Impact of mentoring relationship on career satisfaction of young college teachers – the moderating effect of the type of mentoring relationship and the gender of mentee

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Abstract: Young teachers are the main force for the future development of universities and colleges. For individual young teachers, the degree of career satisfaction directly influences their working enthusiasm. A questionnaire survey is conducted among 300 young teachers from eight universities and colleges in China to study the relationship between mentoring relationship and career satisfaction of young college teachers, as well as the moderating effect of the type of mentoring relationship and the gender of mentee on such relationship. Results indicate that mentoring relationship has a significant positive effect on the career satisfaction of young college teachers. In addition, the type of mentoring relationship and the gender of mentee, as moderating variables, both have a moderating effect on the relationship between the mentoring relationship and career satisfaction of young college teachers, but they do not have a combined moderating effect.

Keywords: mentoring relationship; young college teachers; career satisfaction; formal mentoring; informal mentoring; gender; moderating effect.


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1 Introduction

Young college teachers are nicknamed ‘green peppers’ by netizens. According to the latest educational statistical data released by the Ministry of Education, the number of full-time teachers in China’s regular institutions of higher education reached 1.497 million by the end of 2013, as many as 0.865 million of whom are aged below 40, accounting for more than half of the total number. In China, young college teachers have good overall qualities and are active in thinking, diligent and aggressive. However, when complicated causal connections arise in the originally not-so-relevant concepts such as scientific research funds, professional title promotion, academic achievements, teaching evaluation, and getting married to have babies, those young teachers are often labelled with ‘sandwich layer’, ‘caught in a dilemma’ and ‘placed in an awkward position’. As the main force for the future development of universities and colleges, young teachers play an important role in higher education. They are not only an important resource factor that affects the quality of higher education but also a guarantee; they are the future of universities and colleges and the hope of education as well. Therefore, how to construct and stabilise the team of young college teachers is crucial to the construction of teaching staff in universities and colleges, and more importantly guarantees the development of higher education in China. Nonetheless, due to limited years of working and low professional title, seniority, and salary, young teachers bear heavier pressure in practice than other teachers, thereby seriously crippling their career satisfaction. The career satisfaction of teachers is a key factor that relates to the quality of higher education. Higher career satisfaction means that teachers feel more positively about the overall situation of their career, which will certainly enhance their working enthusiasm, maximise their creativity and increase their sense of responsibility. Therefore, improving the career satisfaction of young teachers has become an important way for universities and colleges to retain and motivate excellent young teachers.

As an important variable at the organisational level, mentoring relationship can effectively improve the career satisfaction of employees. However, existing studies on how mentoring relationship influences career satisfaction mainly focus on general enterprise employees (B lickle et al., 2009; Pandey et al., 2014), and no conclusions have been reached in studies on how mentoring relationship influences the career satisfaction
of young college teachers in the context of Chinese culture. In addition, some research results have shown that both the type of mentoring relationship and the gender of mentee can moderate the relationship between mentoring relationship and career satisfaction, but the research in that field is still controversial (Ramaswami et al., 2010; Decastro et al., 2014). Then, in the context of Chinese culture, is the relationship between mentoring relationship and the career satisfaction of young college teachers moderated by the type of mentoring relationship or the gender of mentee? On the basis of this question, the author will, through a questionnaire survey, explore the influence of mentoring relationship on the career satisfaction of young college teachers and analyse the moderating effect of the type of mentoring relationship and the gender of mentee on such relationship to answer the following research questions:

1. Can mentoring relationship effectively improve the career satisfaction of young college teachers?
2. Will different types of mentoring relationship influence the relationship between mentoring relationship and the career satisfaction of young college teachers?
3. Will gender difference of the mentee influence the relationship between the mentoring relationship and career satisfaction of young college teachers?

This paper can enrich the theoretical achievements about the factors that influence young teachers’ career satisfaction and also offer a new management perspective for universities and colleges to improve the career satisfaction of young teachers.

This paper is organised as follows: in Section 1, introduction, the author explains the research background, significance and logic. In Section 2, literature review and research hypotheses, the author reviews and summarises such variables as mentoring relationship and career satisfaction. On the basis of the summarised achievements and experience, as well as an exploration of the defects and limitations of previous studies, the author presents the research hypotheses. In Section 3, methodology, the author introduces the background information of respondents and the measurement scale that was used. In Section 4, research results, the author utilises correlation and regression analyses to test the direct effect of mentoring relationship on the career satisfaction of young college teachers and to test the moderating effect of the type of mentoring relationships and the gender of mentees. In Section 5, conclusions, the author presents the results discussion, countermeasures and suggestions, research value, innovative points, defects and prospect.

2 Literature review and research hypotheses

2.1 Career satisfaction

Career satisfaction is the degree to which individuals are satisfied with their salary, position and promotion speed, and how individuals judge, feel and evaluate the overall results of their career life (Greenhaus and Wormley, 1990). At present, Chinese and foreign scholars classify career satisfaction through unidimensional and multidimensional approaches. Scholars who hold the unidimensional view argue that career satisfaction is a single structure, which is to say that on the whole, individuals are either satisfied or dissatisfied with their career. Scholars who hold the multidimensional view maintain that individuals may feel satisfied or dissatisfied with their salary or promotion, and that
The impact of mentoring relationship on career satisfaction should be studied from different dimensions. Given the different classification of dimensions, the ways of measuring career satisfaction are also diverse. The measurement scales that are often used in foreign countries mainly include the Minnesota satisfaction questionnaire, the job satisfaction survey, the job description index, and the job diagnostic survey. Although scholars classify and measure career satisfaction in different ways, they all point out that career satisfaction generally include the following five dimensions: the job itself, organisational management, remuneration, work group and the state of organisational development.

The career satisfaction of individuals is influenced by numerous factors. To master and understand such factors is of great significance for controlling the work behaviours of individuals, helping individuals make good career plans and realising better organisational management. As indicated by relevant studies at home and abroad, three types of factors mainly influence career satisfaction:

1. Individual-related factors, including demographic variables such as race, gender and educational background, and personality traits such as personality and psychological features (Joo and Ready, 2012; Decastro et al., 2014)
2. Career-related factors, including burnout, career capital and career goals (Weijden et al., 2016)
3. Organisation-related factors, including supervisor support and organisational justice (Oli, 2014; Jiang and Klein, 2015).

Organisational factors are the most influential among these three kinds of factors. As required by the organisation, individuals have to make concessions sometimes to adapt to the organisation to ensure that their career can go well. As an important way for an organisation to cultivate employees, mentoring relationship can effectively enhance employees’ professional skills and help employees obtain a higher salary and be get promoted, thus enhancing the improvement of their career satisfaction in an even better fashion.

2.2 Mentoring relationship

A formal or an informal mentoring relationship exists in all organisations regardless of the nature, scale and business scope of the organisations and no matter the kind of products they produce or the kind of service they provide (Pandey et al., 2014). Mentoring relationship is the intimate relationship between employees at different levels or at the same level within an organisation. Through such relationship, experienced employees (mentors) support inexperienced employees (mentees) in terms of career planning and psychological development and devote themselves to helping their mentees obtain professional success in the complicated working environment (Kram and Isabella, 1985). The mentoring functions provided by mentoring relationship are diverse and could be bidimensional, three dimensional or multidimensional. Despite a certain difference in function classification, mentoring relationship is universally believed to have a positive influence on the career results and subjective well-being of mentees. Career results mainly include salary, promotion, social status and job performance (Underhill, 2006; Allen et al., 2008; Weijden et al., 2015). Subjective well-being mainly includes organisational commitment, turnover intention, career satisfaction, job satisfaction, sense
of self-efficacy, organisational socialisation, learning motivation and career loyalty (Lechuga, 2014; Arora and Rangnekar, 2015).

As a type of subjective well-being of mentees, career satisfaction has been a research hotspot in recent years. Most scholars maintain that mentoring relationship has a significant positive influence on career satisfaction, but few argue that differences may exit in how mentoring relationship influences the career satisfaction of mentees under different cultural backgrounds and management contexts. Mustafa et al. (2014) conducted a study among 192 professional female managers in Turkey and discovered that the guidance provided by mentors, either male or female, hardly influenced the career satisfaction of those female managers. In terms of practical application, the existing studies on how mentoring relationship influences career satisfaction mainly focus on general enterprise employees (Blickle et al., 2009; Pandey et al., 2014), and no conclusions have been reached in studies on how mentoring relationship influences the career satisfaction of young college teachers in the context of Chinese culture. Practice shows that in universities and colleges, mentoring relationship can influence the career satisfaction of young teachers by helping them to realise their overall career, income, promotion and teaching ability improvement goals and to succeed in their career, thereby further indicating the relationship between mentoring relationship and young teachers’ career satisfaction. On the basis of this finding, this paper presents the following hypothesis:

Hypothesis 1 Mentoring relationship has a significant positive effect on the career satisfaction of young college teachers.

2.3 Moderating effect of the type of mentoring relationship

An analysis of the relationship between mentoring relationship and career satisfaction of young college teachers should emphasise not only the direct impact of the guidance young teachers have received on their career satisfaction but also the possible intermediate variables between them. Some scholars have found that the positive effect of mentoring relationship on young teachers’ career satisfaction is also affected by other factors (Ragins and Kram, 2007). Mentoring relationship has a variety of forms and can be divided into formal and informal mentoring relationship by organisational intervention. From this perspective, scholars have explored the impact of different types of mentoring relationship on individual career satisfaction.

In universities and colleges, formal mentoring relationship is by far the most common form of teacher training, in which the state, district or university assign experienced teachers to help young teachers to carry out teaching work and enhance their teaching ability (Ginkel et al., 2016). Formal mentoring relationship, whether pertinent or not, is generally considered to have a positive impact on the career results and subjective well-being of mentees such as promotion, income, organisational commitment, work-family balance, job satisfaction, career satisfaction, turnover intention and job stress (Underhill, 2006). Formal mentoring relationship can affect young teachers’ career satisfaction in multiple ways. First, formal mentoring relationship can directly promote young teachers’ career satisfaction. Mentors (experienced teachers) can directly improve young teachers’ career satisfaction by providing them with career development support (assignment of challenging tasks and sponsorship) and social-psychological support (consultation and encouragement). Second, formal mentoring relationship can indirectly
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affect young teachers’ career satisfaction by enabling them to meet their overall career, income and promotion goals, improve their teaching ability and achieve career success. Through a formal mentoring relationship, young teachers can receive mentors’ teaching guidance, suggestions and help. Third, mentors can help young teachers to quickly integrate into the organisation, perceive that they are accepted by the organisation, better adapt to the teaching work and their role, and feel hopeful for their future development, thus experiencing more career satisfaction (Weijden et al., 2016).

Informal mentoring relationship has not been as fully studied as formal mentoring relationship, but is not rarely studied (James et al., 2015). Informal mentoring relationship in universities and colleges has no restrictions on mentor-mentee interaction frequency, time or content, and may vary in mentor-mentee interaction time and content. Informal and formal mentoring relationship are not truly equal in relation to individual output (Desimone, 2014). Previous studies have shown that informal mentoring relationship provides more psychological and emotional support than formal mentoring relationship does (Linnehan, 2003). For young college teachers, more psychological and emotional support can reduce their feelings of being isolated, thereby effectively boosting their confidence, and improving their morale and career satisfaction (Qian et al., 2014). Informal mentoring relationship plays an important role in the career satisfaction of young teachers.

In summary, on the basis of the impact of mentoring relationship on career satisfaction of young college teachers, this paper further explores whether different types of mentoring relationship will have a moderating effect on the relationship between them. Therefore, this paper presents the following hypothesis:

Hypothesis 2 The type of mentoring relationship has a moderating effect on the relationship between mentoring relationship and career satisfaction of young college teachers.

2.4 Moderating effect of the gender of mentee

Related research on mentoring relationship has also pointed out that the degree of guidance that mentees receive from mentors may vary with their gender (Decastro et al., 2014; Andersen, 2014; Mustafa et al., 2014). In universities and colleges, young female teachers do not have as many opportunities as young male teachers do in terms of professional title assessment and access to scientific research resources, and they are in a disadvantageous position. Young male teachers are believed to have the ‘natural gender advantages’ and more opportunities for education and further study, and they have easy access to guidance from experienced teachers. By contrast, young female teachers can be easily marginalised in teaching and research due to their conflicting roles in family and work, and they do not have easy access to help or guidance from other teachers. In addition, teachers of different genders have different perceptions on career satisfaction.

A qualitative study on the effectiveness of mentoring relationship has found that in mentoring relationship, the problem of mismatch exists between mentors and mentees in terms of character, values and way of working. Notably, these problems have reduced the benefits of mentoring relationship to young teachers’ career satisfaction (James et al., 2015; Menges, 2016). Gender differences also affect the utility of the mentoring relationship for young teachers’ career satisfaction. Gender differences have always been a hot issue in psychology research (Srivastava, 2015). At present, the male value system
still dominates in various aspects and fields of higher education. In general, young male teachers are believed to have more resources and opportunities than young female teachers to take the initiative to establish a relationship with experienced teachers and get their guidance and help (Kalev, 2009). Mentoring relationship, which helps to correct the inequalities of the past, is crucial for the career development of young female teachers (Wentling, 2003) and will especially benefit young female teachers (Clarke, 2011; Dougherty et al., 2013). In view of this concept, on the basis of the discussion of the impact of mentoring relationship on career satisfaction of young college teachers, this paper further explores whether the gender of young teachers will have a moderating effect on the relationship between them. Therefore, this paper presents the following hypothesis:

Hypothesis 3 The gender of mentee has a moderating effect on the relationship between mentoring relationship and career satisfaction of young college teachers.

2.5 Combined effects of the type of mentoring relationship and the gender of mentee

On the basis of Hypotheses 2 and 3, the subjects can be divided into four types: young male teachers in a formal mentoring relationship, young female teachers in a formal mentoring relationship, young male teachers in an informal mentoring relationship and young female teachers in an informal mentoring relationship. As a result of the combined effects of the type of mentoring relationship and the gender of the mentee, the mentoring relationship that corresponds to these four types of subjects may bring different benefits to the career satisfaction of young teachers. A formal mentoring relationship is established and managed by organisations, in which mentors and mentees are assigned by organisations and mentors' guidance for mentees is listed as part of their job task. As in a formal mentoring relationship, mentors and mentees may vary widely in values, hobbies and working habits. This type of mentoring relationship has little appeal and impact on young teachers, especially young male teachers, thus having a minimum impact on their career satisfaction. An informal mentoring relationship is a type of development-oriented relationships that is generally initiated voluntarily and mainly occurs between less experienced staff (mentees) and experienced staff (mentors) for the purpose of staff's personality and career development. In an informal mentoring relationship, mentors and mentees attract and select each other naturally based on common interests and personality characteristics. Mentors select mentees based on their ability and potential, while mentees select mentors based on their experience and professional skills (Allen et al., 2000). Thus, in an informal mentoring relationship, mentors interact more often with mentees and have a greater impact on them. In universities and colleges, young female teachers receive fewer resources than young male teachers do; thus, they more greatly value the impact of informal mentoring relationship on them. Therefore, an informal mentoring relationship has the greatest impact on the career satisfaction of young female teachers. In line with this idea, this paper presents the following hypothesis:

Hypothesis 4 The type of mentoring relationship and the gender of the mentee jointly regulate the relationship between the mentoring relationship and career satisfaction of young college teachers.
3 Methodology

3.1 Subjects

In this paper, the author employed questionnaires to collect data from Beijing Jiaotong University, Capital University of Economics and Business, Beijing Information Science and Technology University, Beijing Institute of Graphic Communication, Guizhou University, Shanxi University, Henan Polytechnic University, and Huaiyin Normal University. A pre-investigation was conducted prior to the formal investigation. The compiled preliminary questionnaires were issued on a small scale to find ambiguous or misleading questions based on the answers given by respondents. Such questions were then revised to form the formal questionnaire. In the formal investigation, a total of 300 questionnaires were issued, 274 of which were effective, with an effective rate of 91.3%. The respondents are aged 28 to 40. Among them, 56% are female teachers, and 44% are male teachers; the number of teachers with 3–5 years of work experience is the greatest, accounting for 33% of the total, followed by the number of teachers with 1–3 or more than seven years of work experience (26%). Teachers with 5–7 years of work experience take the third place (12%), while those with less than one year of work experience are the fewest (less than 3%). Mentoring relationship has two types; 67.2% of the respondents are in an informal mentoring relationship, and 32.8% are in a formal mentoring relationship.

3.2 Variable definition and measurement

3.2.1 Mentoring relationship

To measure mentoring relationship, the author adopted the mentoring function questionnaire (MFQ). Based on the three-dimensional model of mentoring relationship, MFQ is applicable to the Eastern cultural background and has been verified to be highly reliable and valid (Hu et al., 2011). MFQ was originally composed of 20 questions developed by Scandura in 1992. The following year, Scandura and Ragins (1993) utilised factor analysis to eliminate five questions with weak explanatory power. The remaining 15 questions include six career support questions, five psychological support questions, and four role model questions. The questionnaire questions all adopted the five-point Likert scale, ranging from 1 = strongly disagree to 5 = strongly agree. In this paper, the internal consistency $\alpha$ of the total scale is 0.884.

3.2.2 Career satisfaction of young college teachers

To measure career satisfaction, the author adopted the career satisfaction scale developed by Greenhaus et al. in 1990, which is the most influential and most widely applied scale at present. A total of five questions were given, which were measured by using the five-point Likert scale (1 = strongly disagree, 5 = strongly agree). In this paper, the internal consistency of the career satisfaction scale is 0.732.
4 Research results

4.1 Descriptive statistics and correlation analysis

First, the author provided a descriptive statistical analysis of the findings, as shown in Table 1. The mean value of mentoring relationship is larger than three, which means the mentoring relationship of the research samples is good on the whole. Similarly, the mean value of career satisfaction is also higher than three, which indicates that the respondents have a high perception of career satisfaction on the whole. In addition, the mean scores of the type of mentoring relationship and the gender of mentee are lower than 0.5, thereby implying that the number of informal mentoring relationship is larger than that of formal mentoring relationship and that the number of females is slightly larger than that of males.

Table 1 Basic data statistics and correlation matrix

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Mentoring relationship</td>
<td>3.31</td>
<td>0.73</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Career satisfaction</td>
<td>3.03</td>
<td>0.73</td>
<td>0.298**</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 Type of mentoring relationship</td>
<td>0.39</td>
<td>0.49</td>
<td>0.155</td>
<td>-0.184*</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>4 Gender of mentee</td>
<td>0.44</td>
<td>0.5</td>
<td>0.2*</td>
<td>-0.234**</td>
<td>0.114</td>
<td>1</td>
</tr>
</tbody>
</table>

Notes: *p < 0.05, **p < 0.01, n = 274 (similarly hereinafter).

The correlation analysis reveals that, mentoring relationship and career satisfaction of young college teachers are significantly positively correlated at the 0.01 level (B = 0.298), the type of mentoring relationship and the career satisfaction of young college teachers are significantly negatively correlated at the 0.05 level (B = -0.184), and the gender of mentee and the career satisfaction of young college teachers are significantly negatively correlated at the 0.01 level (B = -0.234).

4.2 Impact of mentoring relationship on career satisfaction of young college teachers

This paper uses a simple regression analysis to explore the impact of mentoring relationship on career satisfaction of young college teachers. First, mentoring relationship and career satisfaction are mean-centred. Then, with career satisfaction as the dependent variable, the above variables are substituted into the regression equation as follows: First, the control variable (working years) is substituted into the regression equation. Then, mentoring relationship is substituted into the regression equation. Afterwards, the significance level of the impact of mentoring relationship on career satisfaction of young college teachers is determined after the working years are controlled. The results are shown in Table 2.

Table 2 shows that when the working years are controlled, mentoring relationship still has a significant impact on career satisfaction of young college teachers (B = 0.285, p < 0.01). In other words, when the working years are controlled, the career satisfaction of young college teachers increases with the level of mentoring relationship. Therefore, Hypothesis 1 of this study is verified.
Table 2  Regression analysis of the impact of mentoring relationship on career satisfaction of young college teachers

<table>
<thead>
<tr>
<th>Step</th>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Working years</td>
<td>-0.07</td>
<td>-0.033</td>
</tr>
<tr>
<td>2</td>
<td>Mentoring relationship</td>
<td>0.285**</td>
<td>0.091</td>
</tr>
<tr>
<td></td>
<td>R²</td>
<td>0.014</td>
<td>0.014</td>
</tr>
<tr>
<td></td>
<td>ΔR²</td>
<td>0.014</td>
<td>0.078</td>
</tr>
<tr>
<td></td>
<td>F</td>
<td>1.85</td>
<td>6.743**</td>
</tr>
<tr>
<td></td>
<td>ΔF</td>
<td>1.85</td>
<td>11.492**</td>
</tr>
</tbody>
</table>

Notes: **p < 0.01; n = 274.

4.3 Moderating effect of the type of mentoring relationship and the gender of mentee

In this paper, the author adopted hierarchical regression analysis to verify the moderating effect of the type of mentoring relationship and the gender of the mentee. Although Wen et al. (2005) proposed that grouping regression should be used when the moderating variable was a categorical variable, some scholars suggested that unless there was no choice (for example, in a special experimental design such as repeated measurement), moderated regression analysis obtained better results than grouping in verifying the moderating effect. The latter suggestion was adopted in this research. Firstly, mean centering was conducted for mentoring relationship, type of mentoring relationship, gender of mentee and career satisfaction. Secondly, interactions were established by multiplying the centralised mentoring relationship by the type of mentoring relationship and the gender of mentee. With career satisfaction as the dependent variable, the said variables were substituted into the regression equation as follows:

Step 1  The control variable (working years) is substituted into the regression equation.
Step 2  Mentoring relationship is substituted into the regression equation.
Step 3  The type of mentoring relationship (the gender of mentee) is substituted into the regression equation.
Step 4  The interactions between mentoring relationship and the type of mentoring relationship (the gender of the mentee) are substituted into the regression equation.

The moderating effect of the type of mentoring relationship and the gender of mentee on the relationship between mentoring relationship on the one hand and the career satisfaction of young college teachers on the other was tested by testing the significance of the last-step hierarchical regression ΔR².

Firstly, the moderating effect of the type of mentoring relationship on the relationship between the mentoring relationship and career satisfaction of young college teachers was discussed. Hierarchical regression equations were established according to the above steps, and in each model, the influence of working years on the career satisfaction of young college teachers was under control, as shown in Table 3. Model 4 reveals that after adding the interaction between mentoring relationship and the type of mentoring
relationship on the basis of Model 3, Model 4’s explanatory power on the career satisfaction of young teachers increased significantly by 3% ($\Delta F = 4.79, p < 0.05$), while the whole equation can explain 17.7% of the variance in career satisfaction, thereby showing that the type of mentoring relationship significantly moderates the relationship between mentoring relationship and young teachers’ career satisfaction.

Table 3  Moderating effect of the type of mentoring relationship

<table>
<thead>
<tr>
<th>Step</th>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Working years</td>
<td>-0.07</td>
<td>-0.033</td>
<td>-0.039</td>
<td>-0.051</td>
</tr>
<tr>
<td>2</td>
<td>Mentoring relationship</td>
<td>0.285**</td>
<td>0.32***</td>
<td>0.36***</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Type of mentoring relationship</td>
<td>-0.355**</td>
<td>-0.345***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Mentoring relationship * type of mentoring relationship</td>
<td>-0.352*</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

R2 0.014 0.091 0.147 0.177  
$\Delta$R2 0.014 0.078 0.056 0.03  
F 1.85 6.743** 7.642*** 7.092***  
$\Delta$F 1.85 11.492** 8.669*** 4.79*  

Notes: *p < 0.05, **p < 0.01, ***p < 0.001; n = 274.

Secondly, to test the moderating effect of the gender of mentee on the relationship among variables, hierarchical regression equations were established according to the above steps, as shown in Table 4. Model 4 indicates that after adding the interaction between mentoring relationship and gender of mentee on the basis of Model 3, Model 4’s explanatory power on the career satisfaction of young teachers increased significantly by 3.9% ($\Delta F = 6.689, p < 0.05$), while the whole equation can explain 23.2% of the variance in career satisfaction, thereby showing that the gender of the mentee significantly moderates the relationship between mentoring relationship and young teachers’ career satisfaction.

Table 4  Moderating effect of the gender of the mentee

<table>
<thead>
<tr>
<th>Step</th>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Working years</td>
<td>-0.07</td>
<td>-0.033</td>
<td>-0.075</td>
<td>-0.096</td>
</tr>
<tr>
<td>2</td>
<td>Mentoring relationship</td>
<td>0.285**</td>
<td>0.336***</td>
<td>0.381**</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Gender of mentee</td>
<td>-0.485***</td>
<td>-0.496***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Mentoring relationship * gender of mentee</td>
<td>-0.411*</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

R2 0.014 0.091 0.193 0.232  
$\Delta$R2 0.014 0.078 0.101 0.039  
F 1.85 6.743** 10.594** 9.957***  
$\Delta$F 1.85 11.492** 16.713** 6.689*  

Notes: *p < 0.05, **p < 0.01, ***p < 0.001; n = 274.

As revealed by the above analyses, the type of mentoring relationship and the gender of mentee, as moderating variables, both have a moderating effect on the relationship
Impact of mentoring relationship on career satisfaction between mentoring relationship and career satisfaction of young college teachers. To further analyse how the type of mentoring relationship and the gender of mentee function operate as moderating variables, mentoring relationship was divided into formal and informal mentoring relationships, and young teachers were divided into male and female for analysis. The analysis results of interaction effects are shown in Figures 1 and 2.

**Figure 1** Interaction effect analysis of the type of mentoring relationship

![Figure 1](image1.png)

**Figure 2** Interaction effect analysis of the gender of mentee

![Figure 2](image2.png)

As can be seen in Figure 1, for young college teachers who have the same level of mentoring relationship, those in an informal mentoring relationship have higher career satisfaction than those in a formal mentoring relationship. Compared with those in an informal mentoring relationship, the career satisfaction of young teachers in a formal mentoring relationship increases with the level of mentoring relationship. Thus, Hypothesis 2 is verified. As can be seen in Figure 2, for young college teachers who have the same level of mentoring relationship, young female teachers have higher career satisfaction than young male teachers.
satisfaction than young male teachers do. Compared with young male teachers in universities and colleges, the career satisfaction of young female teachers increases with the level of mentoring relationship. Thus, Hypothesis 3 is verified.

4.4 Combined moderating effects of the type of mentoring relationship and the gender of mentee

This paper also uses hierarchical regression analysis to test the combined moderating effects of the type of mentoring relationship and the gender of mentee. A hierarchical regression equation is established according to the above steps, and the results are shown in Table 5.

Table 5  Testing of the combined moderating effects of the type of mentoring relationship and the gender of mentee

<table>
<thead>
<tr>
<th>Step</th>
<th>Variables</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Working years</td>
<td>-0.07</td>
<td>-0.078</td>
<td>-0.093</td>
<td>-0.096</td>
</tr>
<tr>
<td>2</td>
<td>Mentoring relationship</td>
<td>0.365***</td>
<td>0.426***</td>
<td>0.434***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type of mentoring relationship</td>
<td>-0.319**</td>
<td>-0.269*</td>
<td>-0.257*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gender of mentee</td>
<td>-0.459***</td>
<td>-0.45**</td>
<td>-0.446***</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Mentoring relationship *type of mentoring relationship</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mentoring relationship *gender of mentee</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Type of mentoring relationship * gender of mentee</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Mentoring relationship *type of mentoring relationship * gender of mentee</td>
<td></td>
<td></td>
<td></td>
<td>-0.172</td>
</tr>
</tbody>
</table>

R²  | 0.014  | 0.237  | 0.296  | 0.298  |
ΔR² | 0.014  | 0.224  | 0.059  | 0.002  |
F   | 1.85   | 10.275*** | 7.763*** | 6.789*** |
ΔF  | 1.85   | 12.92*** | 3.603*  | 0.275  |

Notes: *p < 0.05, **p < 0.01, ***p < 0.001; n = 274.

Step 1  After the control variable of working years is added, the variable of working years has no significant impact.

Step 2  After mentoring relationship, type of mentoring relationship and gender of mentee are separately added, their main effects are all significant (B = 0.365, p < 0.001; B = −0.319, p < 0.01; B = −0.459, p < 0.001), and the overall model is significant (F = 10.275, p < 0.001).
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Step 3 After each interactive variable of the three is added, none of them has a significant impact, but the change of the model is still significant ($\Delta F = 3.603, p < 0.05$).

Step 4 After all interactive variables of the three are added, the change of model is not significant ($\Delta F = 0.275, p > 0.05$), indicating a triple interaction does not exist.

Generally speaking, the impact of mentoring relationship on career satisfaction of young college teachers is always significant. The main effect of the gender of mentee is also significant, but the main effect of the type of mentoring relationship, when added with interactive variables, is obviously less significant. That is to say, the two regulated variables have a significant moderating effect when used separately, but when added to the model at the same time, the moderating effect of the gender of mentee significantly stronger than that of the type of mentoring relationship. The combined effects of the type of mentoring relationship and the gender of mentee are not significant. Thus, Hypothesis 4 is not verified.

5 Conclusions

5.1 Discussion of results and suggestions

5.1.1 Discussion of results

Simple regression results strongly verify Hypothesis 1. The main effects between mentoring relationship and career satisfaction of young college teachers are significant. That is to say, career satisfaction of young college teachers improves with the level of mentoring relationship, thereby indicating that mentors’ guidance and help for young college teachers has a significant impact on their career satisfaction. The hierarchical regression results verify Hypotheses 2 and 3. The type of mentoring relationship and the gender of mentee have a moderating effect on the relationship between mentoring relationship and young teachers’ career satisfaction. Informal mentoring relationship has a greater impact on young teachers’ career satisfaction than formal mentoring relationship. This finding indicates that an informal mentoring relationship, in which mentors and mentees attract and select each other naturally based on common interests and personality characteristics, can better promote mentoring relationship and provide more psychological and emotional support for young teachers, thus improving their career satisfaction. Mentoring relationship promotes the career satisfaction of young female teachers more significantly than that of young male teachers. This view is in line with that of mainstream scholars. This finding indicates that in universities and colleges where resource distribution is not completely balanced, establishing a mentoring relationship can help young female teachers to achieve better career development, thus effectively improving their career satisfaction.

However, Hypothesis 4 was not verified. Hypothesis 4 is based on the premise that the two variables – the type of mentoring relationship and the gender of mentee – have an equivalent effect. Only when they have an equivalent effect can they play a role in the interaction with mentoring relationship and produce a triple interaction effect. However,
the aforesaid model shows that the gender of mentee has a moderating effect significantly greater than that of the type of mentoring relationship; thus, a triple interaction effect is not produced. That is to say, Hypothesis 4 is not verified probably because gender differences have a significantly greater effect than the differences in the type of mentoring relationship on the young teachers’ perception of career satisfaction. In other words, compared with the differences in the type of mentoring relationship, the differences in the gender of young teacher produce a more important moderating effect on the relationship between mentoring relationship and career satisfaction of young teachers.

5.1.2 Suggestions

The above research reveals that mentoring relationship has a significant positive effect on the career satisfaction of young teachers. Thus, the mentoring system in universities and colleges is an important factor that affects the career satisfaction of young teachers. As the field research indicates, however, not all universities and colleges apply the mentoring system, and young teachers who have been mentored are more satisfied with their career than those who have not. Therefore, the author suggests that all universities and colleges establish and promote the mentoring system and select appropriate mentors to mentor young teachers about career development, social psychology and how to behave. Universities and colleges should also establish mentoring relationships to help young teachers improve their competence, change their attitude towards work, become more satisfied with their career and achieve better career development, thus advancing teaching and scientific research. The research also indicates that guidance alone does not significantly influence the career satisfaction of young teachers. For this reason, the author proposes that, while promoting the mentoring system, universities and colleges must provide career development guidance, social-psychological guidance and role models for young teachers on the whole.

Through hierarchical regression analysis, the author verifies the moderating effect of the type of mentoring relationships and concludes that informal mentoring relationships have a more significant influence on the career satisfaction of young teachers. However, current mentoring relationships among college teachers are mostly formal institutional arrangements in which mentors and mentees lack mutual understanding and communication, thereby leading to low involvement of both parties and formalistic guidance. In this aspect, the author suggests that before establishing mentoring relationships, universities and colleges should offer opportunities and platforms for young teachers and their mentors to know each other. With such a two-way selection mechanism, mentors can match with mentees and thereby make up for the defects of formal mentoring relationships. Moreover, the author verifies the moderating effect of the gender of mentees and concludes that mentoring relationship has a more significant influence on the career satisfaction of young female teachers. In universities and colleges, young female teachers have less access to resources and face greater difficulty in career development than young male ones; this problem can be fairly solved by establishing mentoring relationships. Therefore, on the one hand, universities and colleges should offer more support and assistance to young female teachers at the organisational level and assign them formal mentors to better promote their career growth and improve their career satisfaction. On the other hand, young female teachers should take the initiative to seek organisational support and assistance from mentors.
5.2 **Value of the research and innovative points**

5.2.1 **Value of the research**

The empirical study of domestic and foreign scholars on mentoring relationship is mainly concentrated in the medical and health care, manufacturing, and IT industries. A few scholars have studied the mentoring relationship among administrative teacher in universities and colleges. No existing study is related to young college teachers. In addition, an existing study of the impact of mentoring relationship on career satisfaction mainly focuses on the direct impact of the former on the latter, and a discussion about the action mechanisms between them is lacking. Therefore, on the basis of site surveys in a number of universities and colleges, this paper analyses the impact of mentoring relationship on career satisfaction of young teachers. On the basis of this impact, this paper thoroughly studies the moderating effect of the type of mentoring relationship and the gender of mentee on the relationship between mentoring relationship and young teachers’ career satisfaction. This paper further expands the scope of study of mentoring relationship, and thoroughly discusses the underlying action mechanisms between mentoring relationship and young teachers’ career satisfaction.

With regard to the practical significance of the study, this paper provides new ideas for the management of young college teachers. Today, many universities and colleges suffer from the impact of a high turnover of young teachers. A high turnover of teachers will not only increase labour costs (recruitment, training and incentive) of universities and colleges but will also likely cause the loss of core teachers, and even affect the morale of teachers, thereby weakening their organisation culture and resulting in the loss of competitiveness. In addition, as young teachers born in the 1980s and 1990s are gradually becoming the main force of universities and colleges, managers cannot obtain satisfactory results by using only traditional theory, experience and methods to manage the teachers. Therefore, a study of mentoring relationship in universities and colleges can help them to effectively carry out human resource management and provide help and guidance for young teachers from the perspective of their career development.

5.2.2 **Innovative points**

Scholars have analysed how mentoring relationship affects career satisfaction from the perspectives of social learning, social cognition, career motivation and role stress, but few proceed from the inherent factors of mentoring relationship and the individual factors of mentors and mentees. In this paper, the author expands previous research perspectives by taking the type of mentoring relationships and the gender of mentees as moderating variables to discuss the internal mechanism between mentoring relationship and young teachers’ career satisfaction, thereby enriching the research achievements in the effect mechanism of mentoring relationship. Furthermore, studies on mentoring relationship and career satisfaction are conducted mainly in the context of Western culture. Thus, whether the conclusions reached are valid in the context of Eastern culture needs to be verified, and such studies are concentrated mainly on medical treatment, health care, manufacturing and IT. Few scholars have studied the mentoring relationships among teachers holding administrative positions in universities and colleges. The existing studies seldom cover young college teachers. In this paper, the author studies the young teachers in Chinese universities and colleges and discusses how mentoring relationship
influences the career satisfaction of these teachers. This paper not only verifies that the conclusions of Western research are also applicable to Chinese culture but also enriches the research results of mentoring relationships in different types of organisations.

5.3 Weaknesses and prospects of the study

This paper has some weaknesses in the course of the study. Firstly, the study directly uses a foreign mentoring relationship scale without considering the impact of the Chinese cultural background and the characteristics of universities and colleges on the applicability of the scale. Secondly, the sampling has limitations. This paper is a study of young college teachers nationwide, but using only eight universities and colleges to represent the whole country’s universities and colleges may affect the general applicability of the study results to some extent. Thirdly, the sample size is small. Given the limited time and energy, this paper collected only 274 valid questionnaires, which may affect the results of the study.

In future study, we can firstly develop the content and structure of mentoring relationship in local universities and colleges through systematic data collection and analysis based on the Chinese cultural background and current management in universities and colleges. Meanwhile, a mentoring relationship scale with local characteristics and relatively high reliability and validity can be developed. Secondly, mentoring relationship is an important means of human resource management in organisations. A study has found that organisational characteristic variables such as organisational size, nature and culture are important determinants of human resource management practices in organisations, and to a certain extent, they influence the effects of human resource management practices. Currently, no scholars have studied the differences in mentoring relationship due to different organisational characteristics. Therefore, we can analyse the differences in mentoring relationship in different types of universities and colleges. Thirdly, the scope and size of samples can be expanded to make the study results more representative and accurate.

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References

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