




Negative Bias or Positive Deficiency, or Both? The Relationship Between Individual Authenticity and Depression Among Preschool Teachers: The Sequential Mediation Effects of Mindfulness and Self-Alienation

Baocheng Pan ^{1,*}, Shiyi Fan ^{1,*}, Zhanmei Song², Yu Li ³

¹College of Education, Wenzhou University, Wenzhou, People's Republic of China; ²College of International Education, Wenzhou University, Wenzhou, People's Republic of China; ³The Family Institute, Northwestern University, Evanston, IL, USA

*These authors contributed equally to this work

Correspondence: Zhanmei Song; Yu Li, Email songzhanmei@126.com; yuli2022@u.northwestern.edu

Objective: Depression has become a topic of widespread concern around the world, and teachers' depression has also had an important impact on the healthy development of education. However, there are differences in the cognitive theory of depression and positive psychology about the mechanism of depression. This study attempts to verify the related viewpoints of the two viewpoints through empirical research.

Methods: Three hundred and twenty eight preschool teachers were measured with authenticity scale, five facet mindfulness questionnaire, center for epidemiologic studies depression scale, and general alienation scale.

Results: Individual authenticity negatively predicted depression. Mindfulness can mediate the relationship between individual authenticity and depression. Self-alienation mediates the relationship between individual authenticity and depression. In addition, mindfulness and self-alienation played a sequential mediating role between individual authenticity and depression.

Conclusion: Mindfulness and self-alienation play a sequential mediating role between individual authenticity and depression. This study not only confirms the relevant theoretical viewpoints of positive psychology on depression, but also believes that individual depression is not only affected by one's own negative bias but also by one's own positive factors. At the same time, the individual's own positive factors will affect the negative factors. This perspective will provide new literature references to existing relevant theories about depression. In addition, this study will also provide literature reference for early childhood education practice.

Keywords: preschool teacher, individual authenticity, depression, mindfulness, self-alienation

Introduction

Studies in recent years have found that teaching, as a high-pressure social occupation, poses great challenges to teachers' physical and mental health.¹⁻³ This is the case throughout the teaching profession around the world.^{4,5} Studies have shown that Egyptian teachers have negative emotions such as anxiety, pressure and depression in the teaching process.⁶ In the UK, many teachers have left the teaching profession.⁷ In South Africa, a large number of teachers choose to resign and retire early since 2014.⁸ It can be seen that teachers must be influenced by economic, social or other factors in their teaching.¹ For teachers, this can cause disorder in their own health system and produce various diseases, such as insomnia,⁹ cardiovascular diseases.¹ At the same time, teachers play an important role in providing healthy psychological guidance to students and providing social support.¹⁰ Therefore, it is extremely important for teachers to have good mental health for their physical and mental health and to improve the quality and effectiveness of teaching.⁶

At present, the psychological attributes of preschool teachers have received less attention than teachers at other stages.¹¹ As a preschool education that complements early childhood experiences, preschool teachers play a huge role in preschool education.¹² Once preschool teachers have long-lasting depression, it will not only affect their emotional and social needs, cognition of life, but also reduce the quality and responsibility of work.¹³ Specifically, the depression of preschool teachers will have an impact on the quality of interaction and the development of children's social emotions.¹⁴ As social relationships become more complex, the number of vulnerable children has risen markedly, and good early parenting experiences are crucial to their behavioral outcomes.¹⁵ According to Hamre and Pianta, non-family caregivers with high levels of depression in early parenting settings are less sensitive to children's behavior and spend less time with their children.¹⁶ This will inevitably affect the healthy growth of children, especially vulnerable children. Therefore, it is necessary to pay attention to the depression of preschool teachers and the scope of its influence.

Depression as a negative emotion, which is related to various psychological, physical and behavioral factors.¹⁷ In the education system, the stress brought about by overwork and poor work mentality is potentially related to the mental health of teachers.¹⁸ In the existing literature, most of them focus on the research on the depression of preschool teachers and the related problems in the growth process of preschool children, and less on the internal relationship between metacognition and the negative emotions of preschool teachers themselves. The interaction of emotion and cognition can affect individual decision-making.¹⁹

There are different views on the mechanism of depression. The cognitive theory of depression holds that the individual's negative bias at various cognitive levels, such as information processing, expectation attribution, and self-evaluation, is a high-risk factor for depression.^{20,21} However, from a positive psychology perspective, depression is caused by a lack of positive cognition. This positive cognition is reflected in normal people as a cognitive positive illusion.²² The cognitive theory of depression actually pays too much attention to the pathological tendency of depression, while positive psychology tries to explain depression from a new perspective. It believes that the cause of depression is not the absence of positive factors in the individual, but the lack of full play of positive forces. However, the views on positive psychology have not yet been supported by more research.

Therefore, this study examines the predictive effect of positive factors and negative factors in depression through the study of the mediating path of positive factors and negative factors in the kindergarten teacher group itself, so as to verify the correctness of the two theoretical viewpoints and enrich the existing knowledge about depression. Depression-related theoretical achievements, and provide reference for teaching practice.

Literature Review and Theoretical Hypotheses

Individual Authenticity and Depression

Individual authenticity is usually interpreted as "the unhindered functioning of the individual's authentic or core self in career",²³ and consists of four related components: consciousness, relationship orientation, behavior and unbiased processing.²⁴ Authenticity can be thought of as either a subjective feeling of an individual, a real property of others, or a state – that is, disposition.²⁵ Most scholars understand authenticity as a subjective experience. For example, Erickson believes that it is the experience or lack of reality that individuals gain on the basis of their own perceptions.²⁶ Rogers emphasizes that self-authenticity is a decision factors in whether an individual is fully functioning.²⁷ Van den Bosch & Taris point out that authenticity is embodied in work as a subjective experience as an object of measurement on a bipolar continuum.²⁸ Furthermore, authenticity is a key factor in employee perception of work, and if the individual experiences authenticity, to a certain extent, this leads to more positive work goals.²⁸ As an employee, the degree of teachers' experience of individual authenticity is also closely related to their daily work.

Depression, as a ubiquitous personal characteristic, can exist as a short-term sad emotional experience, or it can be transformed into a more serious clinical disease, which has a great impact on an individual's physical and mental health.^{29,30} Its core characteristics include high levels of frustration, social anxiety, self-loathing, and pessimistic anxiety.³¹ When it develops into a clinical disorder, it becomes one of the disorders of emotion regulation or performance.³² In recent years of educational psychology research, more and more scholars have focus on the research on teachers' emotions,^{33,34} because for teachers entering the workplace, negative emotions (such as depression) not only

may become one of the influencing factors for teachers to terminate the realization of teaching ideals.³⁵ Teachers' depression is also regarded as an important determinant of education quality.³⁶

According to the self-regulation theory,³⁷ individuals tend to play an active role in self-regulation. In which the individual evaluates whether it conforms to the values of the ontology based on observing and monitoring the behavior of the ontology and self-perceptions. When there is an inconsistency between an individual's internal and external behavior in the process of self-monitoring of the ontology and it is accompanied by self-inhibition, the inhibition of this factor will reduce the individual's emotional expression, making the emotional experience greater than the emotional expression. Imbalance occurs and individual inauthenticity arises.³⁸ This puts individuals at risk of self-adjustment problems, with negative consequences such as depression and anxiety or even disorders.³⁹

Therefore, this study proposed the hypothesis:

H1: Individual authenticity is negatively correlated with depression.

Individual Authenticity, Mindfulness, and Depression

The term "mindfulness" originated in Buddhism and has existed for more than 2500 years.⁴⁰ Over time, the concept of mindfulness has gradually moved beyond Buddhist traditions, entered science and western contemporary culture, and spread around the world.⁴¹ But so far, there does not appear to be a universally accepted definition of "mindfulness", nor a broad consensus on the concept.⁴² For example, mindfulness is often used as an umbrella term to describe a large number of characteristics, practices, and processes.⁴³ It is also described as a mental ability that is somewhat related to attention or memory, and consciously present it at a certain moment.⁴⁴ While in western society, it is more recognized that mindfulness is defined as the awareness of the moment, through a specific method to cultivate the level of individual attention, with more open mental state, non-reactivity, and non-judgmental.⁴⁵

Based on self-determination theory,⁴⁶ autonomy as a key element will act on the agency of the ego in the motivational process. And when there is an increased sense of autonomy in the environment, there is a coherence of self-related processes, and a lower level of self-involvement, to the extent that one realizes that this is closer to more real and ideal self in.⁴⁷ People with a high degree of individual authenticity are not only aware of self-related thoughts, but are more deeply aware of their own consciousness.⁴⁸ Thus, a self with a high degree of individual authenticity may have a greater likelihood of having a greater mindfulness—that is, a higher level of mindfulness.⁴⁹ For teachers, their "moral personal beliefs" can lead more would-be teachers to enter and persist in the profession, which is one of the sources of individual teachers' authenticity.⁵⁰ However, if teachers, especially preschool teachers, do not have a high level of mindfulness, this authenticity will be destroyed by the pressure in the environment, which will lead to the loss of authenticity of teachers' motivation in practice and affect the authenticity of students.⁵⁰

In behavioral theory, the reinforcement of an individual's experience of the environment will be inhibited by changes in the external environment and avoidance behavior, resulting in the deepening of depression emotions.⁵¹ When an individual's level of mindfulness increases, he will maintain a more accepting attitude towards what he is focusing on at the moment, thereby enhancing the individual's experience of environmental reinforcement.⁵² Specifically, the individual does not contemplate boundlessly what has not happened, but instead accepts the reality. In addition, behavioral theory suggests that depressive mood is associated with an increase in depressive or negative behaviors, and a related decrease in positively reinforced health behaviors.⁵³ In this regard, studies have shown that higher mindfulness is associated with higher positive emotions, while in turn is negatively associated with depressive symptoms.⁵⁴ Among preschool teachers, higher levels of depressive mood are considered a risk for teacher sensitivity,⁵⁵ and mindfulness to a certain extent can significantly improve teacher well-being.⁵⁶

Therefore, this study proposed the following hypothesis:

H2: Mindfulness plays a mediating role between individual authenticity and depression.

H2a: Individual authenticity is significantly positively correlated with mindfulness.

H2b: Mindfulness is significantly negatively correlated with depression.

Individual Authenticity, Self-Alienation and Depression

The concept of “alienation” is one of the widely misused terms, and there is no unified concept to define it. This is due to the fact that the scientific status of alienation has not been highly regarded. The first definition suggests limiting alienation to ideology, polemical discussion, and philosophy. The second is a strict definition of alienation, the separation between a person and his social entity. Third, empirical sociologists see it as a newly discovered related category.⁵⁷ In Marx’s manuscript, “alienation” is seen as a contradiction between labor and human nature.⁵⁸ Because the human self can be expressed through the objectification of labor, human needs can be satisfied through the production of goods.⁵⁹ With the development of economy and society, capitalism intervenes between labor and laborers, transforming production into a series of conflicts, which leads to the plunder of resources between different roles in society.⁶⁰ Therefore, workers are gradually alienated from labor, resulting in “alienation”.⁶¹ One of the five dimensions of alienation experience outlined by Seeman (1959) is self-alienation – participation in practices that are not intrinsically rewarding or self-fulfilling, and is also seen by Marx as a central construct of alienation.⁶²

In Basic Needs Theory,⁶³ the relationship between individual authenticity and depression can also be confirmed. Because when an individual’s psychological needs and physical needs are met to a certain extent, they will feel a sense of self-happiness.⁶⁴ Happiness promotes the courage to become a real individual, thus closer to authenticity.⁶⁵ And when basic needs cannot be met, individual authenticity declines, which in turn leads to a mismatch between the main experience of the self and symbolic awareness in the structure of individual authenticity. The result is self-alienation – a psychological a state of separation from self.²⁵ Especially in kindergartens, when preschool teachers are not happy enough, when their individual authenticity declines, individual teachers will have a “cognitive dissociation” in the work environment of children or in the process of interaction with children,⁶⁶ and their performance will become more and more indifferent.

According to the theory of resource conservation,⁶⁷ individuals will autonomously construct important resources that they believe are beneficial to their own growth and development. In Marx’s theory, alienation occurs due to the plundering of resources between different roles in society.⁶⁰ In the group of preschool teachers, it is easy to lack material resources directly linked to socioeconomic status. In such cases, teaching is seen as a way for teachers to earn a living, rather than a desirable occupation with inherent rewards, leading to self-alienation.⁶⁸ Of course, this sense of self-alienation is very common in the workplace and is detrimental to the average organizational team.⁶⁹ The inevitable result of self-alienation in the teachers’ workplace is role indifference, which increases the teachers’ depression and negative emotions, and thus has a negative impact on children.

Therefore, this study proposed the following hypothesis:

H3: Self-alienation plays a mediating role between individual authenticity and depression.

H3a: Individual authenticity is significantly negatively correlated with self-alienation.

H3b: Self-alienation is significantly positively correlated with depression.

Mindfulness and Self-Alienation

Teachers’ level of mindfulness has a certain impact on teachers’ teaching process, because it has been found in many studies that teachers’ mindfulness can positively affect teachers’ caring ability, which is conducive to the establishment of good student-teacher relationships.⁷⁰ Teachers’ level of mindfulness can determine the quality of teacher-student interaction in the classroom.⁷¹ Teachers can form a more complete pro-social classroom and more student teaching outcomes after a series of mindfulness exercises.⁷² However, with the reforms within the education system, the administrative work of teachers has been strengthened, and without a higher level of mindfulness, this will inevitably distract teachers from the quality of education.⁷³ This inevitably leads to the contradiction between labor and human nature, which leads to self-alienation. In addition, several studies have also demonstrated an association between mindfulness and self-alienation.⁷⁴

Based on social psychology theory,⁷⁵ the perception of the individual itself is generated by social behavior and the acceptance of the individual in social interaction. Self-acceptance plays an important role in personal mental health and happiness.⁷⁶ Studies have shown that the higher the individual's unconditional self-acceptance, the higher the sense of well-being or overall well-being, and the less likely to experience negative emotions such as depression and anxiety.⁷⁷ Individuals who focus on self-assessment and even self-criticism rather than self-acceptance may invest a lot of personal resources and concentration in order to make up for their perceived deficiencies, thereby gaining self-reinforcing.⁷⁸ Through mindfulness, people learn to accept themselves and their circumstances, rather than struggle with what they cannot change.⁷⁹ So, when the level of mindfulness increases, the individual is in a state of acceptance rather than self-alienation.

Therefore, this study proposed the following hypothesis:

H4: Mindfulness is significantly negatively correlated with self-alienation.

H5: Mindfulness and self-alienation play serial mediating roles in individual authenticity and depression.

Based on the relevant theories and the above literature, we put forward the theoretical hypothesis of this study. See Figure 1.

Materials and Methods

Participants

A cluster random sampling method was used in this study, which ensures that the sample can represent the reality of the entire preschool teacher group and maximizes the representation of members from different groups. We surveyed 17 kindergartens in Jinan, Shandong Province, China, and a total of 328 kindergarten teachers participated in this survey. We first contacted the education authorities in Jinan, Shandong Province, and with their help, we randomly selected all the kindergarten lists in the five districts of Jinan using the method of computerized random sampling. For randomly selected kindergartens, we conducted cluster sampling, and all in-service teachers in the selected kindergartens were taken as the objects of this investigation. The official distribution of the questionnaires is in the charge of uniformly trained personnel. After communicating with the principals of the kindergartens under investigation, the questionnaires are distributed on-site through a pen and paper test. A total of 360 questionnaires were distributed, and 342 questionnaires were actually recovered. For missing and wrongly filled questionnaires, we use the direct elimination method. Finally, 328 valid questionnaires were recovered, with an effective recovery rate of 91.11%. Among them, there are 12 male teachers, accounting for 3.70%, and 316 female teachers, accounting for 96.30% (see Table 1 for details). Although the proportion of male teachers is small, it reflects the real situation of the gender ratio of preschool teachers in China. In China, the

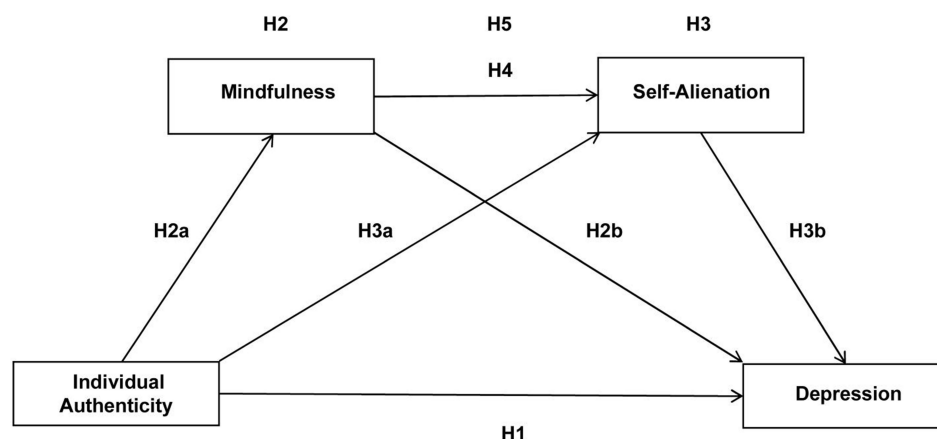


Figure 1 Theoretical hypothesis.

Table 1 Social Demographic Features of Participants (N = 328)

Variables		Percentages
Gender	Male	3.70%
	Female	96.30%
Age	23–27	79.57%
	28–32	12.20%
	33–37	5.79%
	38–42	0.91%
	43–47	1.52%
Educational Background	Junior college	72.30%
	Undergraduate course	27.70%

national average proportion of male preschool teachers among kindergarten teachers is about 2.22%.⁸⁰ According to the guiding principles of the Helsinki Declaration, the Research Ethics Committee of Wenzhou University approved the ethical review of this study.

Measure

Authenticity Scale

Using Wood et al²⁵ develop the authenticity of the scale, which has good validity and reliability in the Chinese population.⁸¹ The scale consists of 12 items, an example such as, “I did not know how I really feel inside”. Real life, acceptance of external influences and self-alienation are the three aspects measured by the scale. Using a seven-point scale (1 = not describing me at all, 7 = describing me very well), the higher the score, the more authentic the person is. The Cronbach’s α value of the scale in this study was 0.933, and the Cronbach’s α value of the subscale were 0.90, 0.908, and 0.898 respectively.

Five Facet Mindfulness Questionnaire

Five Facet Mindfulness Questionnaire⁸² is a 39-item well-validated self-report measure that assesses five facets of trait mindfulness: (1) observing, (2) describing, (3) acting with awareness, (4) nonjudgment, and (5) nonreacting.⁸³ An example item is, “When I’m do things, my mind wanders off and I get distracted easily”. The Chinese version of the Five Facet Mindfulness Questionnaire was translated by Deng et al and has been shown to have good reliability and validity in the Chinese population.⁸⁴ At the same time, the scale is also widely used in the Chinese population.⁸⁵ A five-point Likert-type scale was used to assess how often each item was correct to respondents (1 = never or very rarely true and 5 = very often or always true). In this study, the Cronbach’s α value of the scale was 0.959, and the Cronbach’s α value of the sub-dimension scales were 0.933, 0.910, 0.939, 0.895, and 0.927, respectively.

General Alienation Scale

The general alienation scale developed by Crowther et al⁸⁶ was used in the study. The scale consists of 15 items, which are measured from four dimensions: self-alienation, alienation from others, meaninglessness and doubt. A sample such as, “I often feel lonely when I am with someone”. This scale has been widely used in the Chinese population with good reliability and validity.⁸⁷ A 4-point scale was used (1= strongly disagree, 4= strongly agree). The higher the score is, the more alienated the individual feels. In this study, the Cronbach’s α value of the scale was 0.916.

Center for Epidemiologic Studies Depression Scale

Depressive symptoms were measured using the Chinese version of the Depression Scale of the Center for Epidemiological Research.⁸⁸ The scale consists of 20 items related to the characteristic symptoms and behaviors of depression, with scores ranging from 0 to 3 for each item. An example such as, “I was bothered by things that usually did not bother me”. The center for Epidemiologic Studies Depression Scale (CES-D) is widely used in the Chinese population with good reliability and validity.⁸⁹ The total score ranges from 0 to 60, with CES-D \geq 16, indicating that the respondents may be more prone to depression. In this study, the Cronbach’s α value of the scale was 0.937.

Statistical Analyses

In this study, SPSS 22.0 and Mplus 8.3 were used for data analysis, among which SPSS was mainly used for data statistics and descriptive statistical analysis. Mplus is mainly used for mediation model path checking. Existing studies have shown that there are significant differences in teachers' depression in terms of gender, age, and educational background.⁹⁰ Therefore, in the analysis, teachers' gender, age and educational background were used as control variables. Prior to analysis, the data were tested for kurtosis and skewness, and the principal scale distributions showed sufficient indicators of normality, which allowed us to take them into account for deeper statistical inference analyses. Afterwards, we conducted a common method bias test to ensure that there was no significant common method bias in the data. We performed an expressive data analysis using SPSS, analyzing Pearson correlation coefficients between variables. Mplus is used for model testing and significance testing of mediation effects to determine the degree of fit and mediation effects of the model.

Results

Test of Common Method Deviation

Harman's single factor test was used to obtain 14 factors with characteristic root greater than 1. The explained rate of the first factor was 23.903%, which was less than the critical value of 40%,⁹¹ indicating that there was no significant common method bias in this study.

Descriptive Statistical Analysis

Table 2 lists the main variables and Pearson correlation coefficients between dimensions. As can be seen from Table 2, depression was significantly correlated with all dimensions of individual authenticity, all dimensions of mindfulness, and self-alienation. According to the views of Tsui et al,⁹² the critical value of correlation for severe multicollinearity problems is generally greater than 0.75. The correlation coefficients of all variables in this study were less than 0.66, and there was no serious multicollinearity problem between the major variables.

Model Inspection

Before the model test, an exploratory factor analysis was performed on the variables. As shown in Table 3, the factor loadings of all items in the scale were greater than 0.4. The Cronbach's α of the scales are all higher than 0.9, indicating that the items of the variables and the scale have good reliability and validity.

The model was fitted with Mplus, and the model fitting indices were ML $\chi^2 = 1454.569$, $df = 974$, $\chi^2/df = 1.493$, CFI = 0.923, TFI = 0.919, RMSEA = 0.039, SRMR = 0.049. All the indicators are within the acceptable range, and the model is ideal. See Table 4.

Hypotheses Testing Through Regression Analysis of Variables

On the basis of good model fit, the samples were repeated 5000 times using the Bootstrap procedure of Mplus. The results showed that the path coefficients of individual authenticity, mindfulness, self-alienation and depression were all significant.

Individual authenticity was negatively associated with depression ($\beta = -0.175$, $p = 0.004$), supporting H1. Individual authenticity was positively associated with mindfulness ($\beta = 0.360$, $p < 0.001$), supporting H2a. Mindfulness was negatively associated with depression ($\beta = -0.240$, $p < 0.001$), supporting H2b. Individual authenticity was negatively correlated with self-alienation ($\beta = -0.345$, $p < 0.001$), supporting H3a. Self-alienation was inversely associated with depression ($\beta = 0.365$, $p < 0.001$), supporting H3b. Mindfulness was inversely related to self-alienation ($\beta = -0.191$, $p = 0.001$), supporting H4. See Table 5.

Table 6 shows the indirect effects of learning paths. Mindfulness played a mediating role between individual authenticity and depression ($\beta = -0.023$, $p = 0.008$), with a 95% confidence interval $[-0.046, -0.010]$, excluding 0, supporting H2, with a mediating role of 20.91%.

Table 2 Means, Standard Deviations, and Correlations of the Major Study Variables

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1. Gender	0.960	0.188	I												
2. Age	27.490	3.499	-0.005	I											
3. Educational Background	1.280	0.448	0.084	-0.052	I										
4. AL	5.184	1.467	0.052	0.035	0.055	I									
5. AEI	4.917	1.483	0.006	0.071	-0.011	0.585**	I								
6. SA	5.171	1.443	0.048	0.035	0.031	0.650**	0.614**	I							
7. Observe	3.684	0.875	0.076	-0.026	0.011	0.272**	0.311**	0.280**	I						
8. Describe	3.795	0.789	-0.002	-0.002	0.015	0.124*	0.170**	0.153**	0.487**	I					
9. ActAware	3.885	0.897	0.014	-0.024	-0.002	0.145**	0.140*	0.151**	0.458**	0.429**	I				
10. NonJudge	3.673	0.743	-0.006	-0.024	-0.007	0.170**	0.204**	0.189**	0.579**	0.622**	0.390**	I			
11. NonReact	3.846	0.884	0.024	-0.058	-0.015	0.203**	0.233**	0.237**	0.498**	0.482**	0.506**	0.475**	I		
12. Self-Alienation	40.848	10.199	-0.073	-0.015	-0.042	-0.332**	-0.341**	-0.295**	-0.271**	-0.187**	-0.115*	-0.242**	-0.195**	I	
13. Depression	26.055	8.468	-0.003	-0.108	-0.039	-0.309**	-0.314**	-0.314**	-0.279**	-0.316**	-0.156**	-0.312**	-0.281**	0.479**	I

Note: **p < 0.01, *p < 0.05.

Abbreviations: AL, Authentic Living; AEI, Accepting External Influence; SA, Self-Alienation.

Table 3 Results of Exploratory Factor Analysis

Dim	Item	Parameters of Significant Test				Reliability
		Estimate	S.E.	Est./S.E.	P-value	Cronbach's α
IA	IA1	0.719	0.030	24.277	***	0.933
	IA2	0.796	0.023	34.816	***	
	IA3	0.748	0.028	26.960	***	
	IA4	0.673	0.033	20.253	***	
	IA5	0.736	0.028	26.319	***	
	IA6	0.730	0.029	25.079	***	
	IA7	0.699	0.031	22.617	***	
	IA8	0.700	0.031	22.689	***	
	IA9	0.766	0.026	29.915	***	
	IA10	0.729	0.029	25.214	***	
	IA11	0.746	0.027	27.365	***	
Mindfulness	M1	0.685	0.031	22.261	***	0.959
	M2	0.578	0.038	15.164	***	
	M3	0.663	0.032	20.569	***	
	M4	0.581	0.038	15.329	***	
	M5	0.644	0.034	19.059	***	
	M6	0.690	0.030	22.658	***	
	M7	0.674	0.031	21.407	***	
	M8	0.533	0.041	12.955	***	
	M9	0.538	0.041	13.167	***	
	M10	0.648	0.033	19.384	***	
	M11	0.645	0.034	19.100	***	
	M12	0.580	0.038	15.154	***	
	M13	0.669	0.032	20.916	***	
	M14	0.653	0.033	19.773	***	
	M15	0.690	0.031	22.556	***	
	M16	0.692	0.030	22.833	***	
	M17	0.624	0.035	17.637	***	
	M18	0.603	0.037	16.360	***	
	M19	0.605	0.036	16.591	***	
	M20	0.645	0.034	19.101	***	
	M21	0.658	0.033	19.994	***	
	M22	0.533	0.041	13.049	***	
	M23	0.568	0.039	14.501	***	
	M24	0.697	0.030	23.287	***	
	M25	0.523	0.041	12.642	***	
	M26	0.565	0.039	14.418	***	
	M27	0.542	0.040	13.413	***	
	M28	0.616	0.036	17.091	***	
M29	0.596	0.037	15.983	***		
M30	0.617	0.036	17.268	***		
M31	0.641	0.034	18.874	***		
M32	0.606	0.036	16.651	***		
M33	0.665	0.032	20.607	***		
M34	0.611	0.036	16.828	***		
M35	0.555	0.040	13.917	***		
M36	0.682	0.031	21.890	***		
M37	0.564	0.039	14.350	***		
M38	0.489	0.044	11.201	***		
M39	0.566	0.039	14.569	***		

(Continued)

Table 3 (Continued).

Dim	Item	Parameters of Significant Test				Reliability
		Estimate	S.E.	Est./S.E.	P-value	Cronbach's α
SA	SA1	0.636	0.035	18.347	***	0.916
	SA2	0.656	0.033	19.730	***	
	SA3	0.605	0.037	16.439	***	
	SA4	0.701	0.030	23.365	***	
	SA5	0.728	0.028	26.094	***	
	SA6	0.745	0.026	28.131	***	
	SA7	0.716	0.029	24.905	***	
	SA8	0.562	0.040	14.205	***	
	SA9	0.737	0.027	27.194	***	
	SA10	0.768	0.025	31.136	***	
	SA11	0.713	0.029	24.504	***	
	SA12	0.795	0.022	35.614	***	
	SA13	0.791	0.023	34.819	***	
	SA14	0.740	0.027	27.484	***	
	SA15	0.673	0.032	21.025	***	
Depression	D1	0.577	0.039	14.666	***	0.937
	D2	0.593	0.038	15.510	***	
	D3	0.603	0.038	16.024	***	
	D4	0.630	0.036	17.579	***	
	D5	0.538	0.042	12.883	***	
	D6	0.529	0.042	12.525	***	
	D7	0.510	0.043	11.784	***	
	D8	0.621	0.037	16.877	***	
	D9	0.645	0.035	18.463	***	
	D10	0.651	0.035	18.867	***	
	D11	0.626	0.036	17.351	***	
	D12	0.506	0.044	11.621	***	
	D13	0.628	0.036	17.436	***	
	D14	0.519	0.043	12.150	***	
	D15	0.633	0.036	17.754	***	
D16	0.552	0.041	13.498	***		
D17	0.590	0.038	15.345	***		
D18	0.634	0.036	17.836	***		
D19	0.601	0.038	15.914	***		
D20	0.762	0.026	29.103	***		

Note: ***p < 0.001.

Abbreviations: IA, Individual authenticity; SA, Self-Alienation.

Table 4 Fit Indices of the Model

Fit Indices	Recommended Threshold	Scores	Remarks
ML χ^2	–	1454.569	–
Df	–	974	–
χ^2/df	$1 < \chi^2/df < 3$	1.493	Acceptable
CFI	> 0.9	0.923	Acceptable
TLI	> 0.9	0.919	Acceptable
RMSEA	< 0.08	0.039	Acceptable
SRMR	< 0.08	0.049	Acceptable

Table 5 The Direct Effect of the Research Paths and Research Model Hypothesis Analysis

DV	IV	Std.Est.	S.E.	Est./S.E.	P-value	R ²	Hypo and Path	Remarks
Depression	IA	-0.175	0.060	-2.903	0.004	0.369	H1: IA → Depression	Support
	Mindfulness	-0.240	0.062	-3.869	***		H2b: Mindfulness → Depression	Support
	Self-Alienation	0.365	0.062	5.874	***		H3b: Self-Alienation → Depression	Support
Mindfulness	IA	0.360	0.061	5.867	***	0.133	H2a: IA → Mindfulness	Support
Self-Alienation	IA	-0.345	0.059	-5.885	***	0.207	H3a: IA → Self-Alienation	Support
	Mindfulness	-0.191	0.060	-3.198	0.001		H4: Mindfulness → Self-Alienation	Support

Note: ***p < 0.001.

Abbreviation: IA, Individual authenticity.

Table 6 The Indirect Effect of the Research Paths

Path	Std.Est.	S.E.	Est./S.E.	P-value	Boot LLCI	Boot ULCI	The Proportion of the Effect
H2: IA → Mindfulness → Depression	-0.023	0.009	-2.634	0.008	-0.046	-0.010	20.91%
H3: IA → Self-Alienation → Depression	-0.034	0.008	-4.002	***	-0.054	-0.020	30.91%
H5: IA → Mindfulness → Self-Alienation → Depression	-0.007	0.003	-2.441	0.015	-0.013	-0.003	6.36%
TOTALIND	-0.063	0.012	-5.095	***	-0.092	-0.042	57.27%
TOTAL	-0.110	0.021	-5.362	***	-0.156	-0.074	100.00%

Note: ***p < 0.001.

Self-alienation played a mediating role between individual authenticity and depression ($\beta = -0.034, p < 0.001$), with a 95% confidence interval $[-0.054, -0.020]$, excluding 0, supporting H3, with a mediating role of 30.91%.

Mindfulness and self-alienation mediate the relationship between individual authenticity and depression in turn ($\beta = -0.007, p = 0.015$), 95% confidence interval $[-0.013, -0.003]$, exclude 0, support H5, and the mediating effect accounts for 6.36%. Structural equation model see Figure 2.

Discussion

Individual Authenticity Negatively Predicted Depression

This study found that individual authenticity negatively predicted preschool teachers' depression. From a mental health perspective, individual authenticity acts as a buffer to reduce the probability of negative emotions. At the same time,

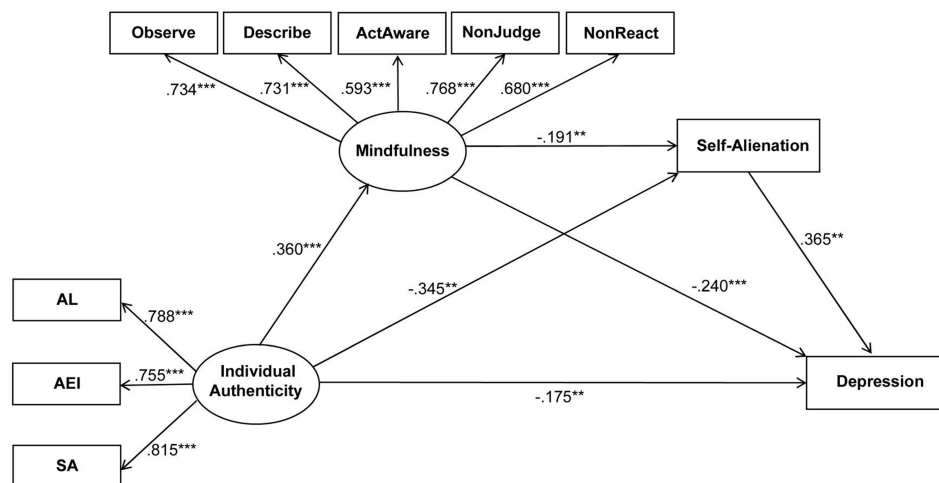


Figure 2 Structural equation model.

Note: **p < 0.01, ***p < 0.001.

Abbreviations: AL, Authentic Living; AEI, Accepting External Influence; SA, Self-Alienation.

research has further validated the theory of self-regulation,³⁷ which emphasizes that individuals behave positively during the process of self-regulation and tend to monitor themselves throughout the process of regulation. However, when there is inconsistency between an individual's internal and external behaviors in the process of self-monitoring by ontology and accompanied by the factor of self-inhibition, internal thoughts and external behavior conflict, resulting in individual inauthenticity.³⁸ This forces the individual to adjust and is accompanied by negative emotions such as depression and anxiety. Specifically, the phenomenon of backfire is always permeating the whole life, and our explicit behavior is always deviates from the true inner thoughts, and these behaviors will cause the individual to appear psychologically inhibited. This leads to positive emotions such as depression and anxiety. The reason why we focus on the individual authenticity level of preschool teachers is that preschool teachers, as teachers, can only see the needs of children and help them realize only when they recognize their true self and are satisfied with this. As an employee, only by better recognizing the true self, can we maximize our strengths and avoid our weaknesses and give full play to our greatest value as an employee. Various social pressures will force preschool teachers to produce a series of practices that backfire and avoid the present, alienate the authenticity of the individual, and generate negative emotions such as anxiety and depression.

Mindfulness Plays a Mediating Role in Individual Authenticity and Depression

In addition, this study further revealed how individual authenticity affects preschool teachers' depression, that is, further explored the mediating role of mindfulness and self-alienation between individual authenticity and depression. First, this study found a mediating effect of mindfulness. The mediating effect of mindfulness accounted for 20.91%. Because individuals with high individual authenticity are more able to feel thoughts related to the self, and through this, they can deeply perceive their own consciousness.⁴⁸ This, in part, encourages individuals to maintain a higher level of concentration. To a certain extent, this motivates the individual to maintain a high level of concentration. As concentration improves, the individual maintains a higher level of mindfulness. The reason for the correlation between the level of mindfulness and positive emotions is that mindfulness can improve the level of metacognition, reduce rumination and circular thinking, and then reduce negative emotions.⁹³ This study also verified the theory of self-determination.⁴⁶ The higher the individual authenticity of preschool teachers, the higher the level of self-awareness, the more autonomous behaviors, they produce, and the more focused they are on the self to achieve a higher level of mindfulness. Higher level of mindfulness can not only counteract individual authenticity again, but also affect preschool teachers' healthy emotions.

Self-Alienation Plays a Mediating Role in Individual Authenticity and Depression

In addition, this study also found a mediating effect of self-alienation. The mediating effect of self-alienation accounted for 30.91%. In fact, when teachers continue to focus on teaching, they can gain self-efficacy and positive emotions from them, because teachers enjoy a high degree of autonomy over their own work.⁹⁴ But with the increase in non-teaching activities, teachers may only use teaching as a means of earning a living, rather than a profession with intrinsic value rewarding, leading to both the primary experience of the self and symbolic awareness in the structure of individual authenticity. The elements do not match each other resulting in self-alienation.⁹⁵ The sense of self-alienation persists, and its various dimensions are bound to increase the negative emotions of teachers. At the same time, this also confirms the basic needs theory,⁶³ because the degree of individual authenticity helps the individual's basic psychological needs to be satisfied, resulting in a tendency of self-actualization rather than self-alienation. Therefore, for the preschool teacher group, the higher the individual authenticity, the lower the sense of self-alienation and the lower the depression. The discovery and discussion of the medium of self-alienation is crucial for the preschool teacher group, because the concept of alienation itself is mainly the contradiction between labor and human nature. This contradiction is very obvious among preschool teachers, because in China, preschool teachers are not only incomparable with those in a high class occupations in the social occupational ladder, but also incomparable with teachers at other educational stages. When focusing on the intermediary variable of alienation, it can not only pay attention to the inner emotions and individual characteristics of preschool teachers, which can be better fed back to their daily work, but also can make policy makers fully aware of the needs of preschool teachers as economic subjects, resulting in a policy bias that enables the profession itself to continue to develop.

Mindfulness and Self-Alienation Play Serial Mediating Roles in Individual Authenticity and Depression

In addition, this study also revealed that mindfulness and self-alienation have a sequential mediating effect between individual authenticity and depression, that is, individual authenticity can affect depression through the sequential mediating effect of mindfulness and self-alienation. The serial mediation effect of mindfulness and self-alienation accounted for 6.36%. When an individual's true self is dominant, the individual can observe the surrounding environment in a non-judgmental and non-critical manner, which has a certain correlation with the individual's self-acceptance, so the reduction of negative emotions is an inevitable result. This study also verified the theory of social psychology,⁷⁵ when the individual authenticity of preschool teachers is stronger, the more they can enhance the acceptance of positive or negative aspects in the work process, and the individual reduces their sensitivity. The degree of insensitivity will generate more insensitivity, thereby reducing internal friction, reducing external interference, focusing on yourself, and enjoying the moment.

Theoretical Implications

This study is of great value in enriching existing theories related to depression. This study confirms relevant theoretical perspectives on depression in positive psychology. Depression is caused not only by the negative biased factors that the cognitive theory of depression believes, but also by the lack of positive factors. Although the path coefficient of the positive factors is smaller than that of the negative factors, the positive factors in the individual will have a certain impact on the negative factors. The current research not only confirms the relevant theoretical views of positive psychology on depression, but also examines the mechanism of action of positive and negative factors in individuals through empirical research. The conclusion of the study confirms that the individual's depression is not only affected by his own negative bias but also by his own positive factors, and that positive factors will affect negative factors. This perspective will provide new literature references to existing relevant theories about depression.

Practical Implications

This study also brings us some practical implications. First of all, in order to improve the level of authenticity of the individual, the key lies in the lack of an internal self-evaluation system. Individuals always rely on the evaluation of them from the outside world and bury their inner true thoughts. Therefore, in order to improve individual authenticity, preschool teachers are required to rebuild the internal evaluation system, respect their own feelings, and pay attention to their own value. Individual needs and desires are innate and cannot be separated. If they are forced to suppress, it will be counterproductive. For the two mediating variables, mindfulness and self-alienation, specific mindfulness practices can significantly contribute to them. Mindfulness practice not only enables individuals to maintain a gentle perspective on their surroundings and aspects of their own body, but also allows them to view events in their lives in a more objective way. Not only can it directly affect the level of mindfulness of the individual, but it can also better accept oneself, accept everything that happens to oneself calmly, and tolerate the real and imperfect self, reducing the sense of self-alienation. Especially at the moment when the emotional research of preschool teachers is not deep enough, based on the relationship between metacognition and negative and depressive emotions of preschool teachers revealed in this study, preschool teachers need to improve their internal self-evaluation system. Additionally, teachers' mental health and implementing mental health interventions in schools to help more young children provide scientific evidence. Only when school policy makers and implementers are aware of the importance of preschool teachers' mental health can they invest in preschool education in a more scientific way.

Limitations and Future Research Directions

Future research can be improved and expanded from the following aspects. First of all, although this study is based on sufficient theory and empirical evidence coupled with high reliability measurement tools, cross-sectional research must have certain limitations, and longitudinal design methods can be used in the future. Secondly, the data of the scale in this study comes from self-report, which is subjective to a certain degree of subjectivity. In the future, mixed research methods such as experimental method or qualitative research can be used. In addition, the data in this study may be affected by the force the COVID-19 pandemic. After the COVID-19 pandemic is over, relevant comparative studies can

be carried out to confirm the validity of the data in this study. Finally, this study only considered mindfulness as a positive factor and self-alienation as a negative factor. However, there are many influencing factors on depression, and more comparative studies on the mediating pathways of positive and negative factors can be considered in the future. This further confirms the relevant conclusions drawn in this study. And it can summarize the theoretical model about the individual's own positive factors and negative factors on depression, which will make a significant contribution to the theoretical development of depression research.

Conclusion

This study draws some valuable conclusions through the empirical research on preschool teachers. This study found that individual authenticity directly predicts depression. Mindfulness mediates the relationship between individual authenticity and depression, and self-alienation also mediates the relationship between individual authenticity and depression. The proportion of mediating effect of mindfulness is smaller than that of self-alienation. At the same time, this study also found that mindfulness and self-alienation play a sequential mediating role between individual authenticity and depression. This study not only confirms the relevant theoretical viewpoints of positive psychology on depression, but also believes that individual depression is not only affected by one's own negative bias but also by one's own positive factors. At the same time, the individual's own positive factors will affect the negative factors. This perspective will provide new literature references to existing relevant theories about depression. In addition, this study will also provide literature reference for early childhood education practice.

Ethics Approval

The studies involving human participants were reviewed and approved by the Research Ethics Committee of the Wenzhou University. Written informed consent to participate in this study was provided by the participants.

Funding

This paper was supported by Major Cultivating Projects of Leading Talents in Philosophy and Social Sciences of Zhejiang Province "Aiming for Common Prosperity: Improvement and Evaluation of Early Childcare Quality Driven by Multimodal Data Fusion" (23YJRC13ZD); the Zhejiang Provincial Educational Science Planning Project: Research on the Construction of the Public Service System for Infant and Toddler Education in Zhejiang Province (No. 2021SCG146). This project supported by the Graduate Scientific Research Foundation of Wenzhou University. This project also supported by the Sunlory Educational Institute.

Disclosure

Baocheng Pan and Shiyi Fan are co-first authors for this study. The authors report no conflicts of interest in this work.

References

1. Kyriacou C. Teacher stress: directions for future research. *Educ Rev.* 2001;53(1):27–35. doi:10.1080/00131910120033628
2. Kaur S. Comparative study of occupational stress among teachers of private and govt. schools in relation to their age, gender and teaching experience. *Int J Educ Plan Adm.* 2011;1(2):151–160.
3. Kralovec E, Johnston M, Mehl W, et al. The value of a teacher's life. *Schools.* 2021;18(1):69–85. doi:10.1086/713612
4. Sribayak V, Tangkiengsirisin S, Hongboontri C. Factors influencing teacher attrition in a Thai context. *Learn J.* 2018;11(2):84–102.
5. Zhu G, Rice M, Rivera H, Mena J, Van Der Want A. 'I did not feel any passion for my teaching': a narrative inquiry of beginning teacher attrition in China. *Cambridge J Educ.* 2020;50(6):771–791. doi:10.1080/0305764X.2020.1773763
6. Desouky D, Allam H. Occupational stress, anxiety and depression among Egyptian teachers. *J Epidemiol Glob Health.* 2017;7(3):191. doi:10.1016/j.jegh.2017.06.002
7. Peryman J, Calvert G. What motivates people to teach, and why do they leave? Accountability, performativity and teacher retention. *Br J Educ Stud.* 2020;68(1):3–23. doi:10.1080/00071005.2019.1589417
8. Mudau AV. Exploring teacher mass resignation and early retirement from public schools. *Dirasat Hum Soc Sci.* 2016;43:2243–2254.
9. Domagalska J, Rusin M, Razzaghi M, Nowak P. Personality type D, level of perceived stress, insomnia, and depression among high school teachers in Poland. *Front Psychol.* 2021;12. doi:10.3389/fpsyg.2021.626945
10. Falk D, Frisoli P, Varni E. The importance of teacher well-being for student mental health and resilient education systems. *Forced Migr Rev.* 2021;66:1.
11. Jennings PA, Greenberg MT. The prosocial classroom: teacher social and emotional competence in relation to student and classroom outcomes. *Rev Educ Res.* 2009;79(1):491–525. doi:10.3102/0034654308325693

12. Nutbrown C. Early childhood educators' qualifications: a framework for change. *Int J Early Years Educ.* 2021;29(3):236–249. doi:10.1080/09669760.2021.1892601
13. McIntyre RS, Liauw S, Taylor VH. Depression in the workforce: the intermediary effect of medical comorbidity. *J Affect Disord.* 2011;128(SUPPL. 1): S29–S36. doi:10.1016/S0165-0327(11)70006-4
14. Roberts A, LoCasale-Crouch J, Hamre B, DeCoster J. Exploring teachers' depressive symptoms, interaction quality, and children's social-emotional development in head start. *Early Educ Dev.* 2016;27(5):642–654. doi:10.1080/10409289.2016.1127088
15. Votruba-Drzal E, Coley RL, Maldonado-Carreño C, Li-Grining CP, Chase-Lansdale PL. Child care and the development of behavior problems among economically disadvantaged children in middle childhood. *Child Dev.* 2010;81(5):1460–1474. doi:10.1111/j.1467-8624.2010.01485.x
16. Hamre BK, Pianta RC. Self-reported depression in nonfamilial caregivers: prevalence and associations with caregiver behavior in child-care settings. *Early Child Res Q.* 2004;19(2):297–318. doi:10.1016/j.ecresq.2004.04.006
17. Papastilianou A, Kaila M, Polychronopoulos M. Teachers' burnout, depression, role ambiguity and conflict. *Soc Psychol Educ.* 2009;12(3):295–314. doi:10.1007/s11218-008-9086-7
18. Lu J, Yu Y, Zhao Y, Jenkin M, Kalemaki K. The correlation between workers' working pressure and physical and mental health analyzed by the job demand-resource stress model. *Work.* 2021;69(2):573–583. doi:10.3233/WOR-213500
19. Massoni S. Emotion as a boost to metacognition: how worry enhances the quality of confidence. *Conscious Cogn.* 2014;29:189–198. doi:10.1016/j.concog.2014.08.006
20. Beck AT. *Cognitive Therapy of Depression: New Perspectives.* Raven Press; 1983.
21. Abramson LY, Metalsky GI, Alloy LB. Hopelessness depression: a theory-based subtype of depression. *Psychol Rev.* 1989;96(2):358–372. doi:10.1037/0033-295X.96.2.358
22. Taylor SE, Brown JD. Illusion and well-being: a social psychological perspective on mental health. *Psychol Bull.* 1988;103(2):193–210. doi:10.1037/0033-2909.103.2.193
23. Kernis MH. TARGET ARTICLE: toward a conceptualization of optimal self-esteem. *Psychol Inq.* 2003;14(1):1–26. doi:10.1207/S15327965PLI1401_01
24. Goldman BM, Kernis MH. The role of authenticity in healthy psychological functioning and subjective well-being. *Ann Am Psychother Assn.* 2002;5(6):18–20.
25. Wood AM, Linley PA, Maltby J, Baliousis M, Joseph S. The authentic personality: a theoretical and empirical conceptualization and the development of the authenticity scale. *J Couns Psychol.* 2008;55(3):385–399. doi:10.1037/0022-0167.55.3.385
26. Erickson RJ. Our society, our selves: becoming authentic in an inauthentic world. *Adv Dev.* 1995;6:27–39.
27. Rogers CR. The concept of the fully functioning person. *Pastoral Psychol.* 1965;16(3):21–33. doi:10.1007/BF01769775
28. van den Bosch R, Taris TW. Authenticity at work: development and validation of an individual authenticity measure at work. *J Happiness Stud.* 2014;15(1):1–18. doi:10.1007/s10902-013-9413-3
29. Wong JJ, Tricco AC, Côté P, et al. Association between depressive symptoms or depression and health outcomes for low back pain: a systematic review and meta-analysis. *J Gen Intern Med.* 2022;37(5):1233–1246. doi:10.1007/s11606-021-07079-8
30. Parsons D, Gardner P, Parry S, Smart S. Mindfulness-based approaches for managing stress, anxiety and depression for health students in tertiary education: a scoping review. *Mindfulness.* 2022;13(1):1–16. doi:10.1007/s12671-021-01740-3
31. Beck AT, Beamesderfer A. Assessment of depression: the depression inventory. *Mod Probl Pharmacopsychiatry.* 1974;7:1.
32. Davidson RJ, Pizzagalli D, Nitschke JB, Putnam K. Depression: perspectives from affective neuroscience. *Annu Rev Psychol.* 2002;53(1):545–574. doi:10.1146/annurev.psych.53.100901.135148
33. Heydarnejad T, Zareian G, Ghaniabadi S, Adel SMR. Measuring language teacher emotion regulation: development and validation of the Language Teacher Emotion Regulation Inventory at Workplace (LTERI). *Front Psychol.* 2021;12. doi:10.3389/fpsyg.2021.708888
34. Uzuntiryaki-Kondakci E, Kirbulut ZD, Sarici E, Oktay O. Emotion regulation as a mediator of the influence of science teacher emotions on teacher efficacy beliefs. *Educ Stud.* 2022;48(5):583–601.
35. Frenzel AC, Goetz T, Stephens EJ, Jacob B. Antecedents and effects of teachers' emotional experiences: an integrated perspective and empirical test. In: *Advances in Teacher Emotion Research: The Impact on Teachers' Lives.* Springer; 2009.
36. Kim YH, Kim YE. Korean early childhood educators' multi-dimensional teacher self-efficacy and ECE center climate and depression severity in teachers as contributing factors. *Teach Teach Educ.* 2010;26(5):1117–1123. doi:10.1016/j.tate.2009.06.009
37. Carver CS, Scheier MF. *Attention and Self-Regulation: A Control-Theory Approach to Human Behavior.* Vol. 1. Springer Science & Business Media; 1981.
38. Cramer D. On becoming a person: A therapist's view of psychotherapy: carl ransom rogers. *Br J Psychiatry.* 1991;158(1):139–141. doi:10.1192/S0007125000048364
39. Sheldon KM, Ryan RM, Rawsthorne LJ, Ilardi B. Trait self and true self: cross-role variation in the big-five personality traits and its relations with psychological authenticity and subjective well-being. *J Pers Soc Psychol.* 1997;73(6):1380–1393. doi:10.1037/0022-3514.73.6.1380
40. Ditrich T. Buddhism between Asia and Europe: the concept of mindfulness through a historical lens. *Asian Stud.* 2016;4(1):197–213. doi:10.4312/as.2016.4.1.197-213
41. Gibson J. Mindfulness, interoception, and the body: a contemporary perspective. *Front Psychol.* 2019;10. doi:10.3389/fpsyg.2019.02012
42. Dunne J. Toward an understanding of non-dual mindfulness. *Contemp Buddhism.* 2011;12(1):71–88. doi:10.1080/14639947.2011.564820
43. Van Dam NT, van Vugt MK, Vago DR, et al. Mind the hype: a critical evaluation and prescriptive agenda for research on mindfulness and meditation. *Perspect Psychol Sci.* 2018;13(1):36–61. doi:10.1177/1745691617709589
44. Grossman P. On the porosity of subject and object in 'mindfulness' scientific study: challenges to 'scientific' construction, operationalization and measurement of mindfulness. *Curr Opin Psychol.* 2019;28:102–107.
45. Kabat-Zinn J. Some reflections on the origins of MBSR, skillful means, and the trouble with maps. *Contemp Buddhism.* 2011;12(1):281–306. doi:10.1080/14639947.2011.564844
46. Niemiec CP, Ryan RM. Autonomy, competence, and relatedness in the classroom: applying self-determination theory to educational practice. *Theory Res Educ.* 2009;7(2):133–144. doi:10.1177/1477878509104318
47. Hodgins HS, Knee CR. The integrating self and conscious experience. In: *Handb Self Determination Res.* University of Rochester Press; 2002.
48. Kernis MH, Goldman BM, Multicomponent A. Conceptualization of authenticity: theory and research. *Adv Exp Soc Psychol.* 2006;38:283–357.

49. Zheng S, Sun S, Huang C, Zou Z. Authenticity and subjective well-being: the mediating role of mindfulness. *J Res Pers.* 2020;84:103900. doi:10.1016/j.jrp.2019.103900
50. Friesen N, Osguthorpe R. Tact and the pedagogical triangle: the authenticity of teachers in relation. *Teach Teach Educ.* 2018;70:255–264. doi:10.1016/j.tate.2017.11.023
51. Carvalho JP, Hopko DR. Behavioral theory of depression: reinforcement as a mediating variable between avoidance and depression. *J Behav Ther Exp Psychiatry.* 2011;42(2):154–162. doi:10.1016/j.jbtep.2010.10.001
52. Nyklíček I, Kuijpers KF. Effects of mindfulness-based stress reduction intervention on psychological well-being and quality of life: is increased mindfulness indeed the mechanism? *Ann Behav Med.* 2008;35(3):331–340. doi:10.1007/s12160-008-9030-2
53. Ferster CB. “A functional analysis of depression”: reply. *Am Psychol.* 1974;29(5):361–362. doi:10.1037/h0038144
54. Sharma PK, Kumra R. Relationship between mindfulness, depression, anxiety and stress: mediating role of self-efficacy. *Pers Individ Dif.* 2022;186:111363.
55. Gerber EB, Whitebook M, Weinstein RS. At the heart of child care: predictors of teacher sensitivity in center-based child care. *Early Child Res Q.* 2007;22(3):327–346. doi:10.1016/j.ecresq.2006.12.003
56. Czerwinski N, Egan H, Cook A, Mantzios M. Teachers and mindful colouring to tackle burnout and increase mindfulness, resiliency and wellbeing. *Contemp Sch Psychol.* 2021;25(4):535–545.
57. Zwetkoff C. On the adequacy of the concept of alienation in empirical research. *Eur J Polit Res.* 1977;5(4):433–446. doi:10.1111/j.1475-6765.1977.tb00799.x
58. Plasek W. Marxist and American sociological conceptions of alienation: implications for social problems theory. *Soc Probl.* 1974;21(3):316–328. doi:10.2307/799901
59. Petrovic G. Marx’s theory of alienation. *Philos Phenomenol Res.* 1963;23(3):419. doi:10.2307/2105083
60. Øversveen E. Capitalism and alienation: towards a Marxist theory of alienation for the 21st century. *Eur J Soc Theory.* 2022;25(3):440–457. doi:10.1177/13684310211021579
61. Molstad C. Work alienation: an integrative approach. *Anthropol Work Rev.* 1984;5(4):54–55. doi:10.1525/awr.1984.5.4.54
62. Seeman M. On the meaning of alienation. *Am Sociol Rev.* 1959;24(6):783. doi:10.2307/2088565
63. Deci EL, Ryan RM. Overview of self-determination theory: an organismic dialectical perspective. In: *Handbook of Self-Determination Research.* University of Rochester Press; 2002.
64. Ren Q, Jiang S. Acculturation stress, satisfaction, and frustration of basic psychological needs and mental health of Chinese migrant children: perspective from basic psychological needs theory. *Int J Environ Res Public Health.* 2021;18(9):4751. doi:10.3390/ijerph18094751
65. Fredrickson BL, Joiner T. Positive emotions trigger upward spirals toward emotional well-being. *Psychol Sci.* 2002;13(2):172–175. doi:10.1111/1467-9280.00431
66. Nair N, Vohra N, Kelemen M. The concept of alienation: towards conceptual clarity. *Int J Organ Anal.* 2012;20(1):25–50. doi:10.1108/19348831211215641
67. Hobfoll SE. Conservation of resources: a new attempt at conceptualizing stress. *Am Psychol.* 1989;44(3):513–524. doi:10.1037/0003-066X.44.3.513
68. Xu Y. The demoralization of teachers: crisis in a rural school in China. *Front Educ China.* 2014;9(3):470–471. doi:10.1007/BF03397035
69. Kahn WA. Psychological conditions of personal engagement and disengagement at work. *Acad Manag J.* 1990;33(4):692–724. doi:10.2307/256287
70. Lavy S, Berkovich-Ohana A. From teachers’ mindfulness to students’ thriving: the Mindful Self in School Relationships (MSSR) model. *Mindfulness.* 2020;11(10):2258–2273. doi:10.1007/s12671-020-01418-2
71. Braun SS, Roeser RW, Mashburn AJ, Skinner E. Middle school teachers’ mindfulness, occupational health and well-being, and the quality of teacher-student interactions. *Mindfulness.* 2019;10(2):245–255. doi:10.1007/s12671-018-0968-2
72. Beers Dewhirst C, Goldman J. Launching motivation for mindfulness: introducing mindfulness to early childhood preservice teachers. *Early Child Dev Care.* 2020;190(8):1299–1312. doi:10.1080/03004430.2018.1531853
73. Dworkin AG, Saha LJ, Hill AN. Teacher burnout and perceptions of a democratic school environment. *Int Educ J.* 2003;4(2):108–120.
74. Lakey CE, Kernis MH, Heppner WL, Lance CE. Individual differences in authenticity and mindfulness as predictors of verbal defensiveness. *J Res Pers.* 2008;42(1):230–238. doi:10.1016/j.jrp.2007.05.002
75. Ziller RC. The alienation syndrome: a triadic pattern of self-other orientation. *Sociometry.* 1969;32(3):287. doi:10.2307/2786491
76. Ryan RM, Deci EL. On happiness and human potentials: a review of research on hedonic and eudaimonic well-being. *Annu Rev Psychol.* 2001;52(1):141–166. doi:10.1146/annurev.psych.52.1.141
77. Chamberlain JM, Haaga DAF. Unconditional self-acceptance and psychological health. *J Ration Emot Cogn Behav Ther.* 2001;19(3):163–176.
78. Carson SH, Langer EJ. Mindfulness and self-acceptance. *J Ration Emot Cogn Behav Ther.* 2006;24(1):29–43.
79. Thompson BL, Waltz JA. Mindfulness, self-esteem, and unconditional self-acceptance. *J Ration Emot Cogn Behav Ther.* 2008;26(2):119–126.
80. Ministry of Education of the People’s Republic of China. Number of female educational personnel and full-time teachers of schools by type and level, 2020.
81. Xia M, Lv H, Xu X. Validating the Chinese version authenticity scale: psychometrics in college and community samples. *Curr Psychol.* 2021;41:1–13.
82. Baer RA, Smith GT, Hopkins J, Krietemeyer J, Toney L. Using self-report assessment methods to explore facets of mindfulness. *Assessment.* 2006;13(1):27–45. doi:10.1177/1073191105283504
83. Pang D, Ruch W. Scrutinizing the components of mindfulness: insights from current, past, and non-meditators. *Mindfulness.* 2019;10(3):492–505. doi:10.1007/s12671-018-0990-4
84. Deng Y-Q, Liu X-H, Rodriguez MA, Xia C-Y. The five facet mindfulness questionnaire: psychometric properties of the Chinese version. *Mindfulness.* 2011;2(2):123–128. doi:10.1007/s12671-011-0050-9
85. Pan B, Wu H, Zhang X. The effect of trait mindfulness on subjective well-being of kindergarten teachers: the sequential mediating roles of emotional intelligence and work–family balance. *Psychol Res Behav Manag.* 2022;15:2815–2830.
86. Crowther B, Jessor R, Jessor SL. Problem behavior and psychosocial development: a longitudinal study of youth. *Contemp Sociol.* 1978;7(6):742. doi:10.2307/2065689

87. Li X, Mao R, Stanton B, Zhao Q. Parental, behavioral, and psychological factors associated with cigarette smoking among secondary school students in Nanjing, China. *J Child Fam Stud*. 2010;19(3):308–317. doi:10.1007/s10826-009-9299-1
88. Radloff LS. The CES-D scale: a self-report depression scale for research in the general population. *Appl Psychol Meas*. 1977;1(3):385–401. doi:10.1177/014662167700100306
89. Zhang J, Wu ZY, Fang G, Li J, Han BX, Chen ZY. Development of the Chinese age norms of CES-D in urban area. *Chin Ment Health J*. 2010;24(2):139–143.
90. Ozamiz-Etxebarria N, Berasategi Santxo N, Idoiaga Mondragon N, Dosil Santamaria M. The psychological state of teachers during the COVID-19 crisis: the challenge of returning to face-to-face teaching. *Front Psychol*. 2021;11. doi:10.3389/fpsyg.2020.620718
91. Podsakoff PM, MacKenzie SB, Lee J-Y, Podsakoff NP. Common method biases in behavioral research: a critical review of the literature and recommended remedies. *J Appl Psychol*. 2003;88(5):879–903. doi:10.1037/0021-9010.88.5.879
92. Tsui AS, Ashford SJ, Clair LST, Xin KR. Dealing with discrepant expectations: response strategies and managerial effectiveness. *Acad Manag J*. 1995;38(6):1515–1543. doi:10.2307/256842
93. Reck TE *Mindfulness in Modernity- a Bootstrapped Mediation Analysis Concerning: Mindfulness, Stressed Mood, Depressed Mood, Anxious Mood, Procrastination and Social Media Reliance* [BA (Hons) Psychology]; 2016.
94. Tsang KK. Teacher alienation in Hong Kong. *Discourse*. 2018;39(3):335–346.
95. Wang D. *The Demoralization of Teachers: Crisis in a Rural School in China*. Lexington Books; 2013.

Psychology Research and Behavior Management

Dovepress

Publish your work in this journal

Psychology Research and Behavior Management is an international, peer-reviewed, open access journal focusing on the science of psychology and its application in behavior management to develop improved outcomes in the clinical, educational, sports and business arenas. Specific topics covered in the journal include: Neuroscience, memory and decision making; Behavior modification and management; Clinical applications; Business and sports performance management; Social and developmental studies; Animal studies. The manuscript management system is completely online and includes a very quick and fair peer-review system, which is all easy to use. Visit <http://www.dovepress.com/testimonials.php> to read real quotes from published authors.

Submit your manuscript here: <https://www.dovepress.com/psychology-research-and-behavior-management-journal>