

# *Relationship between Job Satisfaction and Psychological Distress among Fresh Graduates during COVID-19 Pandemic in Zhejiang, China: The Mediating Role of Coping*

Pan Yifei, Feng Yilinna

UCSI University, Jalan Puncak Menara Gading, Taman Connaught, Kuala Lumpur, Malaysia

**Keywords:** Job satisfaction, psychological distress, coping, fresh graduate

**Abstract:** With the destructive COVID-19 issues in China, the problem of job satisfaction has influenced more and more people, especially fresh graduates. Although existing research has discovered the association between job satisfaction and psychological distress, this study made contributions to the knowledge base and future researchers by investigating the mediation effect of coping on the above relationship. Fresh Graduates (N=384) completed questionnaires namely the Minnesota Satisfaction Questionnaire Short Form, the 4-item Brief Resilient Coping Scale, and The 10-item Kessler Psychological Distress Scale. Results showed there is a negative relationship between job satisfaction and psychological distress, and coping would partially mediate the above relationship. It was seen that job satisfaction is related with higher coping, while individuals with lower coping are more likely to experience higher levels of psychological distress, which may have a negative impact on their mental health and well-being. This study provides knowledge implications for society, policymakers, employers, and universities to be aware of the significance of fostering job satisfaction and promoting healthy coping strategies in order to improve the well-being of fresh graduates entering the workforce during difficult periods.

## 1. Introduction

Psychological distress is a familiar mental health problem and is a state of emotional distress [4]. It involves symptoms of depression and anxiety [16], which often exist or occur with common somatic disorders and a large scope of chronic diseases simultaneously [20]. Mental disease, social isolation, and the accompanying financial crisis can all have detrimental consequences on mental health, especially when they are present in the context of a worldwide pandemic. Currently, the entry of many fresh graduates into the workforce is a problem as many jobs are cut due to the economic downturn. On this issue, employers seem to have higher expectations for their employees as they have no previous work experience [25].

Job satisfaction is of interest in various disciplines, as it is a key determinant of personal well-being and has multifaceted impacts on social life. For this matter, fresh graduates are a sensible group since they may perceive the risk of the job not meeting their expectations since they have just

recently entered the workforce without prior work experience. Mycos data shows that the main reasons for the 2017 fresh graduates' dissatisfaction with their employment status are "low income" (64%) and "insufficient development space" (54%). However, research has shown that reduced job satisfaction may affect employee productivity, negatively impacting the organization, which in turn affects the economic prosperity of society <sup>[17]</sup>.

According to the transactional model of stress and coping from Lazarus and Folkman (1984), psychological stress is a unique link between people and the environment that a person perceives as using up or exceeding his resources and endangering his well-being. One of them is coping, which is described as an evolving process of cognitive and behavioral efforts to manage particular external or internal stresses <sup>[28]</sup>. In particular, coping responses—activity that modifies one's interaction with the environment, behavior that modifies the meaning of a relationship, or behavior that modifies stress and emotions by reevaluating relationships between people—are inherent in the process <sup>[28]</sup>. Coping is the process of making cognitive and behavioral adjustments in order to manage, lessen, or tolerate the internal or external pressures that result from stressful interactions <sup>[9]</sup>. Given the wide range of responses to stress, a lot of earlier research tried to create useful classifications. For instance, avoidant coping or active versus passive (Roth & Cohen <sup>[40]</sup>; Suls & Fletcher <sup>[47]</sup>).

University students, as a special group in society, are always regarded as the future of the nation. With the implementation of national policies, universities in China continue to expand enrollment, with the number of students has climbed all the way to the current 20 million. At present, the sense of superiority of fresh graduates at work has faded, yet employers' expectations of fresh graduates have not been reduced. Hence, fresh students carry the hope of society, along with the more severe employment situation brought about by the epidemic that has a great impact on psychological distress of fresh graduates. According to Lathabhavan and Sudevan <sup>[27]</sup>, psychological distress can negatively affect life satisfaction and well-being during normal times. In the medical field, the researchers found a relationship between psychological distress and the risk of mortality from all causes (Russ et al <sup>[41]</sup>; Lazzarino et al <sup>[29]</sup>), colorectal and prostate cancer <sup>[8]</sup>, as well as cardiovascular disease across the range of distress severity <sup>[7]</sup>. In terms of daily life, loneliness, family-work conflict and job dissatisfaction were found to be related with risk of psychological distress <sup>[49]</sup>. To sum up, the consequences of psychological distress on individuals not only affect physical and mental health, but also have a negative impact on life and well-being. In this regard, the severity of psychological distress and its possible consequences must be paid attention to by fresh graduates and the whole society.

Hence, the study was conducted by proposing the following questions: (1) What are the levels of job satisfaction and psychological distress among fresh graduates in Zhejiang, China? (2) What is the relationship between job satisfaction and psychological distress among fresh graduates in Zhejiang, China? (3) Does coping mediate the relationship between job satisfaction and psychological distress among fresh graduates in Zhejiang, China? The respective objectives of the study are: (1) To describe the level of job satisfaction and psychological distress among fresh graduates in Zhejiang, China. (2) To examine the relationship between job satisfaction and psychological distress among fresh graduates in Zhejiang, China. (3) To determine the mediation effect of coping on the above relationship. Accordingly, there are two hypotheses: (1) There is a significant relationship between job satisfaction and psychological distress among fresh graduates in Zhejiang, China. (2) There is a significant mediation effect of coping on the relationship between job satisfaction and psychological distress among fresh graduates in Zhejiang, China<sup>[4]</sup>.

## 2. Method

This study employed a quantitative research method with cross-sectional design. Survey method

is used in collecting data from August 2022 to October 2022 through the online survey of Chinese fresh graduates<sup>[7]</sup> aged 21 to 30 who are currently employed and resident in Zhejiang province.

## 2.1 Participant

Online Questionnaire includes the instruments posted in Zhaopin, Wuba, and Boss. A total of 384 participants completed the self-administered questionnaire.

## 2.2 Instrumentation

Minnesota Satisfaction Questionnaire (MSQ) Short Form. MSQ is a self-administered questionnaire developed by Weiss et al <sup>[50]</sup>. The MSQ was used for measures of satisfaction with a variety of aspects of vocational and work environments. MSQ has been well-applied in other research to assess job satisfaction. MSQ includes 20 items, and examples of items are “The way company policies are put into practice”, “The way my co-workers get along with each other” and others. Each item is rated on a 5-point Likert scale which is 1 = “not satisfied”, 2 = “somewhat satisfied”, 3 = “satisfied”, 4 = “very satisfied” and 5 = “extremely satisfied”. All items will be summed to show a total job satisfaction score. The higher score on MSQ shows that the participants have a higher job satisfaction. Cronbach’s alpha Coefficient of the scale in this study has been recorded as .89.

Brief Resilient Coping Scale (BRCS)<sup>[8]</sup>. BRCS is a self-administered questionnaire that was proposed by Sinclair and Wallston <sup>[46]</sup>. It is used to measure the level of coping of fresh graduates because it is brief and freely available to nonprofit researchers <sup>[52]</sup>. BRCS is to capture tendencies to deal with stress in a highly adaptive manner. The sample items include “I look for creative ways to alter difficult situations”, “Regardless of what happens to me, I believe I can control my reaction to it.” and others. The items will be rated on a 5-point Likert scale ranging from: 1 = “does not describe me at all”, 2 = “does not describe me”, 3 = “neutral”, 4 = “describes me” and 5 = “describes me very well”. The result is an overall score in a range of 4 to 20, with higher scores indicating better resilient coping. Cronbach’s alpha Coefficient of the scale in this study has been recorded as .87.

10-item Kessler Psychological Distress Scale (K10). K10 was proposed by Kessler et al <sup>[24]</sup> was used to the level of psychological distress among fresh graduates. This is a 10-item self-administered questionnaire designed to derive a global measure of distress based on issues of anxiety and depressive symptoms an individual has experienced in the last 4 weeks. K10 is a worldwide used tool for testing psychological distress. It consists of 10 items, for example, “During the last 30 days, how often did you feel tired out for no good reason?”, “During the last 30 days, about how often did you feel nervous?” and others. The items will be rated on a 5-point Likert scale ranging from: 1 = “none of the time”, 2 = “a little of the time”, 3 = “some of the time”, 4 = “most of the time” and 5 = “all of the time”. The numbers attached to the participant’s 10 responses will be added together for a total score of K10, which is between 10 and 50. The higher score on K10 represents that the participants have a higher psychological distress. Cronbach’s alpha Coefficient of the scale in this study has been recorded as .88.

## 2.3 Procedure

Information <sup>[9]</sup>letter is attached with lists down the research topic, research purpose, benefits, and risks of participating in this research, followed by the consent form. The questionnaires include Minnesota Satisfaction Questionnaire (MSQ) Short Form, Brief Resilient Coping Scale (BRCS), and Kessler Psychological Distress Scale (K10). Around 15 minutes are allotted for the above three

questionnaires. Before answering the questions, participants are also informed that they will remain anonymous while responding. In total, 384 participants were recruited. All participation is voluntarily agreed by each participant who obtained an information letter and signed the consent form. When sufficient data has been collected, the researcher checks the responses to make sure that there is no missing data.

## 2.4 Statistical Analysis

All data obtained during the study were analyzed using IBM SPSS 23.0. In order to compute all variables of the study, descriptive statistics were applied. The mean and standard deviation (SD) was used to characterize descriptive information for the demographic variables gender and monthly income. Means, modes, range, standard deviation, skewness, and kurtosis were checked to characterize the levels of job satisfaction and psychological distress among fresh graduates. Furthermore, Pearson correlation coefficient was utilized to determine the relationship between job satisfaction and psychological distress. In addition, SPSS macro PROCESS (model 4) with a bootstrapped sample size of 5,000 through the 95% confidence interval <sup>[21]</sup> was used to assess the mediation effect of coping on the relationship between job satisfaction and psychological distress.

## 3. Results

The gender and monthly income of participants are detailed in Table 1 using descriptive statistics.

Table 1: Descriptive Statistics of Gender and Monthly Income (n=384)

	<i>n</i>	%
<b>Gender</b>		
Male	187	48.7
Female	197	51.3
<b>Monthly Income</b>		
below 3000	89	23.2
3000-6000	161	41.9
6000 and above	134	34.9

Note. *n* = number of participants, % = percentage of participants.

Table 2: Levels of Job Satisfaction and Psychological Distress among fresh graduates (n=384)

<b>Measure</b>	<b>n</b>	<b>%</b>	<b>Range</b>	<b>Min</b>	<b>Max</b>	<b>Mean</b>	<b>SD</b>
<b>Job Satisfaction</b>			66	31	97	66.86	14.06
Low	111	28.90					
Moderate	10	2.60					
High	263	61.50					
<b>Psychological Distress</b>			37	13	50	29.69	8.77
Low	47	12.24					
Mild	86	22.40					
Moderate	52	13.54					
High	199	51.82					

Note. Min. = Minimum, Max. = Maximum, Sd. = Standard deviation

Before analysis, all data were checked for missing values, reliability, and normality to ensure accuracy. No data is missing in the study. The Chronbach's alpha coefficients for the Minnesota Satisfaction Questionnaire (MSQ) Short Form, the Brief Resilient Coping Scale (BRCS), and the Kessler Psychological Distress Scale (K10) demonstrate acceptable reliability, while the kurtosis

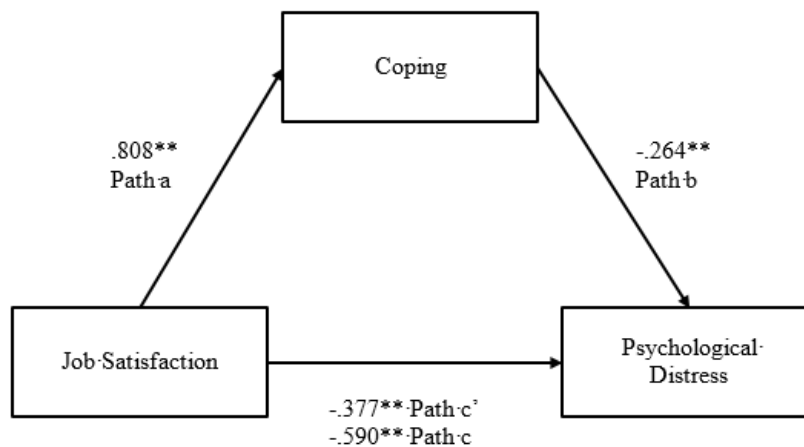
and skewness coefficients for all values are considered normally distributed. Table 2 displays the results of an analysis conducted using descriptive statistics and SPSS to characterize levels of job satisfaction and psychological distress.

According to Table 2, 61.5% (n=263) of fresh graduates reported a high level of job satisfaction, 2.6% (n=10) reported a moderate level of job satisfaction, and 28.9% (n=111) have a low level of job satisfaction. In terms of psychological distress, 51.82 % (n=199) of participants reported a high level of psychological distress, 13.54 % (n=52) reported a moderate level of psychological distress, 22.4% (n=86) reported a mild level of psychological distress, and 12.24% (n=47) reported a low level of psychological distress.

Table 3: Correlation between Job Satisfaction and Psychological Distress

	1	2
Job Satisfaction (1)	-	-.590
Psychological Distress (2)	-.590**	-

Note. \*\* Correlation is significant at the 0.01 level (2-tailed).



Note. The Mediation model demonstrates relationships between job satisfaction and psychological distress with controlling coping. Coefficients presented are standardized linear regression coefficients. \*\*p < 0.01

Figure 1: Path Analysis: Mediation model showing role of Coping on relationship between Job Satisfaction and Psychological Distress

According to Table 3, the findings revealed a significant negative relationship between job satisfaction and psychological distress,  $r = -0.59$ ,  $p < 0.01$ . The results suggest that the less psychological distress fresh graduates have, the more job satisfaction they experience.

Based on Figure 1 and Table 4, job satisfaction was significantly positively related with psychological distress ( $\beta = 0.808$ ,  $p < 0.01$ ), meaning fresh graduates with higher job satisfaction who might have higher levels of coping. Besides, coping was significantly negatively associated with psychological distress ( $\beta = -0.264$ ,  $p < 0.01$ ), which indicates fresh graduates with lower coping are more likely to have higher levels of psychological distress. Furthermore, the results reveal that the total effect of job satisfaction on psychological distress ( $\beta = -0.590$ ,  $p < 0.01$ ) was negatively significantly related, meaning that the higher level of job satisfaction may lead to a low level of psychological distress in fresh graduates. When coping was controlled, there was a significant negative association between job satisfaction and psychological distress ( $\beta = -0.377$ ,  $p < 0.01$ ). Thus, the fact that the influence of job satisfaction was significant when it was adjusted for

the mediator indicated that the coping partially mediated the effect of job satisfaction on psychological distress.

Table 4: Mediation Analysis: Mediating Effect of Coping between Job Satisfaction and Psychological Distress (n = 384)

	B	SE	t	95% CI		$\beta$
				LLCI	ULCI	
<i>Path a</i>						
Job Satisfaction to Coping	.239	.009	26.850	.2219	.2570	.808***
<i>Path c</i>						
Job Satisfaction to Psychological Distress	-.368	.026	-14.282	-.4185	-.3172	-.590**
<i>Path c' and Path b</i>						
Job Satisfaction and Coping	-.235	.043	-5.462	-.3195	-.1504	-.377**
to Psychological Distress	-.555	.145	-3.824	-.8408	-.2698	-.264**

Note. B = Unstandardized Regression Coefficient; SE = Standard Error, LLCI = Lower Level Confidence Interval, ULCI = Upper Level Confidence Interval;  $\beta$  = Standardized Regression Coefficient. \*\* p < 0.01

#### 4. Discussion and conclusion

For the level of job satisfaction and psychological distress, fresh graduates who reported high levels of job satisfaction occupied for the majority of the sample, accounting for 61.50% (n=263), while the level of job satisfaction reported by the rest of the participants was moderate and below. The findings are supported by similar results obtained by researchers. Melnyk et al <sup>[23]</sup> found that new graduates as participants reported high levels of job satisfaction and resilience. Moreover, a study under the context of the COVID-19 pandemic indicated that employees are more likely to be satisfied with their jobs when they are free to arrange their tasks or adopt a method of their choice, such as working from home <sup>[33]</sup>. A research conducted in Nepal found that 36.8% of graduates were satisfied with their jobs, while only 14.6% of faculties were dissatisfied with their current jobs <sup>[42]</sup>. Also, the majority of the participants expressed conflicting feelings about their work <sup>[42]</sup>, which is an occasion not covered in this present study. Regarding psychological distress, fresh graduates who reported high levels of psychological distress occupied for the majority of the sample, accounting for 51.82% (n=199), while the level of psychological distress reported by the rest of the participants was moderate and below which is consistent with several past studies. In terms of symptoms of psychological distress, Atkinson et al <sup>[6]</sup> found that approximately one-third of university students had clinically significant symptoms of depression or stress, and almost one-half of university students had clinically significant symptoms of anxiety. However, Parmar et al <sup>[37]</sup> discovered most fresh graduates had no psychological symptoms such as depression, anxiety and discomfort, yet half had psychological distress. Likewise, the results of many similar studies on the level of psychological distress support this study. A cross-sectional research conducted in Malaysia showed that 39.9% of interns felt anxiety, followed by stress and depression at 29.7% and 26.2% respectively <sup>[23]</sup>. Also, young interns are significantly more likely to have psychological distress (Shahrudin et al <sup>[43]</sup>; Ismail et al <sup>[23]</sup>; Nieuwoudt <sup>[36]</sup>).

In terms of the relationship between job satisfaction and psychological distress, findings revealed that there is a significant negative relationship between job satisfaction and psychological distress. In other words, psychological stress levels were lower among fresh graduates who reported higher job satisfaction which is supported by previous research (Aazami et al <sup>[1]</sup>; Do <sup>[15]</sup>; Mohamed et al <sup>[33]</sup>). Global job satisfaction was found to be negatively correlated to indices of general mental

health, anxiety, depression and social dysfunction<sup>[35]</sup>. Findings from a study of employed Canadian men showed that participants who reported lower job satisfaction were more likely to experience reduced meaning in life, which in turn was related with increased psychological distress<sup>[45]</sup>. Prior study conducted in China by Feng et al<sup>[18]</sup> indicated job satisfaction is considered a protective factor against psychological distress. Pepe et al<sup>[38]</sup> believed job satisfaction was negatively associated with psychological distress and was statistically fully moderated by the level of work engagement. Besides, several relevant studies also support the findings of this study. According to De Castro et al<sup>[14]</sup> and Qiu et al<sup>[39]</sup>, job dissatisfaction is linked to lower mental and physical health. Furthermore, Atif et al<sup>[5]</sup> found that there is a perpetual relation between job dissatisfaction and psychological distress. Research by Viertiö et al.<sup>[49]</sup> shows that job dissatisfaction is associated with the greatest risk of psychological distress. Moreover, a meta-analysis of 485 studies found employees with high job dissatisfaction were more likely to be burnout, had lower self-esteem, and had higher levels of anxiety and depression<sup>[17]</sup>, implying low job Satisfaction leads to a series of psychological distress. However, findings of a cross-sectional research showed a low significant correlation between job satisfaction and psychological distress among secondary school teachers<sup>[22]</sup>, with a significant negative linear dose-response correlation between job satisfaction and psychological distress<sup>[22]</sup>.

Regarding the mediation effect of coping, it was found that coping plays a mediating role between job satisfaction and psychological distress among fresh graduates in Zhejiang, China. The results show that there is a significant negative relationship between job satisfaction and psychological distress, and coping played a partial mediating role in the above relationship. To be specific, individuals with higher levels of job satisfaction are likely to engage in higher coping, which in turn contributes<sup>[32]</sup> to decrease in psychological distress. Although the relationship between job satisfaction and psychological distress is well documented (Faragher et al<sup>[17]</sup>; Aazami et al<sup>[1]</sup>; Aliakbari<sup>[3]</sup>; Kurt & Demirbolat<sup>[26]</sup>), and some prior studies have examined potential mediators between job satisfaction and psychological distress (Leung et al<sup>[30]</sup>; Simard et al<sup>[45]</sup>), few studies have investigated the role of coping as a mediator in the above relationship. A great number of studies found that higher job satisfaction is associated with higher coping (Boudreaux et al<sup>[11]</sup>; Shimizu & Nagata<sup>[44]</sup>; Buitendach & Moola<sup>[12]</sup>). According to Boswell<sup>[10]</sup>, job satisfaction is negatively associated with stress levels in the workplace. When strategies for coping with stress are used inappropriately or inadequately, individuals may face burnout syndrome in time (Guveli et al<sup>[19]</sup>). In terms of psychological distress, Morris et al<sup>[34]</sup> found an increased psychological distress had a weak correlation to active coping. Also, findings from Zautra and Wrabetz<sup>[53]</sup> suggest that coping effectiveness was associated with less psychological distress only in those who responded actively. The meaning behind the result is individuals with better coping may have lower levels of psychological distress, or individuals with higher psychological distress may experience worse coping<sup>[51]</sup>. Researchers have found that coping can help individuals tolerate and manage stressful conditions that can trigger psychological distress (McLean et al<sup>[31]</sup>; Akbar & Aisyawati<sup>[2]</sup>). At the same time, the results also show that the regression coefficient of problem-focused coping strategies on psychological distress is negative, thus coping strategies are considered as negative predictors of psychological distress<sup>[31]</sup>. According to Bukhari and Ejaz<sup>[13]</sup>, university freshmen use coping strategies to help them deal with stressful and perceived threatening situations. Hence, coping strategies are positively related to resilience, and people who use more coping strategies show better resilience and thus lower levels of psychological distress than those who use fewer coping strategies<sup>[48]</sup>. Considering that fresh graduates are also newcomers to the workplace, the findings of this study can be supported. Based on those past studies, it was seen that the findings in this study correspond with the literature, therefore it could be inferred that coping would mediate the relationship between job satisfaction and psychological distress.

The study has implications for individuals and society by increasing the awareness of the work situation of fresh graduates. In this case, more final year students and fresh graduates will increase their awareness of adjusting their status and actively enter the workplace. Moreover, policymakers can improve job-specific policies for fresh graduates to ensure that their basic rights, physical and psychological health are protected as newcomers to the workplace. Meanwhile, relevant departments can put forward new requirements for institutions. In the recruitment process, there should be no restrictions on the graduate schools of graduates and therefore a fair competition environment for fresh graduates should be fully guaranteed. Furthermore, employers should also ensure the legitimate rights and interests of fresh graduates and all employees are protected, and avoid making measures and rules that are unfavorable to employees. Also, in order to deal with the adaptation problems, universities should also offer correspondence courses such as innovation courses and entrepreneurship courses for final year students to help them enter the workplace smoothly. In addition, future researchers can expand their studies on the topic of psychological stress, as there may be other possible variables that require further study, such as burnout, adjustment ability, and social support.

However, this study also has some limitations that need to be noted. Firstly, the present study employed the cross-sectional design, which could not reveal cause and effect relations. Thus, the longitudinal design could be implemented in future research, because the directionality of the relationships needs to be better understood as they might be reciprocal. Secondly, participants in the research can only provide the responses through questionnaires, leading to no causes being found since the participants lacked chances to explain in detail. Hence, qualitative research can be added to future research to more deeply explore the specific reasons and manifestations of job satisfaction affecting psychological distress. Further interviews can be conducted with some of the respondents who participated in this study to provide detailed information in terms of job satisfaction and psychological distress. Thirdly, the participants in this study were only selected from the cities of Zhejiang province, which is not representative, so as the results of this study are not able to generalize the situation of fresh graduates in other provinces. Therefore, the sample for future research can be expanded to other provinces, with a more diverse and larger sample, making the research results more representative. Beside that, future research should include participants of different backgrounds with more diverse and larger samples to increase external validity.

In conclusion, this study examined the relationship between job satisfaction and psychological distress among fresh graduates in Zhejiang, China during the COVID-19 pandemic, as well as the role of coping as a mediator. The findings emphasize the significant relationship between job satisfaction and psychological distress, suggesting that those with higher job satisfaction experience less psychological distress. Moreover, coping mechanisms were found to mediate the above relationship, indicating that effective coping strategies play a crucial role in mitigating psychological distress among fresh graduates. These findings highlight the significance of fostering job satisfaction and promoting healthy coping strategies in order to improve the well-being of individuals entering the workforce during difficult periods such as the COVID-19 pandemic. Future research and interventions should seek to further investigate and improve coping mechanisms to support the mental health of recent graduates in comparable settings.

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