# ORIGINAL RESEARCH The Effects of Emotional Labor on Work Strain and Nonwork Strain Among Dancers: A Person-Centered Approach

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Introduction: Emotional labor is an important research area, but four key gaps remain regarding outcomes of nonwork strains, explanatory frameworks beyond the conservation of resources theory, adoption of person-centered approaches, and subjects of performers.

Methods: By surveying 183 Chinese dance students, we employed cluster analysis to examine the adoption of emotional labor strategies (ie, surface acting, deep acting, and expression of naturally felt emotions) and to explore the outcomes on work strain (ie, emotional exhaustion and reduced flow experience) and nonwork strain (ie, depression and anxiety) with introducing the allostatic load theory as an analytical basis.

Results: Four types of emotional workers were identified, namely, flexible regulators (33.33%), authentic regulators (15.85%), display rules compliers (39.34%), and non-regulators (11.48%). Authentic regulators had the lowest emotional exhaustion. Non-regulators had the lowest flow. No differences emerged in depression or anxiety across clusters.

Discussion: Findings partially align with past research showing risks of surface acting in terms of emotional exhaustion. However, all three strategies enhanced flow states. Moreover, dancers' work strains did not extend to psychological problems, unlike other professions. Possible explanations include training in emotional regulation and flow states in performing. Practical implications exist for training emotional regulation and fostering flow at work.

Keywords: dancer, emotional labor, strain, emotional exhaustion, flow experience, depression, anxiety, allostatic load theory

#### Introduction

Research attention towards emotional labor has mounted by leaps and bounds in the field of organizational and management psychology during the past decades<sup>1</sup> as understanding emotions at work is of critical importance to care for employees' well-being so as to improve their sustainable occupational development.<sup>2</sup> Emotional labor, first coined by Professor Arlie Hochschild in 1983, refers to employee's effortful management of emotions in order to create a publicly appropriate display in line with the job demands.<sup>3</sup> It is considered as the third type of work role—differentiated from physical labor and cognitional labor<sup>4</sup>—which is most common seen in front-line positions with "service with a smile" rules such as banks, hotels, airports, and call centers,<sup>5</sup> and has been acknowledged as one of the most significant occupational stressors posing great challenges that strain on employee's mental health.<sup>6</sup> However, despite unprecedented growth and impact in this focal research area,<sup>7</sup> there are still several important gaps in the literature awaiting to be addressed.

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First, most of the existing studies only explored the effects of emotional labor on well-being outcomes in work contexts (eg, job burnout, job satisfaction, etc.), and nonwork psychological health consequences such as depression and anxiety have received relatively less attention.<sup>8</sup>

Second, the emotional labor literature so far has mainly relied on the conservation of resources theory as its underpinning, but this theory is more advantageous in understanding the antecedents of emotional labor but falls short in interpreting the consequences of emotional labor, especially when extending the outcomes to work-irrelevant mental health.<sup>9</sup> Hence, in this present study, we introduced the allostatic load theory from the area of mental health studies as a significant explanatory theoretical basis.<sup>10</sup>

Third, the majority of emotional labor research has adopted a variable-centered approach (eg, correlation analysis, regression analysis, structural equation model, etc.), which assumes that the roles of emotional labor strategies in predicting well-being are homogeneous across the population and ignore the fact that individuals vary in terms of the combined usage of different strategies.<sup>11</sup> Therefore, studies using person-centered methods such as cluster analysis and latent profile analysis are needed.<sup>12</sup>

Finally, though the concept of emotional labor stemmed from Dramaturgy at the very beginning and then transferred to the field of customer service, emotional labor of real actors themselves has barely been examined.<sup>13</sup>

In view of these gaps, we intended to employ the person-centered approach to probe into dancers' adoption of emotional labor strategies as well as the consequences on both work (ie, emotional exhaustion and reduced flow experience) and nonwork well-being indicators (ie, depression and anxiety) in the current study.

#### **Literature Review**

#### Consequences of Emotional Labor Strategies

Emotional labor that generally entails an employee's effortful emotional regulation in accordance with the emotional goals established by the organization or the profession (eg, for the enhancement of customers' mood and service satisfaction) basically involves three strategies which depend on the types of efforts made by the employee:<sup>14</sup> The first one is surface acting, which regulates the manifestation of feeling—for instance, hiding undesired inner emotions or feigning expressions of unfelt but demanded emotions. The second one is deep acting, which actually regulates the feeling itself—for example, to create true emotions or to modify the felt emotions to align with the organizational requirements. The third one is the automatic and authentic expression of naturally felt emotions with little alteration, which usually happens when one's inner true feelings are already in line with the professional demands.<sup>15</sup>

However, while putting on the smile to perform one's work role can achieve beneficial outcomes in terms of organizational performance, it can also strain on the well-being of the employee depending on how the emotions are regulated. As is demonstrated by meta analyses,<sup>1,16–18</sup> among the three strategies, surface acting is the most detrimental to individual work-related well-being such as job satisfaction, burnout (ie, emotional exhaustion, depersonalization, and reduced accomplishment/efficacy), organizational commitment, and turnover intentions, whereas expression of naturally felt emotions is the most adaptive. Yet, whether deep acting is positively or negatively related or unrelated to impaired well-being is still debatable in the existing literature.

Prior studies mostly used the conservation of resources theory<sup>19</sup> to understand the consequences of different emotional labor strategies. Within this theory, emotional labor strategies are perceived as ways to retain and gain resources when employees are faced with job events that consume resources (eg, exposure to customer incivility). Said resources include not only emotional energy but also social support, money, and time among others. If the emotional regulation is effective, there may be a net gain in resources or at least an offset for resources loss, but if the regulation is ineffective, the failure to recover or protect resources further results in job strain. Research has demonstrated that compared with emotional labor strategies that appear genuine, the inauthenticity inherent in surface acting is less likely to increase social resources (eg, positive feedback from clients),<sup>20–23</sup> such that there would be a net loss in resources over time. Nevertheless, this alone does not conceptually fully explain why such form of emotional labor is more distressing, as the question regarding which strategy between surface acting and deep acting is more resource depleting has not been determined.<sup>24–26</sup> Moreover, this resource-based theoretical approach is work-centric (as most of the resources in question

are in the job contexts) and may not be applicable to context-free nonwork consequences. Therefore, it is necessary to expand outcomes beyond occupational strains and test job-irrelevant indicators of psychological health with the introduction of other promising theoretical model.<sup>8</sup>

## The Allostatic Load Theory as the Explanatory Model

We suggest that an alternative perspective to examine the consequences of emotional labor can utilize the lens of allostatic load theory. This theory is established on the prominent stressor–strain–outcome paradigm in the field of mental health studies, which connects the outcomes and the strains induced by stressors<sup>27</sup> and has been often used to explain the relationships between occupational stress and health-related outcomes.<sup>28</sup> It posits that when stressors are emerged, a series of physical and psychological "wear and tear" will be induced to seek a new balance (but not a full recovery)<sup>29</sup> and that when the stressors are sustained, the reacted adjustment will become permanent and establish the individual's allostatic load.<sup>30</sup> Based on this theory, the relationships among emotional labor, work strain (eg, burnout), and psychological well-being can be viewed as specific occupational stressor–strain–outcome relationships.<sup>31</sup> That is, when resources are strained by the stressor of emotional labor, mental health problems as outcomes will be resulted from the allostatic responses. Of note, among the numerous indices of mental health problems, depression and anxiety are the major ones;<sup>32</sup> depression is recognized as a low-arousal type of strain outcome, whereas anxiety is a high-arousal type of strain outcome.<sup>31</sup> Seen in this light, the maladaptiveness of suppression in surface acting can be accounted for by the incongruence and dissonance between expression and feelings, a sustained allostatic condition that elicits alienation from the self and creates tension,<sup>33–36</sup> whereas deep acting, which "involves deceiving oneself as much as deceiving others"<sup>3</sup> has much fewer yet some costs; only expression of naturally felt emotions is unharmful.

To our knowledge, very few studies to date have explored nonwork psychological effects of emotional labor,<sup>36,37</sup> and even fewer studies have applied the allostatic load theory.<sup>10</sup> These limited studies indicated that the deployment of surface acting at work poses both short-term and long-term psychophysiological damages to employees' well-being after work, resulting in anxious and depressive symptoms,<sup>10</sup> emotional exhaustion at home, work-to-family conflict, insomnia,<sup>36</sup> as well as hyper-tensive response,<sup>37</sup> whereas deep acting may be adaptive in the short run but also maladaptive in the long run.<sup>10</sup> However, none of these studies have examined the role of expression of naturally felt emotions and also none have adopted the person-centered approach to unpack different types of combined adoption of the three emotional labor strategies, which thus reduces the ecological validity of the research.

# The Person-Centered Approach to Emotional Labor Strategy Adoption

Person- and variable-centered methods are grounded on different suppositions and, hence, have different research objectives. The variable-centered approach assumes that the population is invariant in terms of the interrelationships between two or more variables, so its primary goal is to uncover the associations among constructs and to average individual differences. However, in reality, the covariant patterns can be far more complex than what the researchers expect, as many variable associations are context-dependent and moderated by individual features. As a result, it is hard for front-line practitioners to adapt or change their ways of practice on the basis of such analysis. In contrast, the variable-centered analysis is a complementary approach that underlines the heterogeneous nature of the population and aims at investigating how subgroups of individuals can be clustered based on how they response distinctly on a set of variables.<sup>38</sup> As far as emotional labor research is concerned, the person-centered approach is able to reveal the possible existence of different types of "actors" with distinct combinations of emotional labor strategy deployment, which yields important practical significance as it is common for employee to dynamically adopt more than one strategy in real-life situations.<sup>39</sup>

In the emotional labor literature, until now, four person-centered studies on customer service agents and teachers<sup>40–43</sup> have examined the combinations of the three strategies—surface acting, deep acting, expression of naturally felt emotions—as well as the consequences on job satisfaction; their results can be summed up in Table 1. Overall, seven types of combinations were identified. Among them, flexible and authentic regulators across professions reported almost the highest scores of job satisfaction, whereas non-regulators scored almost the lowest, which confirmed the findings of previous variable-centered research that the use of expression of naturally felt emotions is the most beneficial, whereas that of surface acting is the most detrimental.

Emotional Labor Strategies			Emotion	Literature				
Surface Acting	Deep Acting	Expression of Naturally Felt Emotions	Regulation Styles	[40]	[41]	[42]	[43]	
High	High	High	Flexible regulators	$\checkmark$	$\checkmark$		$\checkmark$	
High	High	Low	Display rules compliers	$\checkmark$	$\checkmark$			
Low	High	High	Authentic regulators	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	
High	Low	Low	Suppressors	$\checkmark$		$\checkmark$		
Low	High	Low	Reapraiser	$\checkmark$				
Moderate	Moderate	Moderate	Moderate emotional workers			V	$\checkmark$	
Low	Low	Low	Non-regulators	$\checkmark$			$\checkmark$	

Table I A Summary of Findings of Extant Person-Centered Emotional Labor Research

Nevertheless, no studies have explored the consequences of emotional labor of "real actors" or performers, a significant profession that emotional labor research should not neglect.

#### Emotional Labor Strategies of Actors and the Possible Well-Being Consequences

Interestingly, notwithstanding the big research gap in actors' emotional labor, Hochschild's initial notion of emotional labor actually stemmed from a "dramaturgical" perspective, which compared service employees who carried out emotional labor at the workplace in order to satisfy the customers to actors "employing expressive devices" at the stage in an effort to entertain the audience.<sup>44</sup> There are three major ways for such employment of expressive devices according to different schools of acting. The Stanislavski method of acting<sup>45</sup> proposes that drama actors should be able to truly feel the emotions of the characters that they are portraying at any given moment, which echoes the emotional labor strategy of deep acting. By contrast, Brecht and Meyerhold believed that an emotionally detached actor is "more capable of arousing maximum emotional effects in the spectator",<sup>46</sup> and Chinese Mei Lanfang also held that actors can play the characters in a stylized and fixed way and do without exhibiting authentic emotions,<sup>47</sup> which is in line with surface acting. The third way of expression of naturally felt emotions is consistent with Brook and Grotowski's approach of self-expression, but its ultimate objective is the same as that of the other two main streams mentioned above (Stanislavski versus Brecht)—which is that the actors are supposed to present their most inner self on the stage.<sup>46</sup>

As emotional regulation strategies of actors are identical to those of employees, it would be interesting to further probe into the possible outcomes of these strategies deployment. Will the use of surface acting also strain on actors' well-being? Will such strains extend from work contexts to nonwork contexts? Answering these questions can largely enrich emotional labor theory and is of great importance in relevant fields of occupational health and performance psychology.

In the performer well-being literature, in addition to common work-related indices such as burnout<sup>48</sup> and psychological indices such as depression and anxiety,<sup>49</sup> positive psychology-oriented researchers have recently paid increasing attention to flow experience as a significant indicator of occupational well-being, which is an optimal positive psychological state characterized by high engagement, deep absorption, and profound enjoyment.<sup>50</sup> The construct of flow, since proposed by Csikszentmihalyi in 1975,<sup>51</sup> has been the center of a large body of empirical literature<sup>52</sup> because of its salient role in facilitating people's well-being.<sup>53</sup> The literature point out three essential conditions for the experience of flow: clear goals, balance between challenges and skills, as well as immediate feedback.<sup>54</sup> People engaging in certain activities that meet with these three conditions such as performing tend to experience flow more easily,<sup>55</sup> and conversely, performers in higher flow state also tend to output better performance,<sup>56,57</sup> which is one of the reasons why flow research is heated in the performing literature. Moreover, the highly momentary and instantaneous nature of flow is aligned with that of emotional labor,<sup>58</sup> which makes us

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extremely curious how different emotional labor strategies may affect actors' experience of flow, a meaningful question that has rarely been explored.<sup>59–62</sup> Thus, in the present study, we intended to employ the person-centered analysis to look into how different emotional labor strategy combinations will impact on actors' work well-being (indicated by emotional exhaustion and flow experience) and nonwork well-being (indicated by depression and anxiety).

# The Present Study

In view of the research gaps mentioned above, in the present study, we aimed to first uncover performers' combinations of emotional labor strategies using a person-center approach (eg, cluster analysis) and then explore the effects of different combinations on outcomes of work strain and nonwork strain by group comparison (eg, *F*-test).

In summary, there were four innovative points of this current study. First, we compared work-related and workirrelevant well-being outcomes of emotional labor. Second, to extend outcomes from the work contexts to nonwork contexts, we introduced the allostatic load theory. Third, we adopted the person-centered analysis to uncover different combinations of emotional labor strategy usage. And fourth, we focused on performers as the subjects.

It should be mentioned that considering that the use of emotional labor strategy of some kinds of performers (eg, drama actors) might be a fixed result of professional training from a certain acting school, we investigated dance performers, because in the dancing area, which lays strong emphasis on emotional regulation and expression though, there are not so strong theoretical schools.

# Methods

#### **Participants**

A valid sample of 183 dance major students in a Chinese vocational college (174 girls among them;  $M_{age}$ =18.639,  $SD_{age}$ =0.914) participated in our questionnaire survey that consists of five measures: emotional labor strategy, emotional exhaustion, flow experience, depression, and anxiety. These participants received professional dance training and prepared for dance shows on a daily basis (dance experience measured in years of training and performing: M=5.989, SD=3.981), so they had rich experience of performing emotional labor on the stage.

## Measures

#### Emotional Labor Strategy

The measure of emotional labor strategy of dancers was modified from Yin's Teacher Emotional Labour Strategy Scale<sup>63</sup> by changing the wording regarding the emotional labor target from students to spectators to make the items suitable for the dance context. It consisted of three dimensions of surface acting (five items, eg, "in order to display proper emotions while dancing, I will conceal genuine feelings"; Cronbach's  $\alpha$ =0.825), deep acting (four items, eg, "I will strive to feel the emotions that the performance should convey to the audience"; Cronbach's  $\alpha$ =0.889), and expression of naturally felt emotions (three items, eg, "the emotions I express to the spectators are naturally felt without any embellishment"; Cronbach's  $\alpha$ =0.782). Confirmatory factor analysis of the three-factor model proved that the tripartite dimensionality of emotional labor strategy held up for dancers:  $\chi^2/df = 79.598/51 = 1.561 < 3$ , p = 0.006 < 0.05, CFI = 0.972>0.9, TLI = 0.963>0.9, RMSEA = 0.056 < 0.08, SRMR = 0.058 < 0.08. All the items were scored on a five-point Likert scale from 1 (*Agree Strongly*) to 5 (*Disagree Strongly*), and mean values of corresponding items were calculated for the three sub-scores, respectively.

#### **Emotional Exhaustion**

Emotional exhaustion was measured by five self-developed items with reference to Wharton's work in 1993<sup>64</sup> and scored on a five-point Likert-type scale from 1 (*Agree Strongly*) to 5 (*Disagree Strongly*), eg, "every time when I finish performing a dance show, I always feel exhausted" (Cronbach's  $\alpha$ =0.882). A mean value was calculated for the analyses.

#### Flow Experience

The measure of flow experience used the well-established Chinese version of Flow State Scale that consisted of 33 items for nine dimensions such as concentration (eg, "my attention is completely focused on the ongoing activities"), control (eg, "I feel like I can control the ongoing activities"), consciousness (eg, "I do not care how other people might evaluate

me"), autotelic (eg, "such experience is the best reward for me"), etc.<sup>65</sup> In the present study, only an overall mean score on a five-point Likert scale from 1 (*Agree Strongly*) to 5 (*Disagree Strongly*) were calculated to indicate participants' depth of entering the flow state while dancing (Cronbach's  $\alpha$ =0.926) without analyzing each specific sub-scale.

#### Depression

Depression was measured by the standard Patient Health Questionnaire–9 Items (Cronbach's  $\alpha$ =0.871) adopted from the Diagnostic and Statistical Manual of Mental Disorders.<sup>66</sup> Participants were asked to rate how often they have been bothered by the problem indicated by the item (eg, "little interest or pleasure in doing things") over the last two weeks on a four-point scale ranging from "0 = not at all" to "3 = nearly every day". A mean score was calculated for analyses.

#### Anxiety

Anxiety was assessed by the standard Generalized Anxiety Disorder Assessment–7 Items<sup>67</sup> on a four-point scale ("0 = not at all", "3 = nearly every day"; Cronbach's  $\alpha=0.912$ ) with the mean value calculated for analyses. Typical items include "not being able to stop or control worrying".

# Statistic Analyses

Besides preliminary analyses of descriptive statistics and Pearson correlations among constructs (which can be viewed as traditional variable-centered analysis), formal analysis of the current study used the person-centered approach. Given the sample size was relatively small, we adopted the method of k-means cluster analysis, which aims to partition n (=183) observations into k clusters where each observation belongs to the cluster with the nearest mean, that is, the best clustering solution indicated by the smallest value of sum of squared errors (SSE) and the largest value of silhouette coefficient (SC) with consideration of proportionality of clusters (the size of each cluster should not be lower than 5%).<sup>68</sup> After clustering the 183 participants into k groups depending on their adoption of the three emotional labor strategies (ie, surface acting, deep acting, and expression of naturally felt emotions), *F*-tests would be performed to compare the differences in the four outcomes (ie, emotional exhaustion, flow experience, depression, and anxiety) between the groups.

# Results

## Preliminary Analyses

Descriptive statistics and Pearson correlations among the seven constructs are presented in Table 2, from which it can be seen that basically confirming prior findings, surface acting was maladaptive in terms of three outcomes except for flow experience, whereas deep acting was adaptive in terms of all four outcomes.

# Formal Analyses

Table 3 presents the five solutions of cluster analyses (k = 2-6), from which we can see that the solution of k = 4 was the best as indicated by SSE value, SC value, and proportionality.

Table 4 presents the results of *F*-tests. Looking at the three emotional labor strategies, the four clusters identified could be named "flexible regulators", "authentic regulators", "display rules compliers", and "non-regulators",

	м	SD	I.	2	3	4	5	6	7
I. Surface acting	3.36	0.75	I						
2. Deep acting	3.88	0.65	0.36***	1					
3. Expression of naturally felt emotions	3.4	0.74	0.03	0.46***	1				
4. Emotional exhaustion	2.44	0.82	0.30***	-0.18*	-0.16*	1			
5. Flow	3.31	0.44	0.19*	0.43***	0.44***	-0.36***	1		
6. Depression	0.68	0.49	0.15*	-0.04	-0.14	0.49***	-0.23**	T	
7. Anxiety	0.66	0.57	0.16*	-0.07	-0.07	0.41***	-0.21**	0.77***	I

**Note**: \**p*<0.05, \*\**p*<0.01, \*\*\**p*<0.001.

SSE	sc	Cluster I	Cluster 2	Cluster 3	Cluster 4	Cluster 5	Cluster 6
409.75	0.30	66.67%	33.33%				
323.17	0.34	35.52%	16.39%	48.09%			
249.40	0.42	33.33%	15.85%	15.85%	11.48%		
211.87	0.44	19.67%	15.85%	21.31%	2.73%	40.44%	
187.67	0.47	16.94%	3.83%	20.77%	2.73%	37.70%	18.03%
	409.75 323.17 249.40 211.87	409.75 0.30   323.17 0.34   249.40 0.42   211.87 0.44	409.75 0.30 66.67%   323.17 0.34 35.52%   249.40 0.42 33.33%   211.87 0.44 19.67%	409.75 0.30 66.67% 33.33%   323.17 0.34 35.52% 16.39%   249.40 0.42 33.33% 15.85%   211.87 0.44 19.67% 15.85%	409.75 0.30 66.67% 33.33%   323.17 0.34 35.52% 16.39% 48.09%   249.40 0.42 33.33% 15.85% 15.85%   211.87 0.44 19.67% 15.85% 21.31%	409.75 0.30 66.67% 33.33% 48.09%   323.17 0.34 35.52% 16.39% 48.09%   249.40 0.42 33.33% 15.85% 15.85% 11.48%   211.87 0.44 19.67% 15.85% 21.31% 2.73%	409.75 0.30 66.67% 33.33% 48.09% 11.48%   249.40 0.42 33.33% 15.85% 15.85% 11.48%   211.87 0.44 19.67% 15.85% 21.31% 2.73% 40.44%

Table 3 Solutions of k-Means Cluster Analyses

**Note**: The k = 4 cluster solution was what we finally chose.

Table 4 Comparisons of Constructs Among Clusters

	Cluster I (n=61)	Cluster 2 (n=29)	Cluster 3 (n=72)	Cluster 4 (n=21)	F	Þ
	Flexible Regulators	Authentic Regulators	Display Rules Compliers	Non- Regulators		
Surface acting	3.84±0.50	2.29±0.54	3.58±0.43	2.70±0.49	87.27	0.000***
Deep acting	4.13±0.51	4.08±0.41	3.94±0.37	2.63±0.67	57.73	0.000***
Expression of naturally felt emotions	3.96±0.41	3.92±0.60	2.90±0.46	2.73±0.73	71.18	0.000***
Emotional exhaustion	2.51±0.83	1.83±0.67	2.52±0.79	2.79±0.78	7.62	0.000***
Flow	3.51±0.44	3.47±0.31	3.18±0.34	2.92±0.52	16.28	0.000***
Depression	0.61±0.50	0.58±0.39	0.75±0.46	0.73±0.66	1.43	0.236
Anxiety	0.62±0.66	0.56±0.39	0.73±0.52	0.67±0.70	0.75	0.524

**Note**: \*\*\*p<0.001.

respectively, according to previous person-centered emotional labor research. Interestingly, looking at the four outcomes measured, different clusters of emotional workers differed significantly in occupational well-being indicated by emotional exhaustion and flow experience but did not differed in psychological health indicated by depression and anxiety. The difference in emotional exhaustion among clusters again validated previous findings revealing the maladaptiveness of surface acting as the non-users of surface acting (ie, authentic regulators) scored the lowest on emotional exhaustion. The difference in flow experience suggested that as long as dancers engaged in emotional labor, they would experience higher level of flow compared with the non-regulators, regardless of what strategy they adopted. Most importantly, the nonsignificant difference in depression and anxiety unveiled the peculiarity of performers as it indicated that their work strains did not extend to nonwork psychological health problems, which is a novel finding different from that of other professions such as teachers.<sup>12</sup>

## Discussion

This paper contributes to the literature in several ways. To our knowledge, (1) this is the first quantitative empirical study on dancers' emotional labor, and we used (2) the person-centered approach to examine their combinations of emotional labor strategy adoption and explored the consequences of (3) both work-related and work-irrelevant well-being with (4) the introduction of the allostatic load theory.

Overall, the results revealed the similarity and differences of dancers' emotional labor compared with other professions'. As for the similarity, dancers deployed the three emotional strategies of surface acting, deep acting, and expression of naturally felt emotions as other kinds of employees did,<sup>15,63</sup> and the four types of strategy combinations (ie, flexible regulators, authentic regulators, display rules compliers, and non-regulators) were also found in other professions.<sup>40–43</sup> Besides, just like other employees, dancers' surface acting increased emotional exhaustion as well, which underlines the intrinsic inherently maladaptive attribute of surface acting, that is, to be incongruent with the self.<sup>3</sup>

As for the differences, we were surprised to find that dancers' work-based emotional labor consequences did not extend to nonwork psychological health problems, which was quite different from the case of other occupations.<sup>10,12,36,37</sup> According to

the allostatic load theory, this meant that for dancers, the allostatic responses would not be sustained to establish the allostatic load under the stressor of emotional labor. We put forward two possible reasons to account for this finding. For one, the professional training of emotional regulation and expression might help prevent the negative effects of emotional labor from being brought home. As is widely acknowledged, emotional regulation and expression is one of the most important lessons that every professional dancers should learn,<sup>69</sup> but it is often absent in the professional competence training for many other vocations such as teachers.<sup>70</sup> Therefore, from a practical perspective, it implies that sustainable career development training in service sectors such as the employee assistance program (EAP) should integrate the courses of emotional regulation and expression to help employees buffer the negative effects of emotional labor. The other possible reason relates to the experience of flow in working, which dancing activities tend to facilitate.<sup>71</sup> The results in this present study suggested that no matter what strategy dancers engaged in, they experienced deeper flow than those non-engagers. Hence, the peculiarity of dancers might lie in this flow-facilitating working condition, as flow has been repeatedly proved to enhance mental health and benefit a series of other desired outcomes.<sup>72</sup> Judging from this, EAP training could also focus on ways that help employees to achieve the state of flow at work.<sup>73</sup>

Nevertheless, given that existing emotional labor studies on both occupational and psychological well-being are extremely scarce, whether person-centered research or variable-centered research and whether on performers or on other professions, future replications are needed to test the robustness of these findings. Also, to test the above two possible reasons, experimental studies with intervention of emotional labor training or flow training on non-performer employees should be conducted. Finally, we urge that emotional labor and occupational well-being researchers should pay attention to the group of real actors, as knowledge gathered from these participants may enrich the literature with novel findings or even new theories.

## Conclusion

We for the first time adopted the person-centered approach of cluster analysis to examine dancers' deployment of emotional labor strategies of surface acting, deep acting, and expression of naturally felt emotions and identified four types of emotional workers, namely, flexible regulators, authentic regulators, display rules compliers, and non-regulators. We then compared the occupational well-being outcomes and nonwork psychological health outcomes among these four clusters of dancers and obtained three important findings: (1) the authentic regulators scored the lowest on emotional exhaustion, revealing the maladaptiveness of surface acting as repeatedly confirmed by prior research; (2) the non-regulators scored the lowest on flow, suggesting the positive role of emotional labor in facilitating dancers' flow, regardless of strategy; (3) most interestingly, the difference in depression and anxiety was found to be non-significant among the four groups, which highlighted the peculiarity of performers compared to other professions and to a wider sense, had practical implications for other professions regarding how EAP training could prevent work strains from extending to nonwork psychological health problems.

# **Data Sharing Statement**

The data presented in this study are available upon request from the corresponding author because of privacy and ethical restrictions.

## **Institutional Review Board Statement**

The study was conducted in accordance with the Declaration of Helsinki and approved by the Human Research Ethics Committee for Non-Clinical Faculties in School of Psychology, South China Normal University (protocol code: SCNU-PSY-2022-180; date of approval: 15 June 2022).

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

# **Author Contributions**

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

## Funding

This research was funded by grants from the Disciplinary Co-construction Project of Guangdong Philosophy and Social Sciences in 2018 during the 13th Five-Year Plan (GD18XYS30) and the Research Project of South China Normal University (ZDPY1401).

## Disclosure

The authors declare no conflicts of interest.

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