

## Emotional Burnout and Mental Health Predictors Among Female Preschool Teachers

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ARTICLE INFO	ABSTRACT
<p><b>Manuscript Received:</b> 30 Dec, 2024  <b>Revised:</b> 18 Feb, 2025  <b>Accepted:</b> 02 Mar, 2025  <b>Date of Publication:</b> 06 Mar, 2025  <b>Volume:</b> 8  <b>Issue:</b> 3  <b>DOI:</b> <a href="https://doi.org/10.56338/mppki.v8i3.6978">10.56338/mppki.v8i3.6978</a></p>	<p><b>Introduction:</b> Preschool teacher profession with the work demands of preschool female teachers with diverse characters is a challenge and a source of pressure that can lead to poor mental health and job burnout. This study was conducted to analyse factors associated with mental health and subjective job burnout.</p> <p><b>Methods:</b> A cross-sectional study involving 37 female early childhood teachers in Semarang. Data were collected using a structured Google Form-based questionnaire containing questions regarding work capacity, such as age, weight, height, tenure, and marital status and analysed with descriptive statistics and chi-square test.</p> <p><b>Results:</b> Most preschool female teachers experienced mental health 59.5% and subjective job burnout 37.8%. The results of the relationship test explained that there was a relationship between tenure and mental health (<math>p=0.013</math>).</p> <p><b>Conclusion:</b> We showed that tenure of preschool female teachers is significantly associated with mental health. The provision of mental health management and fatigue prevention education are needed for both new and experienced teachers.</p>
KEYWORDS	
<p>Female;  Mental Health;  Preschool Teachers;  Subjective Fatigue</p>	
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## **INTRODUCTION**

Preschool teachers, especially women, play an important role in early childhood development which is a crucial period in the formation of cognitive, social, and emotional abilities (1). However, the profession often demands intensive physical, mental, and emotional labour, increasing the risk of mental health disorders and subjective fatigue (2). Subjective fatigue is defined as a psychophysiological condition characterized by feelings of tiredness, decreased energy and motivation, which can affect an individual's productivity and well-being (3). Mental health disorders, such as stress, anxiety, and depression, are also often found in female teachers due to high work pressure and multiple role demands.

The prevalence of job burnout among preschool teachers in Serbia reached 27.1% (4). Meanwhile, in China, the prevalence of job burnout among preschool teachers was recorded at 53.2% (5). Another study showed that 84% of teachers' workload fell into the heavy category, with almost half (42%) experiencing high levels of job burnout (6). In addition, the data also revealed that 25.3% of teachers were in the moderate mental health category, while 70.7% were in the high category (7). This shows the high risk that teachers face for job stress, emotional exhaustion, and significant mental distress.

Various individual factors, such as age, body mass index (BMI), tenure and marital status, are known to play an important role in influencing mental health and subjective burnout levels in preschool teachers(8–10). Age, for example, affects one's physical and mental ability to cope with the demands of the job. Older teachers may experience decreased physical capacity which may increase the risk of burnout (6)(11). Body mass index (BMI) is also associated with the risk of physical health problems that can affect work stamina(12). Work period is associated with level of experience, but can also increase the risk of chronic fatigue due to accumulated workload (13). In addition, marital status is a significant factor, especially for women who have to fulfil dual roles as workers and housekeepers (14). Studies show that this dual role pressure can increase stress levels, burnout, and the risk of mental health disorders in working women (15).

In Indonesia, particularly in Semarang, Central Java, studies integrating the identification of individual factors with mental health and subjective fatigue in female preschool teachers are limited. Meanwhile, a comprehensive understanding of the relationship between these individual factors is crucial for designing appropriate interventions to improve preschool teachers' occupational well-being. Therefore, this study aimed to identify the association of individual factors (age, BMI, work period, and marital status) with mental health and subjective fatigue in female preschool teachers. It was hypothesised that the individual factors affect mental health and subjective fatigue in female preschool teachers.

## **METHOD**

### **Research Type**

This research is an observational study with cross-sectional study design.

### **Population and Sample/Informants**

The population in this study was preschool teachers in Tembalang Sub-district, Semarang City. The study sample consisted of 37 preschool teachers.

### **Research Location**

The study was conducted in preschool in Tembalang Sub-district, Semarang City, Jawa Tengah, Indonesia.

### **Instrumentation or Tools**

The independent variables in this study include age, body mass index (BMI), length of service, and marital status. The dependent variables were subjective fatigue and mental health. Data collection was conducted using a Google Form-based questionnaire containing questions regarding work capacity, such as age, weight, height, length of service, and marital status. Mental health was measured using a questionnaire modified from the Mental Health Inventory-38 (MHI-38)(16). Work fatigue was measured using the Industrial Fatigue Research Committee (IFRC) instrument(17).

### Data Collection Procedures

Data collected through g-form was used to collect subjective work fatigue data, mental health and other factors such as age, weight, height, length of service, and marital status. Respondents were given a consent form and instructions to complete the questionnaire. This study has the potential for information bias, especially since the data collected relies entirely on the subjective nature of the respondents. Respondents may provide inaccurate answers, either due to errors in recalling information (recall bias), understanding the questionnaire, or because of a tendency to provide answers that are considered socially better.

### Data Analysis

Data were analyzed using descriptive statistical tests to describe sample characteristics and variable distribution. The chi square test was used to measure the relationship between the independent variables (age, BMI, work period, and marital status) and the dependent variables (subjective fatigue and mental health).

### Ethical Approval

Ethical clearance has been submitted and approved through the Health Research Ethics Commission of the Faculty of Public Health, Diponegoro University with Number: 386/EA/KEPK-FKM/2024.

## RESULTS

The individual characteristics of female early childhood education teachers in Semarang are presented in Table 1. A total of 37 research subjects participated in this study, 37.8% were in late adulthood with a range of 36 - 45 years. Regarding BMI category, most of the research subjects were in the normal, overweight, and obese 1 category with the same prevalence of 27.0%. Most of the research subjects experienced work experience for  $\leq 5$  years. While the majority of research subjects were married, 70.3%.

**Table 1.** Individual Characteristics (n=37)

Variables	Classification	f (%)
Age	Late Teens	3(8.1)
	Early Adulthood	12(32.4)
	Late Adulthood	14(37.8)
	Early Elderly	7(18.9)
	Late Elderly	1(2.7)
BMI	Underweight	4(10.8)
	Normal	10(27.0)
	Overweight	10(27.0)
	Obesitas I	10(27.0)
	Obesitas II	3(8.1)
Work Period	$\leq 5$ years	14(37.8)
	6-10 years	11(29.7)
	11-15 years	11(29.7)
	16-20 years	1(2.7)
Marital Status	Single	9(24.3)
	Married	26(70.3)
	Widow	2(5.4)

Source: Primary Data, 2024

**Table 2.** Prevalence of Mental Health Level (n=37)

Variables	Clasification	f (%)
Mental Health	Poor	22(59.5)
	Good	15(40.5)
Subjective Work Fatigue	Fatigue	14(37.8)
	No Fatigue	23 (62.2)

Source: Primary Data, 2024

Female early childhood education teachers in Semarang had mostly poor mental health at 59.5% and no job burnout at 62.2% (Table 2).

**Table 3. Mental Health (n=37)**

No.	Variables	VO f (%)	O f (%)	S f (%)	R f (%)	N f (%)
1	How often do you feel panic and tension?	-	5(13.5)	24(64.9)	8(21.6)	-
2	How often do you find yourself unable to sleep?	5(13.5)	7(18.9)	9(24.3)	11(29.7)	5(13.5)
3	How often do you feel sad?	-	6(16.2)	17(45.9)	14(37.8)	-
4	How often do you feel like you're never happy?	1(2.7)	3(8.1)	9(24.3)	15(40.5)	9(24.3)
5	How often do you have no hope?	-	3(8.1)	8(21.6)	13(35.1)	13(35.1)
6	How often do you lose control when you are angry?	-	3(8.1)	16(43.2)	13(35.1)	5(13.5)
7	How often do you get angry when someone offends you?	-	4(10.8)	15(40.5)	16(43.2)	2(5.4)
8	How often do you not think about the impact of your actions?	-	6(16.2)	13(35.1)	13 (35.1)	5(13.5)
9	How often are you trouble-free?	3(8.1)	10(27.0)	21(56.8)	3(8.1)	-
10	How often do you find yourself enjoying what's happening in life?	13 (35.1)	19 (51.4)	4(10.8)	1(2.7)	-
11	How often do you feel energized in your daily activities?	19 (51.4)	13 (35.1)	5 (13.5)	-	-
12	How often do you feel loved and cherished?	16 (43.2)	16 (43.2)	4(10.8)	1 (2.7)	-
13	How often do you feel together with your loved ones?	19 (51.4)	15 (40.5)	1 (2.7)	2 (5.4)	-
14	How often do you feel the need to open up to those closest to you?	5 (13.5)	13 (35.1)	13 (35.1)	4 (10.8)	2 (5.4)
15	How often do you feel like everything that happens in your life is a pleasant experience?	11(29.7)	19(51.4)	6(16.2)	1(2.7)	-

Source: Primary Data, 2024, Description: VO (Very Often), O (Often), S (Sometimes), R (Rarely), N (Never)

The results of the mental health measurement explained that female early childhood education teachers in Semarang sometimes felt panic and tension (64.9%), rarely felt unable to sleep (29.7%), sometimes felt sad (45.9%), rarely felt never happy (40.5%), rarely and never felt hopeless, but there were subjects who felt sometimes hopeless

(21.6%). Most felt sometimes out of control when they were angry (43.2%), often felt angry when someone offended them (10.8%), there were subjects who felt sometimes and rarely felt that they did not think about the impact of the actions you did (35.1%), many felt free from problems 56.8% but there were also those who felt rarely free from problems (8.1%). In terms of enjoying what happens in life, most of the subjects felt very often (35.1%) and often (51.4%). Research subjects very often feel loved and love (43.2%), very often feel togetherness with the closest people (51.4%), often feel the need to be open with the closest people (35.1%) and often feel that everything in your life is a pleasant experience (51.4%) (Table 3).

**Table 4.** Subjective Fatigue (n=37)

Variables	VO	O	S	N
	f (%)	f (%)	f (%)	f (%)
Head feels heavy	-	8 (21.6)	24 (64.9)	5 (13.5)
Tired all over	3 (8.1)	10 (27.0)	22 (59.5)	2 (5.4)
Legs feel heavy	-	9 (24.3)	17 (45.9)	11 (29.7)
Yawning	1 (2.7)	8 (21.6)	27 (73.0)	1 (2.7)
Chaotic mind	1 (2.7)	5 (13.5)	22 (59.5)	9 (24.3)
Drowsiness	1 (2.7)	7 (18.9)	25 (67.6)	4 (10.8)
There is a burden on the eyes	1 (2.7)	7 (18.9)	15 (40.5)	14 (37.8)
Awkward and stiff movements	1 (2.7)	2 (5.4)	22 (59.5)	12 (32.4)
Unstable when standing	-	1 (2.7)	14 (37.8)	22 (59.5)
Feeling like lying down	2 (5.4)	10 (27.0)	20 (54.1)	5 (13.5)
Difficult to think	-	3 (8.1)	26 (70.3)	8 (21.6)
Tired to talk	-	4 (10.8)	21 (56.8)	12 (32.4)
Nervous	1 (2.7)	2 (5.4)	24 (64.9)	10 (27.0)
Difficult to concentrate	-	3 (8.1)	26 (70.3)	8 (21.6)
Difficult to focus attention	-	3 (8.1)	22 (59.5)	12 (32.4)
Easy to forget	2 (5.4)	8 (21.6)	26 (70.3)	1 (2.7)
Lack of confidence	2 (5.4)	3 (8.1)	22 (59.5)	10 (27.0)
Feeling anxious	-	5 (13.5)	25 (67.6)	7 (18.9)
Difficult to control attitude	1 (2.7)	2 (5.4)	22 (59.5)	12 (32.4)
Not diligent in work	1 (2.7)	1 (2.7)	16 (43.2)	19 (51.4)
Headache	-	3 (8.1)	26 (70.3)	8 (21.6)
Stiffness around the shoulders	1 (2.7)	7 (18.9)	17 (45.9)	12 (32.4)
Pain in the back	1 (2.7)	6 (16.2)	18 (48.6)	12 (32.4)
Shortness of breath	-	3 (8.1)	10 (27.0)	24 (64.9)
Thirst	4 (10.8)	16 (43.2)	16 (43.2)	1 (2.7)
Hoarseness	-	3 (8.1)	25 (67.6)	9 (24.3)
Dizziness	1 (2.7)	5 (13.5)	27 (73.0)	4 (10.8)
Spasm/stiffness in the eyelids	-	-	15 (40.5)	22 (59.5)
Tremor (shaking) of the limbs	-	1 (2.7)	8 (21.6)	28 (75.7)
Feeling unwell	-	3 (8.1)	29 (78.4)	5 (13.5)

Source: Primary Data, 2024, Description: VO (Very Often), O (Often), S (Sometimes), N (Never)

Most female early childhood education teachers in Semarang felt unwell 78.4% of the time, dizzy or lightheaded sometimes (73.0%), headache (70.3%), forgetfulness (70.3%), difficulty thinking (70.3%), never tremor in limbs (75.7%) but there were 2.7% who felt tremor frequently. Only a small proportion felt very often tired all over (8.1), yawning (2.7%), muddled thinking (2.7%), drowsiness (2.7%), heaviness in the eyes (2.7%), awkward and stiff movements (2.7%), feeling like lying down (5.4%), forgetfulness (5.4%), and thirst (10.8%) (Table 4).

The results of the relationship test using the chi-square test showed that there was a relationship between tenure and mental health of female early childhood education teachers in Semarang. This indicates that the longer the tenure, the greater the likelihood of changes in mental health conditions. Meanwhile, age, BMI, and marital status were not associated with mental health. This means that these demographic factors may not be the main determinants

in the context of this study. In addition, the results explained that no factors were associated with subjective fatigue in this study. This indicates that subjective fatigue may be more influenced by other factors that have not been analyzed in this study (Table 5).

**Table 5.** Factors related to mental health and subjective work fatigue (n=37)

Variables	Mental Health			<i>p</i>	Subjective Fatigue			<i>p</i>
	Poor f(%)	Good f(%)	Total f(%)		Fatigue f(%)	No Fatigue f(%)	Total f(%)	
<b>Age</b>				0.897				1.000
Late Elderly	1(100.0)	-	1(100.0)		-	1(100.0)	1(100.0)	
Early Elderly	4(57.1)	3(42.9)	7(100.0)		3(42.9)	4(57.1)	7(100.0)	
Late Adulthood	9(64.3)	5(35.7)	14(100.0)		5(35.7)	9(64.3)	14(100.0)	
Early Adulthood	7(58.3)	5(41.7)	12(100.0)		5(41.7)	7(58.3)	12(100.0)	
Late Teens	1(33.3)	2(66.7)	3(100.0)		1(33.3)	2(66.7)	3(100.0)	
<b>BMI</b>				0.493				0.705
Non Ideal	14(66.7)	7(33.3)	21(100.0)		9(42.9)	12(57.1)	21(100.0)	
Ideal	8(50.0)	8(50.0)	16(100.0)		5(31.3)	11(68.8)	16(100.0)	
<b>Work Period</b>				0.013*				0.586
16-20 years	-	1(100.0)	1(100.0)		-	1(100.0)	1(100.0)	
11-15 years	10(90.9)	1(9.1)	11(100.0)		6(54.5)	5(45.5)	11(100.0)	
6-10 years	7(63.6)	4(36.4)	11(100.0)		3(27.3)	8(72.7)	11(100.0)	
≤5 years	5(35.7)	9(64.3)	14(100.0)		5(35.7)	9(64.3)	14(100.0)	
<b>Marital Status</b>				1.000				1.000
Married	16(61.5)	10(38.5)	26(100.0)		10(38.5)	16(61.5)	26(100.0)	
Widow	1(50.0)	1(50.0)	2(100.0)		1(50.0)	1(50.0)	2(100.0)	
Single	5(55.6)	4(44.4)	9(100.0)		3(33.3)	6(66.7)	9(100.0)	

## DISCUSSION

Mental health is a critical global public health issue that affects work performance and individual well-being(18,19), and depression and anxiety are the two most common mental health problems(20). Understanding early childhood teachers' mental health and associated factors is critical to informing policy, optimizing their mental well-being, and supporting their job performance. Being an early childhood educator requires practitioners' knowledge of child development theory and observation of teaching values, as well as socio-professional skills in their relationships with colleagues and children's families. These challenges are a source of stressors in their work, including responding to children's diverse needs and navigating interpersonal relationships and the expectations of students, parents, and colleagues(21).

Female preschool teachers in Semarang experience poor mental health, characterized by 13.5% often feeling anxious and tense. This is in accordance with previous research which explains that as many as 12.2% of PAUD teachers in China showed obvious anxiety symptoms(22). Respondents with higher levels of anxiety may feel more stressed(23,24), and higher levels of perceived stress have been shown to affect personal autonomy, feelings of competence, and relatedness, all of which increase the risk of burnout syndrome(23,25). It is illustrated that a person with negative mental health is described when experiencing perceived stress(26,27), versus positive mental health factors such as resilience and inner strength(28,29). In addition, a symptom of poor mental health is sleeplessness. Daily sleep time is associated with anxiety symptoms(22).

Regarding factors related to mental health, it is explained in the test results that there is a relationship between work period and mental health of PAUD teachers. This is because most workers with a working period of 11-15 years experienced poor mental health based on the test results. Workers in the work period range also experienced

subjective job exhaustion as much as 54.5%. Work period plays an important role in a person's mental health. The longer one works, the longer the exposure to psychosocial hazards in the workplace. Burnout syndrome is caused by prolonged exposure to work-related stress and is characterized by feelings of exhaustion, mental distance from work, resentment and cynicism towards work and career, and poorer performance(30).

The absence of a significant relationship between work period and subjective job fatigue suggests that work experience over a certain period of time is not always directly proportional to the risk of fatigue. The findings show that teachers with 16-20 years of service are the group with the most subjective job burnout, at 54.5%. Ideally, teachers with longer tenure should have developed better coping skills, so that they are better able to manage work pressure than teachers with shorter work period(13). However, these results indicate that other factors, such as workload, work environment or social support, may play a greater role in influencing levels of job burnout. In addition, the workload and emotional demands that preschool teachers face tend to be uniform, regardless of their tenure. This is consistent with the findings of previous studies that tenure is not always a significant predictor of burnout if work environment factors and organizational support are adequate(31). In terms of improving work productivity of workers with long work periods who experience work stress, implementing policies related to improving mental health is very necessary. Policies can be in the form of implementing counseling for teachers, education on work stress management, implementing stress coping.

Meanwhile, age is not associated with mental health in female teachers at preschool in Semarang. This happens because age is not a dominant factor, there are other factors that are more dominant. These results are not in line with other research that explains there is a relationship between age and burnout(32). Previous research explains that as preschool teachers age, there is a decrease in the physical and physiological body(33) which hinders them in doing work in the form of caring for young children, requiring walking every day to accompany and teach early childhood. However, in this study there are female preschool teachers who are old with an age range of 36-65 years have good mental health, characterized by female preschool teachers in Semarang very often feel that everything that happens in life is a pleasant experience and often feel like enjoying what happens in this life. Therefore, the age factor of female early childhood education teachers in Semarang is not related to mental health.

The results of this study showed that there was no significant relationship between age and subjective job burnout in female preschool teachers. This finding indicates that age is not the main determinant factor in influencing subjective fatigue levels. This could be due to the adaptation of individuals to workload according to their life experiences, so teachers of different age groups can develop strategies to manage stress and fatigue. The elderly category in this study experienced the most subjective fatigue at 42.9%. This study is in accordance with previous research which also shows that age often has a relationship with subjective fatigue compared to other factors, such as workload or social support(34). Age differences may affect physical and psychological capacities differently, but work adaptations or uniform work patterns in preschool teachers may reduce their impact on fatigue. Therefore, the focus of interventions can be directed at other aspects, such as job management or work environment, to reduce the risk of fatigue.

BMI is not associated with mental health among female early childhood education teachers in Semarang. This is because there are other factors that are more related. In addition, the results showed that there was no significant relationship between Body Mass Index (BMI) and subjective job fatigue in female preschool teachers. In the Non-Ideal BMI category, 57.1% did not experience job burnout. Meanwhile, in the Ideal BMI category, 68.8% also did not experience job fatigue. This shows that the majority of individuals, both with Non Ideal and Ideal BMI, tend not to experience job fatigue. This indicates that nutritional status or physical condition, reflected through BMI, is not the main factor influencing their perception of fatigue. The work of preschool teachers is more demanding on emotional and cognitive abilities, so physical aspects such as BMI may be less relevant in determining subjective fatigue levels(12). This study is in line with previous research which also found that BMI has less influence on fatigue than psychosocial factors, such as workload or social support(34). Although BMI has no direct relationship with fatigue, it is still important to maintain physical well-being to support overall health. The focus of more effective interventions should be on managing psychological stress and improving the work environment.

The marital status factor is not associated with mental health due to uneven data. This is not in line with previous research which explains there is a relationship between marital status and anxiety symptoms(22). Workers who already have a family have an excessive burden from the family that affects the completion of work tasks(35).

Several studies have found negative effects on work outcomes and the physical and mental health of preschool teachers due to work-family conflict such as higher job stress, job burnout, and feeling less satisfied with their families(36). However, our study also explains that there are teachers with married status who experience poor mental health and also experience job burnout. The higher the work-family conflict, the more mental health and physical health is impaired, less professional development at work, decreased work performance and reduced enthusiasm and expectations at work(37–39). The lack of enthusiasm and expectation is also felt by preschool teachers in Semarang with 13.5% sometimes feeling excited in doing daily activities.

In addition, the results of this study showed no significant relationship between marital status and subjective job burnout. This could be due to the distribution of data showing that most married teachers did not experience subjective fatigue, as many as 61.5%. In addition, the variation of different domestic responsibilities in individuals with the same marital status suggests that marital status alone is not sufficient to explain the overall level of subjective fatigue. Married preschool teachers may face the stress of the dual role of worker and housekeeper, but they may also obtain emotional support from a spouse or family that helps to reduce the impact of burnout. In contrast, unmarried teachers may face different challenges, such as limited social support or financial pressures. Previous research suggests that marital status is not a dominant factor in job burnout if individuals have good coping mechanisms and adequate social support(40).

A limitation of this study is that the cross-sectional design of this study prevents strong conclusions from being drawn about the causal relationship between predictors and outcomes. It did not explore other related factors such as exercise factors that may affect mental health and BMI, sleep quality factors, and workload factors.

## **CONCLUSION**

Female early childhood education teachers in Semarang experienced 59.5% poor mental health and 37.8% subjective job burnout. The results of the relationship test explained that there was an association between tenure and mental health ( $p=0.013$ ). Providing education on stress management, stress coupling, and prevention of job burnout for female PAUD teachers in Semarang is needed for teachers with a long tenure. In addition, policies issued by roof tile owners related to improving occupational safety and health by linking them to programs to improve work productivity, improve workers' mental and physical health, and prevent and reduce fatigue for roof tile workers are very necessary. In addition, providing counseling services and adjusting the workload for teachers is also necessary to prevent the risk of mental health and excessive fatigue. Further research is needed to explore other factors such as exercise that can affect mental health and BMI, sleep quality, and workload.

## **AUTHOR'S CONTRIBUTION STATEMENT**

YS: Concepts, Design, Definition of intellectual content, Data analysis, Statistical analysis, Manuscript preparation, Manuscript editing, Manuscript review; EK: Definition of intellectual content, Data analysis, Manuscript preparation and editing, Manuscript review; IW: Design, Manuscript editing, Manuscript review; BK: Design, Manuscript editing, Data analysis. All team member had responsible on field data collection.

## **CONFLICTS OF INTEREST**

The authors declare no conflict of interest.

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