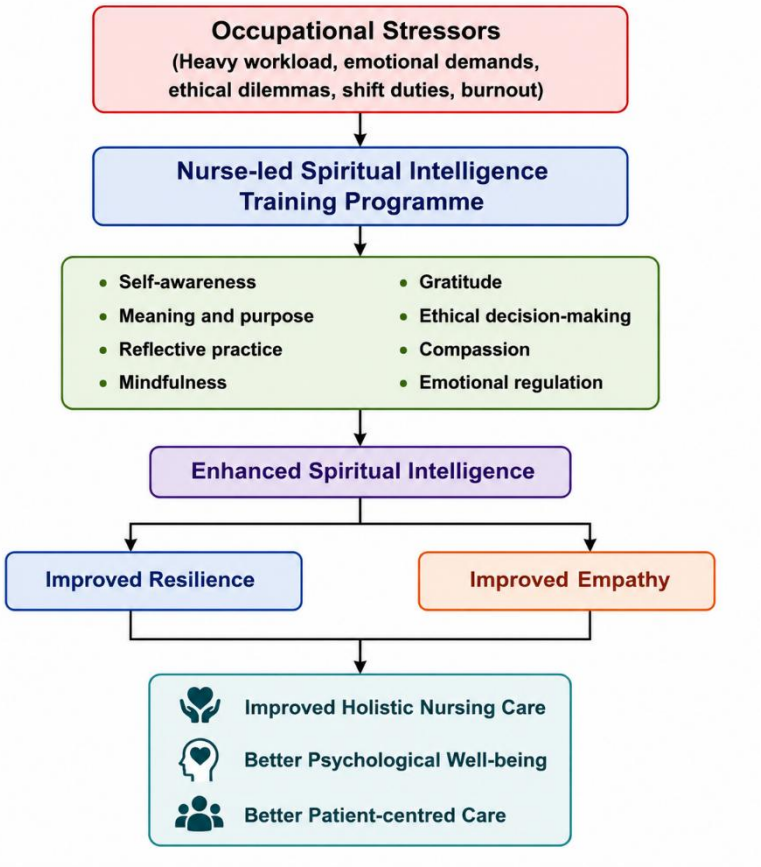

Figure 1. Conceptual Framework

AIM OF THE STUDY

To evaluate the effectiveness of a nurse-led spiritual intelligence training programme on resilience and empathy among clinical nurses working in selected private hospitals of Central Gujarat.

MATERIALS AND METHODS

Study Design

A quantitative quasi-experimental, non-randomized pre-test–post-test control group design will be employed to evaluate the effectiveness of a Nurse-led Spiritual Intelligence Training Programme on resilience and empathy among clinical nurses.

Study Setting and Participants

The study will be conducted among 300 clinical nurses recruited from selected private hospitals in

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Central Gujarat, India. Registered nurses with at least six months of direct patient care experience will be eligible, whereas nurses with prior spiritual intelligence training, less than six months of experience, or those serving their notice period will be excluded.

Sample Size and Sampling

Participants will be recruited using purposive sampling and allocated to intervention (n = 150) and control (n = 150) groups. The sample size was calculated using the formula for comparing two independent means (95% confidence level, 99% power, standard deviation = 20, minimum detectable difference = 10), with additional participants included to compensate for anticipated attrition.

Intervention and Data Collection

Baseline data will be collected using an investigator-developed socio-demographic questionnaire, the Brief Resilience Scale (BRS), and the Toronto Empathy Questionnaire (TEQ). The intervention group will participate in a structured five-day Nurse-led Spiritual Intelligence Training Programme comprising interactive lectures, reflective journaling, mindfulness exercises, storytelling, role-play, case discussions, ethical dilemma analysis, and action planning to enhance self-awareness, resilience, empathy, emotional regulation, and ethical decision-making. The control group will continue routine nursing practice. Post-test assessments will be conducted using the same standardized instruments.

Outcome Measures

The independent variable is the Nurse-led Spiritual Intelligence Training Programme, while resilience and empathy are the primary outcome variables. The investigator-developed socio-demographic questionnaire and intervention content were validated by subject experts. The Brief Resilience Scale (BRS) and Toronto Empathy Questionnaire (TEQ) are standardized instruments with established validity and reliability.

Statistical Analysis

Data will be analysed using IBM SPSS Statistics. Descriptive statistics will summarize participant characteristics, while paired and independent t-tests, Chi-square/Fisher's exact tests, Pearson's correlation coefficient, and multiple linear regression (where appropriate) will be used to evaluate intervention effectiveness and associations among study variables. Statistical significance will be set at $p < 0.05$.

Data Collection Procedure

Data collection will commence after obtaining administrative permission from the participating hospitals and ethical approval from the Institutional Ethics Committee. Eligible nurses will be informed about the study objectives and procedures, and written informed consent will be obtained before enrolment.

Recruitment

Eligible participants will be identified based on the predefined inclusion and exclusion criteria and

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recruited using purposive sampling.

Baseline Assessment

Before the intervention, all participants will complete an investigator-developed socio-demographic questionnaire, the Brief Resilience Scale (BRS), and the Toronto Empathy Questionnaire (TEQ). The baseline assessment is expected to take approximately 20–25 minutes.

Intervention

The intervention group will participate in the structured five-day Nurse-led Spiritual Intelligence Training Programme, while the control group will continue routine nursing practice without receiving the intervention.

Post-test Assessment

Immediately after completion of the intervention, participants in both groups will complete the Brief Resilience Scale (BRS) and the Toronto Empathy Questionnaire (TEQ). The use of identical instruments during pre-test and post-test will facilitate the evaluation of changes following the intervention.

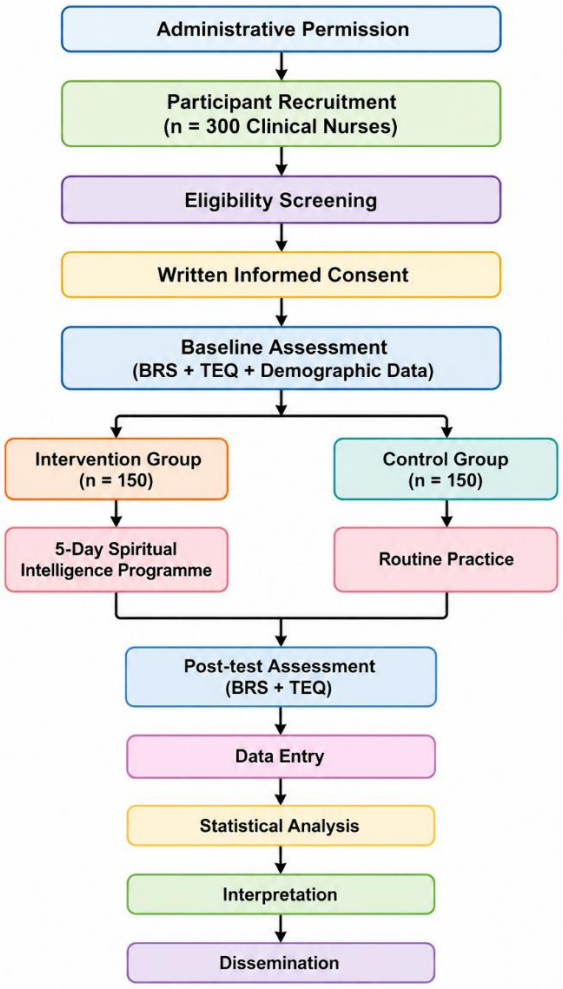

Figure 2. Study Flow Diagram

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Data Management

Each participant will be assigned a unique identification number to maintain anonymity. Completed questionnaires will be reviewed for completeness before data entry. Electronic data will be stored in password-protected files, while hard copies will be kept in locked cabinets accessible only to the investigator. Personal identifiers will not be included in any reports or publications.

Statistical Analysis

Data will be analysed using IBM SPSS Statistics (Version 29). Descriptive statistics, including frequency, percentage, mean, standard deviation, median, and interquartile range, will be used to summarize participants' demographic characteristics and study variables. Inferential statistics will be applied according to the study objectives. Baseline characteristics between groups will be compared using the Chi-square test, Fisher's exact test, or independent t-test, as appropriate. Changes in resilience and empathy scores within each group will be analysed using the paired t-test, while post-intervention differences between the intervention and control groups will be examined using the independent t-test. The relationship between resilience and empathy will be assessed using Pearson's correlation coefficient, and associations between outcome variables and selected socio-demographic characteristics will be evaluated using the Chi-square test or Fisher's exact test. Multiple linear regression analysis will be performed, where appropriate, to identify predictors of resilience and empathy while controlling for potential confounding variables. A two-tailed p-value < 0.05 will be considered statistically significant.

Ethical Considerations

Ethical approval was obtained from the Institutional Ethics Committee, Vidhyadeep Institute of Nursing, Vidhyadeep University, Gujarat, India (Ref. No. VIDUNI/VIN/IEC/2025/528). Written informed consent will be obtained from all participants. Participation will be voluntary, and confidentiality, anonymity, and the right to withdraw at any stage will be ensured. The educational intervention is considered to pose minimal risk.

Expected Outcomes

The study is expected to demonstrate the effectiveness of a Nurse-led Spiritual Intelligence Training Programme in improving resilience and empathy among clinical nurses and provide evidence for integrating spiritual intelligence training into continuing nursing education and professional development.

Strengths and Limitations

The study employs a structured nurse-led intervention and standardized outcome measures in a real-world clinical setting. However, the quasi-experimental design, purposive sampling, self-reported measures, and short-term follow-up may limit the generalizability and long-term interpretation of the findings.

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CONCLUSION

This protocol outlines a quasi-experimental study to evaluate the effectiveness of a Nurse-led Spiritual Intelligence Training Programme in improving resilience and empathy among clinical nurses. The findings are expected to provide evidence supporting the integration of spiritual intelligence training into continuing nursing education and professional development, thereby promoting nurses' psychological well-being and enhancing patient-centred care.

Funding

This study received no external funding and is being conducted as part of a doctoral research programme.

Conflict of Interest

The authors declare no competing interests.

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