

# Preschool Teachers' Occupational Well-being and the Quality of Teacher-child Interactions: The Moderating Role of Depression

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**Abstract:** *The current study aimed to explore the potential moderating role of depression in the associations between preschool teachers' occupational well-being and the quality of teacher-child interactions. To this end, 208 preschool teachers completed questionnaires on Job satisfaction, Depression, and The Quality of Teacher-child Interactions. Correlational analyses showed that preschool teachers' job satisfaction was found to be positively connected with depression but negatively correlated with the quality of teacher-child relationships. Moderation analyses revealed that depression significantly moderated the relationship between preschool teachers' job satisfaction and the quality of teacher-child interactions. The findings emphasize the need for targeted interventions that support preschool teachers' mental health and enhance teacher-child interactions to improve occupational outcomes. The theoretical and practical implications are discussed.*

**Keywords:** *Occupational well-being; Depression; Teacher-child Interactions; Preschool teachers*

## 1. Introduction

The field of educational research has recently seen a resurgence of interest in teachers' occupational well-being [1]. However, defining teachers' occupational well-being is difficult, and several terms have been used to characterize this complex phenomenon, including job satisfaction, mental health, stress, and emotional exhaustion, among others [1]. This study focuses on an aspect of teachers' occupational well-being (i.e., job satisfaction) and its associations with teacher-child interactions. The quality of education and the development of children's social and academic skills are greatly influenced by the daily interactions between teachers and children [2]. Although prior research found associations between preschool teachers' occupational well-being and the quality of teacher-child interactions [3], little is known about whether this relationship varies across individuals or contexts. Depression, as a common mental health problem, is associated with teacher-child interactions [4]. Specifically, preschool teachers with higher levels of depression symptoms interacted with children much less [5]. Besides, higher depressed symptoms predicted less job satisfaction among early childhood education teachers [6]. In addition, the existing study [3] on the association between preschool teachers' occupational well-being and the quality of teacher-child interactions has been investigated in the social context of Western countries. No evidence of a correlation between them has been found in the context of China. Therefore, this research aims to examine the moderating role of depression in the relationships between preschool teachers' occupational well-being and the quality of teacher-child interactions in China.

## 2. Literature review

### *2.1 The relationship between preschool teachers' occupational well-being and the quality of teacher-child interactions*

In this study, the primary focus is on job satisfaction as a component of teacher well-being, and the relationship between job satisfaction and the quality of teacher-child interactions is primarily discussed. The phrase "job satisfaction" describes the mental state encompassing all feelings based on how much a person believes their employment-related desires have been fulfilled [7]. Early childhood teachers' job satisfaction stems from their subjective psychological state, which is influenced by both the human and physical surroundings [8]. Preschoolers and teachers engage in a comprehensive process of verbal and nonverbal communication throughout class activities and playtime, influencing one another and

developing connections [9]. Previous studies [10] [11] tested associations between preschool teachers' job satisfaction and the quality of teacher-child interactions. For instance, teacher-child relationships were positively impacted by early childhood teachers' job satisfaction [10]. Furthermore, teacher-child interactions become more lively and joyful when job satisfaction is high [11].

## **2.2 The role of depression**

Depression is characterized by negative psychosomatic symptoms, including sorrow, irritability, restlessness, and difficulties concentrating [12]. Depression symptoms can make it difficult for a person to satisfy the emotional, social, and cognitive demands of everyday life, including obligations at work [13]. Several teacher traits, including depression [5], have an impact on the quality of teachers' relationships with children [14]. Teachers who experience greater depressive symptoms are less likely to engage with children in a productive way, which could have a negative influence on children [15] [16]. In addition, some scholars also found that preschool teachers who experienced more depression symptoms interacted with children significantly less [5]. In exploring the relationship between depression and occupational well-being, this study focuses primarily on job satisfaction. A study conducted by [6] discovered that higher levels of depressive symptoms were associated with lower job satisfaction among early childhood education teachers.

## **3. The present study**

The purpose of this study is to explore the moderating effect of depression on the relationship between preschool teachers' occupational well-being (i.e., job satisfaction) and the quality of teacher-child interactions. The following hypotheses were designed to address the study's aim: Hypothesis 1. Preschool teachers' occupational well-being (i.e., job satisfaction) will be positively associated with the quality of teacher-child interactions. Hypothesis 2. High levels of depression will increase the positive association between the preschool teachers' occupational well-being (i.e., job satisfaction) and the quality of teacher-child interactions.

## **4. Methods**

### **4.1 Participants**

The study included 208 preschool teachers ( $M$  age = 25.21 years). There were 19 males and 189 females among the participants. Participants were from a public kindergarten in Chinese mainland. Each participant provided informed consent and completed the survey anonymously.

### **4.2 Measures**

#### **Teachers' Occupational Well-Being**

##### **Job satisfaction**

A four-item scale was used to gauge the teacher's general job satisfaction [17]. "I enjoy working as a teacher" and "Working as a teacher is extremely rewarding" are two examples of items. A six-point rating system ranging from "completely disagree" (1) to "completely agree" (6) was used to collect responses.

##### **Depression**

The Center for Epidemiologic Studies-Depression Scale [18] will be used to assess teachers' depression. Using 12 items scored on a 4-point scale (1 = rarely or never, 5 = most or all), teachers reported how they felt about themselves and their lives during the previous week. Items like "You could not shake off the blues, even with help from family and friends," "Everything you did was an effort," and feeling "sad" or "lonely" caught emotions and actions frequently linked to depression.

##### **The Quality of Teacher-Child Interactions**

The quality of teacher-child interactions was evaluated using the CLASS Pre-K [19]. Ten variables within three domains-emotional support, classroom organization support, and instructional support-are used to categorize teacher-child interactions in the CLASS. The CLASS manual provides a detailed description of the dimensions, which are composed of more focused behavioral indicators [19]. A scale

of one to seven was used to evaluate the quality of teacher-child interactions (1-2 low, 3-5 intermediate, and 6-7 high) [19].

### 4.3 Data analysis

To achieve the research aims of the present study, several statistical methods were used. Firstly, descriptive statistics, including the means and standard deviations of all variables, were calculated. Additionally, a correlation analysis was conducted to examine relationships among the variables. Finally, to test the moderation effect, multiple linear regression was used.

## 5. Results

Descriptive statistics and correlation analyses are shown in Table 1. The correlation between depression and the quality of teacher-child interactions was positive ( $r = 0.15$ ,  $p < 0.05$ ). In contrast, the relationship between job satisfaction and the quality of teacher-child interactions was negative ( $r = -0.29$ ,  $p < 0.01$ ). To test the moderation hypotheses, three multiple regression models were estimated, with quality of teacher-child interactions as the outcome and age and gender as controls (see Table 2). The first model included job satisfaction as a predictor, and the second model included predictors of job satisfaction and depression. The third model included predictors of job satisfaction and depression, along with their interaction. The interactions between job satisfaction and depression were significant for the quality of teacher-child interactions ( $p < 0.05$ ). An increase in job satisfaction was less associated with the quality of teacher-child interactions at higher levels of depression but not lower or mean levels (see Fig. 1).

Table 1 Descriptive statistics and correlational coefficients among job satisfaction, depression, and the quality of teacher-child interactions.

	<i>M</i>	<i>SD</i>	1	2	3
1. Job satisfaction	22.87	5.14	-	.221**	-.294**
2. Depression	.76	.43		-	.149*
3. The quality of teacher-child interactions	8.95	6.82			-

Note: \*\* $p < .01$ , \* $p < .05$

Table 2 Results of multiple regression analyses.

Predictor	<i>B</i>	$\beta$	<i>P</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$
Model 1				.086	.086
job satisfaction	-.39	-.29	<.001		
Model 2				.134	.048
job satisfaction	-.46	-.34	<.001		
depression	3.61	.26	<.001		
Model 3				.163	.029
job satisfaction	-.09	-.06	.60		
depression	14.67	.92	<.001		
job satisfaction x depression	-.51	-.82	<.05		

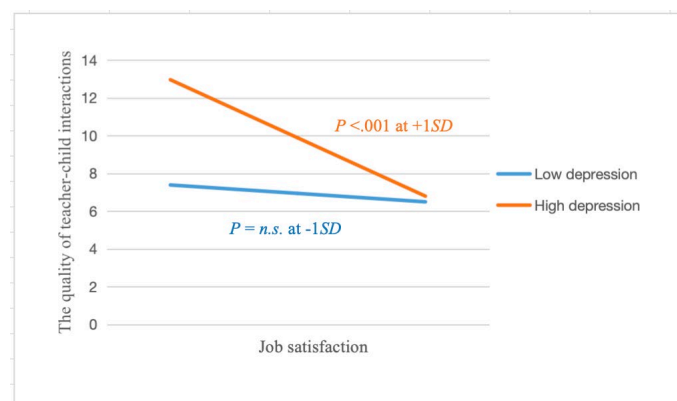


Fig. 1. Graphical representation of the interaction between job satisfaction and depression for the quality of teacher-child interactions.

## 6. Discussion

The purpose of this study was to address a gap in the literature about the moderating role of depression in the associations between teachers' occupational well-being and the quality of teacher-child interactions. The results showed a negative correlation between job satisfaction and the quality of teacher-child interactions, contrary to the present study's hypothesis that occupational well-being (i.e., job satisfaction) of preschool teachers would be positively associated with the quality of teacher-child interactions. One possible explanation is that teachers who make greater efforts to maintain high-quality relationships with children may face additional emotional and professional challenges in their daily work. Teachers' workload and emotional labor may increase as a result of high-quality teacher-child interactions, which often require sustained emotional engagement, patience, and responsiveness to children's needs. According to previous studies, teaching-especially in early childhood settings-involves a significant amount of emotional work since teachers must frequently control and exhibit acceptable emotions when dealing with children [20]. To meet professional requirements, teachers must control and regulate their emotional expressions to maintain good, responsive interactions with young children. These emotional demands can build up over time, leading to stress and emotional fatigue [21]. Teachers who constantly work to deliver high-quality interactions may therefore feel more worn out or under strain, which could affect their levels of job satisfaction. Notably, this study found that depression significantly moderated the relationship between job satisfaction and the quality of teacher-child interactions. In particular, the relationship between job satisfaction and the quality of teacher-child interactions was decreased by higher levels of depressive symptoms. The results are in line with earlier studies [22] [23] that show depressive symptoms are linked to poor emotional functioning and decreased ability for constructive involvement in interpersonal contexts. For example, the prosocial classroom model suggests that teachers' well-being and classroom interactions are significantly influenced by their mental health [23]. Higher levels of depressive symptoms in teachers may restrict the beneficial effects of job satisfaction on the quality of their interactions by causing them to struggle with emotion control, be less responsive, and have fewer psychological resources. Additionally, studies have demonstrated that depression symptoms can reduce people's drive, vitality, and social interaction [24] [25], which makes it more difficult for teachers to convert positive work experiences into high-quality interactions with students. Consequently, it makes sense to anticipate that depression functions as a psychological barrier that lessens the positive impacts of job satisfaction on interactions between teachers and children. This finding highlights the complex interplay between these two critical factors in the quality of teacher-child interactions, which have been primarily studied independently in previous research. By examining the interactive effects of depression and job satisfaction, this investigation provides novel insights into the mechanisms underlying the quality of teacher-child interactions in Chinese preschool teachers.

## 7. Limitations and implications

Several limitations of this study should be noted. First, since this is a non-experimental study, no causal conclusions can be drawn. Future studies could overcome this constraint by using experimental or longitudinal designs to provide stronger evidence for the links between depression, the quality of teacher-child interactions, and the occupational well-being of preschool teachers. Second, response biases could be introduced by using self-report measures to evaluate the important variables. Multiple data sources, such as peer or supervisor reports, observational measurements of teacher-child interactions, and alternative evaluations of teachers' occupational well-being, may be useful for future research. Third, the study's sample was restricted to a specific cultural and educational setting, limiting the extent to which the results can be applied. It is recommended that future studies explore these connections in a variety of educational and cultural situations. Nonetheless, this research offers unique theoretical and practical implications. Theoretically, the current study adds to the literature by underscoring the significance of teachers' psychological circumstances and providing further evidence of how teacher-child interactions influence preschool teachers' occupational well-being. By identifying depression as a key moderator, the findings build on earlier research, implying that teachers' mental health may impact how interpersonal experiences in the classroom connect to their occupational well-being. In addition, this study adds to the broader theoretical discussion about the factors that underlie the quality of teacher-child interactions. The study illuminates possible psychological pathways connecting internal feelings to visible behaviors by showing that depression impairs the translation of job satisfaction into high-quality relationships. Depression is frequently linked to decreased energy, diminished emotional response, and compromised cognitive functioning-all of which are essential for productive teacher-student interactions. As a result, the results offer empirical backing

for theoretical stances that highlight how emotional and psychological resources influence interpersonal interactions in learning environments. Practically speaking, this study offers a number of significant practical recommendations for raising the standard of early childhood education. Firstly, the results indicate that initiatives to improve teacher-child interactions should consider teachers' mental health state in addition to their job satisfaction and professional competence. Even while job satisfaction and interaction quality are positively correlated, the favorable impacts of job satisfaction may be considerably diminished when teachers have greater levels of depression symptoms. This suggests that if underlying mental health issues are not addressed, therapies focused solely on occupational well-being may have little efficacy. Secondly, the findings highlight how crucial it is to include mental health assistance in teacher preparation programs and support networks. Early childhood educators may be more susceptible to depression symptoms because they frequently deal with high emotional demands. Giving teachers access to psychological tools, such as stress management courses, counseling services, and mental health seminars, may help them better manage their emotional health and sustain positive relationships with children. Therefore, promoting teachers' mental health is crucial for maintaining successful teaching methods in addition to being good for their own well-being. Furthermore, the study also emphasizes the significance of early detection of psychological discomfort in teachers. Timely acknowledgment and assistance may help prevent reductions in interaction quality since depressive symptoms can mitigate the good benefits of job satisfaction. Administrators and schools might think about conducting frequent well-being evaluations or fostering supportive settings that motivate teachers to ask for assistance when necessary. Overall, the results point to the need for a dual focus on promoting mental health and boosting occupational well-being in order to improve teacher-child interactions. Early childhood education institutions may be in a better position to support children's optimal developmental outcomes and create positive classroom settings if both factors are addressed concurrently.

## 8. Conclusion

The quality of teacher-child relationships and the occupational well-being of preschool teachers were investigated in this study, with an emphasis on the moderating effect of depression. More significantly, by showing that depression is a crucial border condition in this relationship, this study adds to the body of evidence already in existence. The findings show that the positive correlation between job satisfaction and the quality of teacher-child interactions is weakened by higher levels of depressive symptoms. This implies that depressed symptoms may limit teachers' capacity to convert positive thoughts about their profession into productive interpersonal behaviors. Thus, while analyzing teacher functioning, the study emphasizes the significance of taking into account both positive and negative psychological aspects concurrently, rather than separately. Furthermore, the results advance a more sophisticated comprehension of the mechanisms underpinning the quality of teacher-child interactions. They contend that the influence of occupational well-being on observable teaching practices varies depending on the psychological states of teachers. Depression, which is characterized by decreased energy, lower emotional response, and cognitive difficulties, may disrupt the mechanisms by which job satisfaction affects teachers' interactions with children. Therefore, discrepancies in the relationship between occupational well-being and the quality of classroom interactions may be explained by differences in mental health. In conclusion, the results highlight the fact that the advantages of job satisfaction are contingent upon teachers' mental health. The study advances a more thorough and psychologically informed understanding of teacher functioning in early childhood education by highlighting the conditional nature of this interaction.

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