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Stress Levels among Honorary Teachers in Schools in Banten Province, Indonesia: A Quantitative Descriptive-Comparative Study

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ABSTRACT

Purpose - This study aims to describe stress levels among honorary teachers in schools in Banten Province, Indonesia, and to examine whether stress levels differ significantly by gender.
Design/methodology/approach - This study employed a quantitative descriptive-comparative design with a non-experimental approach. A total of 109 honorary teachers were selected using purposive sampling. Stress was measured using the seven-item stress subscale of the Depression Anxiety Stress Scale-21 (DASS-21). Data were analyzed using descriptive statistics, Cronbach's Alpha reliability testing, assumption testing, and an independent samples t-test. Cohen's d was calculated to estimate the effect size of gender-based differences.
Findings - Most respondents were in the normal stress category, comprising 69 teachers (63.3% of the sample). However, 31 teachers (28.4%) experienced moderate to extremely severe stress. The DASS-21 stress subscale demonstrated good internal consistency, with Cronbach's Alpha of 0.888. The independent samples t-test indicated no significant difference in stress levels between male and female honorary teachers, $t(107) = -0.482$, $p = 0.631$, Cohen's $d = -0.117$.
Originality/value - This study provides empirical evidence on stress levels among honorary teachers in Banten Province and emphasizes the importance of accurate DASS-21 stress subscale scoring in interpreting psychological stress among non-permanent educators.

1. Introduction

Teachers play a vital role in educational systems because their psychological well-being directly influences instructional quality, classroom atmosphere, student participation, and socio-emotional growth. In various educational settings, teacher stress is now seen less as a personal emotional response and more as an occupational issue resulting from the interplay of job demands, available institutional resources, professional autonomy, and coping skills (Collie et al., 2017; Pogere et al., 2019). This becomes particularly important for non-permanent or honorary teachers, who often undertake similar responsibilities as their permanent counterparts but face greater limitations in job security, pay, welfare benefits, and career advancement opportunities (Liu et al., 2025; Pirie, 2006). Under these circumstances, stress may develop when professional demands surpass the psychological and structural supports accessible to teachers (Wang, 2023).

Contemporary international research indicates that teacher stress and burnout continue to be ongoing issues within educational systems. Herman et al. (2020) proposed the Coping-Competence-Context framework, highlighting that stress arises from complex interactions involving coping skills, professional ability, and the working environment. Carroll et al. (2022) identified workload, emotion regulation, and subjective well-being as strong factors linked to stress and burnout among Australian teachers. Avcı Taşkıran et al. (2024); Westphal et al. (2022), in a systematic review of K–12 educators during COVID-19, found that organizational influences, leadership practices, and teachers' self-efficacy were significant factors associated with stress and burnout. Agyapong et al. (2022) also indicated that stress, burnout, anxiety, and depression are connected to demographic, organizational, and occupational variables. Additionally, Wang et al. (2025) emphasized the need to validate the DASS-21 specifically within teacher populations, recognizing that occupational stressors for teachers differ from those experienced by the broader adult population.

Despite these advances, several research gaps remain. Most existing literature focuses on permanent teachers, early-career educators, or those impacted by pandemic disruptions, leaving honorary teachers in developing countries underrepresented. Additionally, studies on stress among Indonesian honorary teachers are scarce, particularly regarding standardized instruments such as the DASS-21 stress subscale. Data from Banten Province is also limited, despite its dynamic educational, urban, and socio-economic environment, which could increase workload and psychological stress for honorary teachers. Finally, findings on gender differences in teacher stress vary across studies, highlighting the need for further investigation in specific occupational and regional contexts.

This study uses a quantitative, descriptive-comparative method to analyze stress levels among honorary teachers in Banten Province,

Indonesia. It is based on the transactional model of stress and coping, which views stress as arising from perceived imbalance between environmental demands and available coping resources. The study also aligns with occupational stress frameworks that highlight the impact of job demands, institutional support, and employment conditions. Its unique contribution lies in its focus on honorary teachers, use of the DASS-21 stress subscale with correct scoring, and comparison of stress levels across genders within a local Indonesian educational setting (Cao et al., 2023; Wang et al., 2025).

This study specifically aims to: (1) describe the stress levels among honorary teachers in Banten Province schools; (2) categorize respondents into normal, mild, moderate, severe, and extremely severe stress groups based on the DASS-21 stress subscale; and (3) test whether stress levels vary significantly between male and female honorary teachers. Theoretically, it contributes to knowledge of occupational stress and teachers' mental health by highlighting honorary teachers as a vulnerable group. In practice, the results should help schools, local education authorities, and policymakers develop stress-monitoring, counseling services, workload management, and welfare programs. The rest of the article is organized as follows: Section 2 covers the theoretical background and hypothesis development; Section 3 details the sample, research design, and measurement methods; Section 4 presents the empirical results; Section 5 relates these findings to existing research; and Sections 6 and 7 provide conclusions, discuss limitations, and suggest future research directions.

2. Literature Review

2.1 Honorary Teachers and Occupational Stress

Occupational stress among teachers occurs when professional demands exceed teachers' perceived resources, coping skills, and institutional support. In educational settings, stress results not only from individual vulnerabilities but also from the interaction of workload, emotional labor, classroom complexity, accountability pressures, leadership practices, and available resources (Bodenheimer and Shuster, 2020). The Job Demands-Resources model explains how high demands—such as time pressure, disruptive students, administrative tasks, and role overload—can negatively affect psychological health. Conversely, resources like collegial support, leadership guidance, autonomy, and professional connection can buffer stress and enhance well-being. Recent studies show that coping skills and school environment jointly influence teachers' stress responses, suggesting that occupational stress is a systemic issue rather than merely personal (Carroll et al., 2022; Collie, 2023b,a; Herman et al., 2020). Thus, teacher stress is a dynamic process where ongoing job demands and limited resources can lead to emotional exhaustion, decreased vitality, lower engagement, and increased turnover intentions, especially when institutional support or recovery opportunities are insufficient (Carroll et al., 2022; Collie, 2023b,a; Harmsen et al., 2019; Lu et al., 2024).

Honorary teachers are a vulnerable part of the teaching workforce because their jobs are often unstable, poorly paid, lack career security, and offer fewer institutional benefits compared to permanent staff. Although they perform similar pedagogical and administrative duties as their permanent counterparts, non-permanent teachers may experience additional psychological stress due to mismatches between work expectations and factors like contract stability, income, clear career paths, or organizational recognition. Research on temporary and contract-based teachers shows that job insecurity is not just an employment concern but also a source of psychological stress that can affect well-being, self-esteem, commitment, and perceived stability (Collie, 2023b,a; Giunchi et al., 2020; Harmsen et al., 2019; Özmen et al., 2025). In developing countries such as Indonesia, honorary teachers are especially vulnerable because schools rely on their labor to fill teaching gaps amid uneven structural support. Thus, workplace stress among honorary teachers should be viewed as a mix of job demands, limited resources, employment insecurity, workload, and pay pressures, rather than just an individual psychological issue.

2.2 Psychological Stress in the Teaching Profession

Teacher psychological stress encompasses cognitive, emotional, physiological, and behavioral reactions when professional demands are seen as exceeding available coping resources. The Transactional Model of Stress and Coping posits that stress does not stem directly from external demands but arises when teachers perceive classroom, institutional, and interpersonal pressures as threatening, uncontrollable, or beyond their coping abilities (Lazarus and Folkman, 1987). Globally, evidence shows that teacher stress is a persistent mental health issue across educational systems. Capone et al. (2019) found that burnout and depression among Italian teachers are related to workplace factors such as school climate, efficacy beliefs, and organizational justice. Carroll et al. (2022) found that stress and burnout among Australian teachers are connected to personal and work-environment factors. Gillet et al. (2022) observed distinct patterns of burnout over time, indicating that the effects of stress can accumulate if working conditions remain demanding. Woods et al. (2023) also reported that teacher stress negatively correlates with job satisfaction, with coping capacity influencing this relationship, supporting the notion that coping resources impact the psychological effects of occupational stress.

Common sources of psychological stress in teaching include excessive workload, long hours, classroom management issues, disruptive students, administrative pressures, lack of autonomy, role ambiguity, and limited institutional support. Sandmeier et al. (2022) found that work overload and extended hours lead to teacher exhaustion, but the satisfaction of autonomy needs can buffer this effect. Johari et al. (2018) identified autonomy, workload, and work–life balance as key factors affecting teacher performance, emphasizing that psychological well-being is influenced by both demands and control. Collie (2023b) highlighted that job demands and resources are crucial for teachers' well-being and intentions to leave, while Lu et al. (2024) argued that resilience depends on balancing demands with available resources. These insights relate directly to this study, where 28.4% of honorary teachers in Banten Province reported moderate to severe stress, indicating that many face occupational pressures, especially when teaching tasks, administrative duties, pay concerns, and job security are not adequately supported psychologically, organizationally, or socially.

2.3 Gender Differences in Stress Among Honorary Teachers

Gender differences in occupational stress have been widely studied in educational psychology because teaching involves both formal job requirements and socially constructed roles. Female teachers are often reported to experience more psychological distress, depression, and exhaustion than males, though interpretations of this difference vary. Stengård et al. (2022) found that women reported higher depression, greater emotional and quantitative work demands, and fewer resources at home. However, the link between demands, resources, and depression was similar across genders. Kollerová et al. (2023) observed higher exhaustion levels among female teachers after accounting for school type and experience, with disruptive student behavior, bullying, and lack of leadership support remaining key predictors of exhaustion for all. Carroll et al. (2022) indicated that workload, emotion regulation, well-being, and work environment influence stress and burnout, suggesting gender alone doesn't explain these outcomes. Collie (2023a,b) highlighted that job demands and resources are more immediate predictors of well-being and turnover intentions than demographics. Overall, findings on gender differences are mixed: some show higher stress in women, while others point

to structural factors like demands and resources as more significant than gender itself.

Among honorary or contract teachers, gender-based differences in stress may be influenced by the intersection of employment insecurity, work–family conflict, social support, coping strategies, and perceived professional stability. Female teachers may face additional pressure from gendered expectations related to caregiving, household responsibilities, emotional labor, and work–family boundary management, while male teachers may experience stress related to economic-provider expectations and perceived career insecurity. Uslukaya and Zincirli (2025) demonstrated that work–family conflict and family–work conflict are associated with teacher burnout and work engagement, showing that the interaction between professional and family domains can intensify teacher well-being problems. Lacomba-Trejo et al. (2022) also highlighted that competing family responsibilities can increase teachers' worries and emotional symptoms during periods of occupational disruption. Regarding job insecurity, Giunchi et al. (2020) found that precarious schoolteachers' perceptions of job insecurity fluctuate over time and are shaped by principal support, indicating that institutional support can buffer insecurity-related pressures. Özmen et al. (2025) further showed that perceptions of job security and professional self-esteem may vary by gender and career characteristics, reinforcing the need to examine gender within specific employment contexts. In Indonesia, honorary teachers often work under limited compensation, uncertain employment status, and uneven institutional support; therefore, gender differences in stress among honorary teachers should be examined empirically rather than assumed. This rationale supports the present study's comparative analysis of whether male and female honorary teachers in Banten Province differ significantly in their DASS-21 stress scores.

H1: There is a significant difference in stress levels between male and female honorary teachers in Banten Province.

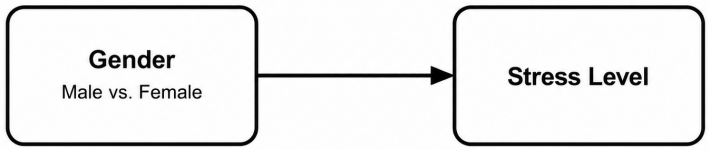

Figure 1. Conceptual framework model of gender differences in stress among honorary teachers

2.4 Measurement of Stress Using the DASS-21 Stress Subscale

The Depression Anxiety Stress Scale-21 (DASS-21) is a popular self-report tool used to measure three distinct yet related negative emotional states: depression, anxiety, and stress. It was developed from the original 42-item Depression Anxiety Stress Scales by Lovibond and Lovibond (1995). The DASS-21 maintains the three-factor structure but offers a shorter, more practical format for research and screening. Its main strength is its ability to distinguish stress from depression and anxiety, rather than viewing psychological distress as a single entity. Depression items focus on dysphoria, hopelessness, and low positive affect; anxiety items target physiological arousal and fear; stress items assess ongoing tension, irritability, agitation, and difficulty relaxing (Antony et al., 1998; Henry and Crawford, 2005; Lovibond and Lovibond, 1995). Psychometric research has shown that the DASS-21 is reliable and valid across various populations, including clinical, community, student, and workplace samples. Some studies also suggest it may measure both specific emotional states and a general distress factor (Antony et al., 1998; Henry and Crawford, 2005; Norton, 2007; Wang et al., 2025). For teachers, the DASS-21 is especially useful because they often experience overlapping symptoms such as emotional exhaustion, anxiety, depression, and stress. The subscale structure allows researchers to focus specifically on stress symptoms without conflating them with indicators of depression or anxiety (Antony et al., 1998; Henry and Crawford, 2005; Lovibond and Lovibond, 1995; Wang et al., 2025).

This study specifically examines the DASS-21 stress subscale, comprising seven items that assess difficulty relaxing, nervous tension, agitation, irritability, emotional reactivity, impatience, and overreacting to situational demands. Respondents rate each item on a four-point scale from 0 to 3, with higher scores indicating more frequent or severe symptoms during the reference period. The raw stress score is calculated by summing the seven items and multiplying by two, aligning with the original DASS-42 scoring system (Antony et al., 1998; Henry and Crawford, 2005; Lovibond and Lovibond, 1995; Wang et al., 2025). This score is categorized as: normal (0–14), mild (15–18), moderate (19–25), severe (26–33), and extremely severe (34+). Multiplying by two is essential; failing to do so could lead to underestimating symptom severity and misclassifying respondents' stress levels (Henry and Crawford, 2005; Lovibond and Lovibond, 1995; Norton, 2007). For honorary teachers, this subscale is relevant because it captures occupational stress symptoms such as difficulty calming down after work, irritability from classroom demands, impatience with administrative pressure, and emotional tension from job insecurity and limited institutional support.

Figure 2 illustrates the measurement and scoring procedure for the DASS-21 stress subscale used in this study. The figure shows that stress was assessed using seven specific items, namely items 1, 6, 8, 11, 12, 14, and 18, which capture symptoms such as difficulty relaxing, overreaction to situations, nervous tension, restlessness, difficulty feeling calm, irritability, impatience, and emotional sensitivity. Each item was rated on a four-point response scale from 0 to 3, reflecting the severity or frequency of stress symptoms experienced by respondents. The raw score was calculated by summing all seven item scores, yielding a possible range of 0–21. Following the official DASS-21 scoring procedure, the raw score was multiplied by 2 to obtain the final stress score, equivalent to the DASS-42 scoring system. The final score was classified into five severity categories: normal, mild, moderate, severe, and extremely severe.

Table 1. Sample characteristics and demographic profile

Demographic characteristic	Category	Frequency (n)	Percentage (%)
Gender	Male	21	19.3
	Female	88	80.7
Total		**109**	**100**

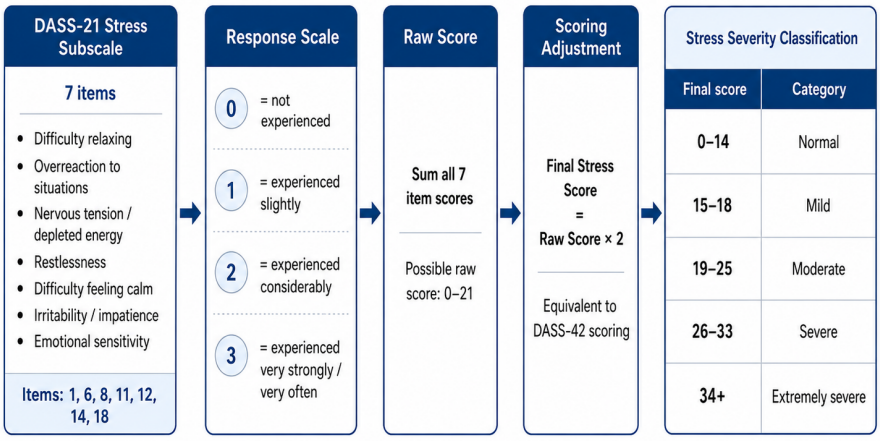

Figure 2. DASS-21 stress subscale measurement and scoring procedure

3. Methodology

3.1 Research Design

This study employed a quantitative descriptive-comparative design using a non-experimental, cross-sectional approach. The descriptive component summarized the level and distribution of psychological stress among honorary teachers, while the comparative component examined whether stress scores differed significantly between male and female respondents. This design is appropriate when the objective is to measure naturally occurring psychological conditions without manipulating variables or assigning participants to treatment groups (Cresswell, 2018). Theoretically, the design is grounded in the Transactional Model of Stress and Coping, which explains stress as an outcome of individuals' appraisal of environmental demands and available coping resources (Lazarus and Folkman, 1987). In occupational and educational psychology, non-experimental comparative designs are widely used to assess teacher stress, burnout, and well-being across demographic or work-related groups (Carroll et al., 2022; Herman et al., 2020). Therefore, this design enables the study to provide empirical evidence on stress levels among honorary teachers in Banten Province and to test gender-based differences using standardized DASS-21 stress scores.

3.2 Population, Sample, and Sampling Technique

This study's population consisted of active honorary teachers working in schools across Banten Province, Indonesia. Honorary teachers were selected because they represent a group of non-permanent educators who may be exposed to occupational stressors, including job insecurity, workload pressure, insufficient compensation, limited welfare protection, and restricted institutional support. The sample consisted of 109 honorary teachers who met the predefined inclusion criteria: being actively employed as an honorary teacher, having at least six months of teaching experience, being between 18 and 55 years old, and voluntarily agreeing to participate in the study. A purposive sampling technique was applied because the study required respondents with specific occupational characteristics directly relevant to the research objectives. This sampling approach is appropriate in quantitative field research when participants are selected based on criteria that ensure their relevance to the phenomenon being examined (Etikan et al., 2016). As presented in Table 1, the final sample comprised 21 male teachers (19.3%) and 88 female teachers (80.7%), with a total of 109 respondents. This demographic profile provides the basis for describing stress levels among honorary teachers and conducting gender-based comparative analysis.

Table 1 shows that the majority of respondents were female (80.7%), while male respondents accounted for 19.3% of the sample. This gender distribution reflects the demographic reality of honorary teachers in Banten Province, where the teaching profession at the honorary level is predominantly occupied by women. The composition supports the objective of comparative analysis, as both male and female groups were adequately represented to enable statistical testing of gender differences in stress.

3.3 Variables and Measurement

Table 2 outlines the study's measurement structure, including variables, indicators, item counts, scales, scoring methods, and sources. The primary variable was stress level, measured using the seven-item stress subscale from the Depression Anxiety Stress Scale-21 (DASS-21). This subscale assesses symptoms such as difficulty relaxing, overreacting, nervous tension, restlessness, trouble feeling calm, irritability, impatience, and emotional sensitivity. Each item was rated on a four-point Likert scale from 0 to 3, indicating the degree to which respondents experienced each symptom. The total stress score was calculated by summing the seven items and multiplying the sum by two, following the official DASS-21 scoring method to align with the DASS-42 scale (Lovibond and Lovibond, 1995). Accurate scoring is essential, as errors can underestimate stress severity and lead to misclassification. Psychometric research confirms that DASS-21 is reliable and valid for measuring negative emotional states, including stress, in both clinical and non-clinical groups (Antony et al., 1998; Henry and Crawford, 2005; Norton, 2007). Recent studies also endorse its use among teachers, demonstrating its appropriateness for evaluating psychological distress in educational contexts (Cao et al., 2023; Wang et al., 2025). Additionally, Table 2 includes gender as a nominal variable (male or female) for stress level comparisons using an independent-samples t-test.

Table 2. Measurement items and sources of instruments

Variable	Dimension / Indicator	Item number	Measurement scale	Source
Stress level	Difficulty resting or relaxing	1	Likert scale 0–3	Lovibond and Lovibond (1995)
Stress level	Overreaction to situations	6	Likert scale 0–3	Lovibond and Lovibond (1995)
Stress level	Energy depleted due to anxiety or tension	8	Likert scale 0–3	Lovibond and Lovibond (1995)
Stress level	Restlessness	11	Likert scale 0–3	Lovibond and Lovibond (1995)
Stress level	Difficulty feeling calm	12	Likert scale 0–3	Lovibond and Lovibond (1995)
Stress level	Difficulty being patient or irritability	14	Likert scale 0–3	Lovibond and Lovibond (1995)
Stress level	Being easily emotionally moved or touched	18	Likert scale 0–3	Lovibond and Lovibond (1995)
Gender	Male / Female	—	Nominal categorical scale	Demographic questionnaire

Table 3. Descriptive statistics for the DASS-21 stress construct

Construct	N	Mean	Median	Std. Deviation	Min	Max	Cronbach's Alpha
Stress level	109	14.0700	12.0000	10.8100	0.0000	42.0000	0.8880

3.4 Data Analysis Technique

Data analysis involved both descriptive and inferential statistical methods. Descriptive statistics summarized respondents' stress scores, including frequency, percentage, mean, median, standard deviation, and the range from minimum to maximum scores. Stress levels were categorized into five DASS-21 groups: normal, mild, moderate, severe, and extremely severe, according to the official scoring system where the seven-item stress score is multiplied by two (Lovibond and Lovibond, 1995). The reliability of the DASS-21 stress subscale was evaluated using Cronbach's Alpha to assess internal consistency, with values above 0.70 typically considered acceptable for psychological measures (Nunnally and Bernstein, 1994). Prior to hypothesis testing, assumption checks were performed to confirm the appropriateness of parametric analysis. An independent-samples t-test was then used to determine if stress levels significantly differed between male and female honorary teachers, with a significance threshold of $p < 0.05$. Cohen's d was also computed to measure the effect size of gender differences, since statistical significance alone does not reflect practical importance (Cohen, 1988). This analytical approach was suitable given the study's descriptive-comparative design and facilitated a systematic interpretation of stress levels among honorary teachers in Banten Province.

4. Results

4.1 Descriptive Statistics and Reliability of the Stress Construct

The descriptive statistics and reliability results for the DASS-21 stress construct are presented in Table 3. The analysis showed that the mean stress score among honorary teachers was 14.07, with a standard deviation of 10.81. This indicates that, on average, respondents fell within the normal stress category according to the DASS-21 stress classification. However, the relatively high standard deviation and wide score range from 0 to 42 suggest considerable variability in stress experiences among respondents. The median score of 12.00 further supports that most respondents reported relatively low stress levels, although some teachers experienced substantially higher stress. The reliability analysis showed that the seven-item DASS-21 stress subscale had a Cronbach's Alpha value of 0.888, indicating good internal consistency. This suggests that the stress items consistently measured the same underlying construct. In psychological measurement, Cronbach's Alpha values above 0.70 are generally considered acceptable, while values above 0.80 indicate good reliability (Nunnally and Bernstein, 1994). Therefore, the DASS-21 stress subscale was considered reliable for measuring stress among honorary teachers in this study.

4.2 Assumption Testing

Before conducting the independent samples t-test, assumption testing was performed to ensure that the statistical procedure was appropriate for comparing stress levels between male and female honorary teachers. Because this study involved one categorical grouping variable, namely gender, and one continuous dependent variable, namely DASS-21 stress score, the main assumptions considered were normality, independence of observations, and equality of variance. As summarized in Table 4, normality was evaluated to determine whether stress scores were reasonably distributed within each gender group. Homogeneity of variance was assessed to ensure that the variability of stress scores between male and female teachers was sufficiently comparable. Multicollinearity and autocorrelation were also reviewed as diagnostic considerations; however, these assumptions are more relevant to multiple regression or time-series models. Since the present study used a cross-sectional descriptive-comparative design with only one grouping variable, multicollinearity and autocorrelation were not central threats to the independent samples t-test. Visual inspection through the normal probability plot and residual scatterplot further supported the diagnostic evaluation of distributional pattern and residual spread. Overall, the assumption testing procedure indicated that the data structure was suitable for an inferential comparison using an independent-samples t-test.

Table 4. Summary of assumption testing results

Assumption	Statistical / Diagnostic Procedure	Relevance to This Study	Decision Criteria	Interpretation
Normality	Normal probability plot and visual inspection of standardized residuals	Required to ensure that residuals were approximately normally distributed before inferential testing	Points should follow the diagonal reference line without serious deviation	The normality assumption was considered acceptable
Homogeneity of variance	Scatterplot of standardized predicted values and standardized residuals	Required to assess whether residual variance was relatively constant across predicted values	Points should be randomly distributed around the zero line without a funnel-shaped pattern	The homogeneity of variance assumption was considered acceptable
Multicollinearity	Review of predictor structure	Limited relevance because the model used only one grouping variable, namely gender	Multicollinearity is not a concern when only one independent grouping variable is used	No multicollinearity issue was identified
Autocorrelation	Independence of observations review	Limited relevance because the data were cross-sectional and collected from individual respondents	Observations should be independent and not repeatedly measured over time	No indication of autocorrelation was identified
Overall assumption status: The data were suitable for independent samples t-test analysis				

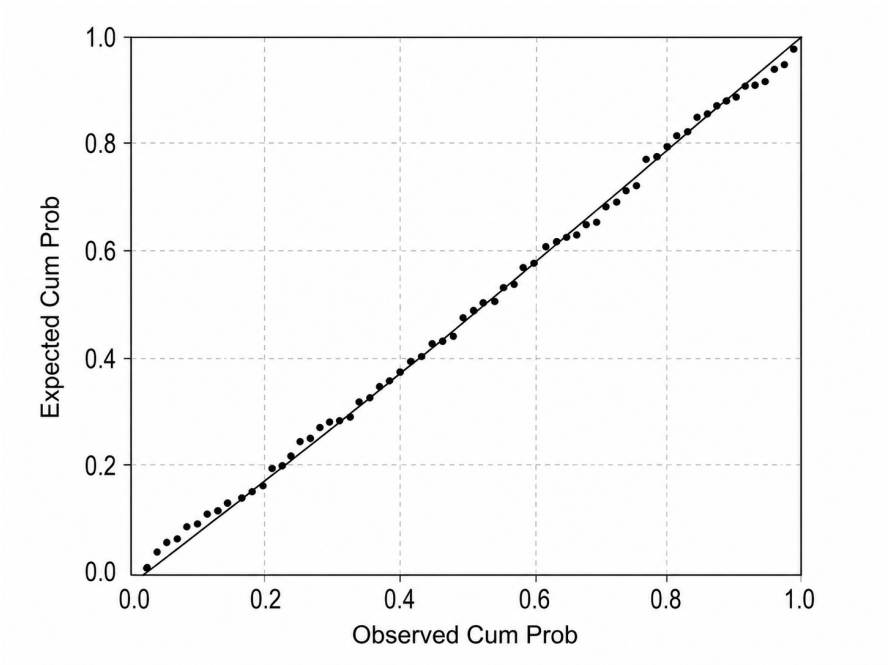

Figure 3. Normal probability plot of regression standardized residuals

Figure 3 shows the normal probability plot of regression standardized residuals, used to visually verify the normality assumption. It compares observed cumulative probabilities with expected ones. If the residuals are roughly normally distributed, the points should fall along the diagonal reference line. As seen in Figure 3, the points mostly cluster near this line, suggesting no major deviations from normality. Consequently, the normality assumption was deemed appropriate for the subsequent inferential analysis.

Figure 4 displays a scatterplot of standardized predicted values versus standardized residuals, used to evaluate homogeneity of variance and identify potential heteroscedasticity. An ideal residual scatterplot shows points randomly dispersed around the horizontal zero line, without forming obvious funnels, curves, or patterns. As seen in Figure 4, the residuals appear to be fairly evenly distributed across the predicted values, indicating that residual variance is likely constant. This visual check supports the assumption that the data are suitable for independent samples t-test comparisons.

Table 5. Comparative results for the effect of gender on stress level

Comparison	t-value	df	p-value	Cohen's d	Significance Decision
Male vs. Female	-0.482	107	0.631	-0.117	Not significant

Table 6. Group statistics for stress level based on gender

Gender	N	Mean	Median	Standard Deviation	Standard Error
Male	21	13.05	12	9.99	2.18
Female	88	14.32	13	11.04	1.18

Table 7. Stress category distribution based on gender

Gender	Normal	Mild	Moderate	Severe	Extremely Severe	Total
Male	14	1	3	2	1	21
Female	55	8	8	11	6	88
Total	**69**	**9**	**11**	**13**	**7**	**109**

Table 8. Model summary for gender-based stress comparison

Model	Predictor	Outcome Variable	Male Mean	Female Mean	Mean Difference	p-value	Cohen's d
Gender-based comparison	Gender	Stress level	13.05	14.32	-1.27	0.631	-0.117

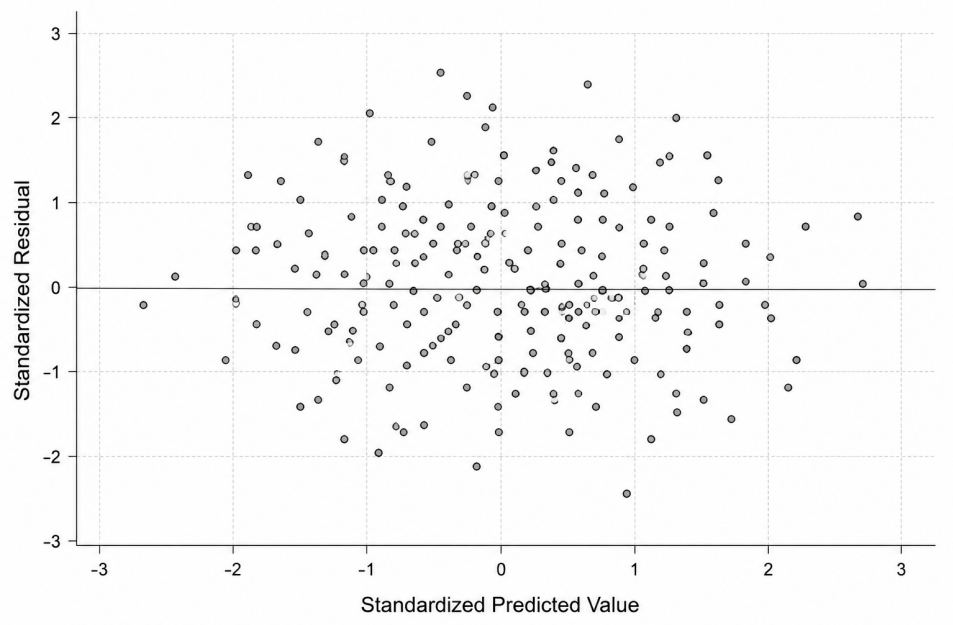

Figure 4. Scatterplot of standardized predicted vs. standardized residuals

4.3 Gender-Based Comparative Analysis

The gender-based comparative analysis was conducted to examine whether stress levels differed between male and female honorary teachers. The inferential result is presented in Table 5, which shows that the comparison between male and female teachers produced a t-value of -0.482 with 107 degrees of freedom and a significance value of p = 0.631. Because the p-value exceeded the conventional significance threshold of 0.05, the difference in stress levels between male and female honorary teachers was not statistically significant. The effect size was also very small, with Cohen's d = -0.117, indicating that gender explained only a negligible difference in stress scores. Therefore, the statistical evidence suggests that gender was not a meaningful differentiating factor in stress levels among honorary teachers in this sample.

The descriptive group statistics in Table 6 provide further support for this interpretation. Male honorary teachers reported a mean stress score of 13.05 with a standard deviation of 9.99, while female honorary teachers reported a slightly higher mean stress score of 14.32 with a standard deviation of 11.04. Although the mean score for female teachers was 1.27 points higher than that for male teachers, this difference was small relative to the variability within each group. The median score was 12.00 for male teachers and 13.00 for female teachers, showing that the central tendency of stress scores was broadly similar across gender groups. The standard error values, 2.18 for male teachers and 1.18 for female teachers, also indicate that the female group estimate was more stable because the female sample size was larger.

The distribution of stress categories by gender is shown in Table 7. Among male honorary teachers, 14 of 21 respondents were classified in the normal stress category, while 7 respondents were distributed across mild to extremely severe categories. Specifically, male respondents included 1 teacher in the mild category, 3 in the moderate, 2 in the severe, and 1 in the extremely severe category. Among female honorary teachers, 55 of 88 respondents were in the normal category, while 33 were classified as experiencing mild to extremely severe stress. This included 8 teachers in the mild category, 8 in the moderate category, 11 in the severe category, and 6 in the extremely severe category. These results indicate that both male and female honorary teachers were represented across all stress categories, suggesting that stress was not

Table 9. Comparative analysis steps summary

Step	Analytical Procedure	Purpose	Output
1	Define grouping variable	To classify respondents based on gender	Male and female groups
2	Define outcome variable	To determine the dependent variable used for comparison	DASS-21 stress score
3	Calculate group descriptive statistics	To compare mean, median, standard deviation, and standard error across gender groups	Gender-based stress profile
4	Conduct independent samples t-test	To examine whether male and female honorary teachers differed significantly in stress level	t-value, df, and p-value
5	Calculate Cohen's d	To estimate the magnitude of the gender-based difference	Effect size value
6	Interpret statistical and practical significance	To determine whether the observed difference was meaningful	Hypothesis decision and practical interpretation

Table 10. Cohen's d effect size result for gender difference

Comparison	Male Mean	Female Mean	Mean Difference	Pooled SD	Cohen's d
Male vs. Female	13.05	14.32	-1.27	10.86	-0.117

concentrated exclusively in either gender.

The model summary in Table 8 reinforces the conclusion that gender had limited explanatory value for stress levels. Since the independent-samples t-test yielded a non-significant result and the effect size was very small, the gender-based model did not provide strong evidence that male and female honorary teachers differed meaningfully in psychological stress. This pattern is visually summarized in Figure 5, which presents the conceptual comparative path diagram with coefficient values. The negative coefficient direction reflects that male teachers had a slightly lower mean stress score than female teachers, but the magnitude of the difference was too small to be considered practically meaningful. Overall, the findings suggest that occupational stress among honorary teachers in Banten Province may be more strongly related to shared structural working conditions, such as employment insecurity, workload, compensation, and institutional support, rather than gender alone.

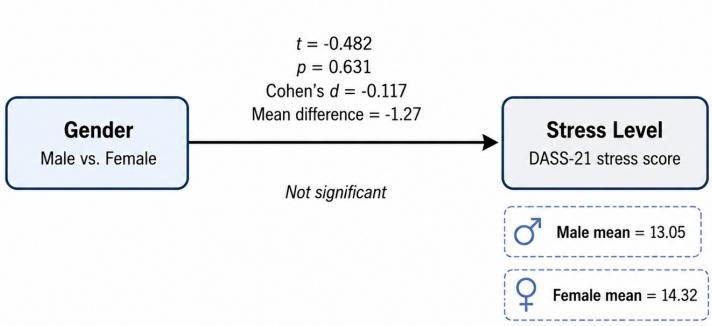

Figure 5. Conceptual comparative path diagram with coefficient values

Figure 5 presents a conceptual comparative path diagram illustrating the relationship between gender and stress levels among honorary teachers. The diagram summarizes the statistical comparison between male and female respondents by displaying the key coefficients from the independent-samples t-test. The path from gender to stress level is non-significant, with t = -0.482, p = 0.631, and Cohen's d = -0.117, indicating that gender did not yield a statistically meaningful difference in DASS-21 stress scores. Although female teachers had a slightly higher mean stress score (M = 14.32) than male teachers (M = 13.05), the mean difference of -1.27 was very small and not practically substantial. Therefore, Figure 5 visually reinforces the conclusion that stress levels among honorary teachers in Banten Province were relatively similar across gender groups.

4.4 Effect Size and Practical Significance

After examining statistical significance, effect size analysis was conducted to evaluate the practical magnitude of the gender-based difference in stress levels. The comparative procedure is summarized in Table 9, which shows that the analysis began by defining gender as the grouping variable and DASS-21 stress score as the outcome variable. The mean scores of male and female honorary teachers were then compared using an independent-samples t-test, followed by calculation of Cohen's d to assess the magnitude of the observed difference. This step is important because a result may be statistically significant but practically small or statistically non-significant while still requiring interpretation based on effect magnitude. In the present study, the comparison produced a non-significant p-value and a very small effect size, indicating that gender was not a substantial determinant of stress level among honorary teachers.

The effect size result is reported in Table 10. The Cohen's d value was -0.117, which falls within the very small effect range. The negative direction indicates that male teachers had a slightly lower mean stress score than female teachers; however, the magnitude of this difference was minimal. As shown in Table 11, the proportion of gender-based difference was also practically negligible. The mean difference between male and female respondents was only -1.27 points, with male teachers scoring 13.05 and female teachers scoring 14.32. Although female teachers reported a slightly higher stress score, the difference was not large enough to indicate meaningful practical significance. Therefore, the findings suggest that stress among honorary teachers in Banten Province is more likely associated with shared occupational conditions, such as workload, employment uncertainty, compensation, and institutional support, rather than gender differences alone.

Table 11. Practical significance and proportion of gender difference

Indicator	Value	Interpretation
Mean stress score of male teachers	13.05	Male teachers reported a slightly lower stress score
Mean stress score of female teachers	14.32	Female teachers reported a slightly higher stress score
Mean difference	-1.27	The difference between groups was very small
Cohen's d	-0.117	Very small effect size
Estimated practical contribution of gender	Negligible	Gender explained only a minimal proportion of stress variation
Practical significance	Not meaningful	The gender difference was not large enough to indicate practical importance
Overall conclusion: Gender was not a substantive differentiating factor; stress levels were broadly similar between male and female honorary teachers		

Table 12. Overall statistical assumption and model summary

Component	Result / Value	Interpretation
Sample size	109	Adequate for descriptive-comparative analysis
Stress construct	DASS-21 stress subscale	Seven-item stress measurement was used
Mean stress score	14.07	Overall sample was within the normal stress category
Standard deviation	10.81	Stress scores showed considerable variability
Minimum–maximum score	0–42	Respondents were distributed across low to high stress levels
Reliability coefficient	Cronbach's Alpha = 0.888	Good internal consistency
Normality assumption	Acceptable	Residual distribution showed no serious deviation
Homogeneity of variance	Acceptable	Residual spread was considered sufficiently stable
Independence of observations	Acceptable	Data were collected from individual respondents without repeated measurement
Statistical test	Independent samples t-test	Used to compare stress scores between male and female teachers
Effect size index	Cohen's d	Used to evaluate practical significance

Table 13. Summary of hypothesis testing results

Hypothesis	Statement	Statistical Test	Result	p-value	Cohen's d	Decision
H1	There is a significant difference in stress levels between male and female honorary teachers in Banten Province	Independent samples t-test	$t(107) = -0.482$	0.631	−0.117	Not supported

4.5 Overall Statistical Summary and Hypothesis Testing

The overall statistical summary is presented in Table 12, which integrates the main diagnostic and inferential findings of the study. The assumption testing results indicated that the data were suitable for comparative analysis using an independent samples t-test. The descriptive results showed that the average stress score of honorary teachers was 14.07, placing the overall sample within the normal stress category according to the DASS-21 stress classification. However, the relatively large standard deviation of 10.81 and the score range from 0 to 42 indicated meaningful variation in stress experiences among respondents. The reliability result also supported the quality of measurement, as the DASS-21 stress subscale produced a Cronbach's Alpha value of 0.888, indicating good internal consistency. These results suggest that the instrument was reliable and that the statistical model was appropriate for examining gender-based differences in stress levels.

The hypothesis testing result is summarized in Table 13. The proposed hypothesis stated that there is a significant difference in stress levels between male and female honorary teachers in Banten Province. The independent samples t-test showed that the difference was not statistically significant, with t(107) = -0.482, p = 0.631, and Cohen's d = -0.117. Because the p-value exceeded the 0.05 significance threshold and the effect size was very small, H1 was not supported. Although female teachers reported a slightly higher mean stress score than male teachers, the difference was too small to be considered statistically or practically meaningful. Therefore, the findings indicate that stress levels among honorary teachers were broadly similar across gender groups and may be better explained by shared occupational conditions rather than gender alone.

5. Discussion

The findings of this study provide empirical evidence that psychological stress among honorary teachers in Banten Province is an important issue in occupational mental health, even though most respondents were classified in the normal stress category. The presence of a meaningful subgroup experiencing moderate to extremely severe stress suggests that honorary teachers are not a psychologically homogeneous group; rather, their stress experiences may vary according to perceived work demands, coping capacity, institutional support, and employment conditions. From the perspective of the Transactional Model of Stress and Coping, stress emerges when individuals appraise environmental demands as exceeding their available psychological and social resources (Lazarus and Folkman, 1987). This interpretation is consistent with contemporary teacher-stress literature showing that stress is shaped not only by personal vulnerability but also by classroom demands, administrative pressure, role expectations, and school-level support systems (Herman et al., 2020; Carroll et al., 2022). Therefore, the stress profile identified in this study should be interpreted as a reflection of the broader relationship between occupational demands and the resources available to honorary teachers.

The findings also support the relevance of the Job Demands-Resources perspective in explaining stress among honorary teachers. Honorary teachers commonly perform pedagogical, administrative, and interpersonal duties similar to those of permanent teachers, yet their work is often accompanied by weaker employment security, limited compensation, uncertain career pathways, and reduced access to welfare protection. When job demands remain high while job resources remain insufficient, teachers may become more vulnerable to psychological strain, emotional exhaustion, and reduced occupational well-being. Previous studies have shown that workload, autonomy, school climate, organizational justice, and work–life balance are important predictors of teacher well-being and performance (Johari et al., 2018; Capone et al., 2019). Similarly, evidence from research on teacher stress and burnout indicates that environmental conditions, work overload, prolonged working hours, and insufficient support contribute to exhaustion and reduced professional functioning (Carroll et al., 2022; Sandmeier et al., 2022). In this regard,

stress among honorary teachers should not be reduced to an individual coping problem but should be examined as an institutional and structural condition embedded in the organization of teaching work.

The reliability of the DASS-21 stress subscale strengthens the study's methodological credibility. The strong internal consistency obtained in this research indicates that the seven stress items coherently measured a common construct of psychological stress among honorary teachers. This finding is consistent with prior psychometric studies demonstrating that the DASS-21 is a reliable and valid instrument for assessing negative emotional states across clinical, community, occupational, and educational populations (Antony et al., 1998; Henry and Crawford, 2005; Norton, 2007). The use of the stress subscale is particularly appropriate because it allows the study to distinguish stress symptoms from depression and anxiety, which is important in teacher populations where emotional exhaustion, nervous tension, irritability, and difficulty relaxing may overlap with broader psychological distress (Lovibond and Lovibond, 1995; Wang et al., 2025). The item-level pattern also suggests that stress among honorary teachers may manifest as emotional sensitivity, difficulty relaxing, overreaction, restlessness, and difficulty maintaining calm. These symptoms may be early indicators of prolonged occupational strain and should be taken seriously, as persistent teacher stress can contribute to burnout, lower job satisfaction, and reduced teaching effectiveness (Gillet et al., 2022; Maslach and Leiter, 2016).

The gender-based comparison showed that stress levels did not differ significantly between male and female honorary teachers. This finding suggests that gender was not the main factor distinguishing stress experiences in the present sample. Although some previous studies have reported that female teachers may experience higher psychological distress due to work–family conflict, caregiving expectations, emotional labor, and gendered role demands, the broader literature remains mixed. Some evidence shows gendered differences in depressive symptoms, exhaustion, and work–home demands among teachers, while other studies emphasize that workload, institutional support, job demands, and school climate may explain stress more strongly than gender alone (Stengård et al., 2022; Kollerová et al., 2023). In the context of honorary teachers, male and female educators may be exposed to similar structural stressors, including employment insecurity, limited compensation, administrative workload, and limited organizational protection. This interpretation is consistent with studies showing that job demands and resources are more proximal predictors of teacher well-being than demographic characteristics alone (Carroll et al., 2022; Collie, 2023b), and that work–family conflict and job insecurity can shape teacher well-being across gender groups depending on the employment context (Giunchi et al., 2020; Uslukaya and Zincirli, 2025).

The practical implications of these findings are substantial for schools, local education authorities, and policymakers. First, schools should develop systematic early detection mechanisms for teacher stress, particularly among honorary teachers, whose employment conditions may heighten psychological vulnerability. Periodic screening, confidential counseling access, and referral pathways can help identify teachers who require support before stress develops into more severe occupational impairment. Second, school leaders should strengthen organizational resources by improving communication, distributing the workload fairly, recognizing honorary teachers' contributions, and building peer support systems. Prior research indicates that support from principals, colleagues, and institutions can buffer stress and promote teacher resilience (Herman et al., 2020; Giunchi et al., 2020). Third, local education authorities should address structural sources of stress through welfare-oriented policies, clearer employment pathways, professional development opportunities, and fairer compensation systems. Such interventions are aligned with evidence that teacher well-being is strengthened when occupational demands are balanced by autonomy, recognition, support, and adequate resources (Johari et al., 2018; Collie, 2023b; Lu et al., 2024). Overall, the findings emphasize that supporting honorary teachers' mental health is not only a psychological concern but also an educational quality issue, because teacher well-being is closely connected to instructional effectiveness, classroom relationships, and sustainable school performance (Carroll et al., 2022; Maslach and Leiter, 2016).

6. Conclusion

This study concludes that stress among honorary teachers in Banten Province remains an important occupational mental health issue, even though most respondents were classified within the normal stress range. The presence of teachers experiencing moderate to extremely severe stress indicates that a subgroup of honorary teachers requires institutional attention, early psychological detection, and workplace-based support. The DASS-21 stress subscale demonstrated strong internal consistency, confirming its suitability for assessing stress symptoms in this sample. The gender-based comparison showed no significant difference between male and female honorary teachers, suggesting that stress in this context is not primarily explained by gender. Rather, the findings indicate that stress among honorary teachers should be understood as an occupational and institutional issue associated with employment insecurity, workload demands, limited compensation, welfare protection, and organizational support. These results underline the need for schools and local education authorities to strengthen teacher mental health programs, improve support systems, and develop welfare-oriented policies for honorary teachers.

7. Limitations and Future Research

This study has several limitations. First, the sample size was limited to 109 honorary teachers in Banten Province, which may restrict the generalizability of the findings to other regions or broader teacher populations. Second, the study used purposive sampling, which may limit representativeness. Third, the analysis focused only on gender differences and did not include other potential predictors of stress, such as income level, teaching workload, years of service, school type, marital status, or institutional support.

Future research should involve larger and more diverse samples across different provinces in Indonesia. Further studies may also examine additional predictors of stress among honorary teachers, including workload, satisfaction with compensation, job insecurity, organizational support, coping strategies, and burnout. Longitudinal research is also recommended to understand how stress develops over time among honorary teachers.

Ethical Statement

This study was conducted in accordance with ethical principles for research involving human participants. Participation was voluntary, and respondents were informed of the study's purpose before completing the questionnaire. The confidentiality and anonymity of all participants were maintained. Ethical oversight was provided by the Department of Psychology, Faculty of Health Sciences, Universitas Bina Bangsa, Banten, Indonesia.

Informed Consent Statement

Informed consent was obtained from all individual participants included in the study. Participants were informed about the purpose of the research, the voluntary nature of their participation, and their right to withdraw at any time without consequence.

Author Contributions

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Data Availability Statement

The data supporting the findings of this study are available from the corresponding author upon reasonable request. The dataset is not publicly available due to participant confidentiality and ethical restrictions.

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Conflict of Interest

The authors declare that there is no conflict of interest related to this research.

Declaration of Generative AI and AI-Assisted Technologies

The authors used ChatGPT as an editorial support tool to assist with language refinement, structural organization, and manuscript formatting. The authors reviewed, verified, and approved all content generated with the assistance of the AI tool. The authors take full responsibility for the accuracy, integrity, and originality of the final manuscript.

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