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Measuring War-Related Stress: Development and Validation of the Perceived War Stress Scale

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Abstract

The present study was aimed to develop and validate Perceived War Stress Scale (PWSS) a self-report Urdu questionnaire to measure subjective stress due to war and the potential of war and to explore its relationship with problem-focused and emotion-focused coping. The study adopted quantitative cross-sectional scale development design. A sample of 326 university students who spoke Urdu and were over 18 years old was taken. Participants completed a demographic information sheet, the 23 item PWSS, and a coping styles measure. The content validation was done by expert review, and psychometric properties were explored by descriptive statistics, reliability analysis, and principal axis factoring and correlation analysis. The PWSS had an excellent internal consistency, Cronbach's alpha .92. KMO value was .929 and Bartlett's test of sphericity was significant χ^2 (253) = 3836.853, $p < .001$, which indicated the appropriateness for factor analysis. The one factor solution was supported by the principal axis factoring with 41.245% of the total variance. The factor extracted for most items was adequate to represent them, except for PWS13, which had low communality and needs to be reviewed. The positive correlation between PWSS and emotion-focused coping ($r = .634$, $p < .01$) was found to provide support for convergent validity. Problem-focused coping was weakly related with PWSS, $r = .08$, which was not significant. The PWSS seems to be a valid and potential Urdu stress scale for War. Results indicate that emotional coping responses are more likely to be related to perceived war stress than problem-focused coping responses. Further confirmation of this with confirmatory factor analysis and other samples is recommended.

Keywords: Perceived War Stress Scale Development, Urdu Scale, Coping Styles, Emotion-Focused Coping, Psychometric Validation

Introduction

War is one of the intense collective stressors in today's era that affects societies, families and individuals. Forced migration, injury, loss of life, and exposure to violence are not the only ways that war can negatively affect a person's psychology; fear, uncertainty, insecurity, perceived helplessness, and worry about safety, can all be a consequence of conflict. Stress, according to the stress theory, occurs when a person perceives a threat or challenge, as being out of their control,

unpredictable and uncertain (Cohen et al., 1983; Lazarus & Folkman, 1984). Perceived war stress is a psychological stress that is perceived by the individual and is a result of exposure to information, potential threat, uncertainty, anticipated harm, and interference with routine activities due to the war. This construct is closely related to general perceived stress, but it is more context-specific as it is related to triggers that have to do with war: reading about war, seeing war images, discussing war, feeling insecurity in the future, feeling unsafe, feeling economic insecurity, feeling worried about family members during the war (Cohen et al., 1983; Vargová et al., 2024). Based on previous studies, there may be significant psychological impacts of war and armed conflict such as anxiety, depressive symptoms, posttraumatic stress symptoms, chronic worry or diminished psychological well-being. But not all war-related psychological distress occurs as a result of personal involvement in the conflict; some distress is experienced as a result of indirect exposure, media exposure, public discussion, and concerns about future impacts, so there is a need to examine perceived war stress (Charlson et al., 2019; Regnoli et al., 2025; Surzykiewicz et al., 2022). While general stress scales are helpful, they may not adequately reflect the type of stress experienced during wartime. The Perceived Stress Scale is based on general perceptions of unpredictability, uncontrollability and overload, but it does not directly assess war-specific stressors like national insecurity, seeing images and videos of war, fear of food shortage, economic instability, family safety, or avoiding information about the war (Cohen et al., 1983; Vargová et al., 2024). The emphasis of this present study is on the development of the Perceived War Stress Scale, a self-report instrument for the measurement of perceived stress resulting from war and its potential. Perceived war stress can be considered as a specific type of perceived stress, where the source of the stress is related to a war-related threat, information, uncertainty and possible consequences (Cohen et al., 1983; Vargová et al., 2024).The Urdu scale has been proposed comprising of the following items: anxiety upon hearing war-related information, distress upon seeing war-related pictures and videos, fear of future state, helplessness, intrusive thoughts, disturbance of daily activities, perceived lack of safety, economic concern, perceived food shortage, worry about family and friends, perceived instability, disturbance in personal relationships, and avoidance of war-related pictures and videos, news and conversations (Cohen et al., 1983; Lazarus & Folkman, 1984; Vargová et al., 2024). In recent years, there have been some studies that have produced specific measures of psychological responses to war. Vargová et al. (2024) created the War related Stress Scale to assess stress related to war and its potential implications. Regnoli et al. (2025) created the War Worry Scale to measure worry about war among young adults in a non-war-torn environment. Surzykiewicz et al., (2022) created brief scales to assess war-related dysfunctional anxiety and chronic negative thinking. The results of these studies indicate a need for the use of specific instruments rather than general stress or trauma instruments (Regnoli et al., 2025; Surzykiewicz et al., 2022; Vargová et al., 2024).

In contrast to the one-dimensional perspective, the multidimensional perspective is proposed by this scale, which has been the focus of research on scale development over the past few years in relation to war (Regnoli et al., 2025; Surzykiewicz et al., 2022; Vargová et al., 2024), and suggests that psychological reactions to war may be manifested in the form of worry, anxiety, persistent negative thinking, perceived stress, and concern about present and future consequences. Coping styles are also used as an associated variable in the present study. It is imperative to include coping styles as it gives the information that people react differently to perceived war stress. Coping is the mental and action-oriented response to a stressful situation. Coping is related closely to stress appraisal, as Lazarus and Folkman's (1984) transactional theory of stress suggests that coping occurs when a person feels a situation is threatening, harmful or difficult to deal with. Problem-focused coping and emotion-focused coping are the two main coping strategies.

Problem-focused coping involves actively trying to deal with or eliminate the stressor itself, including planning, information seeking, taking action or arranging resources. Emotion-focused coping involves actions that try to manage emotional arousal, including positive reframing, religious coping, emotional expression, emotional support seeking or avoidance (Carver et al., 1989; Carver, 1997; Lazarus & Folkman, 1984). There are a number of items in the present scale that are related to distress when hearing news about war, sadness when viewing images or videos of war, and negative emotional impacts of seeing images or videos relating to war. These are in line with the idea that those who are not directly in a war zone could still suffer psychological distress after they are exposed to war-related information indirectly (Regnoli et al., 2025; Vargová et al., 2024; see Appendix A). Exposure to the media over and over could keep war-related threat on people's minds and make them more anxious, ruminative, and intrusive. This is relevant for the present scale as several items refer to repeated thinking about possible war, inability to remove war related thoughts from the mind and disruption of daily functioning due to war-related thoughts (Surzykiewicz et al., 2022; Vargová et al., 2024; see Appendix A). Cognitive preoccupation that is thinking about the potential for war can disrupt normal functioning. If a person keeps thinking about things that might be destroyed in the future, if they will be safe in their family, if they will have a good job, if their country will be safe, they might have trouble focusing on school, work, family or other activities. This is in line with the literature on stress which suggests that when stress is perceived as being overwhelming and out of one's control, psychological functioning may be adversely affected (Cohen et al., 1983; Lazarus & Folkman, 1984). In many ways, war-related stress is not just an emotional or mental issue, but also, one that involves aspects of safety, economy, food, and social stability. The present scale consists of the questions dealing with feelings of insecurity, perception of possible war as a threat for the country, the worry about economic conditions, the fear of a shortage of certain food items and feeling a sense of instability in the environment (Vargová et al., 2024; Appendix A). The perceived war stress is also strongly linked to concerns about family and friends. In keeping with the social aspect of war-related stress, the present scale incorporates concerns regarding family members, friends, and loved ones. This is in line with stress theory as people evaluate threats not only in terms of themselves, but also in terms of important others and meaningful life goals (Lazarus & Folkman, 1984; see Appendix A).

Another type of response is avoidance, which is also depicted in the present scale. Some items refer to avoiding news, discussion, images and videos of war. Emotion-focused coping strategies (EFCS) may be used as avoidance in that individuals try to avoid emotional discomfort by avoiding distressing information (Carver, 1997; Lazarus & Folkman, 1984; see Appendix A). A comparison of coping styles with perceived war stress level can add more theory and empirical value to the current study. Theoretically, if the PWS is meaningful, the coping styles should show meaningful associations with the score obtained on the scale because people who experience greater war-related stress are expected to engage in coping to deal with emotional, cognitive, and practical stressors (Boateng et al., 2018; Carver, 1997; Lazarus & Folkman, 1984). The present study can be useful in psychological assessment, social science study, counseling and mental health practice as it will help in developing a culturally appropriate Urdu instrument to measure perceived war stress. A valid scale could be useful for identifying individuals who are experiencing high levels of perceived war stress, and explore the link between the war stress and coping style, emotional adjustment and social functioning (Boateng et al., 2018; DeVellis & Thorpe, 2022; Worthington & Whittaker, 2006). The previous studies have focused on the war trauma, posttraumatic stress, war anxiety, war worry and general perceived stress, but there is a need of culturally appropriate Urdu scale measuring perceived war stress. The present scale filled the gap by providing items with respect to media-induced anxiety, emotional distress, intrusive thoughts, helplessness, future insecurity, perceived lack of safety, economic worry, food shortage fear, family worry, social

disturbance, instability and avoidance (Cohen et al., 1983; Regnoli et al., 2025; Vargová et al., 2024). The present study is not only to measure the war stress; it also underscores that measuring problem-focused coping and emotion-focused coping can reveal the mechanisms of individuals coping with war stress. This deepens the theoretical underpinning of the study and provides increased insight into psychological reactions to the possible war (Carver, 1997; Lazarus & Folkman, 1984; Worthington & Whittaker, 2006). Thus, the present study will focus on developing and validating the Perceived War Stress Scale, an aim consistent with the recommended steps, such as, clear construct definition, item generation, expert review, reliability testing, and validity evidence in scale-development research as discussed by Boateng et al. (2018), Worthington and Whittaker (2006), and DeVellis and Thorpe (2022).

Objectives

1. To develop an Urdu scale for perceived war stress.
2. To examine the content validity of the scale.
3. To explore the factor structure of the scale through exploratory factor analysis.
4. To examine the reliability of the scale through Cronbach's alpha.
5. To examine the relationship between perceived war stress and coping styles (Convergent and discriminant validity).

Hypotheses

1. The Perceived War Stress Scale will show acceptable content validity based on expert evaluation.
2. The Perceived War Stress Scale will show acceptable internal consistency reliability, with Cronbach's alpha values of .70 or above
3. Perceived war stress will have a significant positive relationship with emotion-focused coping (Convergent Validity).
4. Perceived war stress will have a relationship with problem-focused coping. (Discriminant Validity).

Methodology

The present study used a quantitative, cross-sectional scale-development design. This approach was used as primary purpose of the study was to develop a new Urdu scale on Perceived War Stress and assess its psychometric properties.

Sample

The recruited participants were mainly university students consisting of both genders, females and males, categorizing the age range into adults (18 years and above) as defined by WHO, (2016). The total sample consisted of 326 Urdu-speaking university students who were able to understand and complete the self-report questionnaires. Participants were recruited through a purposive sampling technique.

Instruments

The instruments included a demographic information sheet, the newly developed 23-item Perceived War Stress Scale, and a Coping Styles measure. The Perceived War Stress Scale used a 5-point Likert response format ranging from strongly disagree to strongly agree.

Demographic Sheet

This self-formulated demographic data sheet was utilized to assess the participant's age, gender, educational level, family system etc.

Perceived War Stress Scale

The Perceived War Stress Scale was developed by the researcher to assess subjective stress related to war and the possibility of war. The final scale consisted of 23 items written in Urdu. The scale used a 5-point Likert response format ranging from 1 = strongly disagree to 5 = strongly agree. Higher scores indicated higher perceived war stress. The psychometric properties of the scale were examined through content validity, exploratory factor analysis, and reliability analysis.

Coping Styles

Coping style scales was developed by Zaman and Ali (2014), which consist of 21 items. It consists of two subscales Problem Focused Coping (PFC) included 8 items (item 3, 4, 6, 10, 13, 15, 16, and 19) and Emotion Focused Coping (EFC) included 14 items (item 1, 2, 5, 7, 8, 9, 11, 12, 14, 17, 18, 20, 21 and 22). The Cronbach Alpha level of problem focused coping is .87 and emotion focused coping is .89. The age range for this instrument is 19 years and above.

Procedure

Participants were informed about the study and provided consent before completing a questionnaire containing demographic items, the Perceived War Stress Scale, and the Coping Styles Scale. For Perceived War stress, it includes item development, expert review and data collection. Experts evaluated the items for relevance and clarity. After the expert review revised scale was administered to the sample Data were collected either in classrooms or online, ensured anonymity, and were entered into SPSS for screening and statistical analysis.

Ethical considerations

On the ethical grounds the whole process of the study was completed. The body of departmental ethical committee of NUML University, Islamabad reviewed the purpose of the study and the tools that were being utilized. The participants were asked to fill the informed consent before giving their respective responses concerning their willingness to participate in this research.

Proposed Analysis

To establish content validity, the initial item pool was evaluated by five subject matter experts (SMEs) with expertise in psychology, psychometrics, and scale development. Experts rated each item for relevance and clarity, using a 4-point scale. Data was analyzed using descriptive statistics, content validity analysis, exploratory factor analysis, reliability analysis and correlation (Convergent and Divergent validity). Exploratory factor analysis was used to identify the factor structure of the Perceived War Stress Scale. Reliability analysis was conducted to examine internal consistency. Correlation analysis was used to examine the relationships among perceived war stress, problem-focused coping, and emotion-focused coping.

Results

Table 1 *Demographic Characteristics of Participants (N = 326)*

Variable	Category	M	S.D.	*f*	%
Age		21.63	2.30		
Gender	Female			218	66.9
	Male			108	33.1
Education	BS			314	96.3
	MS/MPhil			6	1.8
	PhD			6	1.8
Family system	Nuclear			229	70.2
	Joint			97	29.8

Table 1 presents the demographic characteristics of the participants. Among the 326 participants, the majority were female, 218 (66.9%), while 108 (33.1%) were male. Most participants had BS-level education, 314 (96.3%), whereas 6 (1.8%) had MS/MPhil-level education and 6 (1.8%) had PhD-level education. Regarding family system, most participants belonged to nuclear families, 229 (70.2%), while 97 (29.8%) belonged to joint family systems. Overall, the sample was predominantly female, BS-educated, and from nuclear families.

Content Validity

Content validity of the initial 26-item Perceived War Stress Scale was assessed through ratings from five subject matter experts. Experts assessed the items for relevance and clarity. For relevance, I-CVI values ranged from .40 to 1.00, with an S-CVI/Ave of .87. For clarity, I-CVI values ranged from .60 to 1.00, with an S-CVI/Ave of .87. These values indicated good overall content validity of the initial item pool. Items with low I-CVI values were reviewed, revised, or removed. After expert review, the scale was reduced from 26 items to 23 items for further psychometric analysis.

Table 2 *KMO and Bartlett's Test for the Perceived War Stress Scale (N = 326)*

Test	Value
Kaiser-Meyer-Olkin measure of sampling adequacy	.929
Bartlett's test of sphericity, χ^2	3836.853
Degrees of freedom	253
Significance	< .000

Note. The KMO value indicated excellent sampling adequacy, and Bartlett's test of sphericity was significant, showing that the data were suitable for factor analysis.

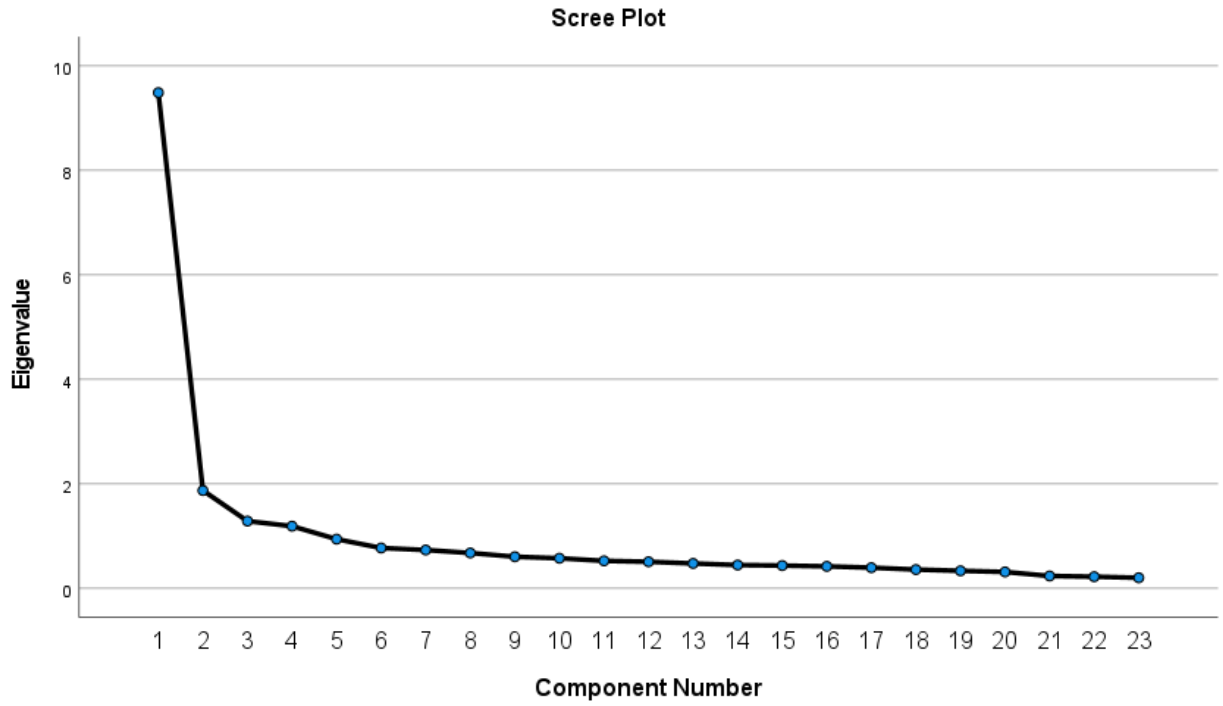
Table 2 shows that the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was .929, which indicated that the sample was highly adequate for factor analysis. Bartlett's test of sphericity was also significant, χ^2 (253) = 3836.853, $p < .001$, confirming that the correlation matrix contained sufficient relationships among the items and was not an identity matrix. Therefore, the data met the necessary assumptions for conducting factor analysis on the Perceived War Stress Scale.

Table 3 *Communalities for the Perceived War Stress Scale (N = 326)*

Item	Extraction
PWS1	.382
PWS2	.422
PWS3	.496
PWS4	.312
PWS5	.493
PWS6	.426
PWS7	.489
PWS8	.301
PWS9	.417
PWS10	.394
PWS11	.516
PWS12	.601
PWS13	.107
PWS14	.427
PWS15	.565
PWS16	.413
PWS17	.408
PWS18	.371
PWS19	.258
PWS20	.294
PWS21	.322
PWS22	.239
PWS23	.254

Note. Extraction method was principal axis factoring. Extraction values indicate the proportion of variance in each item explained by the single extracted factor

Table 3 demonstrated the extraction communalities showed the proportion of variance in each PWSS item explained by the single extracted factor. The values indicated that most items were adequately represented by the general perceived war stress factor. PWS12 showed the highest communality, suggesting that it was strongly represented by the extracted factor. However, PWS13 showed the lowest communality, indicating that this item was weakly represented in the one-factor solution and should be interpreted cautiously. Overall, the results supported the use of a one-factor structure, although a few items with lower communalities may require further review.



The scree plot showed one dominant component, followed by a gradual leveling of the remaining eigenvalues. This pattern supported the presence of a single general factor. Therefore, the Perceived War Stress Scale was treated as a unidimensional measure in the present study.

Table 4 *Total Variance Explained by the Four-Factor Solution (N = 326)*

Component	Extraction Eigenvalue	% of Variance	Cumulative %
1	9.486	41.245	41.245

Table 4 of one-factor solution showed that the component had an eigenvalue of 9.486 and explained 41.245% of the total variance. This indicated that the Perceived War Stress Scale had a strong general factor. Therefore, the scale was treated as a unidimensional measure of perceived war stress.

Table 5 *Psychometric Properties of Study Instruments (N = 326)*

					Range	
Variable	***k***	***α***	***M***	***SD***	**Actual Range**	**Potential Range**
Perceived War Stress Scale	23	.92	72.45	13.21	23-115	23–115
Problem Focused Coping	8	.78	27.78	5.30	10-40	8-40
Emotions Focused Coping	14	.88	42.80	10.80	18-70	14-70

Note. k = *Number of items; α = Cronbach's alpha; M= Mean and SD= Standard deviation*

Table 5 of reliability analysis showed acceptable to excellent internal consistency for all study instruments. The Perceived War Stress Scale showed excellent reliability, α = .92. Emotion-focused coping also showed good reliability, α = .88, while problem-focused coping showed acceptable reliability, α = .78. The mean scores indicated that participants reported moderate levels of perceived war stress, problem-focused coping, and emotion-focused coping.

Table 6 *Convergent Validity of the Perceived War Stress Scale (N = 326)*

Measure	PWSS
Emotion-Focused Coping Scale	.634**
Problem-Focused Coping Scale	.088

Note. PWSS = Perceived War Stress Scale. $p < .01$

Table 6 showed a significant positive relationship between perceived war stress and emotion-focused coping, $p < .01$. This indicates that higher perceived war stress was associated with greater use of emotion-focused coping strategies. However, the relationship between perceived war stress and problem-focused coping was weak and non-significant, suggesting that problem-focused coping was not meaningfully associated with perceived war stress in the present sample.

Discussion

The present study was designed to develop and validate the Perceived War Stress Scale (PWSS), a self-report scale in Urdu language to measure perceived war stress and the potential of war. The findings provided preliminary psychometric support for the scale. The PWSS showed good internal consistency, factorability, a dominant one factor structure and valid evidence for meaning through association with coping styles. These findings are in line with the theoretical perspective that perceived stress is a subjective interpretation of a situation as threatening, uncertain, uncontrollable and/or overwhelming (Cohen et al., 1983; Lazarus & Folkman, 1984). The KMO value obtained was .929 and Bartlett's test yielded a significant Bartlett's test value, indicating the suitability of the data for factor analysis. The results showed that the shared variance of the PWSS items was adequate and the correlation matrix was suitable to extract underlying factor structure. The one factor solution accounted for 41.245% of the total variance indicating that there is a high general perceived war stress factor. The scale items addressed a number of content areas including war-news distress, fear for future life, helplessness, intrusive thoughts, economic concerns, family concerns, instability, and avoidance of others, but these experiences seemed to coalesce into a general stress-appraisal construct. This helps to conceptualize PWSS as a one-dimensional construct of perceived war stress. The one factor structure is theoretically significant as war stress frequently occurs as a general sense of threat rather than as distinct psychological domains. The emotional stressors, safety concerns, economic worries, family concern, and helplessness may combine to make one perceived stress response in individuals indirectly exposed to war through news, public discussion, and uncertainty about the future. This is in line with the findings of Vargová et al. (2024) who suggested that war-related stress can manifest as fears of escalation, safety, economy, and future consequences. Likewise, Regnoli et al. (2025) demonstrated that concern about war is not a stressor limited to those who live directly in war zones, but extends to young adults beyond those conflict zones and highlights the importance of context-specific assessments of war-related psychological distress. Analyses of the communality showed that the majority of the items were reasonably summarized by the single factor extracted. However, PWS13

had the lowest communality, indicating that this item was poorly resolved in the one factor solution. The reason could be that respondents may answered the item inconsistently (DeVellis & Thorpe, 2022). So, PWS13 needs to be used with caution in future validation studies. Additional support for the content of the PWSS comes from recent studies on war-related media exposure and psychological distress. There are several PWSS items that evaluate distress from war-related news, images, videos and conversations. In the case of the Ukraine war, Małecki et al. (2023) identified distress and anxiety as a result of negative media experiences. The same, Surzykiewicz et al. (2022) pointed to war-induced dysfunctional anxiety and a "persistent negative thinking," as significant psychological responses in crisis situations. The results from these studies justify the incorporation of the media-related distress, intrusive thoughts, and "thinking about war" items in the PWSS. The results of the reliability analysis revealed excellent internal consistency for the PWSS, with $\alpha = .92$, indicative of a common underlying construct across the items and good internal consistency. This is consistent with scale-development recommendations that early indicators of item coherence in newly developed psychological measures are based on internal consistency (Boateng et al., 2018; DeVellis & Thorpe, 2022). Additionally, the high internal consistency of the PWSS is consistent with the results of recent war-related instruments, such as the War-related Stress Scale, War Worry Scale, War Anxiety Scale, and Fear of War Scale, revealing that war-related psychological responses can be reliably measured as independent constructs of stress (Kalcza-Janosi et al., 2023; Regnoli et al., 2025; Surzykiewicz et al., 2022; Vargová et al., 2024). The convergent validity results indicated that there was a strong positive correlation between perceived war stress and emotion-focused coping, $r = .634$, $p < .01$. This means that people who perceived high amounts of war stress were more likely to employ emotion-focused coping strategies. This is a theoretical finding that is consistent with Lazarus and Folkman's (1984) transactional model, which indicates that individuals use coping mechanisms when they evaluate a situation as threatening or challenging to cope with. Because war is sometimes beyond an individual's control, specifically for pupils and everyday citizens, individuals can turn more towards emotional regulation strategies, including acceptance, emotional expression, religious coping, emotional support, and avoidance (Carver, 1997; Carver et al., 1989). Recent studies on coping with war corroborate the relationship between perceived war stress and EFC. Xu et al. (2023) reported statistically significant associations between coping strategies with mental health symptoms among Ukrainians in the context of the Russia-Ukraine war. Chudzicka-Czupała et al. (2023) also found that coping strategies were linked to psychological distress for those living in Ukraine, Poland and Taiwan during this initial period in the war. The present finding corroborates the previous finding that coping is an important psychological reaction to the stress of war. Emotion focused coping was highly associated with perceived war stress than direct problem solving in the present study. Perceived war stress and problem-focused coping were not strongly related, $r = .088$. This is also a theoretically explainable finding. Problem focused coping is more effective when a person feels they can change or manage the stressor (Lazarus & Folkman, 1984). War and potential war are political and social threats which cannot directly be addressed by ordinary people on a large scale. Thus, students may not react to the perceived war stress as they do to their academic/personal stressors by using practical problem-solving strategies. This weak relationship could offer some initial discriminant information: the relationship between PWSS and emotional reactions to uncontrollable threat is stronger than the relationship between PWSS and practical coping.

In general, the results indicate that the PWSS is a valid and a potentially useful instrument to measure perceived war stress in Urdu. The scale was highly internally consistent, had a good general factor, and theoretically relevant relationships with coping styles. Convergent evidence was provided by the high correlation with emotion-focused coping, while some initial discriminant

evidence was provided by the low correlation with problem-focused coping. The results of this study suggest that for the present sample, perceived war stress was primarily manifested as an emotional and appraisal-based response to threat, uncertainty and lack of control.

Conclusion

The Perceived War Stress Scale showed excellent reliability and a clear one-factor structure, supporting its use as a promising Urdu measure of perceived war stress. The scale was strongly associated to emotion-focused coping but weakly related to problem-focused coping, suggesting that war-related stress was mainly managed through emotional regulation rather than practical problem solving. Though these findings provide initial support for the scale's validity, further validation using more diverse samples is recommended to strengthen its generalizability and psychometric properties.

Limitations

There are some limitations to the study. First, the sample was predominantly young (i.e., university students), and thus, results are not necessarily applicable to older age groups, the working population, individuals who had been displaced, or those who had been in direct contact with conflict. Secondly, the cross-sectional design does not enable causal inferences. Third, the study was self-report, and self-report may be subject to response bias. Fourth, the one factor solution should be tested in future research with confirmatory factor analysis. Lastly, the PWS13 and other communalities with lower communalities need to be considered in future item analysis.

Recommendations

Despite these limitations, the current study makes a significant contribution by developing a culturally sensitive Urdu-language instrument for assessing perceived war stress. Future studies need to explore test–retest reliability, confirmatory factor analysis, convergent and discriminant validity with anxiety, depression, perceived stress, fear of war, and war worry as well as with other unrelated constructs. The PWSS could be valuable research, counseling and educational tools for the purposes of helping to identify people who feel psychological stress due to uncertainty about war, media coverage and perceived threats.

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