

PREDICTORS OF PSYCHOLOGICAL DISTRESS AMONG NURSES: THE ROLE OF BURNOUT, SELF-ESTEEM, RESILIENCE, AGE AND PROFESSIONAL EXPERIENCE

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ABSTRACT

Psychological distress is a frequently reported occupational health issue among nurses and is linked to suboptimal health, decreased job functioning, and poorer care quality. Although burnout, self-esteem, resilience, and demographic characteristics have individually been associated with psychological distress, limited evidence has examined their relative contribution within a single predictive model, particularly in low- and middle-income countries. To determine whether burnout, self-esteem, resilience, age, and professional experience significantly predict psychological distress among nurses working in a public tertiary care hospital in Pakistan. A quantitative cross-sectional study was conducted among 140 registered nurses employed at the District Headquarters Hospital, Okara, Pakistan. Participants completed a demographic questionnaire, the Depression Anxiety Stress Scale-21 (DASS-21), Copenhagen Burnout Inventory (CBI), Rosenberg Self-Esteem Scale (RSES), and Brief Resilience Scale (BRS). Internal consistency was assessed using Cronbach's alpha. Pearson correlation analysis examined relationships among study variables, while multiple linear regression identified independent predictors of psychological distress. Statistical significance was established at $p < 0.05$. The study demonstrated acceptable to excellent internal consistency. Burnout was positively correlated with psychological distress whereas resilience and self-esteem were not significantly correlated with psychological distress. The regression model was statistically significant and explained 42.7% of the variance in psychological distress. The only significant predictor of psychological distress was burnout. Resilience, self-esteem, age, and professional experience were not significant predictors. Burnout was the strongest predictor of psychological distress among nurses, while self-esteem, age, and professional experience were not independently predictive of psychological distress. The results highlight the significance of organizational strategies for minimizing occupational burnout, enhancing nurses' mental health, and fostering a healthier healthcare workforce.

I. INTRODUCTION

The mental health of health care workers is a growing concern globally, especially among nurses who work in high-stress and emotionally demanding environments daily (Bamforth et al., 2023). The nursing profession is the largest component of the health care workforce and is critical in providing quality and continuity of patient care (Søvold et al., 2021). Despite these benefits, patient care demands, losing staff members to work shortages, long shifts, shift

work, and the constant occurrence of suffering and death can make nurses more susceptible to negative psychological effects (Alansari, Omri, & Singh, 2025; Izdebski et al., 2023). Therefore, psychological distress has become one of the most common mental health problems in nursing and has a significant impact on the well-being of the nursing staff and on the quality of healthcare provided (Raun, Lassen, & Østervang, 2024; Hussein, Abou Hashash, & Younes, 2024). Psychological distress is a multidimensional construct encompassing symptoms of stress, anxiety, depression, and emotional strain that impair an individual's ability to function effectively (Acharya et al., 2026). Nurse staffing in a variety of health care settings has been reported to have higher levels of psychological distress than many other occupational groups. High levels of psychological distress have been linked to lower levels of job satisfaction, absenteeism, turnover intentions, clinical decision-making, and quality of care for patients (Tabakakis, 2024). Furthermore, chronic psychological stress can lead to chronic mental health issues such as emotional exhaustion, depression, and burnout (Butler, 2025). With its pervasive impact, the causes of psychological distress in nurses continue to be a significant area of research and healthcare administration interest.

Burnout is one of the most consistent work-related factors to predict psychological distress. Burnout is seen as a syndrome of work stress that leads to emotional exhaustion, depersonalization and diminished work efficacy (Márquez, 2022). Burnout is a common problem among nurses due to the nature of their work, which often exposes them to stressful situations and strict working protocols (Zakaria et al., 2022; Quesada-Puga, 2022). Published systematic reviews have shown that burnout is a common problem among nurses in various healthcare contexts and is significantly related to poor psychological well-being, anxiety and depression, and emotional fatigue (Getie et al., 2025; Chirico, 2021). Although the association between burnout and psychological distress has been documented in both developed and developing countries (Watson, 2023; Woo et al., 2020; Getie et al., 2025), evidence from Pakistan remains limited, particularly regarding the simultaneous influence of occupational, psychological, and demographic factors on nurses' psychological well-being. Occupational stressors make people more susceptible to psychological distress, whereas individual psychological resources like self-esteem may buffer nurses from the negative effects of their jobs. Self-esteem is a person's general appraisal of themselves and is an important factor in emotional control, coping, and psychological adaptation (Leary, 1999; AlHarbi, 2022). A person with positive self-esteem is more likely to display confidence and coping skills and be resilient in stressful situations. Self-esteem has been positively correlated with psychological adjustment and psycholinguistic protection against mental health issues, which makes it an important psychological resource (Komariah et al., 2025; Valaine et al., 2024). But low self-esteem is linked to depression, anxiety, emotional instability, and psychological distress (Bibi, Kahliq, & Younus, 2024; Khan et al., 2024). Self-esteem is a potentially important psychological asset for the nursing profession, aiding adaptation to workplace stressors and supporting psychological functioning in challenging working conditions (Hussain et al., 2026; Akturan et al., 2024).

Another protective factor that is gaining increasing attention in occupational health is resilience. According to Herrman et al. (2011) and Friedberg & Malefakis (2022), resilience refers to the ability to adjust positively and adapt to adverse situations, stress, or trauma. In healthcare environments, resilience is crucial for nurses as they continually face the strain of their daily duties and strive to keep their emotions in check (Delgado et al., 2022; Alodhialah, Almutairi, & Almutairi, 2024). Resilient individuals tend to employ adaptive coping mechanisms, control their emotional reactions, and feel confident in their ability to manage stressful situations without them being overwhelming (Wu et al., 2025; Pahwa & Khan, 2022). Empirical findings have repeatedly shown negative associations between psychological distress and psychological resilience (Hasan & Alsulami, 2024; Caldiroli et al., 2025), suggesting the protective role of psychological resilience against poorer psychological outcomes. As healthcare systems become more and more stressed, resilience is now becoming a crucial concept to understand in relation to the psychological health of nurses. In addition to psychological factors, the other demographic factors may also affect psychological distress. Demographic factors that are most commonly studied are age and professional experience in nursing (Lyu, 2024). Generally, working nurses are believed to have more adaptive strategies, more professional confidence, and better emotional regulation, through many years of working in the clinic (Baharum et al., 2023). These skills are helpful in reducing risk of psychological distress. But the results have been inconsistent (Watson, 2023; Woo, 2020). Although a few studies have indicated that psychological adjustment is related to age and years of experience, others have found weak or insignificant relationships (Yi & Lee, 2024; Shaban et al., 2025). The differences highlight the importance of continued exploration of the impact of demographic factors on nurses' mental health.

Although considerable international evidence exists regarding psychological distress among nurses, important gaps remain within the literature. First, a large portion of the previous literature has investigated the prevalence of psychological distress instead of what predicts the presence of psychological distress. Furthermore, although psychological distress might be a result of a combination of occupational, psychological and demographic factors, many studies only focus on one or two of these factors. Additionally, there is relatively little evidence available from LMIC countries, especially among nurses who may be working with limited resources, staffing shortages and heavy workloads within South Asian health care contexts. In Pakistan, studies on occupational stress and burnout have been limited and have mainly focused on these constructs, while comparatively fewer studies have examined the associations of burnout, self-esteem, resilience, age, and years of experience with psychological distress. The objectives of the present study are to address these gaps by exploring psychological, occupational, and demographic factors associated with psychological distress among nurses in Okara, Pakistan. The study will identify and examine the factors associated with nurses' psychological well-being by integrating burnout, self-esteem, resilience, age, and professional experience into a single predictive model. Knowledge of key predictors of psychological distress can help healthcare institutions design interventions to mitigate psychological risk and bolster psychological resilience in their workforce. Therefore, the study aims to determine whether burnout, self-esteem, resilience, age, and professional experience significantly predict psychological distress among nurses.

II. METHOD

Participants

This cross-sectional, quantitative study aimed at finding the factors causing psychological distress among the nurses of District Headquarters (DHQ) Hospital, Okara, Pakistan. The study utilized data collected as part of a larger study of the psychological well-being of nurses that was conducted at the screening stage. Baseline data were used in the present analysis to identify occupational, psychological, and demographic factors related to psychological distress. The study population included all nurses working in the DHQ hospital, Okara. There were 140 nurses who took part in the screening process and were analysed in the present study. Purposive sampling was used to recruit the participants from various departments of the hospital. The samples were nurses aged from 25-40 years, who were occupied in their clinical work during the data collection period. The nurses included were registered nursing staff who worked at DHQ Hospital, Okara, with at least one year of experience and consented to take part in the study. Nurses were excluded from the study if they were being treated for severe psychiatric conditions at the time of the study, were on a long-term medical leave during the study or if they did not complete the questionnaire.

Measures

Demographic data such as age, marital status, educational qualification, and years of professional experience were obtained from the participants using a demographic form. **[1]** A Depression Anxiety Stress Scale-21 (DASS-21) was used for psychological distress. They are a 21-item scale to assess depression, anxiety and stress symptoms. The higher the score, the more psychological distress is present. **[2]** The Copenhagen Burnout Inventory (CBI) was used to assess the physical and psychological exhaustion related to functioning in the workplace. A higher score represents more burnout. Furthermore, the Rosenberg Self-Esteem Scale (RSES) was used as a measure of self-esteem, which is a 10-item instrument that measures overall self-esteem and self-acceptance. Higher scores reflect greater self-esteem. **[3]** The Brief Resilience Scale (BRS) was used to assess the ability to bounce back from stress and adversity. There is a higher score when there is more resilience.

Procedure

Data were analyzed statistically with SPSS version 20 (SPSS Inc., Chicago, IL, USA). Descriptive data were used to summarize study variables and participant characteristics and the results of these analyses presented as frequencies, percentages, means, and standard deviations. Cronbach's alpha coefficients were used for testing the internal consistency of the study measures. To study the correlation among psychological distress, burnout, self-esteem, resilience, age and professional experience, Pearson correlation analysis was used. Multiple linear regression analysis was used to determine the significance of the predictors for psychological distress. The

psychological distress was included as the dependent variable and the predictor variables were burnout, self-esteem, resilience, age, and professional experience. The level of statistical significance was defined as $p < 0.05$. The original study was approved for ethical purposes before the data were collected by the appropriate IRB. All participants gave informed consent, and participation was voluntary. Confidentiality and anonymity were ensured throughout the study, and participants were told that they could drop out at any time without any repercussions.

III. RESULTS

A total of 140 registered nurses participated in this study. The participants have a mean age of 32.34 ± 4.65 years. Most participants were married (67.1%), held a Bachelor of Science in Nursing Degree (65.0%), and were employed as permanent nursing staff (80.7%). Nearly half of the participants worked as charge nurses (47.9%), while 39.3% were assigned to surgical wards. Approximately one-third (32.1%) had 5-10 years of professional experience. These demographic characteristics are presented in Table 1.

Figure 1: Bar chart of Psychological Distress, Burnout, Resilience, Self-Esteem

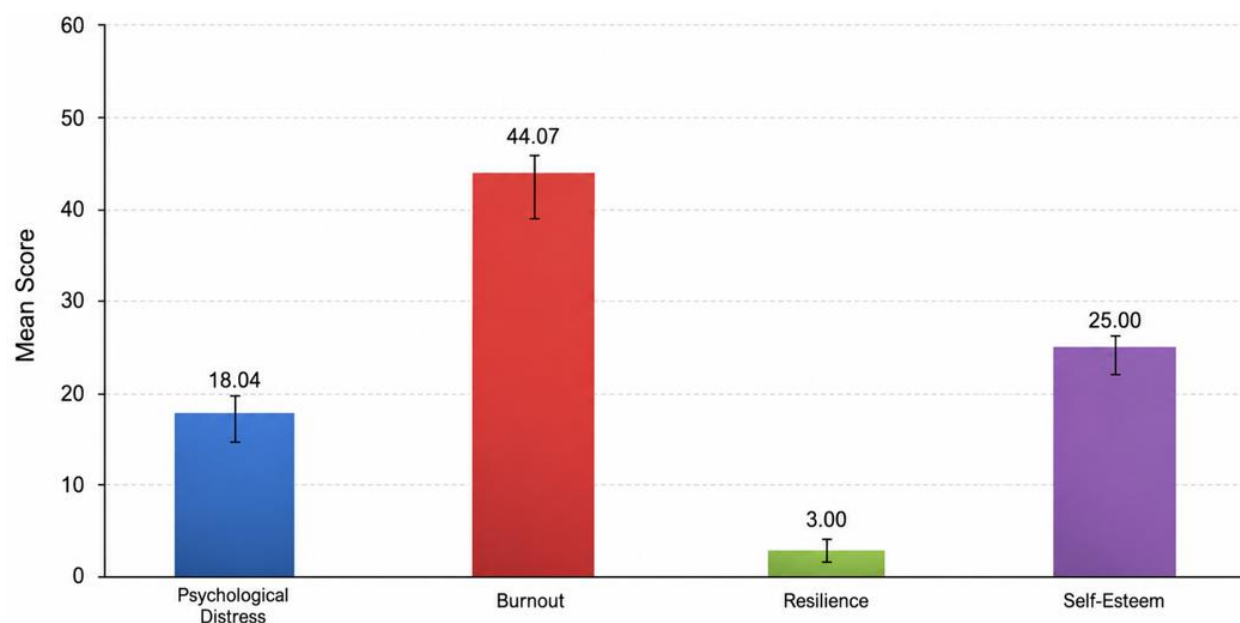


Figure 1 shows the descriptive statistics for the study. The mean psychological distress score was 18.04 ± 10.60 . The mean burnout score for the participants was 44.07 ± 15.45 , while the mean resilience and self-esteem scores were 3.00 ± 1.23 and 25.00 ± 9.38 , respectively. The average score for professional experience was 2.26 ± 1.05 .

Table 1: Reliability Analysis of Study Instruments (N = 140)

Instruments	Items	Cronbach's α	Interpretation
Depression Anxiety Stress Scale (DASS-21)	21	.876	Good
Brief Resilience Scale (BRS)	6	.935	Excellent
Rosenberg Self-Esteem Scale (RSES)	10	.952	Excellent
Copenhagen Burnout Inventory (CBI) – Personal Burnout	6	.858	Good
Copenhagen Burnout Inventory (CBI) – Work-related Burnout	7	.593	Acceptable
Copenhagen Burnout Inventory (CBI) – Patient-related Burnout	6	.701	Acceptable

The internal consistency of all the study instruments was assessed using Cronbach's alpha, as shown in Table 2. The overall DASS-21 demonstrated good internal consistency ($\alpha = .876$). The BRS showed excellent reliability (α

= .935), while the RSES also demonstrated excellent internal consistency ($\alpha = .952$). Similarly, the CBI showed acceptable to excellent reliability, with Cronbach's alpha coefficients of 0.858 for personal burnout, 0.593 for work-related burnout, and 0.701 for patient-related burnout. Overall, the reliability coefficients indicated that all study instruments were reliable for subsequent analyses.

Table III: Pearson Correlation Matrix

Variables	1	2	3	4
1. Psychological Distress	--			
2. Burnout	.639**	--		
3. Resilience	-.058	.036	--	
4. Self-Esteem	.053	-.040	.068	--

Pearson correlation analysis was conducted to explore the relationships between psychological distress, burnout, resilience and self-esteem, as shown in Table 3. Burnout showed a strong positive correlation with psychological distress ($r = .639$, $p < .001$), suggesting that a higher score of burnout is correlated with a higher score of psychological distress. In contrast, resilience demonstrated a weak negative correlation with psychological distress; however, this association was not statistically significant ($r = -.058$, $p = .497$). Similarly, self-esteem was weakly and positively correlated with psychological distress ($r = .053$, $p = .535$), although this relationship was also not statistically significant. Burnout was not significantly associated with resilience ($r = .036$, $p = .673$) or self-esteem ($r = -.040$, $p = .643$). Moreover, there was no significant correlation between resilience and self-esteem ($r = .068$, $p = .425$).

Table IV: Multiple Linear Regression Predicting Psychological Distress (N = 140)

Predictors	B	SE	β	t	p
Constant	-7.185	6.879	—	-1.044	.298
Burnout	0.452	0.046	.659	9.864	<.001
Resilience	-0.816	0.576	-.095	-1.418	.159
Self-Esteem	0.099	0.074	.088	1.333	.185
Age	0.222	0.220	.097	1.007	.316
Professional Experience	-0.844	0.991	-.083	-0.852	.396

Note. $R = .653$, $R^2 = .427$, Adjusted $R^2 = .405$, $F(5, 134) = 19.961$, $p < .001$.

A multiple linear regression analysis was conducted to determine whether burnout, resilience, self-esteem, age, and professional experience significantly predicted psychological distress among nurses. The overall regression model was statistically significant, $F(5, 134) = 19.96$, $p < .001$, explaining 42.7% of the variance in psychological distress ($R^2 = .427$, Adjusted $R^2 = .405$). The standard error of estimate was 8.17, which shows that the model fits well. All model predictor variables were subsequently examined for their association with psychological distress. Burnout was the only variable that was significantly associated with psychological distress ($\beta = .659$, $p < .001$). Higher scores for burnout were significantly correlated with greater psychological distress, after controlling for resilience, self-esteem, age, and years of experience. The relationship between resilience and psychological distress was negative, but not statistically significant ($\beta = -.095$, $p = .159$), as shown in Table 4. Likewise, self-esteem was not a significant predictor ($\beta = .088$, $p = .185$). Neither age nor professional experience significantly predicted psychological distress. Multicollinearity assessment showed that the regression assumptions were met. Tolerance values ranged from 0.446 to 0.986, and VIF values ranged from 1.014 to 2.244, indicating no multicollinearity among the predictor variables.

IV.DISCUSSION

Nurses' psychological distress has emerged as an important occupational health issue due to its possible impact on the nurses and the care of patients. The current study aimed to explore the occupational, psychological, and demographic risk factors associated with psychological distress among nurses working in a public tertiary care hospital in Pakistan. The results showed that after controlling for self-esteem, resilience, age and professional experience, burnout was the only significant predictor of psychological distress. Contrary to this, psychological distress was not independently linked with resilience, self-esteem, age or professional experience. The results indicate that occupational burnout has a greater influence on nurses' mental health than psychological and demographic factors. In the present study, burnout was the strongest predictor of psychological distress among nurses. This confirms previous studies that show that burnout is one of the most significant occupational factors for poor mental health among health care professionals. In an umbrella review of systematic reviews and meta-analyses, Getie et al. (2025) found that there was a high prevalence of burnout among Nurses and that anxiety, depression, emotional exhaustion and poor psychological well-being were consistently reported to be related to burnout. Likewise, Chirico et al. (2021) reported that long-term occupational stress is a significant risk factor for burnout syndrome and associated psychological issues for healthcare professionals. Similar conclusions were drawn by Watson (2023), who found that psychological distress is one of the most significant correlates of burnout among nursing practitioners, and by Woo et al. (2020), who showed that Burnout is a leading psychological problem for nurses globally. The positive correlation noted in the present study might be attributed to the challenging nature of nursing practice in public hospitals in Pakistan, where working schedules are long, staffing is inadequate, shifts are rotating, and patients' situations are emotionally demanding, which can lead to frequent occupational stress. Together, these results highlight the importance of preventing and reducing employee burnout as a key strategy to enhance the psychological well-being of nurses.

Self-esteem was not a significant predictor of psychological distress after controlling for other study variables, compared with burnout. Previous studies generally indicated that higher levels of self-esteem are correlated with emotional stability, adaptation coping, and reduced susceptibility to anxiety and depression. For instance, Komariah et al. (2025) found that self-esteem was significantly related to psychological well-being among nursing students, while Valaine et al. (2024) concluded that high self-esteem is a protective factor against anxiety and depressive symptoms among healthcare workers. Likewise, Bibi et al. (2024) and Khan et al. (2024) reported that low self-esteem was linked to low mental health status among the nursing population. The lack of a significant association in the current study suggests that the role of self-esteem may be less salient when occupational stressors are taken into account. Organisational factors may have a greater impact on nurses' involvement than on their perceptions of their own value when coping with demands in the workplace. However, the independent contribution of self-esteem to psychological distress appears to be limited once burnout is included in the prediction model. There was also no significant independent relationship between resilience and psychological distress. This finding differs from several previous studies that have highlighted resilience as an important protective factor against occupational stress. Hasan and Alsulami (2024) found that psychological well-being was mediated by the relationship between mental health nurses' workplace stress and their resilience. Similarly, Delgado et al. (2022) found that resilient nurses managed their emotional demands and promoted psychological well-being in stressful work situations. This was also found by Wu et al. (2025) and Caldiroli et al. (2025), who showed that resilience fosters adaptive coping and shields against negative psychological outcomes. The present results may be attributed to the fact that resilience might not directly alleviate psychological distress in the context of chronic occupational burnout. For individuals, the impact of a high workload, lack of resources, and the pressures of the healthcare organisation can be more than they can handle in a resource-limited environment. Therefore, interventions targeting workplace stressors could yield more positive outcomes for psychological well-being than resilience-building interventions.

The present study also showed that psychological distress was not significantly predicted by age or professional experience. Demographic factors have been reported to have varying effects on nurses' mental health in previous studies. Drawing on nurses' experience, Baharum et al. (2023) proposed that these traits can be gradually acquired over time during clinical practice, leading to the development of professional confidence, emotional control, and effective coping mechanisms. However, Watson (2023) and Woo et al. (2020) reported inconsistent relationships among nurses between age, years of experience, and psychological distress. Likewise, Yi and Lee (2024) found that workplace factors had a greater impact on psychological well-being than demographic characteristics. The present

findings support these observations and suggest that the psychological effects of the work demands may be comparable between younger and more experienced workers. Thus, the most important factors that may lead to psychological distress among nurses may be related to work conditions, not to their demographic attributes. One important result of the present research was that all of the occupational, psychological and demographic factors were tested simultaneously in one regression model. The studies on burnout, self-esteem and resilience have been conducted separately in the past, but not many studies have considered the relative role of these factors on psychological distress after mutual adjustment, particularly in low and middle-income countries. The findings of the present study support the importance of the occupational factors in the psychological health of nurses in the health care system in Pakistan, and that only 'Burnout' was found to be a significant predictor. This evidence builds on the growing research and literature on the importance of interventions that target the environment in the workplace as opposed to individual characteristics, in terms of psychological well-being. Overall, the present study showed that burnout was the major predictor of psychological distress, while the other factors (resilience, self-esteem, age, and professional experience) were not independently associated with psychological distress after adjusting for the other factors. The findings call for organizational policies to build psychologically healthy workplaces for nurses, particularly in resource-poor health care systems, to prevent burnout.

Strengths and Limitations

The present study has the following strengths. It explored occupational, psychological, and demographic risk factors for psychological distress at once, which provides a broader perspective on what factors affect nurses' mental health than studies examining these factors in isolation. Moreover, validated instruments widely used in the literature, such as the DASS-21, CBI, RSES, and BRS, were used to ensure the reliability of the results. Lastly, the study provides evidence from Pakistan, a country where research on the predictors of psychological distress among nurses remains scarce, thereby offering valuable data from a low- and middle-income healthcare context. The study also has a few limitations. The cross-sectional design prevents causal conclusions about the relationship between burnout and psychological distress. Furthermore, participants were recruited from a single tertiary care hospital, which may limit the generalizability of the results to nurses at other health care institutions or in other areas. Third, it is important to note that data for all study variables were collected via self-administered questionnaires, thereby introducing potential response and social desirability biases.

Recommendations

Any organizational interventions should be considered, starting with staffing, nurse-to-patient ratio, supportive leadership, flexible scheduling and psychological support services to reduce occupational burnout among healthcare administrators. Occupational health programs should include routine screening for psychological distress and burnout in order to help identify and intervene with psychological distress early. While there can be other benefits associated with resilience- and self-esteem-enhancing programs, they should be used in addition to, and not instead of, other organizational approaches that address workplace stressors. Larger-scale nursing samples in multi-center, longitudinal studies are recommended to confirm causal relationships and examine other occupational, social, and organizational risk factors for psychological distress.

V. CONCLUSION

The present study revealed that burnout was the most significant predictor of psychological distress among nurses, with no other variables significant except self-esteem, resilience, age, and professional experience. Resilience and self-esteem have both been known to be protective psychological resources, but they were not found to be independently associated with psychological distress in the current study. Likewise, there was no significant relationship for age or professional experience. The results indicate that occupational factors have a more significant impact on psychological health than individual psychological and demographic conditions for nurses and that occupational factors such as burnout play a significant role in this. Therefore, organizational interventions to combat workplace burnout should be prioritized to improve nurses' mental health, retention, and the quality/safety of patient care.

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