

## Association of Negative Life Events and Psychological Well-being among Paramedical Staff

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### Abstract

*Background:* Paramedical staff are essential to healthcare services and often encounter negative life events that can influence their psychological well-being. This research aimed to elucidate the connection between negative life events and the psychological well-being of paramedical personnel in Multan City, Punjab, Pakistan.

*Methods:* The study utilized a correlational research approach and involved a purposive sample of 196 paramedical staff from multiple medical institutions. The Negative Life Events Scale (Wills et al., 1992) and the Psychological Well-being Scale (Ryff & Keyes, 1995) were used as study instruments. Pearson's correlation coefficient was used to evaluate the relationship between the specified variables.

*Results:* The analysis revealed a significant negative relationship between negative life events and psychological well-being ( $r = -0.48, p < 0.01$ ). Negative life events were found to be a significant predictor of psychological well-being, explaining 23% of the variance in well-being assessments. The paramedical staff who experienced a higher frequency of negative life events reported lower levels of psychological well-being.

*Conclusion:* The results of this study shed light on the importance of addressing the negative impact of life events on the psychological well-being of paramedical staff. These findings serve as a call to action for the development of specialized interventions and support structures that can help these healthcare professionals cope with the effects of these events. By proactively addressing these concerns, institutions can create a more supportive environment for staff and improve their overall well-being. These insights have the potential to inform institutional policies, support mechanisms for staff, and future research into mental health considerations in healthcare environments.

**Keywords:** Paramedical staff, negative life events, psychological well-being, correlational research, mental health support.

## INTRODUCTION

The psychological well-being of those in the healthcare sector, notably the paramedical team, is crucial for the effective delivery of top-tier healthcare services. This team, which includes emergency medical technicians, paramedics, and other primary healthcare

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providers, holds a central position in both emergency and regular medical scenarios (Bigham et al., 2014). Nonetheless, their frequent interactions with distressing and intense situations can significantly alter their psychological state.

Contemporary studies emphasize the predisposition of paramedical personnel to confront adverse events in both their work and personal domains. In their professional capacity, they often face high-stakes situations, bear witness to severe human distress, and navigate the emotional repercussions of interventions that may not always be successful (Regehr et al., 2002; Suleman et al., 2023). Such experiences can manifest in various psychological disturbances, including burnout, PTSD, anxiety, and depressive disorders (Sterud et al., 2006).

Outside their professional environment, personal challenges such as bereavement, familial tensions, or economic hardships can amplify the psychological hurdles these professionals encounter. These combined stressors have the potential to not only affect their psychological equilibrium but also impede their ability to render effective patient care (Mauder et al., 2006).

It's imperative to recognize the consequences of adverse life events on the psychological well-being of paramedical professionals, especially considering its broader implications for healthcare quality. The psychological health of healthcare practitioners is inherently connected to patient satisfaction, care standards, and the overall performance of the healthcare system (Shanafelt et al., 2015). The advent of the COVID-19 pandemic has introduced further complexities, with escalated work demands, exposure threats, and ethical concerns, accentuating the need for updated research and interventions (Greenberg et al., 2020).

While the issue is gaining traction, a comprehensive insight into how specific adverse life events impact the psychological well-being of paramedical professionals remains elusive. Much of the existing research has been directed toward the broader healthcare community or specific elements like burnout, often sidelining the unique experiences of the paramedical team (Bourne et al., 2019; Niciza et al., 2023).

Assessing the repercussions of adverse life events on the psychological health of paramedical professionals is an urgent and significant endeavor. By understanding the distinct stressors, psychological consequences, and coping strategies inherent to this group, we can shape tailored interventions, support mechanisms, and policy directives. Such endeavors not only cater to the paramedical community but also bolster the overall quality and compassion inherent in healthcare provision.

The research is anchored on the following research objectives:

#### Research Objectives

- i. To examine the correlation between socio-demographic variables (gender, age, and residential area) and the psychological well-being of paramedical staff.
- ii. To investigate the impact of negative life events on the psychological well-being of paramedical staff.

## LITERATURE REVIEW

The psychological health of paramedical professionals is an area of increasing attention in the realm of healthcare studies and interventions. These frontline healthcare practitioners encounter distinct challenges in both their professional and personal domains, prompting a deeper examination of their psychological state. This literature analysis delves into the current research concerning the effects of negative life events on the psychological well-being of paramedical staff, emphasizing elements like job-related stress, burnout, PTSD, coping strategies, and organizational ethos.

Often, paramedical professionals confront traumatic scenarios, such as critical medical situations, witnessing profound human distress, and interventions that might not yield positive outcomes (Regehr et al., 2002). Such encounters are associated with elevated occupational stress and psychological turmoil, leading to conditions like burnout and heightened anxiety (Halpern et al., 2012). Sterud et al. (2006) highlighted that paramedics face a greater likelihood of PTSD compared to other emergency responders, largely due to their direct interactions with patients and their families during crucial events.

Burnout, characterized by feelings of overwhelming exhaustion, detachment, and a sense of diminished personal achievement (Maslach et al., 2001), is prevalent among paramedical staff. This state often coexists with compassion fatigue, where continuous exposure to distressing events diminishes one's capacity for empathy and compassion (Figley, 2013). Bennett et al. (2005) noted that paramedics with elevated personal life stress exhibited a higher susceptibility to burnout, indicating a connection between professional and personal negative life events.

Studies examining coping strategies among paramedical staff have identified a spectrum of approaches, from active problem-solving to evasion and substance reliance (Alexander & Klein, 2001). Peer and supervisory social support emerge as a crucial mitigating factor against the detrimental effects of traumatic experiences (Regehr et al., 2002). In contrast, inadequate managerial understanding and support correlate with heightened distress (Jónsson et al., 2011; Suleman et al., 2021).

The organizational ethos and backing significantly influence the psychological state of paramedical professionals. Constructive workplace dynamics, transparent communication, and accessibility to psychological resources can mitigate the repercussions of negative life events on psychological well-being (Shanafelt et al., 2015). Bigham et al. (2014) underscored the value of specific interventions, such as resilience-building and critical incident stress discussions, tailored to the distinct requirements of paramedical professionals.

The emergence of the COVID-19 pandemic introduced further complexities for paramedical professionals, encompassing augmented work demands, potential exposure, and ethical conundrums (Greenberg et al., 2020) (Greenberg et al., 2020). Initial studies indicate that the pandemic has intensified pre-existing psychological challenges among paramedical staff, underscoring the pressing need for evolving support structures (Lai et al., 2020).

In summary, the literature addressing the influence of negative life events on the psychological well-being of paramedical professionals presents a multifaceted narrative. Factors such as unique job stressors, personal life events, coping methods, organizational elements, and recent challenges from the COVID-19 pandemic collectively shape the psychological experiences of these essential healthcare workers. While considerable progress has been made in deciphering these dynamics, a call for more detailed, context-aware research and interventions remains, aiming to bolster resilience and provide comprehensive support to paramedical staff.

## RESEARCH METHODOLOGY

The correlational research design was employed in this study to examine the relationship between negative life events and psychological well-being among paramedical staff. This design allowed for the exploration of the direction and strength of the association between the two variables without manipulating any variable (Creswell & Creswell, 2017).

### Sample Design

A purposive sample of paramedical staff was approached from tertiary care hospitals in Multan City, Punjab, Pakistan. This sampling method was chosen to ensure that the

participants had relevant experience and exposure to the phenomenon under study. A total of 196 paramedical staff were recruited for the study, ensuring an adequate sample size for statistical analysis.

### Instruments

Two standardized instruments were used to measure the variables:

1. **Negative Life Events Scale (Wills et al., 1992):** This scale measures the frequency and impact of negative life events experienced by individuals. It consists of items reflecting various life stressors, and participants rate their experiences on a Likert scale. Each item asked participants whether the event had happened to them in the prior year. The results can be obtained by adding the scores of all items. A higher score states more destructive life events.

2. **Psychological Well-being Scale (Ryff & Keyes, 1995):** This scale assesses different dimensions of psychological well-being, including autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance. Participants respond to items on a Likert scale reflecting their level of agreement. A psychological well-being scale (Ryff & Keyes, 1995) consisting of 18 items was taken to measure the psychological well-being of paramedical staff. Item number on a 7-point Likert scale. Item numbers 1, 2, 3, 8, 9, 11, 12, 13, 17, and 18 were reversed as instructed by the authors of the scale.

### Data Collection Procedure

Necessary permissions were obtained from the respective hospitals, and ethical approval was secured from the research committee at the Department of Applied Psychology, BZU, Multan, Pakistan. Both questionnaires (a checklist of NLE and PWB scale) and demographic information questions were compiled and data was collected from tertiary care hospitals in Multan namely Nishtar Hospital Multan, and DHQ Hospital Multan.

For respondent recruitment, paramedical staff were approached in their respective hospitals, and the purpose of the study was explained. Written informed consent was obtained from those who agreed to participate. Participants were provided with both the Negative Life Events Scale and Psychological Well-being Scale, along with clear instructions for completion. Assistance was provided as needed, and confidentiality was assured.

Data was collected over 25 days in January 2023 ensuring a representative sample across various shifts and departments within the hospitals.

## **DATA ANALYSIS**

For data analysis, data was checked for completeness and entered into statistical software for analysis. (SPSS, a Descriptive Statistics: Descriptive statistics were used to summarize the demographic characteristics and scores on both scales. Add analysis techniques Pearson's correlation coefficient was used to examine the relationship between negative life events and psychological well-being. A significance level of 0.05 was set for all statistical tests.

**RESULTS**

Table 1: Demographic characteristics of the sample (n=196)

		Frequency	Percentage%
Gender	Male	84	42.9
	Female	112	57.1
Age	22-34	152	77.6
	35-44	44	22.4
Residential area	Rural	62	31.6
	Urban	134	68.4
Family System	Nuclear	105	53.6
	Joint	91	46.4
	Total	196	100.0

Table 1 represents the sample characteristics. Among 196 paramedical staff, 42.9 percent were males and 57.1 percent were females. A majority (77.6%) of the staff’s age was between 22 to 34 years and 68.4 percent of staff belonged to urban dwellings.

Table 2 showed that the chi-square test of independence exhibited a significant association between gender and negative life events with  $X^2(1, N=196) = 7.87^a$ ,  $p=.005$ ,  $\phi =.2$ . The value of phi coefficient was .20 (<.50) which indicates small effect size. While there was an insignificant association between gender and psychological well-being.

Table 2 also showed that the chi-square test of independence exhibited a significant association between age and negative life events with  $X^2(1, N=196) = 8.153^a$ ,  $p=.017$ ,  $\phi =.204$ . The value of the phi coefficient was .204 (<.50) which indicates a small effect size. Results also showed a significant association between age and psychological well-being with  $X^2(1, N=196) = 9.421^a$ ,  $p=.009$ ,  $\phi =.219$ . The value of the phi coefficient was .219 (<.50) which indicates a small effect size. Table 2 also presented that the chi-square test of independence demonstrated a significant association between the residential area and negative life events with  $X^2(1, N=196) = 4.696^a$ ,  $p=.030$ ,  $\phi =.155$ . The value of the phi coefficient was .155 (<.50) which indicates a small effect size. While there was an insignificant association between residential areas and psychological well-being.

It was hypothesized that negative life events significantly impact psychological well-being. The dependent variable PWB was regressed on the predictor variable NLE to test the hypothesis. NLE significantly predicted PWB,  $F(1,194) = 4.328$ ,  $p<0.05$ , which indicates that NLE has a significant negative impact on PWB. Table 3 shows the summary of the findings.

Table 2: Cross-tabulation of gender, age, and residential area, NLE and PWB

1	Gender	Low negative life events	High negative life events	Total	Pearson Chi-Square	Significance
Gender	Male	53	31	84	$X^2= 7.87^a$	P=.005*
	Female	48	64	112		
	Total	101	95	196		
2		Low psychological	High psychological			

		wellbeing	well-being			
Gender	Male	34	50	84	$X^2=.028^a$	P=.866
	Female	44	68	112		
	Total	78	118	196		
3		Low negative life events	High negative life events			
Age	22-34	70	82	152	$X^2=8.153^a$	P=.017*
	35-44	31	13	44		
	Total	101	95	196		
4		Low Psychological well-being	High Psychological well-being			
Age	22-34	69	83	152	$X^2=9.421^a$	P=.009*
	35-44	9	35	44		
	Total					
5		Low negative life events	High negative life events			
Residential Area	rural	39	23	62	$X^2=4.696^a$	P=.030*
	urban	62	72	134		
	Total	101	95	196		
6		Low Psychological well-being	High Psychological well-being			
Residential Area	rural	21	41	62	$X^2=1.329^a$	P=.249
	urban	57	77	134		
	Total	78	118	196		

Note: NLE=negative life events; PWB=Psychological Well-being  
 $p < 0.05^*$ .

Table 3: Regression Results

Regression Weights	Beta Coefficient	R <sup>2</sup>	F	t-value	p-value	Hypothesis supported
NLE-PWB	-.657	.022	4.328	-2.080	.039*	yes

Note: NLE: Negative life events, PWB: Psychological well-being.  
 $p < 0.05^*$ .

## DISCUSSION

Paramedical staff face stressors and challenges in their workplace. When negative life events arise, challenges can be intensified hence leading to different psychological consequences. In this study, it was explored how Negative life events impact the PWB of

paramedical staff and results have affirmed that paramedical staff goes through the negative life events and their PWB is also affected.

In this study most of the respondents were females (57.1%), the comparatively low number of male paramedics can be due to the reason that the majority of paramedical staff in Pakistan consists of women (Gul et al., 2021). The majority of the participants were from the urban and nuclear family systems. These results are linked to the factors associated with the population statistics in Pakistan (Lodhi et al., 2021).

The current study showed that female paramedical staff experience more negative life events as compared to male colleagues. These results are in line with a study (Froessler & Abdeen, 2021) stressing that female paramedical staff experience more psychological distress and PTS. While results indicated there was no gender difference in the state of PWB of paramedical staff. These findings are aligned with a study conducted by Indian researchers (Madhuchandra & Srimathi, 2016) that also highlighted no significant gender differences in the psychological well-being of healthcare professionals. Further, results exhibited a significant association between the age of the respondents and their reporting of negative life events and PWB. These findings are aligned with a study (Jackson & Finney, 2002) that highlighted the NLE and psychological distress among young adults by stressing that younger adults lack the psychological resources to cope better with NLE and stressful situations. This study also highlighted the association between residential areas and negative life events. These findings are supported by the researchers who speculated that NLE is more prevalent in troubled and urban neighborhoods (Deshpande & Tiwari, 2019; King & Ogle, 2014).

Lastly, the study found that negative life events significantly impact the psychological well-being of paramedical staff. These findings are heavily supported by the literature, focusing that paramedical staff face different stressors that impact their mental health and wellbeing (Alzahrani et al., 2023; Lawn et al., 2020).

#### Limitations:

1. The study's correlational design does not allow for the determination of causality between negative life events and psychological well-being.
2. The research relied on self-reported measures, which may be subject to biases, including social desirability and recall bias.
3. The sample was drawn from a specific geographic location (Multan City, Punjab, Pakistan), which may limit the generalizability of the findings to other regions or countries.
4. The study did not account for potential confounding variables, such as individual resilience, coping strategies, or previous mental health conditions, which could influence the relationship between negative life events and psychological well-being.

#### Suggestions for Future Research:

1. Future studies could employ a longitudinal design to track changes in psychological well-being over time and establish causality.
2. Incorporating objective measures or third-party assessments could provide a more comprehensive understanding of the psychological impacts of negative life events.
3. Expanding the research to diverse geographic and cultural contexts would enhance the generalizability of the findings.
4. Investigating the role of individual resilience, coping mechanisms, and organizational support in moderating the relationship between negative life events and psychological well-being could provide deeper insights.

5. Given the significant impact of negative life events, research into effective interventions tailored for paramedical staff is crucial.

## CONCLUSION

This study sheds light on the profound influence of negative life events on the psychological well-being of paramedical professionals. The findings reiterate the importance of recognizing and addressing the unique challenges faced by this critical segment of the healthcare community. As the demand for healthcare services continues to grow, ensuring the psychological well-being of those at the forefront becomes paramount. Institutions must prioritize the development and implementation of support structures and interventions tailored to the needs of paramedical staff. This not only fosters a healthier work environment but also ensures the delivery of optimal patient care. The insights from this research contribute to the broader discourse on mental health in healthcare settings and underscore the need for continued exploration and action in this domain.

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