



Effect of Psychological Intervention on the Professional Quality of Life and Level of Stress.

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ABSTRACT

Background and purpose: The objective of the study was to evaluate the effect of psychological intervention on the level of professional quality of life and stress of Nursing Officers who worked in the COVID-19 units. **Methods:** This study employed a true experimental design with a pretest, posttest, and control group. The sample and setting were chosen using a simple random sampling technique. The institutional review board granted ethical clearance. The Nursing Officers gave their informed consent. 110 Nursing Officers, each from the experimental and control groups, made up the total sample of 220 Nursing Officers. Data were gathered using a professional quality of life scale and a nursing stress scale. Pre-tests were given for both the experimental and control groups. The experimental group was given a psychological intervention using Neuro-Linguistic Programming techniques. Following the intervention, a post-test was administered to both the experimental and control groups. **Results:** The majority of Nursing Officers in the experimental group (67.3%) and the control group (50.0%) exhibited low levels of compassion satisfaction. There is moderate burnout among the Nursing Officers in the experimental group (90%) and the control group (87.3%). 90.9% of the control group and 86.4% of the experimental group had moderate secondary traumatic stress. Regarding stress level, 72.7% of the control group and 73.6% of the experimental group experienced moderate

stress. After the intervention, in the post-test results, the mean values indicate a noteworthy improvement in burnout, secondary traumatic stress, and compassion satisfaction with the effect of psychological intervention. **Conclusion:** The study was found to be effective.

KEYWORDS: Psychological Intervention, Professional Quality Of Life, Stress, Nursing Officers, COVID-19 Units, Neuro-Linguistic Programming

INTRODUCTION

Numerous epidemics have occurred in the twenty-first century due to infectious diseases such as Ebola virus, MERS (Middle East Respiratory Syndrome), H1N1, and SARS (Severe Acute Respiratory Syndrome).¹ In December 2019, the WHO received reports of pneumonia cases from China. They discovered a new coronavirus as the cause, which they subsequently termed "2019-nCoV."² A severe public health emergency has resulted from the global spread of COVID-19 and the emergence of a new coronavirus known as Severe Acute Respiratory Syndrome Coronavirus-2 (SARS-CoV-2).

Nurses are at the heart of healthcare systems. Throughout the pandemic, everyone has had the opportunity to observe their professionalism and dedication -extraordinary people performing extraordinary work. In their line of work, nurses face a variety of difficulties. They have had to endure intense struggles to handle all these circumstances



As we have seen, the global public health emergency, COVID-19, has disrupted nurses' personal and professional lives as well as their mental and psychological health. Since they are likely to be among the frontline professionals to respond to the pandemic in close quarters, nurses are more likely to experience mental health issues²⁴. They might have experienced psychological distress as a result of the necessary isolation or quarantine or as a result of knowing about case surges. Ironically, those who have been most charitable and supportive to others are also those who require the greatest amount of psychological and spiritual assistance.²⁵

It would be challenging for nurses to remain emotionally balanced in the face of the pandemic and its effects. It is critical to understand the hazards and possible impacts on mental health that the nursing officers might experience, as well as potential countermeasures to adverse effects²⁶. The effects of COVID-19 are just beginning to be felt by the global community, and the period following COVID relief is getting closer. Right now, we must restore our physical, mental, social, emotional, spiritual, and occupational health. In particular, for caregivers who are concerned about the well-being of others. Nurses can recover from the negative effects of the COVID-19 pandemic and resume their roles as devoted and credible healthcare providers with the help of therapeutic intervention and positive coping strategies³³.

Neuro-linguistic programming, or NLP, is a psychological technique that examines how our thoughts affect our behaviour. It examines how signals are interpreted by our brains and how these interpretations impact our actions. NLP techniques help us observe our thoughts, feelings, and emotions as something we can control rather than as things that just happen to us by looking at how our brains process information. It helps to alter our perspective on the past, how we see ourselves, and how we live. NLP methods are useful in treating a range of illnesses, such as anxiety, depression, and irritable bowel syndrome³⁵.

REVIEW OF LITERATURE

The Review of literature is grouped in the following sections.

Section: A. Psychological Impacts of COVID-19 among Nursing Officers

Section: B. Professional Quality Of Life of Nursing Officers Amid COVID-19

Section: C. Effect of Psychological Intervention on stress and Professional Quality

Section: D. Effectiveness of NLP technique to enhance the quality of life

METHODS

Statement of the problem

A study to evaluate the effect of psychological intervention on the professional quality of life and level of stress among Nursing Officers worked in COVID-19 units of selected hospitals at Vaikom Taluk.

Objectives

1. To assess the level of professional quality of life and stress of Nursing Officers in the experimental and control groups.
2. To evaluate the effect of the psychological intervention on professional quality of life and stress among Nursing Officers in the experimental group as compared to the control group.
3. To compare the post-test level of professional quality of life and stress between experimental and control groups.
4. To co-relate the relationship between the post-test level of professional quality of life and stress in the experimental group.
5. To find the association between the post-test level of professional quality of life and stress with selected demographic variables of Nursing Officers.

Assumptions

- The nursing officers who worked in COVID-19 units have an increased level of stress
- The increased level of stress the nursing officers encountered in the COVID-19 units has affected their professional quality of life.



- Psychological interventions will improve the professional quality of life by reducing stress.

Hypotheses

H1: There will be a significant difference between the professional quality of life and stress of Nursing Officers belonging to the experimental group before and after the intervention.

H2: There will be a significant difference between the post-test level of professional quality of life and stress of the experimental and control groups.

H3: There will be a significant correlation between the professional quality of life and stress among Nursing Officers.

H4: There will be a significant association between the level of professional quality of life and stress with the demographic variables of Nursing Officers.

Delimitations

1. The Nursing Officers working in the hospitals of Vaikom Taluk
2. The Nursing Officers who worked in COVID-19 units
3. A period of 6 months

Research Approach

Quantitative Research Approach

Research Design

Pre-test post-test control group design from a true-experimental research design or randomised controlled trial.

The Setting of the Study

The study's settings were selected randomly from the hospitals in Vaikom Taluk using the lottery method.

Variables

Dependent variable

In this study, the dependent variables were the level of Professional Quality Of Life and the Stress of Nursing Officers who worked in COVID-19 units.

Independent Variable

In this study, the independent variable was the psychological intervention (NLP/Neuro Linguistic Programming)

Socio-demographic variables

In this study, the socio-demographic variables are age, gender, marital status, educational status, area of work, working position, years of experience, living condition, education of the spouse, occupation of the spouse, and area of residence.

Population

The population chosen for this study consisted of Nursing Officers who were employed in the hospitals at Vaikom Taluk and those who worked in COVID-19 units during the pandemic, including COVID wards, holding areas, fever clinics, and COVID-19 screening areas.

Samples

The study's samples consisted of Nursing Officers who satisfied the inclusion and exclusion criteria and worked in COVID-19 units.



Sample Size

In this study, the sample size was estimated by using the equation derived from population size, the critical value of the normal distribution, sample proportion, and margin of error¹²¹

The sample size for the present study was determined to be 220

Experimental group=110

Control group =110

Sampling Technique

Simple random sampling technique was employed in the present study. The study's settings were selected randomly from the hospitals in Vaikom Taluk using the lottery method. The investigator obtained consent from the selected settings, gathered the list of nursing officers from the authorities, and created a sampling frame based on the inclusion and exclusion criteria. Using the lottery method, samples were chosen from the sampling frame.

Sampling Criteria

Inclusion Criteria

1. Male and female registered Nursing Officers of all cadres working in the hospitals at Vaikom Taluk
2. Male and female registered Nursing Officers who worked in COVID-19 units.
3. Those who were willing to participate in the study

Exclusion Criteria

1. Those who were not present during data collection
2. Nursing officers with ANM certification

Description of the Tool

The tools used to collect the data are,

- ☐ A structured demographic Performa to collect the baseline characteristics of subjects
- ☐ Professional Quality of Life Scale developed by Charles Figley in the late 1980s
- ☐ The nursing stress scale was developed by Gray-Toft and Anderson (1981).

Description of the Intervention-Neuro-Linguistic Programming

In this study, the psychological intervention is referred to as the NLP (Neuro-linguistic Programming) approach. The researcher reviewed the literature on the advantages of NLP for improving the quality of life and minimizing stress¹²⁵.

Ethical Consideration

Research proposal, instruments, and interventions were filed and presented to the Institutional Ethics Committee and Institutional Review Board . After reviewing it, they issued the ethical clearance certificate. Enrolled in the clinical trial registry and obtained a trial registration number (CTRI/2023/03/050545). Permission to perform the research study was received from the authorities of the chosen hospitals. Participants consented after receiving the participant information sheet.

Data Collection Process

Data collection was done from March to August 2023. There were three phases to the data collection process.



Phase I (Pre-test)

The experimental and control group settings were chosen by a simple random sampling technique using the lottery method. The concerned hospital officials gave the investigator authorization. After acquiring permission from the selected settings, the investigator collected the list of Nursing Officers from the nursing superintends of each hospital. A sampling frame was formed by considering the inclusion and exclusion criteria. From the sampling frame, the samples were selected by a simple random sampling technique using the lottery method. The participant's information sheets were distributed and obtained consent from the selected nursing officers. For both the experimental and control groups 110 in each category, the pre-test was administered in March by using the Professional Quality of Life Scale and Nursing Stress Scale.

Phase II (Intervention phase)

Following the pre-test, the researcher began implementing the psychological intervention for the experimental group, which would last for 6 months from March to August 2023. The intervention took place throughout six sessions.

Phase III (Post-test)

This concludes the data collection phase. After a month of intervention at the end of August both the experimental and control groups underwent a post-test using the Professional quality of life scale and Nursing Stress Scale. The collected data were scored, tabulated, and added to an MS Excel sheet to get them ready for data analysis.

RESULT

Section A: Description of Demographic Variables of Nursing Officers

Regarding the age of Nursing Officers, 61 (55.5%) of the experimental group and 78 (70.9%) of the control group belong to the 30- to 40-age group. The gender-wise classification shows that most of them, that is, 105 (95.5%) in the experimental group and 104 (94.5%) in the control group, were females. When considering the marital status of Nursing Officers, 95 (86.3%) of those in the experimental group and 99 (90%) of those in the control group were married. In the case of the qualification of Nursing Officers, around 80 (72.7%) of the experimental group and 94 (85.5%) of the control group qualified for GNM. Regarding the working position, staff nurses made up 96 (87.3%) of the experimental group and 103 (93.6%) of the control group. Regarding the area of work, 63 (57.3%) of the experimental group worked in the COVID screening area and 44 (40.0%) of the control group were in holding areas. About years of experience, 47 (42.7%) of the experimental group had 8–15 years of experience and 60 (54.5%) in the control group had 4–7 years of experience.

Concerning the living conditions of Nursing Officers, around 74 (67.3%) of the experimental group and 86 (78.2%) of the control group belong to the nuclear family. For the spouse's educational background, in the experimental group, 56 (50.9%) and in the control group, 53 (48.2%) were graduates. About 52 (47.3%) of the experimental group were professionals and 51 (46.4%) of the control group were non-professionals, according to the spouse's occupation. Regarding residency, 96 of those (87.3%) in the experimental group and 100 (90.9%) in the control group live in rural areas.

SECTION B: Description of the pre-test level of professional quality of life and stress of Nursing Officers in both groups

Table 1: Component-wise assessment of the level of professional quality of life in both groups

Variable	N=220					
	Experimental group			Control group		
	Low	Moderate	High	Low	Moderate	High
Compassion satisfaction	74(67.3%)	34(30.9%)	2(1.8%)	55(50%)	55(50%)	0(0%)



Burnout	0 (0 %)	99 (90%)	11(10%)	0(0%)	96(87.3%)	14(12.7%)
S.T stress	2 (1.8%)	95(86.4%)	13(11.8%)	1(0.9%)	100(90.9)	9(8.2%)

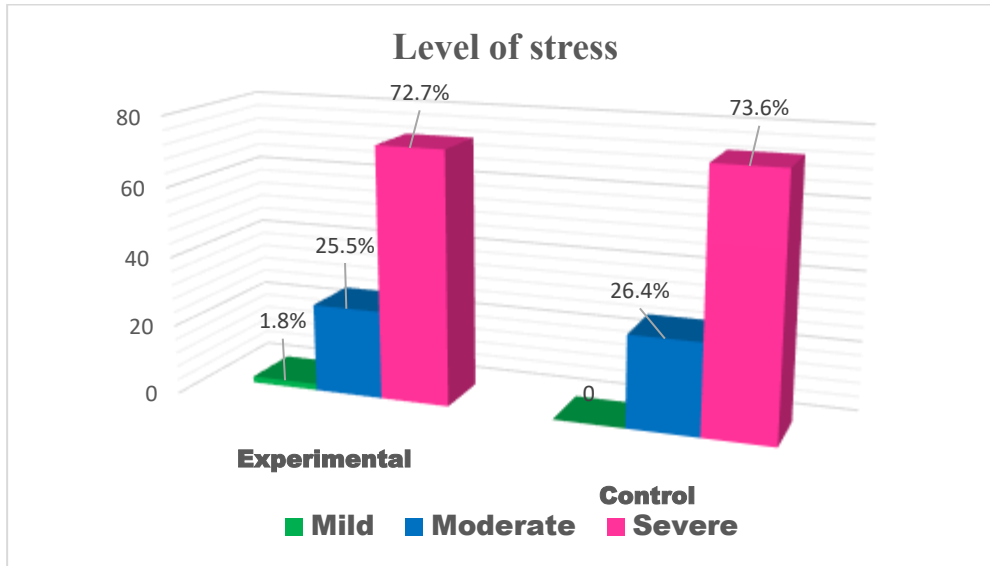


Fig 1: The overall level of stress of Nursing Officers in both groups

SECTION C: Effect of psychological intervention on professional quality of life and stress of Nursing Officers in the experimental group as compared to the control group.

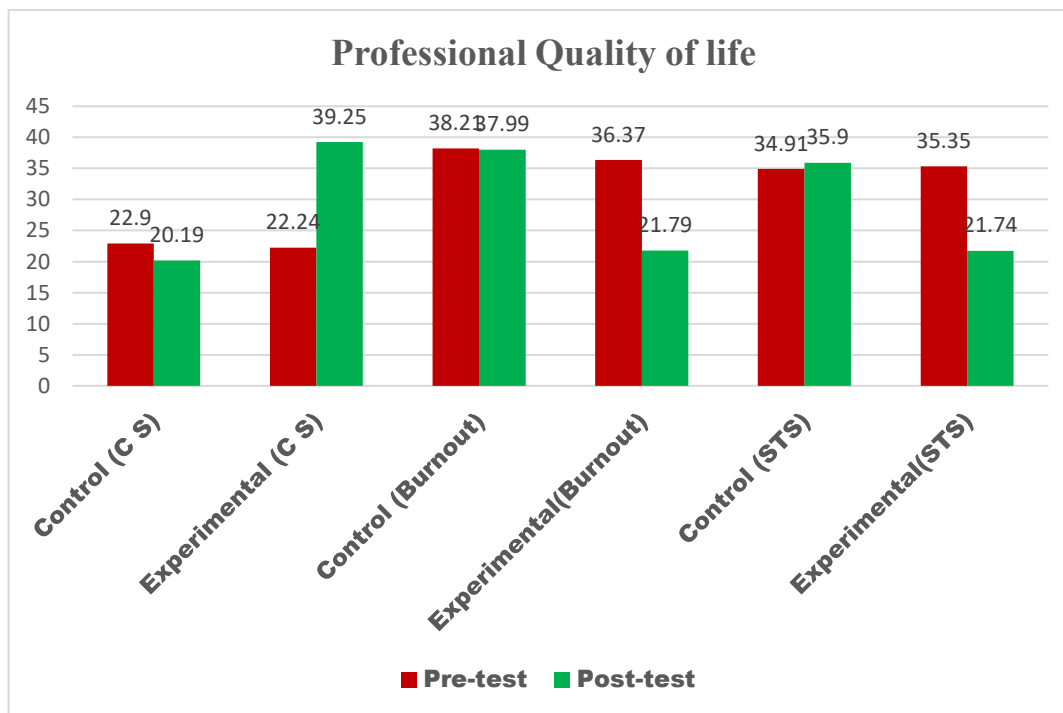


Fig 2: Effect of psychological intervention on the level of components of professional quality of life



Table 2: Effect of psychological intervention on overall level stress

N =220							
Group	Test	Mean	SD	Mean Difference	df	t value	p-value
Control	Pre-test	107.65	10.50	0.20	109	1.397	0.165NS
	Post-test	107.45	10.85				
Experimental	Pre-test	107.85	12.94	36.45	109	18.813	P<0.001***
	Post-test	71.40	15.85				

***very high significance at $p \leq 0.001$, NS =Not significant

SECTION D: Comparison of the post-test level of professional quality of life and stress between the experimental and control groups.

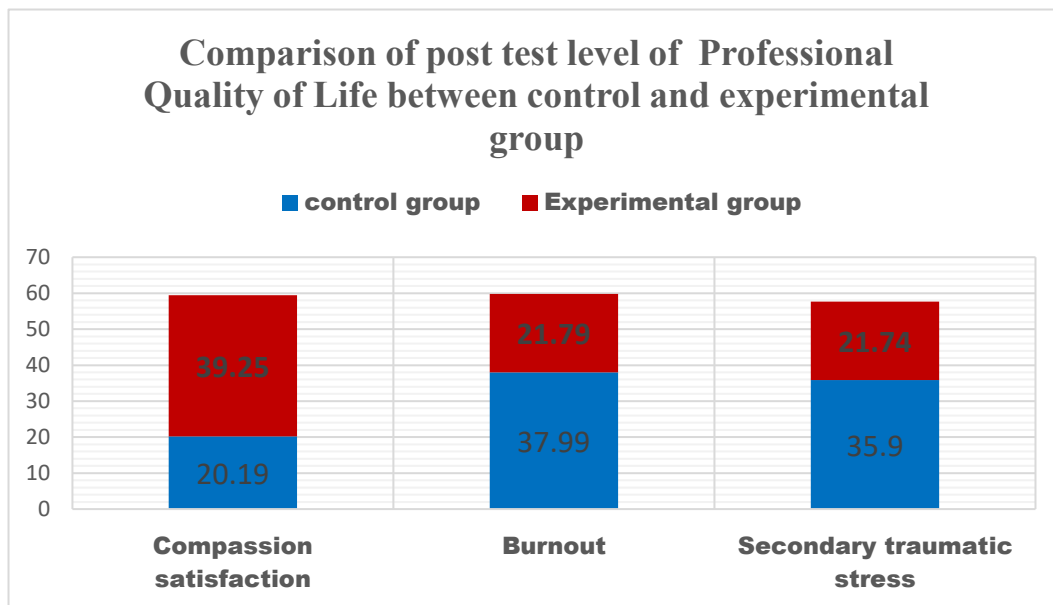


Fig 3: Comparison of the post-test level of professional Quality of life between both groups

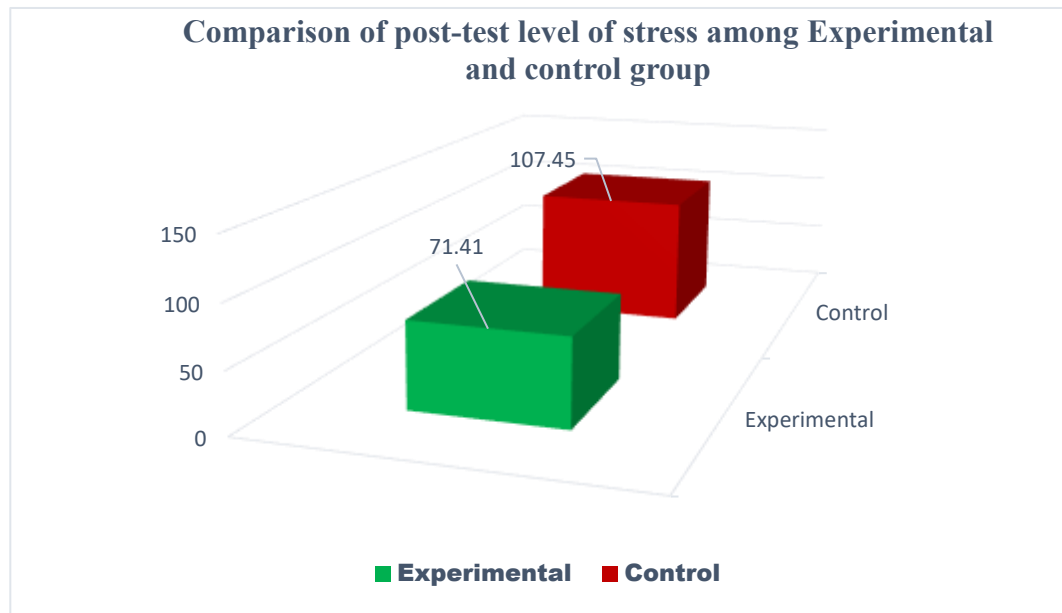


Fig 4: Comparison of the post-test level of stress among both group

SECTION E: Correlation between post-test level of professional quality of life and stress among Nursing Officers

Table 3a: Correlation between Compassion satisfaction and stress

n =110					
Variables	Score	Mean	S D	r	p
Compassion satisfaction	50	39.25	5.63	- 0.027	0.781(NS)
Stress	136	71.41	15.85		

NS -Not significant

Table 3b: Correlation between Burnout and stress

n=110					
Variables	Score	Mean	S D	r	p
Burnout	50	21.79	4.87	-0.065	0.49(NS)
Stress	136	71.41	15.85		

NS-Not significant



Table 3c: Correlation between Secondary traumatic stress and stress

n =110					
Variables	Score	Mean	S D	r	p
Secondary traumatic stress	50	21.74	4.82	-0.016	0.871(NS)
Stress	136	71.41	15.85		

NS- Not significant

SECTION F: Association between post-test level of professional quality of life and stress with demographic variables of Nursing Officers.

Association between the professional quality of life of Nursing Officers in the control group and their baseline variables shows that there is no discernible association between the professional quality of life of Nursing Officers in the control group and their baseline variables. The association between the levels of stress of Nursing Officers in the control group and their baseline variables shows that there is no discernible association between the stress levels of Nursing Officers and any of their baseline characteristics, except their area of work. The association between the professional quality of life of Nursing Officers in the experimental group with their baseline variables shows that there is no discernible association between the professional quality of life of Nursing Officers and their baseline variables. The association of baseline variables of Nursing Officers in the experimental group with their level of stress shows that there is no discernible association between the stress levels of Nursing Officers and any of their baseline characteristics, except their gender.

LIMITATIONS

1. Unexpected shift changes, unscheduled leaves, and unforeseen ward emergencies were the investigator's main challenges during the intervention phase.
2. For those who were on leave and those who were unable to attend the scheduled sessions, separate intervention sessions had to be scheduled. Therefore, extra work was required to finish the intervention sessions on time.
3. Having the full cooperation of the nursing officers during these sessions was challenging because many of them were under pressure from their daily duties.
4. There was no assistance since it was a trained intervention. It was therefore challenging to finish the sessions alone
5. Because this study only measured the study outcomes at a one-time point, it was not possible to compare the results to pre-pandemic data.

DISCUSSION

The study included 220 Nursing Officers in total; 110 in both experimental and control groups. The Nursing Officers in this study experienced low levels of compassion satisfaction and higher levels of burnout and secondary traumatic stress. In contrast to these results, the findings of Inocian EP et al.⁹⁶ revealed that most of the respondents reported an average level of burnout (54.4%), secondary traumatic stress (66.9%), and compassion satisfaction (57.9%) in the professional quality of life domains. Even though many of their compassion satisfaction levels are average, they have not reached the level of burnout and secondary traumatic stress. However, the findings of Latsou D et al.⁹⁴ were consistent with the present study's findings. It shows that most of them had moderate levels of burnout (78.5%) and compassion satisfaction (74.2%), while 48.8% had moderate levels of secondary traumatic stress.



Regarding the level of stress, the findings of the present study were consistent with the studies by Latsou D et al.⁹⁴, Nadeem F et al.¹⁵⁴ Hari Krishna G. Let et al.¹⁵⁵, which report that the nurses experienced a moderate level of stress during COVID-19. The present study, as well as the supporting studies, makes it evident that the COVID-19 pandemic had a detrimental effect on the stress level and professional quality of life of Nursing Officers who cared for COVID-19 patients.

The findings of the present study are consistent with a study by Bhatnagar D. and Highfield ME¹⁵⁶ on the impact of compassion rounds on nurses' professional quality of life in a COVID-19 unit; support groups enhance nurses' quality of life (QOL) at work, and better workplace QOL is associated with improved outcomes for both nurses and patients. The results by Üstün G.¹⁵⁷ show that online support programs for nurses caring for patients with COVID-19 have been shown to reduce burnout and compassion fatigue while increasing psychological empowerment and compassion satisfaction. A survey by Pahlevani M. et al.¹¹⁰ showed that stress management education considerably enhanced nurses' psychological well-being, particularly when it was given in a group setting.

The study findings were consistent with the findings by Sawyer AT, Tao H, Bailey AK¹⁵⁸, and Permarupan P. Y et al.¹⁵⁹ showing that in comparison to the control group, the intervention group members exhibited a significant improvement in the level of stress, burnout, secondary traumatic stress, and compassion satisfaction and also lessened the negative effects of burnout symptoms among the study group.

CONCLUSION

The new coronavirus has emerged, posing a serious and dangerous threat to the entire world. The entire health system was shaken and rendered immobile by this unanticipated disaster. This illness affected everyone, but nurses in particular experienced personal and professional struggles. Even though nurses constituted the core of the healthcare system, most of them experienced dysfunctional levels of stress and anxiety. Because of these conditions, many of them suffer from burnout, secondary traumatic stress, and a decline in their quality as professionals. Caring is the core of the nursing profession. Every organization aspires to offer outstanding healthcare, and it is each nurse's responsibility to do so. It is the responsibility of every organization to safeguard the health and well-being of the nurses who care for patients. Therefore, stress may be reduced in nurses by enhancing the effectiveness of organizational strategies that fortify social and organizational support networks and increase personal resilience. Several studies have shown that COVID-19 has a significant psychological impact on nurses. These findings highlight the significance of creating interventions that encourage resilience in them.

IMPLICATIONS

The findings of the study would be generalized and applicable to the various branches of nursing like nursing practice, nursing education, nursing administration, and nursing research.

Nursing Practice

It is crucial to provide clinical nurses with a stress-free work environment and a good quality of life, particularly in emergencies like pandemics. Using this baseline evidence, nursing leaders can implement clinical nurse programs to address workplace issues and improve the quality of care provided.

Nursing Education:

Nurse Leaders should address risk factors and barriers to high-quality care in the nursing curriculum. Students' empowerment of NLP education strategies can influence future challenges. The current study's findings indicate that NLP instruction can raise people's mental health and balance clinical nurses' PROQOL.

Nursing Administration

Short-term educational sessions centered on such training are held to enhance nurses' mental health, taking into account their demanding work environments. The needs of an aging workforce in terms of long-term staff sustainability through resilience-building training programs such as NLP should be taken into consideration.



Nursing Research

This study will serve as a resource for upcoming researchers and offer direction to policymakers and decision-makers for organizing interventions that enhance the quality of the nursing profession.

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