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RESEARCH ARTICLE

A Study on the Relationships Between Self-Leadership, Neijuan Anxiety, Career Confidence and Teacher Well-Being Among Novice Teachers in Chinese Vocational Colleges

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ABSTRACT

Neijuan (内卷; involution) anxiety is a state or phenomenon characterized by defensive competition, chronic burnout and internalization failure. It is considered detrimental to the psychological well-being of the individual and those around them. It is especially prevalent in China where many teachers find themselves in an neijuan environment of extreme excessive irrational competition, which is not necessarily good for the work development and occupational health of novice teachers. As a result, relative issues have received much attention. Based on the self-regulation theory (SRT), this study adopted an anxiety-based self-regulation model to explore the relationships among self-leadership, neijuan anxiety, career confidence and teacher well-being. To achieve this goal, this study adopted convenience sampling and collected questionnaires via an online platform. A total of 536 valid data were collected (effectiveness rate 89.3%), including from 204 male (38.1%) and 332 female (61.9%) teachers. The data were then processed using the SPSS and AMOS software, and finally a research model was constructed. The study results showed that: 1. Self-leadership negatively predicts neijuan anxiety while positively predicting both teachers' well-being and career confidence; 2. Neijuan anxiety significantly negatively predicts both teachers' well-being and career confidence; and 3. Career confidence positively predicts teachers' well-being. This study innovatively conceptualizes “neijuan anxiety” as a maladaptive strategy, thereby enriching the conceptual framework of SRT. It also confirms that neijuan anxiety is detrimental to the well-being of early-career teachers, suggesting that teachers be helped to develop self-leadership styles to cope with challenges in their teaching careers.

Keywords: Leadership style; Mental health; Neijuan (Involution); Self-regulation theory; State anxiety

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1. Introduction

Mental health and well-being are among the United Nations' sustainable development goals. Mental health and well-being of people of all ages should be taken seriously. As educators, teachers are the necessary human capital for the healthy development of education [1]. On the front line of education, teachers' mental health also directly affects their performance in educating people, so it must be paid attention to. In the field of positive psychology, people are paying increasing attention to the role of "self." Self-leadership is a specific behavioral and cognitive strategy that positively affects personal efficiency [2]. This is also a self-influencing process through which people gain the self-direction and self-motivation needed to perform [3]. Therefore, self-leadership can provide teachers with strategic guidelines such as goal setting, positive self-talk, and visualization to promote more effective practice of their work tasks. Teachers can use these guidelines to improve their personal work efficiency and performance [4]. Some scholars believe that self-leadership can help teachers' "internal self-control," which is also one of the core personal skills that teachers need to acquire in the 21st century [5]. Leadership is also considered an important influencing factor by scholars. Therefore, this study took leadership as an independent variable.

Neijuan (内卷; involution), a concept first proposed by the anthropologist Clifford Geertz [6] in his analysis of Indonesian agriculture, describes a form of growth characterized by increasing labor and resource inputs without corresponding changes in production structures or technological innovation. With China's rapid economic development and accelerated social transformation, neijuan has gained increasing prominence in public discourse as a popular internet term, with particular attention devoted in academic research to the phenomenon of *neijuan anxiety* [7]. Neijuan anxiety is characterized by a psychological climate of defensive competition, chronic burnout, and the internalization of failure. It is rooted in a paradoxical cycle of overwork and diminishing returns, in which individuals compete not to excel, but to avoid falling behind [8].

Vocational colleges represent a workplace context in which involutionary dynamics are especially salient. Teachers' individual performance is typically evaluated through continuous comparison with colleagues, and merely meeting formal assessment criteria is often insufficient for securing tenure-track positions. Combined with ambiguous criteria for professional title evaluation, this context fosters an intensified culture of internal competition that encourages escalating workloads and performance outputs [9]. Newcomers are especially vulnerable in such environments, as they face strong pressure to rapidly adapt and secure their positions within highly competitive organizational settings. As a result, they frequently experience heightened anxiety and fatigue, and may engage in defensive and irrational work behaviors aimed at avoiding falling behind rather than achieving excellence [10]. In this study, we conceptualize the tension and anxiety arising from these involutionary conditions as neijuan anxiety, and examine its role among novice teachers in vocational colleges.

Confidence is a subjective, emotional, and interpretive variable, and the importance of confidence depends on an individual's level of responsibility for performing a specific task without supervision [11]. Everyone can feel confident in a specific field. For example, having confidence related to education helps to solve some problems that exist in the education system, thereby improving the quality of education [12]. Previous research showed that high confidence can help individuals make positive career changes [13]. Therefore, it is crucial to ensure that novice teachers have sufficient teaching abilities and confidence, which will enable them to respond effectively to ongoing challenges and changes in teaching tasks [14]. However, there is little academic research on career confidence, although it is an important field to understand [13].

Therefore, this study adopted teacher confidence as a mediating variable, and explored the impact of other variables on confidence and its influence on the teachers' well-being.

Well-being is a topic that needs to be focused on. Teachers' well-being is a psychological feeling that teachers have in the process of engaging in the teaching profession. It is an important internal driving force to help teachers' professional development. Meanwhile, with the mainstream of optimal psychology, more attention has been paid to teachers' well-being. Well-being does not simply happen while working. On the contrary, it refers to teachers functioning healthily and successfully at work [15]. Therefore, teachers' professional well-being refers to their optimal psychological functioning and experience at work [16]. Work-related well-being may determine teachers' motivation and commitment to their work, influence their choice of strategies to cope with stressors, and may weaken their ties to the workplace [17]. Teachers' well-being is considered to be a key factor affecting work performance and is therefore of great significance to improving teaching quality [18]. In the 21st century, teachers' well-being is an educational issue of great concern to the country, society and school institutions. Teachers' well-being is considered to be helpful for their job stability, teaching quality and career development. In this study, teachers' well-being is taken as an important outcome (dependent) variable, and the influence of other variables is explored.

Despite growing interest in teacher well-being, existing research has largely examined its antecedents in isolation, such as leadership styles, occupational stress, or individual psychological resources [19]. Moreover, although neijuan anxiety has recently been discussed as a salient psychological consequence of intensified academic competition in Chinese educational settings, it has rarely been incorporated into explanatory models of teacher well-being. Similarly, career confidence has been recognized as an important personal resource in career development research [20], but its mediating role in linking self-leadership to well-being remains underexplored.

Drawing on self-regulation theory, this study addressed these gaps by proposing and testing a structural equation model that simultaneously examined neijuan anxiety and career confidence as two distinct self-regulatory pathways through which self-leadership influences teacher well-being. Specifically, we conceptualize neijuan anxiety as a maladaptive regulatory [21] response to competitive pressure and career confidence as an adaptive psychological resource [22] that supports positive self-regulation. By integrating these mechanisms within a single model, this study offers a more nuanced understanding of how self-leadership contributes to teacher well-being under conditions of neijuan. We also apply self-regulation theory to explain the phenomenon of neijuan competition among young teachers in Chinese academia, examining whether neijuan anxiety can serve as a maladaptive regulatory pathway within self-regulation theory, thereby enriching its conceptual scope.

2. Theories, models and hypotheses

2.1. Self-regulation theory

The core meaning of self-leadership is considered to be based on self-regulation theory. According to the definition of self-regulation theory, self-regulation refers to a person's ability to control his or her behavior, feelings, and thoughts. Factors that affect individual behavior include motivation and willpower, which play an important role in human behavior [23]. Individuals design specific behavioral and cognitive strategies to illustrate the pursuit of their personal goals. Self-leadership plays a role in promoting self-regulatory effectiveness in cognition and behavior [23]. In addition, based on the concept of self-regulation from the perspective of social cognitive theory, human behavior is widely motivated and regulated by the continuous exercise of self-influence, judgment of personal behavior and emotional self-reaction according

to personal standards and environmental situations [24]. Such high-performance behavior in the workplace may be considered as being highly rewarding and engaging, but the work can be very demanding and can cause psychological stress. When people are burned out from work, they are no longer interested in making a positive contribution [25]. From the above point of view, self-regulation theory is very suitable for explaining the theoretical model based on the composition of self-leadership variables.

2.2. Research model

Self-regulation is the ability of the self to change its behavior, which greatly improves the flexibility and adaptability of human behavior and enables people to adjust their behavior according to a very wide range of social and situational needs [26]. This is a form of great adaptability, and self-regulation processes are directly related to seeking to promote people's physical health, mental health, and work performance in all disciplines [27]. From the perspective of self-regulation theory, teachers with good self-leadership (self-regulation) are able to control and regulate their own behaviors, feelings and thoughts in school (work environment), thereby promoting their psychological well-being. Therefore, under the framework of SRT, this study proposed six research hypotheses, constructed a self-regulation model based on the anxiety process, and explored the relationships among self-leadership, neijuan anxiety, career confidence, and teachers' well-being among beginning teachers in Chinese vocational colleges, as shown in Figure 1.

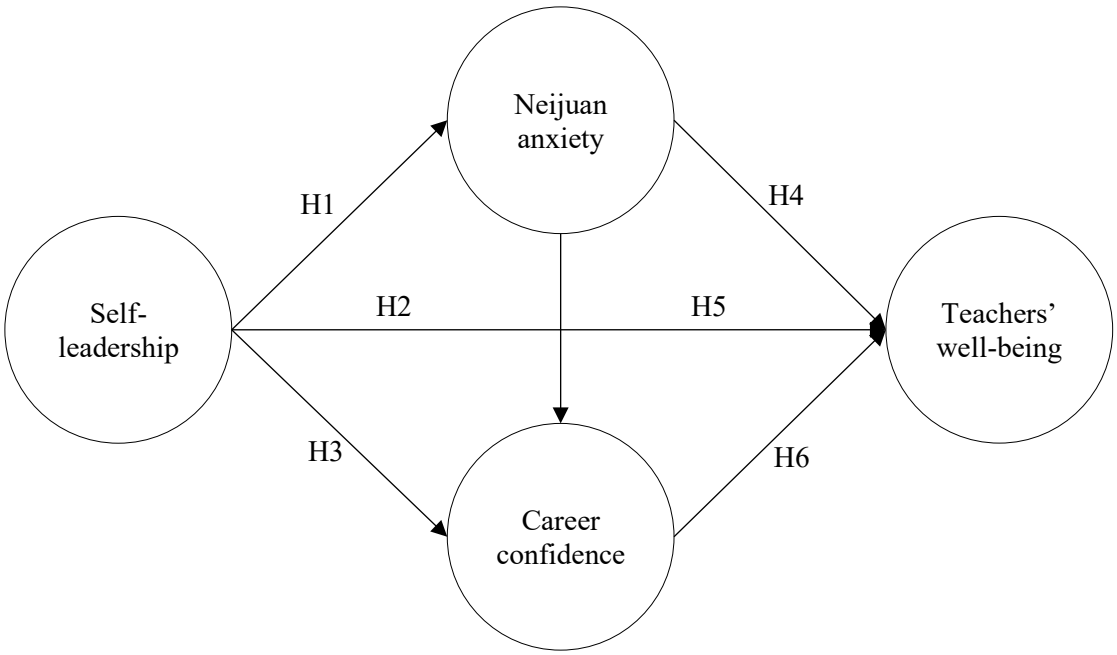

Figure 1. Research Model

2.3. Research hypotheses

2.3.1. The relationship between self-leadership and neijuan anxiety

Many previous studies have found that failure to adapt well in the early stages of career development will seriously affect the sustainable development of teachers' careers [28]. Therefore, it is necessary to explore the working conditions of professional teachers. To create a healthy and engaging optimal work environment, leadership development can utilize the principles of self- and shared leadership [29]. Meanwhile, self-leadership is a self-influence perspective that involves a person's own ability to manage, lead, and control personal behavior, and to propose strategies to achieve the desired goal of sustainable competitive advantage [30]. Furthermore, self-leadership is significantly associated with greater perceptions of job satisfaction,

enhanced communication, quality management, effective working relationships, and health outcomes, perceived health and reduced work stress [31]. Additionally, Godwin et al. proposed that self-leadership is a key cognitive resource that can explain the protection of entrepreneurs from the negative effects of environmental stress and entrepreneur-related demands, and ultimately leads to improved entrepreneurial performance [32]. While conducting online self-leadership training in a professional context, Unsworth and Mason[33] stated that such training can reduce stress and workplace strain. Self-leadership is a coping process that can reduce stress and stress intervention. In other words, self-leadership can be used as a preventive measure for stress, intervening when high stress occurs, and then as an ongoing process to reduce stress in practice [2]. When young teachers' self-leadership becomes increasingly better, their neijuan anxiety should also be lower. Therefore, this study adopted self-leadership to explore the relationship between participants' neijuan anxiety. The first hypothesis is as follows:

H1: Self-leadership is negatively related to neijuan anxiety.

2.3.2. The relationship between self-leadership and teachers' well-being

Self-leadership has positive effects on a variety of individual-level outcomes [30] and is associated with a range of positive outcomes in organizational settings [34]. The concept of self-leadership itself partially overlaps with concepts related to well-being research [35]. Some research has found that self-leadership can generally reduce emotional pain and improve subjective well-being [36]. The beneficial links between self-leadership and well-being have also been reported in studies involving adults [37]. Furthermore, self-leadership refers to self-influencing behaviors and thoughts aimed at improving performance, and is an important tool for personal mastery and organizational success. The self-regulatory nature of self-leadership is very consistent with positive psychology [38]. In summary, this study inferred that when teachers have better self-leadership, their well-being in teaching will be higher. Therefore, this study adopted self-leadership to explore the relationship between participant teachers' well-being. The hypothesis is as follows:

H2: Self-leadership is positively related to teachers' well-being.

2.3.3. The relationship between self-leadership and career confidence

Social cognitive theory posits that self-regulatory processes can lead people to set goals to guide their efforts, and create incentives for them to continue to engage in difficult tasks. Therefore, success in a certain domain can have a positive influence on one's self-concept and self-assessment of the abilities that are needed to perform tasks [30]. Self-leadership broadly combines the processes of self-goal setting, self-regulation, and self-motivation [39]. Self-leadership behavior can be transformed into action through the confidence accompanying self-efficacy. Therefore, self-leadership strategies are highly relevant in building confidence in the ability to achieve goals [40]. Positive self-leadership involves a self-motivating process that is driven by a clear, purposeful vision for one's life and the use of signature strengths to achieve goals consistent with that vision [38]. In summary, this study inferred that teachers with strong self-leadership skills have better career confidence in professional development. Therefore, this study adopted self-leadership to explore the relationship between participants' career confidence. The hypothesis is as follows:

H3: Self-leadership is positively related to career confidence.

2.3.4. The relationship between neijuan anxiety and teachers' well-being

Young people nowadays tend to be confused about their future as a result of the competitive pressure. The widespread existence of neijuan indicates the intense pressure faced by young people as they look for jobs and try to survive in society [41]. Increased competitive pressure forces them to work harder in order to achieve expected goals. The competition becomes more intense as competitors put in more effort and exhibit

better performance [42]. Therefore, young scholars are exposed to a new kind of neijuan which is a managerial culture that normalizes and institutionalizes competition, overwork, and promotion and elimination based on metrics [9]. College faculty need to engage in endless competition for higher rankings and better performance before receiving tenure [9]. In this situation, the teacher's well-being process is affected by another exogenous or independent variable [43]. Well-being is the opposite of stress and has been confirmed to be related to teacher stress [44]. When teachers have higher levels of neijuan anxiety, their well-being in teaching is also reduced. Therefore, this study adopted neijuan anxiety to explore the relationship between participant teachers' well-being. The hypothesis is as follows:

H4: Neijuan anxiety is negatively related to teachers' well-being.

2.3.5. The relationship between neijuan anxiety and career confidence

Neijuan has become one of the most popular words on the Internet in today's China. It refers to the phenomenon that peers work harder for limited resources, resulting in a decrease in the individual's "effort return" ratio [45]. Describing meaningless competition in various aspects of an individual's daily life, including career advancement and student achievement improvement, has been attributed to any peer competitive pressure that leads to personal or social stagnation [46]. Feelings of anxiety have the potential to undermine personal confidence and lead to reduced teacher productivity [14]. Furthermore, when a threatening and stressful task is assigned, it reduces their confidence [47]. Therefore, neijuan may also lead to negative reactions, including emotional dissatisfaction, depression, and reduced morale and work performance. These reactions are harmful to the individual as well as to the organization's long-term development [41]. When teachers have higher levels of neijuan anxiety, their confidence in their careers as teachers is weaker. Therefore, this study adopted neijuan anxiety to explore its relationship with participants' career confidence. The hypothesis is as follows:

H5: Neijuan anxiety is negatively related to career confidence.

2.3.6. The relationship between career confidence and teachers' well-being

Individuals' confidence can be built in positive or negative ways [11]. Developing and embracing new ways of thinking allows them to focus on positive rather than on negative thought processes, and to gain a perspective on events and experiences [13]. Teaching can be a rewarding career that involves meaningful, impactful, and important work [48]. When teachers feel confident about their teaching and educating careers, they may also be able to develop their careers with a positive thought process. Relative research has also found that teachers may feel happy when teaching goals are achieved [49]. In addition, some studies have confirmed that confidence variables have a significant impact on subjective well-being [50]. When teachers have a higher level of career confidence, their well-being as teachers is stronger. Therefore, this study adopted career confidence to explore its relationship with participant teachers' well-being. The hypothesis is as follows:

H6: Career confidence is positively related to teachers' well-being.

3. Research methods

3.1. Process

Ethical approval for this study was obtained from the institution with which one of the authors is affiliated (Approval No.: HKD-2023-16). This study used the Wenjuanxing platform (one of the most common platforms in China) for data collection, and applied convenience sampling methods to invite novice teachers working in vocational high schools and undergraduates in vocational college

teacher exchange groups on WeChat, QQ and other communication software to fill in the questionnaire. The questionnaire collection period was from November 1 to 30, 2023. The number of questionnaires returned was 600. All participants provided an electronic version of their informed consent statement.

3.2. Participants

We deleted invalid questionnaires based on the principles of incomplete responses and less than 4 minutes of response time. Finally, 536 valid data (effectiveness rate = 89.3%) were collected. We investigated participants' background information such as gender, academic qualifications, professional titles, school system, school affiliation, and part-time administrative work, as shown in Table 1. The average age of the participants was 31.53 years, with a standard deviation of 3.93 years. The average work experience was 5.51 years, with a standard deviation of 3.5 years.

Table 1. Participant background

Variables	Content
Gender	Male (204, 38.1%) Female (332, 61.9%)
Educational qualifications	Undergraduates (152, 28.4%) Master's degree (345, 64.4%) Doctorate degree (39, 7.3%)
Job title	No title (75, 14%) Teaching assistant (130, 24.3%) Lecturer (291, 54.3%) Associate professor (39, 7.3%) Professor (1, 0.2%)
School academic system	Vocational high school (459, 85.6%) Vocational undergraduate (77, 14.4%)
School District	Northern China (146, 27.9%) South China (121, 23.1%) Central China (197, 37.7%) Western Region (59, 11.3%)
School affiliation	Public (294, 54.9%) Private (242, 45.1%)
Part-time administrative work	Yes (145, 27.1%) No (391, 72.9%)

3.3. Measurement

The questionnaire used in this study was generated from the four scale tools of self-leadership, neijuan anxiety, career confidence, and teachers' well-being, with a total of 37 questions. The items were adapted from three mature scales and a self-compiled scale. A 5-point scale was designed, with 1 representing *strongly disagree* to 5 representing *strongly agree*. After the initial questionnaire was designed, five educational experts with psychology doctoral degrees were invited to review the content to confirm the completeness, validity, and readability of the items. After confirming the content validity, 10 young teachers from vocational colleges were invited to fill in the questionnaire to confirm the understandability of the questionnaire content. The specific scales are introduced as follows.

Self-leadership: In this study, self-leadership was defined as teachers' ability to control and regulate their own behaviors, feelings, and thoughts in school (work environment). Self-leadership was adapted from the streamlined self-leadership scale of Hauschildt and Konradt [33] to assess the self-leadership style of teachers in the process of teaching. There were 10 items in this section. For example, "I will do something

for myself and set specific work performance goals" and "When I encounter difficulties, I will find ways to solve them in order to complete the task."

Neijuan anxiety: In this study, neijuan anxiety was defined as the concept of tension and anxiety caused by teachers in neijuan work situations. Based on the above concepts, this study designed an neijuan anxiety scale to assess the teachers' anxiety level about the neijuan situation they feel in the work environment. It had a total of eight items such as: "I feel that there is a high degree of competition among colleagues that makes me feel stressed" and "I feel that in college, I need to exceed performance standards, which makes me feel stressed."

Career confidence: In this study, career confidence was defined as a teacher's degree of confidence in his or her career as a teacher. Career confidence was adapted from the career planning confidence scale of Liu et al. to assess the teachers' confidence level in their teaching profession [51]. There were nine items in total, for example, "I am confident to complete my job step by step" and "I think I can make full use of my strengths in the education field."

Teachers' well-being: In this study, teachers' well-being was defined as the positive experience that teachers feel while engaging in teaching work. Teachers' well-being was adapted from the teachers' work well-being scale of Nong et al.[52] to assess the level of well-being that teachers feel while working as a teacher. There were 10 items in total, for example, "I am working as a teacher," "I feel happy in my job," and "I feel that teaching makes my life meaningful."

4. Results and discussion

In this study, two statistical software packages, SPSS 27.0 and AMOS 26.0, were used to conduct first-order confirmatory factor analysis, reliability analysis, validity analysis, overall fitness analysis, and research model verification. The analysis results are presented as follows.

4.1. Measurement model analysis

We conducted measurement model analysis based on the fitness index recommended by Hair et al. [53], and deleted items according to the data standards of external validity. After analysis, all variables passed the fitness and external validity of the measurement model. Validity requirements are shown in Table 1. At this stage, the results of deletion of items were as follows: self-leadership was reduced from 10 items to seven items; neijuan anxiety from eight to six items; career confidence from nine to six items; and teachers' well-being from 10 to seven items.

Table 2. Measurement model analysis

Index	Threshold	Self-leadership	Neijuan anxiety	Career confidence	Teachers' well-being
χ^2	---	67.4	40.1	37.8	55.2
df	---	14	9	9	14
χ^2/df	< 5	4.81	4.56	4.2	3.94
RMSEA	< .10	.08	.08	.08	.07
GFI	> .80	.97	.98	.98	.97
AGFI	> .80	.93	.95	.94	.94
FL	> .50	.68~.88	.91~.95	.77~.92	.79~.93

4.2. Reliability and validity analysis

Data analysis was performed based on Hair et al.'s recommended Cronbach's alpha and composite reliability (CR) standards [53]. All variables in this study met the requirements, with Cronbach's α values ranging from .92 to .98, CR values ranging from 0.93 to 0.98, FL values ranging from 0.80 to 0.93, and AVE values ranging from 0.65 to 0.87, as shown in Table 3.

Table 3. Reliability and validity analysis

Construct	*M*	*SD*	α	CR	AVE	FL
Threshold	---	---	> .70	> .70	> .50	> .50
Self-leadership	4.43	.58	.92	.93	.65	.80
Neijuan anxiety	3.38	1.21	.98	.98	.87	.93
Career confidence	4.38	.64	.94	.93	.69	.84
Teachers' well-being	4.26	.72	.95	.95	.73	.87

The requirement of construct discriminant validity is that the square root of AVE of a variable should be greater than the Pearson correlation coefficient of other variables in the same column. Each construct was shown to have discriminant validity (see Table 4).

Table 4. Construct discriminant validity analysis

Construct	Self-leadership	Neijuan anxiety	Career confidence	Teachers' well-being
Self-leadership	(.90)			
Neijuan anxiety	-.35	(.97)		
Career confidence	.73	-.40	(.92)	
Teachers' well-being	.68	-.43	.79	(.93)

Note: *The value on the diagonal is the square root value of AVE, and the other values are the correlation coefficient values.*

4.3. Model fitness analysis

The fit index values for this study were $\chi^2 = 886$, $df = 293$, $\chi^2/df = 3.02$, RMSEA = .06, GFI = .88, AGFI = .86, NFI = .94, NNFI = .96, CFI = .96, IFI = .96, RFI = .94, PNFI = .85, and PGFI = .74. The data requirements for model fitness in this study all met the recommended standards of Hair et al. [53], which meant that it was suitable for model verification (see Table 5).

Table 5. Model fitness analysis

Index	χ^2	*df*	χ^2/df	RMSEA	GFI	AGFI	NFI	NNFI	CFI	IFI	RFI	PNFI	PGFI
Threshold	---	---	<5	<.01	>.8	>.8	>.8	>.8	>.8	>.8	>.8	>.5	>.5
Result	886	293	3.02	.06	.88	.86	.94	.96	.96	.96	.94	.85	.74

4.4. Research model verification

The research model verification results showed that self-leadership had a negative correlation with neijuan anxiety (β = -.34***); self-leadership had a positive correlation with teacher well-being (β = .18***); self-leadership and career confidence had a positive correlation (β = .71***); neijuan anxiety had a negative correlation with teachers' well-being (β = -.15***); neijuan anxiety had a negative correlation with career confidence (β = -.12 ***); and career confidence had a positive correlation with teachers' well-being (β = .62***). All six research hypotheses were supported, as shown in Figure 2.

In addition, the explanatory power of self-leadership on neijuan anxiety was 13%; this also indicates that it is a meaningful factor, but not the sole factor, in alleviating anxiety. The explanatory power of self-leadership and neijuan anxiety on career confidence was 60%; this also indicates that teachers' career development confidence is primarily influenced by the combined effects of these two variables. The explanatory power of self-leadership, neijuan anxiety, and career confidence on teachers' well-being was 68%; this indicates that the model possesses relatively strong predictive capabilities (as shown in Figure 2).

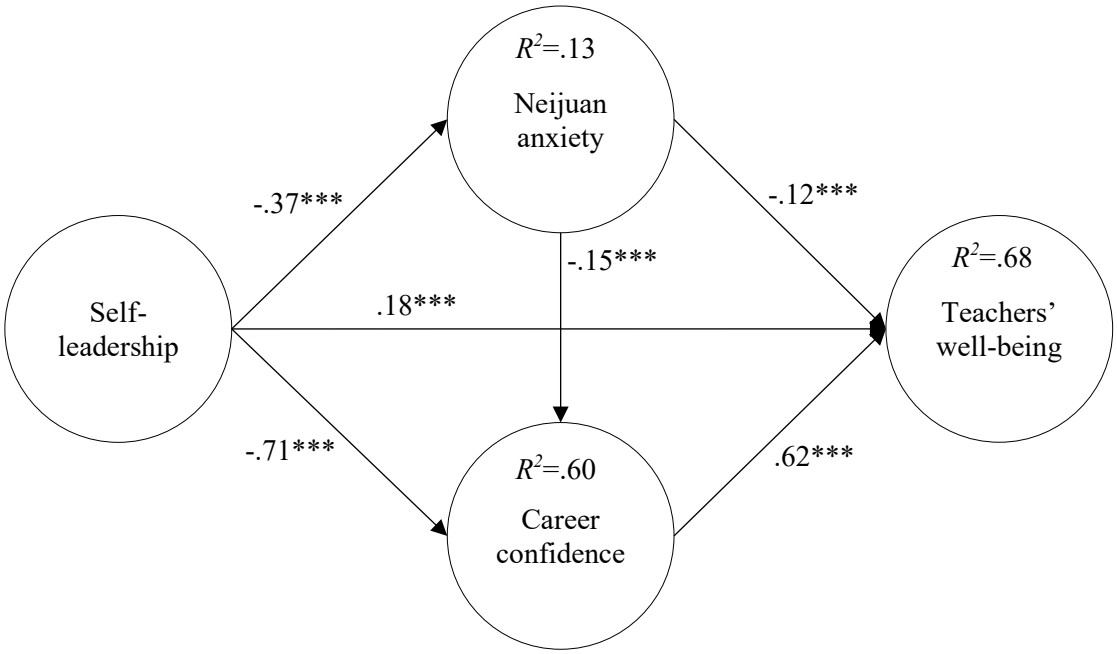

Figure 2. Research model verification

4.5. Research discussion

4.5.1. Self-leadership is negatively related to neijuan anxiety

This study confirmed that self-leadership is negatively related to neijuan anxiety. In other words, when a novice teacher in a vocational school has a better self-leadership style, the level of neijuan anxiety the teacher feels in the work field is lower. This is consistent with Dolbier et al.'s finding that self-leadership is significantly related to lower perceived work stress [31]. In addition, Goldsby et al. stated that self-leadership can be used as a preventive measure against stress [2]. Unsworth and Mason also confirmed through training experiments that self-leadership training can reduce people's work stress. Overall, the results of this study were consistent with those of previous studies. Overall, self-leadership helps newly appointed teachers in China's vocational colleges to maintain their agency by regulating their behavior, thereby alleviating anxieties caused by blind comparison and passive involvement.

4.5.2. Self-leadership is positively related to teachers' well-being

This study confirmed that self-leadership is positively related to teachers' well-being. In other words, when a novice teacher in a vocational school has a better self-leadership style, the greater the well-being the teacher feels as a result of being a teacher. This is also consistent with Du Plessis who said that the self-regulatory nature of self-leadership is very consistent with positive psychology [38]. Additionally, research has found that self-leadership has a positive impact on various individual-level outcomes [30]. The beneficial connection between self-leadership and well-being was also reported in the study of Shek et al. [37]. In other words, the results of this study were highly consistent with the results of previous research. In the Chinese

context, this suggests that the role of self-leadership in fostering well-being may be more about adapting to institutional constraints and highly competitive environments than it is about promoting universally positive psychology.

4.5.3. Self-leadership is positively related to career confidence

This study found that self-leadership is positively related to career confidence. In other words, when a novice teacher in a vocational school has a better self-leadership style, that teacher is more confident in their own teaching career development. This result is also consistent with what was mentioned by Napiersky and Woods [39]. Self-leadership broadly combines the processes of self-goal setting, self-regulation, and self-motivation, because positive self-leadership involves a self-motivating process that is facilitated by a clear and purposeful vision of one's life to achieve the vision's goals [38]. In addition, Harari et al. proposed that self-leadership strategies are helpful in building confidence in the ability to achieve goals [40]. In summary, the results of this study were consistent with the results of previous research. This suggests that, within China's teacher workplace ecosystem, self-leadership plays a crucial role in promoting career confidence. Teachers proactively maintain their career development agency through self-regulation in highly competitive environments.

4.5.4. Neijuan anxiety is negatively related to teachers' well-being

This study confirmed that neijuan anxiety is negatively related to teachers' well-being. When novice teachers in vocational colleges are in an neijuan environment and have a high level of anxiety, it is harder for them to feel the well-being brought by being a teacher. Neijuan is a true portrayal of the tremendous pressure that young people face in the process of job hunting and survival. Research by Si pointed out that college teachers need to participate in endless competition to obtain higher rankings and better performance before obtaining tenure [9]. However, well-being is the opposite of stress, and it is difficult for teachers to perceive high levels of well-being when their stress levels are too high [44]. Therefore, the results of this study were consistent with those of previous studies. For newly appointed teachers in Chinese vocational colleges, this anxiety stems not only from the workload itself but also from a sense of boundless competition. This study reveals that under China's unique performance-driven culture and career advancement logic, teachers' well-being is not only affected by routine workloads, but is also more susceptible to being eroded by this culturally induced anxiety.

4.5.5. Neijuan anxiety is negatively related to career confidence

This study confirmed that neijuan anxiety is negatively related to career confidence. When novice teachers in vocational colleges perceive a higher degree of neijuan anxiety in their teaching work, their confidence in their career development as a teacher is lower. Involvement in meaningless competition leads to peer competitive pressure that stagnates individuals or the whole of society [46]. Nanayakkara et al. showed that when people perceive it as a threatening and stressful task, it reduces their confidence [46]. Dou et al. stated that neijuan may lead to negative reactions such as emotional dissatisfaction, depression, reduced morale and work performance , as well as psychological harm to the individual [41]. Our study results support their research findings. Specifically within China's teaching profession, novice teachers are forced to compete relentlessly for limited professional development opportunities, yet often feel that they are not growing professionally. This situation erodes their career confidence by causing persistent anxiety.

4.5.6. Career confidence is positively related to teachers' well-being

This study confirmed that career confidence is positively related to teachers' well-being. When novice teachers in a vocational school become more confident in their career, they feel a stronger sense of well-

being brought by the teaching job. Sutton and Harper proposed in their research that teachers may feel happy when they achieve their teaching goals [49], because teaching can be a rewarding profession that involves meaningful, impactful, and important work [48]. Additionally, research by Erozkan et al. confirmed that confidence has a positive impact on subjective well-being with a significant impact [50]. Therefore, the results of this study were consistent with previous studies. In China's distinctive teaching environment, higher career confidence may be a vital psychological resource for newly appointed teachers, offering stable support for their well-being.

5. Conclusions and suggestions

5.1. Conclusions

Young teachers are an important group of teachers who are going through the stage of moving from novice teachers to senior experts. Therefore, teachers at this stage need special attention. Through the perspective of self-regulation theory, this study adopted a self-regulation model based on the anxiety process to explore the relationship between self-leadership, neijuan anxiety, career confidence, and teachers' well-being. The results showed that: 1. Self-leadership has a negative correlation with neijuan anxiety, but there is a positive correlation with teachers' well-being and career confidence; 2. Neijuan anxiety has a negative correlation with teachers' well-being and career confidence; and 3. Career confidence has a positive correlation with teachers' well-being. In other words, the theoretical relationship in this model was confirmed after SEM testing.

5.2. Contributions and implications

The phenomenon of neijuan not only occurs in China, but can also be found in many other countries and regions. The impact of neijuan on all age groups has received great attention from the Internet/general public, but international research on neijuan has only just begun. More empirical research is still urgently needed to help clarify the adverse effects of neijuan. Based on the results of SEM analysis, this study has helped fill the gaps in the international topic of neijuan, and has explained the disadvantages of neijuan to the teaching profession.

The second contribution of this study is that it found that self-leadership is an important leadership style for teachers and also an important independent variable in relative research about teachers. It can significantly and positively predict teachers' career confidence and well-being, while negatively predicting their neijuan anxiety. In addition, the high-quality development and construction of the teaching team is an important educational policy and development goal in China. Only by becoming a teacher with a high level of self-leadership can one have the opportunity to become one of the good teachers and guides, to practice the spirit of educators.

5.3. Recommendations

Self-leadership based on the concept of self-regulation plays an important role in educational field, and self-leadership is very important for teachers. In addition to guiding students, they also need to lead themselves. The research results showed that self-leadership has a significant relationship with anxiety, confidence and well-being in the teaching profession. Therefore, the cultivation of self-leadership style is also very important. This study suggests that self-leadership training should be strengthened during the schooling stage. Relevant training should also be arranged for in-service teachers to enhance their autonomy. Furthermore, self-leadership training could be incorporated into global teacher education programs to encourage educators to become proactive agents of self-change rather than passive adapters to their environment. This would enable young teachers to be good at adjusting themselves, adjusting their mood,

adjusting their mentality, strengthening their self-confidence, and having the means to pursue professional well-being, and then pursue the spirit of practical educators.

It is urgent to pay attention to the mental health and well-being of college teachers. The results of this study showed that neijuan anxiety has a negative relationship with teachers' career confidence and well-being. Although the government has introduced many policies to relieve teachers' pressure, in China, where there are abundant talents, teachers cannot equalize their resources. The problem of neijuan still cannot be effectively alleviated. Furthermore, many academic institutions have misinterpreted policies and promoted or implemented them without providing adequate support. Therefore, this study recommends faster policy making so as to provide more opportunities/guarantees to young scholars, and schools also need to implement the policies in detail. Meanwhile, academic resources must be actively and fairly allocated to truly and effectively alleviate the phenomenon of neijuan. Academic journals must also provide more opportunities for young faculty members. Papers should not be evaluated based on non-substantive factors such as journal impact metrics, the status of the author, their institutional affiliation, the funding of their research project, or internal recommendations. Review mechanisms must focus genuinely on the quality of the paper itself to ensure that young faculty members are given fairer opportunities. For competitive research projects, the required number of deliverables upon project completion could be lowered, while simultaneously reducing the amount of funding allocated. This would significantly increase the number of approved projects, providing young faculty with greater access to resources and alleviating the pressure to publish academic findings rapidly.

At present, China's higher vocational education has entered a stage of high-quality development, so teachers may be subject to higher levels of education pressure, neijuan pressure, assessment pressure and self-improvement pressure, all of which will affect teachers' well-being. Therefore, creating a school atmosphere that is engaging, supportive and conducive for new teachers to learn, develop, collaborate and connect, so that teachers can thrive and reach their full potential, is an important aspect of improving well-being and organizational health.

5.4. Suggestions for future research

This study has several limitations. First of all, this study adopted a convenience sampling method and collected data through communication software. The members of the community are teachers from all over China, but the distribution of data sources was still not sufficiently comprehensive. Furthermore, convenience sampling and data collection via communication software may introduce bias, resulting in sample characteristics that do not accurately reflect the parent population. Consequently, the findings cannot be generalized to broader populations. Therefore, in the future, probability sampling and a combination of online and offline data collection methods can be used to collect data more evenly on different population background characteristics, in order to better reflect the consistency between the sample and the parent group.

Second, this study only explored the impact of neijuan anxiety on confidence and well-being among teachers. Although this focus has research value, neijuan is a very important topic because of its adverse effects in different environments. Therefore, we call on researchers to increase their understanding of the impact of this issue on various aspects (such as personal factors, social factors, environmental factors, time factors, etc.) through empirical research methods, and to understand how to solve this problem. In addition, the concept opposite to neijuan is "laying-down" ("tangping" in Mandarin). This concept is a slow-paced, low-desire mental state. People who choose to lay down are unwilling to participate in competition and have no desire to pursue success or outstanding performance. They prefer to avoid taking on challenging tasks or development opportunities at work, focusing instead on completing their assigned tasks within working

hours. Therefore, for the group of teachers who choose to lay down in a highly involved environment, their thoughts, psychological state, work performance and the impact of lying down can be further studied. Furthermore, subsequent studies could improve the external validity of the findings by incorporating samples from different countries or regions for cross-cultural validation. Additionally, future research could use mixed methods or longitudinal designs to improve the interpretation of findings and validate the causal relationships within the proposed pathways.

Third, positive psychology is an emerging and popular subject. Although it has received attention, related theories still need to continue to be developed. Many current research topics on mental health and well-being and positive psychology are still examined through the lens of other psychological theories. To explain further, there are still some limitations to the completeness (comprehensiveness) of the explanation. Therefore, it is necessary to continue to construct new theories or models to better help explain research issues related to mental health and well-being, including more perspectives and paths to understand the theoretical relationships of well-being. Therefore, it is suggested that subsequent research can construct new psychological theories based more on localized mental health and well-being issues. For example, the theory of positive psychology can be explained or constructed through the philosophy of Neo-Confucianism in traditional Chinese culture.

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Ethics Statement

This study was approved by the Academic Ethics Committee of Hainan Vocational University of Science and Technology (Approval No.: HKD-2023-16), and informed consent was obtained from all participants.

Conflict of interest

The authors declare no conflict of interest.

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