Review Theories of Subjective Well-being and the Impact of Stress: The Mediating Effect of Resilience

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ABSTRACT

The study aims to investigate the impact of related stress on Chinese university students’ Subjective well-being in the context of the mediating effect of resilience. Related theories were studied and analysed and therein significant contributions leading to the understanding of the relationship between the variables were inferred. Thus, academic, employment, interpersonal and financial stresses proved to be important ingredients in shaping the subjective well-being of Chinese student. Coping techniques such as resilience was proposed, and the technique was extensively analysed to determine the degree of the contribution it will offer in mitigating stress by the Chinese university students. Theories such as social comparison theory, telic theory, personality theory, coping theory and stress response theory were consulted in understanding the study contributions. The study suggested further research on strategies that can be adopted in mitigating stress affecting the Chinese university students.

Keywords: Academic stress, Interpersonal, Employment stress, Economic stress, Subjective well-being

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1. INTRODUCTION

With the proposed concept of "double first-class" construction in Chinese universities, training high-quality talents has become the main direction of university education (Gong, 2023). To build a high-quality education system, personnel training is the core task of higher education, and training high-quality talents to meet the needs of society is of great practical significance to the development of current higher education (Tang, Zhu, Zou, He & Wang, 2023). Through continuous adjustment and deepening of the reform of personnel training mode, the university further improves the curriculum system, increases investment in professional practice teaching, stimulates students' enthusiasm for innovation and entrepreneurship, and strives to improve students' comprehensive ability. In this process, in addition to improving the moral quality, physical quality and cultural quality of university students (Han & Li, 2023), it is also necessary to strengthen the mental health education of university students so that they can have good psychological quality when they enter the society. Good psychological quality is an important part of high-quality talents. As a transition period from adolescence to adulthood, university students are often faced with stress from all sides, such as interpersonal relationship, academic stress, love, employment and competition (Hu & Liu, 2020). And these stresses are very easy to bring negative emotions to university students, resulting in negative psychology.

Numerous studies show that university students' negative psychology, including negative emotions, such as anxiety, depression, low self-esteem, and jealousy, can easily cause stress to students, which may
influence their Subjective well-being as university students (Feng & Fan, 2023; Wu & Wan, 2023). When Yao and Xie (2021) conducted a questionnaire survey on 513 university students, he found that the stress of university students was negatively correlated with their subjective well-being. Stress can significantly negatively predict the subjective well-being of university students. The greater the stress an individual experiences, the lower their subjective well-being. Zhang Xinling et al. (2021) conducted a survey on the subjective well-being of university students and found that various stresses and maladaptation in daily life of university students have an impact on subjective well-being, and improving mental toughness has a positive effect on individual adaptability and subjective well-being. The higher the level of mental toughness of an individual, the easier it is to experience positive emotions. Negative psychology is not conducive for university students' growth and development, and seriously hinders further improvement on their quality of higher education. At present, there is much related research on the university students' stress and Subjective well-being that was mostly carried out by different researchers. However, few researchers have delved into the relationship between academic stress, employment stress, interpersonal stress, financial stress, and subjective well-being. Additionally, a few researchers have deeply explored the mechanism of these four factors and subjective well-being.

Subjective well-being is the overall evaluation of an individual's quality of life based on self-determined criteria. Subjective well-being mainly includes life satisfaction and emotional experience, which come from the evaluation of life quality at the cognitive level and the emotional level respectively (Yao & Xue, 2021). The degree of the subjective well-being is responsive to a given situation. This level of subjective well-being is assumed to be higher if the actual state of condition is higher than the established predetermined conditions and vice versa.

This paper seeks to investigate possible stress faced by university students in Jiaying University. These stresses can be academic stress, interpersonal stress, employment stress and financial stress. The study aims to identify the influence of these four stresses on subjective well-being wherein resilience is introduced as a mediating variable. To this end, the important role played by resilience is expected to open a new perspective to the research. However, this will enrich the psychological study of subjective well-being, promote positive psychology, and other related psychological disciplines. This research presents a significant theoretical significance in subjective well-being.

Theories that popularize the significance of subjective well-being are studied and analyzed to gain a better understanding of the investigation such as the social comparison theory, telic theory, personality and genetics theory, adaptation and coping theory, expectancy theory, stress response theory and cognitive interaction theory of stress. These theories were proposed considering the insights they have provided in psychology, objective, and subjective well-being literature.

The study seeks to contribute to the development of subjective well-being through the understanding of the impact of subjective well-being on university students at Jiaying university. In addition to that, the study intends to determine the moderating impact of resilience on subjective well-being as it interacts with interpersonal stress, employment stress, financial and academic stresses.

The study commenced with the introduction in section 1, followed by literature review in section 2. The methodology adopted in carrying out the study is highlighted in section 3. Then, section 4 discussed the results and analysis of the findings. Section 5 outlined the discussion of the study and future study directions. Finally, the study concludes by summarization in section 6.

2. LITERATUR REVIEW

2.1. Social Comparison Theory

Social comparison theory was proposed by Leon Festinger. According to social comparison theory, subjective well-being refers to the comparison between an individual's realistic conditions and a preset standard. If the realistic conditions are better than the preset standard, the level of subjective well-being is higher. If the actual condition is higher than the preset standard deviation, the level of subjective well-being is lower (Wen, 2019). Comparison theory usually includes two kinds of comparison, one is vertical comparison, the other is horizontal comparison. Longitudinal comparison refers to the comparison of the same individual at different times. It emphasizes whether the individual has changed at the present stage compared with the previous stage. If the individual is in better condition than before, the subjective well-being will be improved. If the situation is worse than before, subjective well-being decreases. Horizontal comparison means that an individual is compared with other individuals by a certain standard. If a person's condition is better than others, he will get happiness. For example, university student M set an ideal score of B in the physical education exam, but the result was A. The result of this physical education exam far exceeded the expectation, and university students' well-being was improved. This is a longitudinal comparison of individual scores over time. In addition, when university student M knows that another student N's score is lower than A, M's subjective well-
being is improved compared with before, because N’s score is worse than M’s, which is a horizontal comparison between individuals and other individuals. In social comparison theory, personality traits play a certain role. Optimistic people tend to compare with those who are worse than themselves, resulting in higher happiness; pessimistic people tend to compare with those who are better than themselves, resulting in lower happiness. People with high happiness often make downward comparison, while people with low happiness often make upward comparison. Therefore, the perception of social comparison results is an important factor that enhances or weakens subjective happiness.

2.2. Telic Theory

The Telic theory was proposed by scholar Diener. The telic theory is based on the specific desires that people realize. People will consciously pursue certain goals, and well-being will occur when needs are met and goals are achieved (Li, 2022). This is similar to the hierarchy of needs theory of the famous psychologist Maslow, who believes that when the needs of individuals at lower levels are met, self-happiness will be improved. Everyone is pursuing self-realization and will experience the highest well-being after the completion of self-realization (Wang, Xu, Liu, Sun & Wu, 2021). Second, the comparison mechanism assumes that people compare themselves to a variety of criteria to determine how well their needs are met.

Different adoption criteria explain the three source mechanisms of subjective well-being. The first is horizontal comparison, comparing oneself with others. When the comparison results are better than others, the subjective well-being of individuals will be improved. The second is longitudinal comparison, comparing the present state or condition of the individual with the past. If the individual judges that the present is better than the past, he will experience a higher level of well-being. The third is internal comparison, comparing the real self with the ideal self. The smaller the gap between oneself and the ideal condition, the higher the level of subjective well-being of experience. (Tao, 2022)

2.3. Personality and Genetics Theory

In Diener's research on subjective well-being, he found that personality is one of the most reliable predictors of subjective well-being. Costa and McCrae investigated the subjective well-being levels of 234 men over the course of 10 years and found that personality differences predicted subjective well-being levels 10 years later, with stable extroverts happier than neurotic individuals. This suggests that personality traits are one of the main influencing components of individual subjective well-being (2018, Feng). The main content of personality theory is that different personality traits determine the individual's response pattern to events and the individual's difference in well-being level (Tao, 2022). Personality traits are divided into positive personality traits and negative personality traits. Positive personality traits usually have a positive coping style, and through this coping style, such as social, optimistic, and full of energy. Individuals are more likely to produce positive well-being experience.

On the contrary, negative personality traits will affect the individual's lifestyle and way of life, such as anxiety, pessimism, excessive attention to the self and other negative factors, so that individuals are more likely to experience negative emotions and show a lower level of well-being. In addition, the personality theory of subjective well-being holds that, compared with age, income, social class, race and other external conditions, personality is a more permanent and stable determinant of subjective well-being. Subjective well-being takes stable personality traits as the baseline and fluctuates with time and situation changes. (Li, 2022) This theory organically integrates subjective well-being with individual personality traits, and explains the second feature of subjective well-being, namely relative stability, from the perspective of personality traits.

2.4. Adaptation and Coping Theory

Adaptation and coping theory is summarized by Diener. The theory suggests that when events first occur, they can have either positive or negative effects on subjective well-being, however, their effects diminish as individuals adapt to the events over time (Li, 2021). Different from social comparison theory and expectation theory, adaptation and coping theory is more inclined to longitudinal comparison. When comparing the present life with the past, individuals will feel happy only when the present state has changed and is better than before. Adaptation tendency is a passive psychological process, which enables people to timely adjust their emotions to a certain extent, so as to maintain their relative satisfaction with life (Li, 2017). To some extent, adaptation can regulate the individual's benign and malignant events, so that the individual is not always ecstatic and not always hopeless. However, coping presents a different case from adaptation. Coping is a proactive mental process. Specifically, individuals with effective coping strategies, such as spiritual belief, rational behavior, positive evaluation of events, problem-focused coping, giving positive meaning to ordinary life events and seeking help, generally have a higher level of subjective well-being (Jin, 2022). Moreover, after controlling
the relevant personality variables, individuals with positive coping strategies stand to have a higher level of subjective well-being.

2.5. Expectancy Theory

This theory is represented by Oish, Diener, Suh and Lucas (Yue, 2019). Expectancy theory states that expectancy is the reference standard that individuals should choose when experiencing well-being. The level of subjective well-being experienced by individuals depends on whether they think they have met their expectations (Xie, 2021). Individuals' expectations affect their subjective well-being (Tang, 2021). Evaluation of an individual's subjective well-being will be compared with the individual's expectation. If the actual status of an individual reaches the individual's expectation, its subjective well-being is improved; on the contrary, it reduces in the event of the reverse case. Based on this, Wilson argues that high expectations in people's pursuit of a better life are also an important threat to individual well-being. The gap between an individual's actual situation and its expectation determines the level of subjective well-being. The level of subjective well-being of an individual with too high or too low expectation will not be high; the level of subjective well-being of an individual with too high expectation will be low because of lack of satisfaction; the level of subjective well-being of an individual with too low expectation will be low because of boredom. The study found that the higher the expectation of internal desired goals (such as self-ability), the higher the subjective happiness of the individual, while the higher the expectation of external desired goals (such as money and honor), the lower the subjective happiness of the individual. Thus, compared with the level of expectation, the content of an individual's expectation can seriously affect his subjective well-being (Chen, 2020).

2.6. Stress Response Theory

Stress response theory is a physiologically oriented theory of stress research, which is based on individual response. Representatives of basic research on stress physiology include Claude Bernard, Walter Cannon and Hans Selye. According to the theory of stress response, stress is a physical and mental reaction produced by individuals to adapt to environmental stimuli, and it is an individual's feeling of tension. This theory started from an American physiologist Walter Cannon's innovative experimental research, which found that when organisms encounter external threats, individuals show anxiety, fear, and other reactions when they are in danger, frustration, and other situations. Based on Cannon's theoretical research, Hans Selye, a famous Canadian medical scientist, and psychologist, found through medical experiments that stress response is a series of reactions automatically produced by individuals in the face of diseases, excessive demands, and other stressors, in order to resist stress and maintain internal balance (2019, Xing).

3. METHOD

The study aims to determine the relationship between subjective well-being and four components of stresses with a mediating impact of resilience. 189 documents were identified from the Scopus database. After thorough filtration using the refinement window of the Scopus 50 documents were available for the study. Full content reading and analysis of the documents were carried out, of which 42 documents were established for the study (Table 1).

Table 1. Article source and keywords

<table>
<thead>
<tr>
<th>Database</th>
<th>Scopus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Keywords</td>
<td>“Subjective well-being” and “resilience” or “education” and “subjective well-being”</td>
</tr>
<tr>
<td></td>
<td>“Stress” and “education” or “academic stress” and “education”</td>
</tr>
<tr>
<td></td>
<td>“stress” and “resilience” or “financial stress” and “interpersonal stress”</td>
</tr>
</tbody>
</table>

Source: Authors
37

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Figure 1. Screening process of the documents using the PRISMA approach (Source: Authors)

The 42 documents were further studied therein some findings were arrived at.

Table 2. Themes discussed by the 42 documents used for the study

<table>
<thead>
<tr>
<th>Document’s themes</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subjective well-being</td>
<td>10</td>
</tr>
<tr>
<td>Resilience</td>
<td>5</td>
</tr>
<tr>
<td>Employment stress</td>
<td>2</td>
</tr>
<tr>
<td>Interpersonal stress</td>
<td>3</td>
</tr>
<tr>
<td>Financial stress</td>
<td>4</td>
</tr>
<tr>
<td>Education and subjective well-being</td>
<td>4</td>
</tr>
<tr>
<td>Academic stress</td>
<td>4</td>
</tr>
<tr>
<td>Interaction of the stresses</td>
<td>4</td>
</tr>
<tr>
<td>Subjective well-being and adolescent</td>
<td>6</td>
</tr>
</tbody>
</table>

Source: Authors

Table 2 highlighted the themes discussed by the 42 documents used in the conduct of the research. 4 of the articles discussed topics related to academic stress. Subjective well-being related themes were discussed by 10 articles whereas financial stress, education and subjective well-being, interaction of stress and financial stress were all discussed 4 times by the documents used for the research. Subjective well-being and adolescent related topics were discussed by 6 articles and resilience was however discussed by 5 articles. Interpersonal stress also was discussed by 3 articles and finally 2 articles on employment related stresses were also discussed.

4. RESULTS AND DISCUSSION

The findings inferred from this study indicated the influence of the four stresses were investigated in relation to subjective well-being and the role played by resilience in mitigating those stresses. Stress Response Theory was significant in explaining the impact of the stresses on students performance and how resilience was pivotal in mitigating the effects of these challenges. On this basis, Selye proposed general adaptation syndrome, suggesting a causal relationship between stress and disease. Sustained stress can break down an individual's biochemical protection mechanism, reduce the individual's resistance and make them susceptible.
to psychosomatic diseases. Stress response can be divided into Alarm reaction, resistance, and exhaustion stages (Song, 2021). First, alarm reaction stage. When the individual is stimulated by some external environment, the body will produce physiological reaction, and form an effective warning and defense psychology in a short time. At the same time, the relevant organs of the body are mobilized to cope with sudden stressful situations. In the process of resistance to stress, the body's organs will undergo different changes, and if the resistance process is effective, the various responses will gradually disappear (Zhao, 2021).

Then the second, which was identified as resistance stage. At this stage, the early symptoms gradually disappear. The body will mobilize corresponding organs and protective systems to resist external environmental stimuli, at this time, the body's ability to resist certain diseases will decline, resulting in some adverse consequences and reactions. If the duration is too long, the body's stored energy will not be enough to sustain the organs to make more antagonistic behavior, and some organs and systems are overactive, thus causing physical damage to the regular movement of internal organs. If this process is effective, the body's immune system can return to its normal state. If the resistance is not effective, the body will re-launch the psychological stress response. At the same time, activate the body's various stress functions against the stressor, in addition, it is possible that the body resistance overheated and entered the next stage. Third, exhaustion stage. When the stress continues for a long time and the body is in a state of resistance for a long time, it will enter the stage of exhaustion. At this time, various energy stores in the body are gradually exhausted. Due to insufficient nutrition, cells will gradually die, and some organs will begin to lose their ability to work. Resistance reaches its limits, and the body breaks down, leading to serious illness or death (Figure 2).

Figure 2 (GAS Model, GM)  (Tian, 2010)

The above three stages do not necessarily occur in order. Most of the stress causes only the first and second stage responses, only some severe stress will enter the third stage. However, due to the limitations of the biomedical model, Hans Selye published the psychological stress of stress reaction. In his point of view, the study of psychological stress also does not have sufficient persuasion. Most of the research knowledge of this theory focuses on people's specific psychological reactions when they are subjected to external or psychological factors. Other physical or psychological changes in the body have not been studied in detail. Stress response theory is studied from a biomedical perspective in order to adapt to the mental and physical responses produced by environmental stimuli.

The difference between stress response theory and stress stimulus theory is that stress response theory believes that stress is an individual's subjective experience, while stress stimulus theory believes that stress is a function of objective circumstances. Although there are differences between the two, the stress stimulus theory and the stress response theory also have something in common. Both theories assume that stress is based on a negative level. Based on this assumption, the stimuli of the external environment to the individual are negative, and the individual's perceived response to the stress is also negative (He, 2022).

In conclusion, the results of this study shed light on the significant influence of various stressors, including academic, employment, interpersonal, and financial stresses, on the subjective well-being of Chinese university students. Through the lens of Stress Response Theory, it became evident that sustained stress can lead to a breakdown in individuals' biochemical protective mechanisms, ultimately rendering them susceptible to psychosomatic diseases. The delineation of the Alarm reaction, resistance, and exhaustion stages elucidated the complex physiological and psychological responses individuals undergo when faced with stressors. Hans Selye's concept of general adaptation syndrome underscored the causal relationship between stress and disease, emphasizing the critical role of resilience in mitigating these effects. While stress stimulus theory posits stress as an objective function of circumstances, stress response theory highlights the subjective experience of stress. However, it is essential to note the limitations of stress response theory, particularly its tendency to
overemphasize biological indicators and overlook individual psychological and behavioral reactions to stress. Moving forward, these findings emphasize the importance of implementing targeted interventions to support students' resilience and well-being in the face of stressors, thereby fostering a conducive environment for their holistic development.

5. DISCUSSION OF FINDINGS

Further theories were used to discuss the impact of stresses on subjective well-being and the role of resilience on the impact. For instance, the impact of Cognitive Interaction Theory of Stress proposed by the American psychologist Lazarus in 1966, and further explained and improved by Lazarus and Folkman (Liu, 2020). According to the Cognitive Transactional Theory, stress does not exist on people or in the environment alone, but in the combination of people and the environment. The essence of stress is the interaction between people and the environment. The generation process of stress is a process regulated by individual psychology (Liu, Ye & Guo, 2019). The theory emphasizes the important role of cognitive appraisal, it is concluded that cognitive appraisal and coping process play an important role in the relationship between environmental stress and response results. The interaction model (Figure 3) believes that the generation process of stress is a process subject to psychological regulation. The core of this model is cognitive appraisal, which affects individual's response to objective situations. Cognitive evaluation is an individual's judgment of various aspects of events and situations to determine whether there is an impact on the individual. Appraisal is divided into primary appraisal and secondary appraisal.

![Figure 3 (The transactional model of stress, TMS)](Zhang, 2008)

In primary appraisal, an individual evaluates how threatening an event or situation is to him. The question is: Is this a threat to me? If there is a threat, it is divided into three categories: harmful loss, threat, or challenge. Harmful loss refers to the injury that can occur. A threat is a potential harm to oneself. A challenge is the potential for growth or gain. In secondary appraisal, individuals evaluate their resources available to deal with stressful events by asking: "Can I handle it?" (Lazarus & Folkman, 1984). Primary appraisal and secondary appraisal are interdependent and thus promote each other.

Coping, another important concept in the interaction model of stress, refers to the response that an individual takes when he or she evaluates a situation as a threat or challenge. Lazarus and Folkman divided coping into problem-focused coping and emotion-focused coping. Problem-focused coping, which aims to manage or solve problems that cause stress, is considered positive coping; Emotion-focused coping regulates the emotions caused by the problem. This kind of coping is considered as negative coping (Guo, 2021). And the result of coping will affect the individual's social function, physical and mental health (Shamsaei, et al., 2019).

Individuals evaluate situations as threats or challenges in terms of their thoughts, emotional reactions, and physiological responses to situations. These responses, in turn, influence how individuals deal with these situations. Over time, how people cope determines whether they can adapt to or cope with stressful situations, which can have long-term effects, such as physical health or illness, and satisfaction. Making assessment of threat will arouse emotions related to threat, and the individual who evaluates the situation as threat will feel anxious, enraged by emotion, and worry continuously. Individuals who rated the situation as challenging thought positively, felt excited and motivated to work hard to deal with the situation they faced.

Stress coping is the result of the interaction between individuals and the environment. Both environmental and individual systemic factors of stress events affect the choice of coping strategies. Cognitive evaluation and coping styles play a mediating role in the interaction between individuals, the environment and outcome. The interaction patterns of stress coping are shown in Figure 4 (Wu, 2015).
According to the overall interaction theory of stress, stress is the result of the interaction between people and the environment, and between people and the internal demands of society. Different types of stress and coping styles produce different results of stress. Stress interaction theory is used to analyze the relationship between academic stress, employment stress, interpersonal stress, financial stress, and subjective well-being. And examining the mediating role of resilience in the relationship between determinants (academic stress, Interpersonal stress, employment stress, financial stress) and subjective well-being provide the theoretical basis.

6. CONCLUSION

In conclusion, this study investigates the intricate relationship between academic, employment, interpersonal, and financial stresses and their impact on the subjective well-being of Chinese university students. Through a comprehensive analysis, supported by theories such as Social Comparison, Telic, Personality and Genetics, Adaptation and Coping, Expectancy, and Stress Response, the pivotal role of resilience as a mediating factor emerges, offering a buffer against the adverse effects of stress. The findings underscore the necessity for targeted interventions to alleviate stress among students and promote their overall well-being. Future research should delve deeper into resilience mechanisms and evaluate intervention effectiveness, aiming to foster supportive environments conducive to students’ holistic development.

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