



**Translation, Adaptation, and Validation of Workplace Stress Scale for Pakistani Police Investigation Personnel**

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**Abstract**

To assess job stress among police investigation personnel, the present study purports to translate and validate the workplace stress scale (WPSS) for Pakistani Police investigation Personnel. For this purpose, International Test Commission (ITC) guidelines for translation, adaptation, and validation were used. The sample was taken from all districts of Punjab Pakistan and  $N=300$  police investigation personnel were recruited from police stations of Punjab Province. Moreover, factor structure, internal consistency, content validity, face validity, and convergent validity were examined for Urdu version of the Workplace Stress Scale. Confirmatory factor analysis, reliability and validity analysis were done by using AMOS 21 v and SPSS 26 v respectively. The findings of this study demonstrate unimodal Workplace Stress Scale is culturally adapted for Pakistani Police Personnel. The values of  $\chi^2/df = 1.26$ , GFI=.97, CFA= .99, and RMSEA=.03 indicated good model fit. Moreover, the construct validity and reliability ( $\alpha=.90$ ) of WPSS are also shown favorable results. Additionally, the WPSS demonstrated favorable results in terms of construct validity and reliability. Despite all the shortcomings and restrictions, police investigators perform a vital role in preserving the rule of law in society. Due to the nature of the demanding job, many police investigation personnel feel stressed. So, the Urdu-translated version of the Workplace Stress Scale (WPSS) will be helpful to gauge the degree of job stress among Police Investigation Personnel.

**Keywords:** translation, validation, workplace stress, police investigation personnel, ITC guidelines

**1. Introduction**

The number of empirical research on the association between occupational stress and its outcomes has exploded recently, and there has been a growing demand for literature on stress. Despite this, a job is a necessary part of life to survive and endure. All occupations lead to stress but the police job is frequently categorized as a high-stress profession. This is because there involves physical risk, disputes, court appearances, and shift work (Violanti et al. 2016). The association between stress and police occupation is not a novel concept. In a study published nearly two decades ago claimed that occupational stressors specific to the police profession are responsible for several mental health issues and outcomes (Beehr, 2014), including severe nervous conditions, neurosis, job satisfaction, high divorce, marital discord rates, high suicide rates, and an increase in alcoholism and other drug abuse (McLean & Marshall, 2010). There is no doubt that the police job is a very hectic and stressful occupation not only because of the nature of police work but also as a result of many other influences associated with the work environment, the organization, and the public scrutiny of policing. Numerous studies have been done on the nature and effects of stress in the police job (Paoline & Gau, 2020). The multiple "possible" stressors connected to policing have been the subject of several attempts to classify in this corpus of study. One approach has been to classify these stressors according to whether they have an impact on officers because they are a component of their real jobs (job content stressors) or because of the organizational environment in which they operate (job context stressors) (Nisar & Rasheed, 2020). Results from earlier studies on stress in the police profession are divided into sections related to job context and job content. The cops deal with death, trauma, violence, sadness, and danger every day.

Moreover, several studies dealing with these problems significantly raise police officers' stress levels (Ahmad et al., 2018). However, dealing with such incidents is not common for many officers, especially if they are not operational. It has been proposed that because officers must deal with these challenges often, if not daily, characteristics of the organization (the environment of their jobs) may be more responsible for many officers' experiences of stress. These include working with inadequate and subpar equipment (Machado & Porto, 2019), excessive paperwork (Violanti & Aron, 1995), competition brought on by a rigid promotion system (Workman-Stark, 2021), and bad management and supervision techniques (Kumar, 2021). In research by Brown and Campbell (1990), it was discovered that operational tasks were only slightly less stressful than organizational and managerial aspects. In addition to this, other facets of police employment could stress someone out. Since these shifts interfere with what they perceive to be a "normal" social and family life, many officers are obliged to work them, which they have described as difficult (Jackman et al. 2021). The public and the media both frequently depict police in a negative light, and as a result, police are subject to scrutiny and criticism concerning their job. The public is also not always in favor of the police. Public complaints can result in protracted internal and external investigations, adding stress to a job that already has enough stress. Many officers may have experienced work-related stress at some point, just like the majority of people who work in a variety of industries (Li et al. 2022). According to research by Queirós, police with the least and greatest job experience felt less stress in their line of work than officers with intermediate levels of experience. Various officers' perceptions of what is stressful have been found in certain studies. Due to the nature of their work and the socialization process, probationary constables have

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been recognized as a rank linked to certain fears (Queirós et al. 2020). Another study found that constables are more likely to be stressed by time pressures, long hours, working with civilians and force or station politics, sergeants by having to manage or supervise, working in isolation and lack of consultation, and senior management by criticism from the media (Purba & Demou, 2019). Furthermore, the relationship between police job and stress has been extensively studied, yet little is known about job satisfaction inside the police force. It has been demonstrated that elements including a negative public image, displeasure with the legal system, and perceived managerial traits affect work satisfaction levels (Boateng & Hsieh, 2019). Additionally, job context and job content categories have been used to group job dissatisfies in the police industry (Hamm, 2022). However, rather than examining features of the workplace that could be a predictor of job satisfaction, the majority of research that has studied this concept has focused on issues like gender and minority group disparities in job satisfaction (Adamopoulos, 2022). Hence the present study focused on translation and validation of Workplace Stress Scale for Police Investigation Personnel that helps to described a variety of organizational and occupational related stressors faced by police officers in Pakistan. Thus this study provides more insight into the policing occupation in terms of job stress by using translation, adaptation, and validation procedures for workplace stress for police personnel.

## 2. Methods and Material

### 2.1. Sample and sampling strategy

Cross-sectional quantitative research design was used by following purposive sampling technique to recruit N=300 police investigation personnel from all districts of Punjab Police Station, Pakistan with the age range was between 25 to 55 years for present study.

### 2.2. Measures

- Self-constructed demographic sheet included age, rank, job experience and job region were asked.
- Workplace Stress Scale (WPSS) has 8 items and rated on 5 point likert scale (Marlin, 2001).

### 2.3. Procedure

The current study was conducted from July to December 2022. The translation and validation procedure is followed by International Test Commission (ITC) guidelines (Geisinger & Van de Vijver, 2016). The ITC procedure is comprised of three phases and is further divided into many steps. The initial steps were taken after getting the copyright authors' approval to translate and validate the workplace stress scale in the particular situation. *Phase 1* was composed of four steps. In step 1, three knowledgeable bilingual speakers from the relevant field performed the forward translation. Further, face and content validity was established to evaluate the scale's Urdu and English versions in step 2, and depending on the participants' opinions, certain items were kept.

The third step was the backward translation, which was carried out by three bilingual specialists with a blinded methodology. In order to confirm that the items on the workplace stress scale had identical meanings, three psychology experts reviewed the workplace stress scale's backward and forward translation in the context of the original scale.

In the next fourth step, 20 police personnel were taken for pilot testing. According to the literature, the minimal number for pilot research is 10; hence the sample size for the study was taken in light of this information (McCrum-Gardner, 2010). In addition, the final number of participants for the primary study was selected by using the participant-per-variable ratio, the normal distribution approach, and an expert opinion was taken into consideration (Farooqi & Shahid, 2022).

## 3. Data Analysis

According to research, a sample size of 200 people is adequate for confirmatory factor analysis (CFA) (Nemoto et al., 2023). Besides this, confirmatory factor analysis (CFA) was performed on AMOS 21 v and it is also used to test the psychometric properties of the workplace stress scale.

### 3.1. Results

Of 300 participants (only male), 158(52.7%) were 35-46 years of age range, 75(25%) are more than 45 years and 67 (22.3%) were between 25 to 35 years old (see Table 1).

Furthermore, the results of confirmatory factor analysis for the workplace stress scale are shown in table 3, along with fit indices. There was an absolute fit for the value of  $\chi^2 (25.23) = 1.26, p < .001$ . Chi-square was a measure of fit. However, the absolute fit of this method is sensitive to sample size, taking into account the number of estimates or parameters to be evaluated in a model and the non-normality or atypical dispersion of data. To assess the general model fit to the data, statisticians frequently use several relative fit indices to evaluate the model fitness, CFI, GFI, and RMSEA were examined in the literature.

According to Kline (2016), in structural equation modeling (SEM), it is recommended that the value of  $\chi^2/df$  should lie between 1-3, RMSEA values should be  $<.06$ , and GFI and CFI values of  $.95$  or higher are considered as good, while  $.90 \leq .80$  are considered permissible sometimes (see table 2 and figure 1). Moreover, the Composite Reliability Coefficient (CRC) =  $.90$  and Average Variance Extracted (AVE) =  $.55$  values of this scale exceeded the  $0.7$  and  $0.50$  thresholds, respectively (Shrestha, 2021). Factor loadings of sub-scales of the construct (WPSS) were investigated to determine convergent validity. The loadings of each item exceeded a threshold of nearly  $0.7$  (Renzaho et al., 2022)(see Table 3).

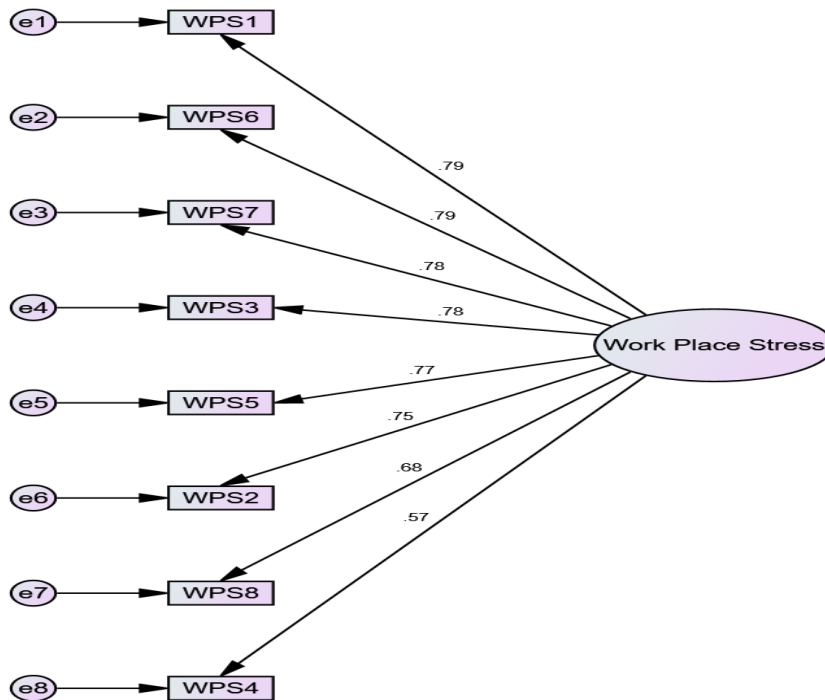
**Table 1: Demographics Characteristics (N= 300)**

Characteristics	f(%)
Age	
25-35 Years	67(22.3)
36-45 Years	158(52.7)
More than 45 Years	75(25.0)
Rank	
Assistant Sub Inspector	63(21.0)
Sub Inspector	206(68.7)
Inspector	31(10.3)
Job Experience	
1 to 5 Years	41(13.7)
6 to 10 Years	81(27.0)
11 to 15 Years	86(28.7)
More than 15 Years	92(30.7)
Job Region	
Lahore	39(13.0)
Faisalabad	33(11.0)
Sarghoda	32(10.7)
Gujranwala	44(14.7)
Rawalpindi	42(14.0)
Sahiwal	36(12.0)
Multan	26(8.70)
DG khan	22(7.30)
BahawalPur	26(8.7)

**Table 2: Fit Indices of Confirmatory Factor Analysis of perceived job stress Scale**

Model	$\chi^2$	Df	$\chi^2/df$	GFI	CFI	RMSEA
Model Fit Indices	25.23	20	1.26	.97	.99	.03

Note. N = 300, All changes in chi-square values were computed to model, Chi-square > .05, CFI = Comparative fit indices, GFI = Goodness of fit indices, RMSEA = Root Mean Square of approximation



**Figure 1: Confirmatory Factor Analysis of Workplace stress scale**

**Table 3: Confirmatory factor analysis (CFA) for Work Place Stress Scale in Police investigation Personnel**

Factors	English Items	Urdu Items	Work Place Stress			
			CR	AVE	MaxR(H)	$\Lambda$
			.90	.55	.91	
WPS1	Conditions at work are unpleasant or sometimes even unsafe	دوران کام حالات ناخوشگوار اور کبھی کبھار غیر محفوظ ہوتے ہیں				.794
WPS6	I have adequate control or input over my work duties.	مجھے میرے کام کی ذمہ داریوں پر مناسب اختیار اور رہنمائی حاصل ہے				.795
WPS7	I receive appropriate recognition or rewards for good performance	مجھے بہترین کارکردگی پر موزوں ستائش اور انعامات سے نوازا جاتا ہے				.783
WPS3	I have too much work to do an/or too many unreasonable deadlines.	میرے پاس کرنے کو بہت زیادہ کام ہوتا ہے اور/یا کام کرنے کیلئے بہت زیادہ غیر معقول حتمی وقت دیا جاتا ہے				.782
WPS5	I feel that job pressures interfere with my family or personal life	میں محسوس کرتا ہوں کہ کام کا دباؤ میری ذاتی اور خاندانی زندگی کے درمیان حائل ہو جاتا ہے				.770
WPS2	I feel that my job is negatively affecting my physical or emotional well-being.	مجھے یقین ہے کہ میرا کام میری جسمانی اور جذباتی بہبود (صحت و تندرستی) پر منفی اثرات مرتب کر رہا ہے				.755
WPS8	I am able to utilize my skills and talents to the fullest extent at work.	میں کام پر اپنے ہنر اور (خداداد) صلاحیتوں کو مکمل طور پر استعمال کرنے کے قابل ہوں				.680
WPS4	I find it difficult to express my opinions or feelings about my job conditions to my superiors.	میں اپنے افسران سے اپنے خیالات یا نوکری کے حالات کے بارے میں اپنے جذبات کا اظہار کرنے میں دشواری محسوس کرتا ہوں				.566

Note.  $\lambda$  (lambda) = standardized factor loading  $\geq .5$ , CR=Composite Reliability, AVE=Average Variance extracted, MaxR(H)= Maximum Reliability

### 3.2. Discussion

The current study intended to translate, adapt and validate the workplace stress scale for Police Investigation Personnel. The unimodal theory-driven scale suggests a culturally adapted tool for Pakistani Police Investigation Personnel. All the CFA loadings are greater than 0.30 indicating all the items of this scale are perfectly fit for this population. This finding indicates that the items of the scale have a meaningful association with the intended constructs. For instance, Farooqi and Shahid, 2022 also found that greater than 0.30 loadings are adequate for model fit. Moreover, the scale demonstrated good psychometric characteristics. Police occupation is a very tiring and hectic job. All the officers of this profession play a very crucial role in society. Despite all the deficiencies and constraints in the Police Department, particularly in terms of the infrastructural facilities, manpower, and periodic training, they are accountable for preserving peace and order. Police officers are required to carry out all criminal laws, which puts them under a great deal of mental and physical strain since they work nonstop and even without breaks (Juczyński & Ogińska-Bulik, 2022). AcquadroMaran conducted research on "Workplace stress" in 2022 and discovered that it is becoming a significant issue in today's society. One-fourth of workers say their jobs are the biggest source of stress in their lives. Additional variables including longer work hours and suicidal thoughts also add to workplace stress (Acquadro Maran et al., 2022). Police job is inherently stressful because of the potential risk for death, violence, and associated extremely high expectations with it (Haas & Ferreira, 2018). Another research found a high rate of suicide among police officers which leads inevitably to the conclusion that police officers are unable to manage job-related stress in an effective manner (McLeod et al., 2020). Additionally, stress made a person more vulnerable to illnesses including cancer, high blood pressure, fatigue, back pain, and heart attacks (Violanti, 2022). Another study revealed a link between police officers' low quality of life and high levels of emotional stress. It highlights the necessity for preventative measures within the police force to encourage lifestyle modifications, enhance stress management abilities, and promote improved quality of life among high-ranking police officers. The senior police officers who participated in the study said their job was particularly stressful and the study's key finding was the connection between severe stress and low life quality (Ryu et al., 2020).

### 3.3. Implications

The purpose of the job stress scale is to measure the levels of job stress experienced by police investigation personnel in Punjab, Pakistan. This scale is designed to help researchers, practitioners, and professionals working in this field to assess

the sources of stress experienced by this population. In addition, organizations and management can use this scale to monitor and identify the sources of job stress among their police investigators, and to design interventions that can help reduce stress and improve their well-being.

It is important to note that while the job stress scale can provide useful information on job stress, it should not be used as the only tool to design interventions to prevent stress. Other factors such as the organizational culture, work demands, and work-family balance should also be considered when designing stress prevention interventions. The job stress scale can be used in combination with other tools and strategies to design effective interventions that can improve the well-being of police investigation personnel in Punjab, Pakistan.

By taking into account these considerations, the translated job stress scale can have practical implications for researchers, practitioners, professionals, and organizations working in the field of police investigation. This can help to improve the well-being of this important population by addressing the sources of job stress they experience.

### **3.4. Limitations of Study**

The study may be susceptible to response bias, as participants may have responded in a way they deemed more socially acceptable or provided answers that do not accurately reflect their true experiences of job stress. This bias can impact the reliability and validity of the scale scores. We used only single method of data collection that mainly relied on self-report questionnaires. Without a longitudinal design, the study may not capture the dynamic nature of job stress over time. Moreover, the study may have focused on specific aspects of job stress while overlooking other important dimensions. It is important to consider whether the scale captures the full range of stressors relevant to police investigation personnel or if additional dimensions should be included.

The study may not have accounted for all potential confounding variables that could influence job stress among police investigation personnel. Factors such as personal characteristics, work-related factors, or individual coping strategies should be considered to provide a more comprehensive understanding of job stress in this population. Moreover, the study used only content, face and convergent validity for psychometric properties. So, it is important to acknowledge these limitations as they can provide insights into the scope and generalizability of the study's findings. Future research could address these limitations to enhance the validity and applicability of the job stress scale for police investigation personnel in Punjab, Pakistan.

## **4. Conclusion**

The study concluded that police investigation personnel play a vital role to maintain the homeostasis of our society and they expose to stressors with a great deal. So, this adapted version of the workplace stress scale will be helpful to assess their stress level and provide them with psychological help as first aid.

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