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Research Paper

Impact of Psychological Intervention on Occupational Stress among Police Personnel

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ABSTRACT

Occupational stress has become an important psychological concern among armed forces personnel due to the challenging nature of their profession. Personnel working in uniformed services are exposed to prolonged duty hours, operational risks, emergency situations, organizational pressures, and continuous responsibility for maintaining security and law enforcement. These occupational demands may contribute to increased psychological stress and may affect professional functioning and personal well-being. The present study aimed to examine the effectiveness of structured counselling and Jacobson's Progressive Muscle Relaxation (JPMR) technique in reducing occupational stress among armed forces personnel. A quantitative pre-experimental research design using one-group pre-test and post-test methodology was adopted. The sample consisted of 150 non-gazetted of Rajasthan Police personnel, selected through availability sampling. Occupational stress was assessed using the Police Stress Questionnaire (PSQ) developed by McCreary and Thompson (2006), consisting of Operational Stress (PSQ-Op) and Organizational Stress (PSQ-Org) dimensions. Participants received a four-week intervention programme consisting of structured group counselling and JPMR training with eight sessions. The results revealed a significant reduction in occupational stress after the intervention. Operational stress decreased from pre-test mean score 87.90 to post-test mean score 73.30. Organizational stress reduced from 84.10 to 70.60, and total occupational stress decreased from 172.00 to 144.00. Paired sample t-test results showed significant differences between pre-test and post-test scores ($p < .001$). The effect size indicated a strong impact of the intervention on occupational stress reduction. The study concludes that counselling combined with Jacobson's Progressive Muscle Relaxation is an effective psychological intervention for managing occupational stress among armed forces personnel. The findings emphasize the importance of integrating psychological stress management programmes within uniformed services.

Keywords: *Occupational Stress, Counselling, Jacobson's Progressive Muscle Relaxation, Armed Forces Personnel, Stress Management*

Armed forces personnel perform one of the most demanding occupational roles in society. Their responsibilities include maintaining internal security, enforcing law and order, responding to emergencies, and protecting public safety. The nature of

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their occupation requires continuous alertness, discipline, emotional control, and readiness to perform under stressful circumstances.

Occupational stress refers to psychological strain resulting from workplace demands that exceed an individual's perceived coping resources. In uniformed services, occupational stress may arise from operational challenges, organizational demands, irregular duty schedules, workload, exposure to critical incidents, and limited opportunities for recovery.

Police and armed forces personnel frequently experience operational stress due to exposure to dangerous situations, public interactions, emergency duties, and responsibility for maintaining safety. In addition, organizational stress may develop due to administrative procedures, hierarchical structures, inadequate resources, and workplace pressures.

According to Lazarus and Folkman's Transactional Model of Stress and Coping (1984), stress occurs when individuals perceive environmental demands as exceeding their available coping abilities. Therefore, improving coping skills and relaxation abilities may help personnel manage occupational stress effectively.

Psychological interventions such as counselling and relaxation training have demonstrated effectiveness in stress management. Counselling helps individuals identify stressors, develop adaptive coping strategies, improve emotional regulation, and enhance problem-solving abilities.

Jacobson's Progressive Muscle Relaxation (JPMR), developed by Edmund Jacobson (1938), is a systematic relaxation technique involving contraction and relaxation of muscle groups. The technique reduces physiological arousal and promotes relaxation, thereby helping individuals manage stress symptoms.

The combination of counselling and JPMR provides a comprehensive approach by addressing both cognitive and physiological aspects of occupational stress. Therefore, the present study was conducted to examine the effectiveness of counselling and JPMR in reducing occupational stress among armed forces personnel.

REVIEW OF LITERATURE

Occupational stress among armed forces and police personnel has received considerable attention due to the demanding nature of their work. Uniformed personnel frequently experience stress arising from operational hazards, excessive workload, long duty hours, organizational constraints, and exposure to traumatic events (Violanti et al., 2017). The unique occupational environment of police and military services places personnel at increased risk of psychological strain due to continuous vigilance, responsibility, and exposure to critical incidents (Adler et al., 2009).

Hans Selye introduced the concept of stress through the General Adaptation Syndrome (GAS), explaining that prolonged exposure to stressors may result in physiological and psychological strain. According to Selye (1976), continuous stress activation may lead to exhaustion and adverse health consequences, highlighting the importance of effective stress management approaches.

The Transactional Model of Stress and Coping proposed by Lazarus and Folkman (1984) emphasizes that stress is not determined only by external events but also by an individual's

cognitive appraisal of demands and available coping resources. This model supports psychological interventions such as counselling, which aim to enhance coping strategies, cognitive flexibility, and adaptive responses to stressful situations.

Research among police and military populations has consistently reported high levels of occupational stress. Operational responsibilities, unpredictable working conditions, exposure to violence, and continuous vigilance contribute significantly to psychological stress among personnel. Additionally, organizational factors such as inadequate administrative support, workload pressures, limited autonomy, and communication difficulties further increase occupational stress (McCreary & Thompson, 2006; Violanti et al., 2017).

Edmund Jacobson developed Progressive Muscle Relaxation (PMR) as a behavioural relaxation technique based on the relationship between muscular tension and psychological anxiety. Jacobson (1938) proposed that systematic contraction and relaxation of muscle groups can reduce physiological arousal and promote relaxation. Subsequent research has demonstrated that relaxation techniques are effective in reducing perceived stress, anxiety symptoms, and physiological tension (Benson, 1975).

Intervention studies have shown that counselling-based programmes improve psychological adjustment by enhancing emotional awareness, coping skills, resilience, and problem-solving abilities. Psychological interventions among military personnel have demonstrated positive effects in improving stress management and psychological preparedness (Adler et al., 2009). Similarly, relaxation-based interventions, including progressive muscle relaxation, have been found effective in reducing stress among healthcare workers, students, and other high-pressure occupational groups (Benson, 1975; Jacobson, 1938).

Studies conducted among Indian police personnel have highlighted the influence of occupational demands on psychological well-being. Long working hours, rotational duties, emergency responsibilities, and limited recovery time have been identified as important contributors to occupational stress among police personnel. Researchers have emphasized the need for structured psychological interventions to improve coping ability and stress management among uniformed services (Kaur et al., 2013; Ranta, 2009).

The existing literature indicates that combined psychological approaches addressing cognitive, emotional, and physiological aspects of stress may produce stronger outcomes than single-component interventions. Counselling assists individuals in understanding and managing psychological responses to stress, whereas JPMR directly reduces physiological stress activation. However, limited research has examined the effectiveness of combined counselling and Jacobson's Progressive Muscle Relaxation intervention among Indian uniformed personnel. Therefore, the present study attempted to address this research gap by evaluating the effectiveness of an integrated counselling and JPMR intervention for reducing occupational stress among police personnel.

Objectives of the Study

1. To assess the level of occupational stress among armed forces personnel before intervention.
2. To assess the level of occupational stress among armed forces personnel after intervention.
3. To determine the effectiveness of structured counselling and Jacobson's Progressive Muscle Relaxation technique in reducing occupational stress.

Hypothesis

Null Hypothesis (H_0): There will be no significant difference between pre-test and post-test occupational stress scores among armed forces personnel after counselling and JPMR intervention.

Research Design

One-group pre-test and post-test research design
Symbolic Representation
$O_1 \rightarrow X \rightarrow O_2$
Where:

- O_1 = Pre-test assessment of occupational stress
- X = Counselling + Jacobson's Progressive Muscle Relaxation intervention
- O_2 = Post-test assessment of occupational stress

Variables

Independent Variable
Psychological Intervention:

- Structured Group Counselling
- Jacobson's Progressive Muscle Relaxation (JPMR)

Dependent Variable
Occupational Stress:

- Operational Stress
- Organizational Stress

Total Occupational Stress

METHODOLOGY

Sample

The sample consisted of 150 personnel from Rajasthan Reserved Police. Participants were selected through availability sampling method. The sample included personnel from constabulary and inspectorial ranks involved in operational and administrative duties.

Instruments

Two measures were used in this study,
Police Stress Questionnaire (PSQ)
The Police Stress Questionnaire developed by McCreary and Thompson (2006) was used to measure occupational stress.

The questionnaire consists of two dimensions:

1. **Operational Stress (PSQ-Op)**
2. **Organizational Stress (PSQ-Org)**

The combined score represented total occupational stress.

Intervention Programme

The intervention consisted of:
1. Structured Counselling
Duration: Approximately 30 minutes per session

2. Jacobson's Progressive Muscle Relaxation
Duration: Approximately 25–30 minutes per session
The intervention was conducted for four weeks with eight sessions (two sessions per week).

Procedure
Prior permission was obtained from the concerned authorities of Police, Rajasthan, for conducting the study. Ethical approval was obtained from the Departmental Research Advisory Committee (DRAC).

Participants were informed about the purpose and procedure of the study. Confidentiality of collected information was maintained, and participation was voluntary.

Initially, the pre-test assessment of occupational stress was conducted using the Police Stress Questionnaire (PSQ), which assessed operational stress and organizational stress among participants.

After the pre-test assessment, participants underwent a structured intervention programme consisting of counselling and Jacobson's Progressive Muscle Relaxation (JPMR). The intervention was conducted for four weeks, consisting of eight sessions (two sessions per week). Each session lasted approximately 55–60 minutes.

Following completion of the intervention programme, post-test assessment was conducted using the same occupational stress questionnaire. The obtained data were analyzed statistically to determine the effectiveness of the intervention.

Statistical Analysis
The collected data were analyzed using Jamovi statistical software.
The following statistical techniques were applied:

1. **Frequency and Percentage Analysis** – to describe demographic characteristics of participants.
2. **Mean and Standard Deviation** – to examine the level of occupational stress before and after intervention.
3. **Paired Sample t-test** – to determine significant differences between pre-test and post-test occupational stress scores.
4. **Cohen's d Effect Size** – to determine the practical effectiveness of the intervention.

RESULTS

The objective of the study was to examine the effectiveness of counselling and Jacobson's Progressive Muscle Relaxation technique on occupational stress among armed forces personnel. The results are presented below.

Table 1: Mean and Standard Deviation of Occupational Stress Before and After Intervention (N = 150)

Occupational Stress Dimension	Pre-Test Mean	Pre-Test SD	Post-Test Mean	Post-Test SD	Mean Reduction
Operational Stress (PSQ-Op)	87.90	12.00	73.30	12.90	14.60
Organizational Stress (PSQ-Org)	84.10	12.50	70.60	12.50	13.50
Total Occupational Stress	172.00	18.10	144.00	18.40	28.00

Interpretation

Table 1 shows that occupational stress scores decreased after the intervention programme. Operational stress reduced from 87.90 to 73.30, organizational stress reduced from 84.10 to 70.60, and total occupational stress decreased from 172.00 to 144.00.

The findings indicate improvement in stress management following counselling and JPMR intervention.

Table 2: Paired Sample t-Test Showing Effectiveness of Intervention on Occupational Stress (N = 150)

Stress Variable	Mean Difference	t-value	df	p-value	Cohen's d
Operational Stress (PSQ-Op)	14.70	9.77	149	< .001	0.798
Organizational Stress (PSQ-Org)	13.40	9.12	149	< .001	0.745
Total Occupational Stress	28.10	13.20	149	< .001	1.08

Interpretation

The paired sample t-test revealed statistically significant differences between pre-test and post-test occupational stress scores.

Operational stress showed a significant reduction after intervention ($t = 9.77$, $p < .001$). Organizational stress also significantly decreased ($t = 9.12$, $p < .001$). The reduction in total occupational stress was highly significant ($t = 13.20$, $p < .001$).

The effect size values indicated that the intervention had a meaningful impact on occupational stress reduction. The largest effect was observed for total occupational stress (Cohen's $d = 1.08$), indicating a strong practical effect of counselling combined with JPMR.

DISCUSSION

The present study examined the effectiveness of counselling and Jacobson's Progressive Muscle Relaxation technique in reducing occupational stress among armed forces personnel. The findings demonstrated a significant reduction in operational stress, organizational stress, and total occupational stress after the intervention.

Before intervention, participants reported elevated levels of occupational stress, which may be attributed to the demanding nature of uniformed services. Armed forces personnel frequently encounter challenging work conditions including prolonged duty hours, emergency responsibilities, exposure to critical situations, and continuous readiness requirements.

The significant reduction in operational stress suggests that counselling helped participants understand their stress responses and develop effective coping strategies. Psychoeducation, emotional expression, cognitive restructuring, and problem-solving approaches may have improved their ability to manage occupational demands.

The reduction in organizational stress indicates that participants developed better psychological adjustment towards workplace pressures. Counselling may have helped individuals modify perceptions of workplace challenges and improve emotional regulation.

The effectiveness of JPMR can be explained through its physiological relaxation mechanism. Regular relaxation practice decreases muscular tension, reduces sympathetic nervous system activation, and promotes psychological calmness. The combination of counselling and JPMR provided both cognitive and physical approaches for stress reduction. The large effect size observed for total occupational stress indicates that the intervention produced meaningful improvement beyond statistical significance. These findings support the usefulness of integrated psychological interventions for stress management among uniformed personnel.

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Conflict of Interest

The author(s) declared no conflict of interest.

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