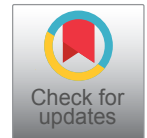




The Relationship between Preschool Teachers' Occupational Stress and Happiness: Examining Mediation and Moderation Effect

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Abstract

The main aim of this study was to explore the influence mechanism of the relationship between occupational stress and happiness. A total of 619 preschool teachers were recruited to complete the questionnaires, using correlation methodologies. The results showed that: 1) Occupational stress negatively predicted subjective authentic-durable happiness, and that professional identity mediated the link between occupational stress and subjective authentic-durable happiness. 2) Preschool teachers with high subjective socioeconomic status demonstrated more professional identity and subjective authentic-durable happiness when compared with those with low subjective socioeconomic status. 3) Preschool teachers who worked at a larger-scaled kindergarten demonstrated higher subjective authentic-durable happiness when compared with those who worked at a smaller-scaled kindergarten. Overall, the present research expounds that professional identity is an important mechanism that inhibits the influence of occupational stress on subjective authentic-durable happiness, and highlight the importance of examining the moderating role of subjective socioeconomic status and scale of the kindergarten for preschool teachers.

Keywords

Preschool teacher, Occupational stress, Professional identity, Subjective authentic-durable happiness, Subjective socioeconomic status, Kindergarten scale

Introduction

Preschool teachers are an integral part of education, and the maintenance of their mental health is very important for educational standards. This is because preschool teachers' psychological health affects not only themselves health, but also these teacher works [1,2]. Especially, preschool teachers' mental health influenced the children they interact with and preschool education as a whole [3]. Therefore, their mental health is not only important from an educational perspective, but also in terms of social development.

Previous studies have mainly focused on the factors affecting preschool teachers' occupational happiness. These factors can be classified into two categories: External and internal. In terms of external factors, occupational and environmental factors are usually analyzed [4,5], whereas for internal factors, most studies have concentrated on the personality types that affected preschool teachers' happiness [6]. Similarly, the sampling of preschool teachers' happiness confined generalizability to certain places [7], such as teachers who were working in villages [8]. However, few studies have examined the subjective happiness of all preschool teachers in the Inner Mongolia. In addition, based on the theory of

happiness and the theory of coping, preschool teachers' self-cognition and physiological resources influenced their occupational happiness, which significantly depends on occupational stress and professional identity. Therefore, this study explores the effect and mechanism of preschool teachers' occupational stress and identity in a particular province in the western part of China.

Occupational stress and happiness

The occupational particularity of teachers mainly lies in their occupational stress [9], which affects their health, both physically and psychologically [10]. Specifically, compared to

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Accepted: May 27, 2022

Published online: May 29, 2022

Citation: Deng J (2022) The Relationship between Preschool Teachers' Occupational Stress and Happiness: Examining Mediation and Moderation Effect. Ann Public Health Reports 6(1):276-284

teachers in general, preschool teachers feel more occupational pressure than other teachers due to their age and working environment, factors particularly related to their occupation [7,8]. According to the theory of psychological coping, when facing negative events and stress in their daily lives, preschool teachers will definitely experience stress responses, which will thereby lower their sense of happiness [11].

Furthermore, according to the theory of psychological resources, individuals exhaust psychological resources when faced with negative events in life, and their subjective well-being is weakened [7,12]. Prior studies have showed that occupational stress is significantly related to psychological health, which is manifested in the negative effects that occur when the individual's stress responses are further stimulated. The same is true of kindergarten teachers when they experience various types of occupational stress [7,13].

In addition, with respect to previous studies of kindergarten teachers' happiness, specific measuring tools were adopted to survey their subjective well-being [14], psychological happiness [15], and occupational happiness [16,17]. A scale for subjective authentic-durable happiness was proposed by Dambrun [18] based on the egocentric and non-self theory, and the scale has also been verified. In addition, the scale is employed in clinical applications and has higher validity and reliability. The true connotation can be measured by using the scales of subjective authentic-durable happiness; the sense of satisfaction and inner sense of peace can be reflected, and timeliness, volatility, and instability can be eliminated [19,20]. Thus, this study hypothesizes that preschool teachers' occupational stress has passive effects on subjective authenticity and a continuous sense of happiness.

Hypothesis 1: Occupational stress is negatively correlated with subjective happiness. That is, the more occupational stress the preschool teachers feel, the lower their subjective happiness.

The mediating role of professional identity

Teachers' professional identity refers to their active cognition, experience, and behavior disposition with regard to their careers and their internalized occupational role, and consist of Professional values, professional role values, professional belonging affection and professional behavior tendencies [21]. According to previous studies, professional identity is closely related to teachers' occupational adaptation [22,23] and demission tendencies. Similar, prior studies have also revealed that preschool teachers' professional identity can restrain job burnout [24], enhance their ability to deal with occupational stress [25], and related to occupational stress [26].

Furthermore, previous studies have showed that professional identity can improve preschool teachers' self-esteem, self-efficiency, sense of honor and value, and so on. Similarly, professional identity can also promote job involvement [27], job satisfaction [28,29], and happiness [25,30,31]. In summary, preschool teachers' professional identity is closely related to their occupational stress and subjective well-being.

Hypothesis 2: Professional identity plays a mediating role between occupational stress and subjective authentic-durable happiness; that is, the negative effect of occupational stress on happiness can be curtailed via professional identity.

Moderating effect of subjective socioeconomic status

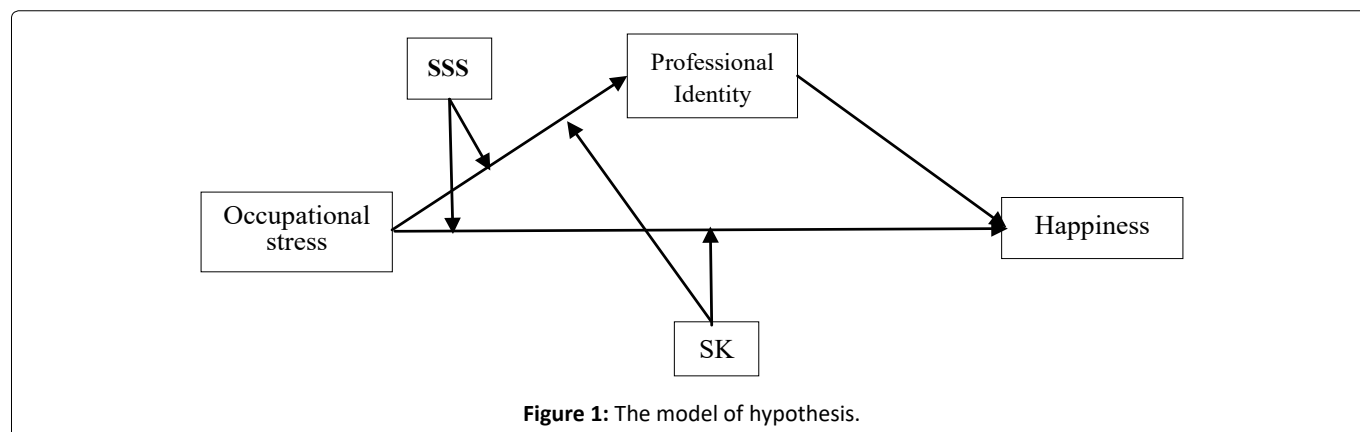
Subjective Socioeconomic Status (SSS) can be defined as individuals' cognition and recognition of their own socioeconomic level with reference to the whole society. Related studies find that subjective socioeconomic status is significantly related to individual social identity [31] and psychological resilient [32], reflecting that subjective socioeconomic status plays an active role in the construction of healthy psychology. In the study of the relationship between subjective socioeconomic status and subjective authentic-durable happiness, it is easy to find that subjective, authentic-durable happiness can be promoted by improving socioeconomic status [33,34]. In addition, related studies on teachers' subjective socioeconomic status find that in every dimension, different levels of salary lead to clear differences in professional identity, thus proving that socioeconomic status has a moderating effect on preschool teachers' professional identity.

According to the theory of self-cognitive coordination, the effect of occupational stress on professional identity can be adjusted automatically when preschool teachers feel that they have a higher socioeconomic status [35]. Therefore, the promotion of preschool teachers' subjective socioeconomic status is intimately related to occupational stress, occupational identity, and subjective authentic-durable happiness.

Hypothesis 3: The subjective socioeconomic status plays a moderating role between occupational stress and subjective authentic-durable happiness, between occupational stress and professional identity.

Moderating effect of kindergarten scale

The Scale of Kindergarten (SK) mainly refers to its equipment, faculty culture, institutional framework, among others, aimed at reflecting the features of the group dynamics and ecosystem of the kindergarten as a whole. A good working environment will improve teachers' self-learning [36,37], working efficiency and physical and mental health [5]. Similarly, the student-faculty ratio affects the quality of education, which is affected by work stress and efficiency [38]. Therefore, a good kindergarten ecosystem will provide protective resources for all the teachers, and will help them release their work stress, thereby signifying that differences in terms of psychological behavior can be caused by differing kindergarten scales. Previous studies showed that teachers tend to improve their levels of career cognition with a larger kindergarten scale thus promoting their sense of happiness, which shows that the kindergarten scale positively influences teachers' sense of happiness [39]. In summary, as the external environment and resources go, the scale of the kindergarten affects teachers' occupational stress and professional identity, which further influences their sense of happiness.



Hypothesis 4: The scale of kindergarten plays a moderating role between occupational stress and subjective authentic-durable happiness, between occupational stress and professional identity.

The present study investigated the association between occupational stress and subjective authentic-durable happiness, and its mechanism of action within a province in the western part of China. First, the study examined the effect of occupational stress on preschool teachers' happiness and the mediating effect of professional identity; second, it dealt with the moderating effect of subjective socioeconomic status and the kindergartens scale on the first part of the mediating approach and the direct approach. Figure 1 shows the hypothesis model of the research.

Method

Participants

The current study was a series of studies related to social issues; 650 preschool teachers were recruited for the study, and all participants completed the questionnaires. There were 619 participants, and the demographics were: age 17-50 years (26.85 ± 5.22), males: 21 (3.4%), females: 598 (96.6%); number of years teaching for 0-5 years: 475 (76.8%), 6-10 years: 81 (13.1%), 11-15 years: 35 (5.6%), over 16 years: 28 (4.5%); nationality: Han: 514 (83.1%), Mongolian: 78 (12.6%), Hui: 8 (1.3%), Man: 8 (1.3%), other nationalities 11(1.8%); relationship status: Unmarried: 418 (67.5%), married: 196 (31.6%), divorced: 2 (0.4%), other: 3 (0.5%); kindergarten location: Capital city: 233 (37.6%), regional city: 169 (27.3%), county-level city: 143 (23.1%), countryside kindergarten: 74 (11.9%); education level: Secondary education: 21 (3.4%), junior college degree: 155 (25.1%), bachelor degree: 439 (70.9%), over and master's degree: 4 (0.71%); title evaluation: No evaluation/unrated preschool teachers: 438 (70.7%), first-level preschool teachers: 82 (13.3%), second-level preschool teachers: 75 (12.1%), third-level preschool teachers: 4 (0.7%), grade-level preschool teachers: 20 (3.2%); nature of the kindergarten: public kindergarten: 284 (45.8%), private kindergarten: 225 (36.4%), collective kindergarten: 17 (2.8%), company kindergarten: 92 (14.9%); kindergarten level: Demonstration kindergarten: 227 (36.6%), first-level kindergarten: 73 (11.8%), second-level kindergarten: 30 (4.8%), other-level kindergarten: 289 (46.8%); scope of the

kindergarten: 3 classes: 40 (6.4%), 4-6 classes: 119 (19.2%), 7-12 classes: 282 (45.7%), 13-16 classes: 117 (18.9%), over and 16 classes (9.8%).

Measures

Occupational stress was assessed using the Occupational Stress Questionnaire. This questionnaire consists of 4 dimensions and 18 items: Work Difficulty and Challenges (eight items), Job Responsibilities and Remuneration (four items), Work Intensity (three items), Management system and Career Development (three items). Participants answered using a five-point Likert-type scale (1= no stress, 5= mostly stressed), the internal consistency reliability was 0.87, and the results of the goodness of fit for the questionnaire were $\chi^2/df = 2.896, P = .000, CFI = 0.976, TLI = 0.977, RMSEA = 0.048$.

Professional identity was assessed using the teachers' Professional Identity Scale. The scale has 4 dimensions and 18 items. A six-point Likert-type scale measured teachers' professional identity from 1 to 6 (1 = not at all suitable, 6 = very suitable); the higher the score, the higher the degree of professional identity. In this study, the Cronbach's α was 0.950, and the results of the goodness of fit were $\chi^2/df = 1.327, P = 0.000, CFI = 0.985, TLI = 0.989, RMSEA = 0.025$.

Subjective authentic-durable happiness was assessed using the Subjective Authentic-Durable Happiness scale (SA-DHS). The scale comprises 16 items (8 items for well-being, 5 items for inner peace, and 3 items for control). Participants answered using a six-point Likert-type scale (1 = lowest well-being, 6 = happiest), and the internal consistency reliability was 0.894.

Subjective socioeconomic status was measured using the Subjective Socioeconomic Status questionnaire, which ranges from 1 to 10 (1 = lowest status, 10 = mostly highest status); wherein the higher the score, the higher the socioeconomic status.

Demographic information and kindergarten information: Participants were asked to provide their demographic information, including gender, age, ethnicity (five categories), relationship status (four categories), education level (four categories), years of teaching (four categories), and job title (five categories); kindergarten information including location (four categories), nature (six categories), level (four categories), and size (five categories).

Table 1: Descriptive statistics and correlation analyses of variables (N = 619).

	<i>M ± SD</i>	1	2	3	4	5	6	7	8
1 DIS	2.05 ± 1.042	1							
2 SK	3.12 ± 0.983	-0.016	1						
3 GK	2.61 ± 1.358	-0.147**	-0.205**	1					
4 NK	2.85 ± 1.702	-0.082	-0.070	0.256**	1				
5 SSS	4.81 ± 1.506	-0.042	-0.001	-0.097*	-0.046	1			
6 OST	3.16 ± 0.661	0.032	-0.065	0.030	-0.053	0.009	1		
7 PI	4.02 ± 0.629	-0.139**	0.070	-0.012	0.028	0.162**	0.103*	1	
8 Hap	3.78 ± 0.929	-0.162**	0.120**	-0.059	0.062	0.237**	-0.243**	0.395**	1

Note: DIS = District of Kindergarten; SK = Scale of Kindergarten; GK = Grade of Kindergarten; NK = Nature of Kindergarten; SSS = Subjective Socioeconomic Status; OST = Occupational Stress; PI = Professional Identity; Hap = Subjective authentic-durable happiness. * $p < 0.05$; ** $p < 0.01$; *** $p < 0.001$.

Statistical analysis

Statistical analysis used the SPSS 22.0 and Mplus 7.0. First, descriptive statistics and correlation analyses were performed, and through the structural equation modeling method to explore the mediation of professional identity in the relationship between occupational stress and happiness, and the moderation of subjective socioeconomic status and the kindergarten scale. Subsequently, we selected bias-corrected (BC) bootstrapping, a non-parametric re-sampling procedure, to test potential indirect effects based on prior research. When zero was not present in the 95% confidence interval (CI), the indirect effect would be significantly different from zero at $p < 0.05$ (two-tailed).

Results

Common method variance

Since the data were collected through a questionnaire, the results could have a potential effect of common method variance. Therefore, we used a procedural methodology to control the common method variance; all questionnaires were completed anonymously, and all questionnaires had good reliability and validity, serving to reduce or avoid systematic errors as much as possible. Further, some items were scored in reverse, and the sample was recruited from different universities. Harman's single-factor test was used. The results showed that there were seven factors with eigenvalues greater than 1, with the first factor explaining 28.323% of the variation, which is less than the critical value of 40%. Thus, this study has no significant common-method variance.

Descriptive statistics and correlation analyses

Combined with prior studies, the personal information of preschool teachers was regarded as a control variable; thus, part of the variables was described and analyzed (since gender, age, nationality, marital status, years of teaching, professional titles, and degree of education are not closely related to occupational stress and subjective authentic-durable happiness, related outcomes have not been embodied).

As shown in Table 1, it can be concluded that the region in which the kindergarten lies, the scale of the kindergarten, and the subjective social status (the level and nature of the kindergarten are excluded) of the teachers are significantly associated with teachers' sense of happiness; the related index is between 120-237, $p < 0.01$; teachers' working stress and professional identity are also significantly associated with teachers' sense of happiness; the related index is between and 103-395, $p < 0.5$.

The results showed that the kindergarten region, the scale of the kindergarten, and the subjective socioeconomic status of the teachers are significantly associated with teachers' sense of happiness. To be more specific, if the kindergarten is in a large city with larger scales, and the teachers have a higher subjective social status, they may feel a greater sense of happiness. Moreover, teachers' work stress is negatively associated with their subjective authentic-durable happiness: the higher the stress, the lower their sense of happiness; on the other hand, the more strongly they feel about their professional identity, the more is their sense of happiness.

Regression analyses

By inspecting all the variables that influence teachers' sense of happiness, the results can be analyzed, as shown in Table 2 below.

It is evident that teachers' socioeconomic status, the scale of the kindergarten, occupational stress, and occupation identity have predicative validity on teachers' subjective happiness. The results showed that teachers will feel more happiness with a higher subjective socioeconomic status, a large kindergarten scale, lower occupational stress, and a higher professional identity; that is, teachers' socioeconomic status and professional identity should be continuously enhanced to promote happiness.

Mediating effect analyses of professional identity

Using SPSS 22.0 (Model 4), the mediating model of professional identity was verified, and its mediating effect

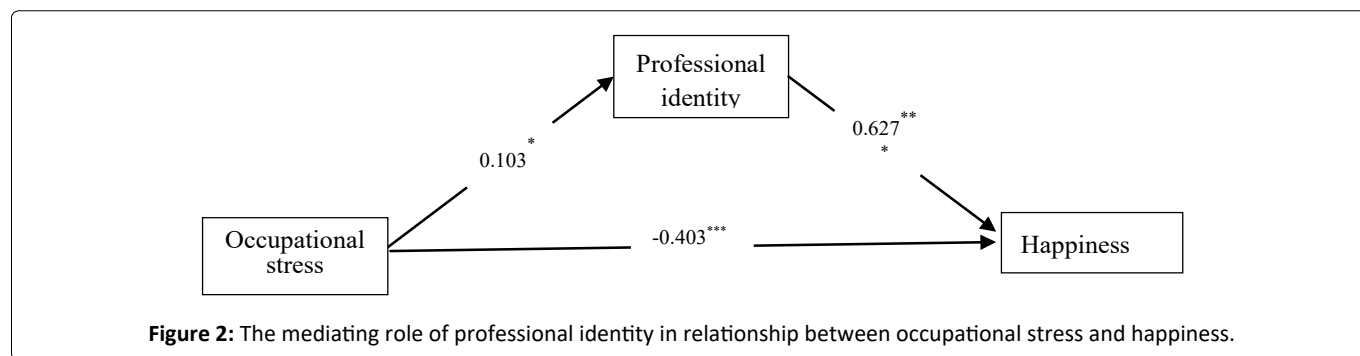


Table 2: Hierarchical regression analyses of variable on happiness (N = 619).

Step	variables	β	SE	T	R ²	P
1	SSS	0.237***	0.027	5.445	0.056	0.000
	F	29.646***				
2	SSS	0.232***	0.027	5.370	0.086	0.000
	DIS	-0.091*	0.039	-2.079		0.038
	NK	0.085	0.024	1.911		0.057
	GK	-0.048	0.031	-1.039		0.300
	SK	0.115**	0.042	2.606		0.009
	ΔR^2	0.030				
	F	9.322***				
3	SSS	0.175***	0.024	4.481	0.277	0.000
	DIS	-0.032	0.035	-0.816		0.415
	NK	0.055	0.022	1.386		0.167
	GK	-0.033	0.027	-0.803		0.423
	SK	0.088*	0.037	1.979		0.046
	OST	-0.274***	0.054	-7.082		0.000
	PI	0.384***	0.058	9.700		0.000
	ΔR^2	0.191				
	F	26.964***				

Table 3: The mediating effect of professional identity.

Pathway	Effects	Boot SE	Boot LLCI	Boot ULCI
OST→Hap	-0.4030	0.0553	-0.5117	-0.2944
OST→PI→Hap	0.0607	0.0303	0.0062	0.1147

passed the Bootstrap 2000 test; the mediating effect was quite clear when 95% CI was assessed (0 was excluded).

The results demonstrate that preschool teachers' occupational stress can predict their professional identity in a clear manner ($a = 0.098$, $SE = 0.042$, $p = 0.02$); when occupational stress and identity are included in the regression equation simultaneously, occupational stress can significantly predict a subject's sense of happiness ($c' = -0.403$, $SE = 0.055$, $p = 0.000$); professional identity can significantly predict the sense of happiness ($b = 0.627$, $SE = 0.058$, $p = 0.000$). The

mediating model of professional identity is presented in Figure 2. The analysis of all the effects of the approaches is shown in Table 3.

Based on the values in Table 3, it is easy to clarify the direct approach from teachers' occupational stress to subjective authentic-durable happiness and the indirect approach of professional identity; that is, the negative effect of occupational stress on subjective authentic-durable happiness will be weakened with a higher professional identity. Therefore, by promoting teachers' professional identity, teachers' sense of happiness can be improved to reduce the negative effects of occupational stress on occupational happiness.

Assessment of the moderating effect

SSS has a moderating effect on individuals' subjective authentic-durable happiness. Through a regression analysis, it was found that the scale of the kindergarten (SK) has an apparent predictive effect on the sense of happiness. Therefore, this study further explores whether the subjective socioeconomic status and the scale of kindergarten have a moderating effect on the former and direct approach in the mediating model. Here, model 10 in the process of SPSS 22.0 was employed to examine the moderating effect.

The examination of the moderating mediating model can be estimated using the variables in the three regression equations. Equation 1 is used to estimate the overall effect of occupational stress on subjective authentic-durable happiness, Equation 2 is used to estimate the predictive effect of all variables and interaction items on professional identity, and Equation 3 is used to estimate the predictive effect of all variables and interaction items on subjective authentic-durable happiness. The results are presented in Table 4.

Based on Equation 1 in Table 4, it can be concluded that preschool teachers' occupational stress has a clear negative predictive effect on subjective authentic-durable happiness; based on Equation 2, it can be concluded that occupational stress, economic status, and the scale of kindergarten positively affect professional identity; based on Equation 3, it can be concluded that professional identity and the scale of kindergarten positively affect the sense of happiness, and that the interactive predictive effect of occupational stress and the kindergarten scale is quite evident.

Based on the above analysis, it can be stated that preschool teachers' subjective socioeconomic status has a moderating

Table 4: Moderated and mediated effect of occupational stress on happiness.

Variables	Equation 1			Equation 2			Equation 3		
	Criterion: HAP			Criterion: PI			Criterion: HAP		
	SE	β	t	SE	β	t	SE	β	t
OST	0.061	-0.243***	-5.594	0.179	0.835***	4.667	0.238	-0.068	9.523
PI							0.059	0.558***	9.523
SSS				0.068	0.233***	3.411	0.090	0.067	0.737
SK				0.133	0.526***	3.972	0.175	0.478**	2.726
OST*SSS				0.021	-0.052 [†]	-2.487	0.028	0.014	0.520
SSS*SK				0.042	-0.153***	-3.669	0.055	-0.131 [†]	-2.382
R ²	0.059			0.076			0.282		
F	31.289***			8.170***			32.329***		

effect on the first part of the mediating model-occupational stress and identity, thus reflecting that the influence of preschool teachers' occupational stress on professional identity is controlled by subjective socioeconomic status, which in turn affects subjective authentic-durable happiness through a mediating effect. Moreover, the scale of the kindergarten has moderating effects on preschool teachers' occupational stress, professional identity, and subjective authentic-durable happiness-reflecting that differences exist between the subjective socioeconomic status and the kindergarten scale in terms of the mediating effects of professional identity.

In order to better understand the moderating effect, which can also be termed as the nature of the interaction effect (especially the moderating effect of the kindergarten scale on occupational stress and subjective authentic-durable happiness), the effect analysis was conducted by dividing kindergartens into two grades based on their scales (27% of the samples are used for each grade). The results showed that occupational stress increasingly affected subjective authentic-durable happiness for teachers working in relatively small kindergartens ($B_{simple} = -0.304$, $t = -3.690$, $p < 0.001$), as compared to those who worked in relatively large kindergartens ($B_{simple} = -0.354$, $t = -4.379$, $p < 0.001$). Specifically, occupational stress is less associated with subjective authentic-durable happiness when the scale of the kindergarten is larger. That is, occupational stress influences sense of happiness less if the kindergarten scale is larger. Therefore, it can be concluded that the larger the kindergarten, the more stress the teachers experience.

In summary, occupational stress has a direct and negative predictive effect on subjective authentic-durable happiness, and professional identity plays a mediating role in this relationship. Meanwhile, the effects of occupational stress on subjective authentic-durable happiness are regulated using subjective socioeconomic status and the kindergarten scale. The former part of the approach is regulated using subjective socioeconomic status and the kindergarten scale, while the direct approach is simply regulated using the kindergarten scale.

Discussion

The inhibition of happiness due to occupational stress

The current research results demonstrate that preschool teachers' occupational stress can negatively influence their subjective authentic-durable happiness; that is, the more stressed they feel, the less is their happiness. This finding is in accordance with previous studies, occupational stress is a key factor affecting preschool teachers' sense of happiness [40]. In addition, occupational stress is intimately associated with the level of economic development; in less developed areas, teachers feel more stress [7]. The outcome of this research verifies the sense of happiness in the theory of joyousness [41] and the theory of a subjective, genuine, continuous sense of happiness [18,19].

Furthermore, based on the theory of psychological resources, when individuals face negative events, for example, when preschool teachers feel more stress due to their work, they will most likely use up their psychological resources [7,12], thus, their subjective authentic-durable happiness will be reduced, however, their sense of happiness can be enhanced by reducing the occupational stress and improving their anti-stress capabilities and mechanisms.

The mediating effect of professional identity

Research results suggested that professional identity plays a mediating role between occupational stress and subjective authentic-durable happiness, demonstrating that the negative effect of occupational stress on subjective authentic-durable happiness can be buffered with a higher recognition of their professional identity. This result verifies the mechanism of action between occupational stress and happiness. It is also consistent with former findings, wherein professional identity elevates preschool teachers' self-esteem, self-efficiency, job involvement [27,42], and so on, as well as promotes teachers' psychological resources and active perception, which will further help them gain a greater sense of happiness. The reasons for this are interpreted in terms of the promotion of teachers' sense of happiness in the

following three aspects: First, teachers' professional identity can accelerate their sense of belonging, sense of honor, and sense of value [30,43], second, the increase in professional identity can facilitate their ability to deal with negative emotions such as occupational stress [25] and burnout [24], third, teachers' professional identity can positively influence their degree of satisfaction with their profession [28,29]. The above discussion shows that the effects of occupational stress on subjective authentic-durable happiness can be buffered through professional identity, which means that professional identity plays a mediating role between occupational stress and sense of happiness.

The moderating effect of socioeconomic status and the kindergarten scale

Our study found that both preschool teachers' subjective socioeconomic status and the kindergarten scale play a moderating role in the relationship between occupational stress and identity, but in the relationship between occupational stress and subjective authentic-durable happiness, only the kindergarten scale plays a mediating role. In other words, the negative effect of occupational stress on subjective authentic-durable happiness is buffered by professional identity, and the buffering effect functions differently under different subjective socioeconomic statuses and different kindergarten scales.

First, occupational stress and professional identity are affected by subjective socioeconomic status. This is due to individuals' inner perceptions; when teachers think they have a higher social status, the effect of occupational stress on professional identity will be adjusted automatically [35]. This is in accordance with the theory of self-efficiency: one will have a higher professional identity when one has a higher social status. Similarly, the kindergarten scale has a moderating effect on occupational pressure and identity, and the moderating effect is also connected with self-perception. Preschool teachers will have a higher professional identity with a larger-scaled kindergarten, which will also promote their sense of happiness.

Second, the scale of the kindergarten has a moderating effect on teachers' occupational stress, professional identity, and subjective authentic-durable happiness. In other words, there will be differences in the mediating effects of professional identity on occupational stress and sense of happiness. This result is consistent with previous studies, the school's scale positively affects teachers' satisfaction [39]. According to the theory of eco-psychology, preschool teachers' work environment has a clear influence on their personal behavior. This outcome has been verified by previous studies: preschool teachers' autonomic study will be promoted with a better working environment [36,37], which will further improve their professional identity. Such an outcome is in keeping with the social identity theory: when one has a higher social identity, they will have a higher degree of satisfaction, which will accelerate their sense of happiness.

Practical implications and limitations

This study acted as a great guiding factor in promoting

teachers' sense of happiness: (1) Teachers' sense of happiness can be enhanced by lowering their occupational stress; (2) The reinforcement of teachers' professional identity, the promotion of a self-occupational sense of worth, and a sense of belonging can alleviate the negative effects of occupational stress on sense of happiness; and (3) Preschool teachers' subjective socioeconomic status and the kindergarten scale influence teachers' sense of happiness; that is, teachers' income should be increased to promote a higher social status; at the same time, the kindergarten scale should be expanded appropriately.

However, there are also limitations to this study. First, although part of a teacher's professional identity is clearly related to demographic information, the occupational stress and the teachers' subjective authentic-durable happiness are not closely associated with their age, years of teaching, professional titles, and education levels. Thus, these factors have not been examined in the regression analyses, which may have weakened the validity of the mediating effect of professional identity. Second, preschool teachers' subjective socioeconomic status can only regulate the first part of the mediating approach, while the kindergarten scale not only regulates the first part of the mediating approach, but also regulates the direct approach. Therefore, the different mechanisms between the moderating effects are worth further study.

Conclusion

The conclusions are as follows: (1) Occupational stress can easily lower preschool teachers' sense of happiness, that is, the higher the preschool teachers' stress, the lower their subjective authentic-durable happiness; (2) Professional identity plays a partial buffering role when occupational stress influences subjective authentic-durable happiness; and (3) The effect of occupational stress on preschool teachers' subjective authentic-durable happiness is related to the kindergarten scale. More specifically, the professional identity of teachers who work in larger kindergartens can reduce the negative effect of occupational stress, as compared to those who work at smaller kindergartens. Similarly, if preschool teachers have a higher subjective socioeconomic status, the effects of occupational stress on subjective authentic-durable happiness can be buffered by their professional identity.

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DOI: 10.36959/856/534