The Depression, General Self-Efficacy and Social Support in Medical Vocational College Students: Basis for a Psychological Intervention Program

Yiping Yu 1,2, ELNA R. LOPEZ 1, LIDA C. LANDICHO 1

1 Lyceum of the Philippines University- Batangas, Batangas 4200, Philippines
2 Shandong College of Traditional Chinese Medicine, Yantai, Shandong, China

Abstract: Depression is a common psychological problem among college students, and its incidence has increased gradually in recent years. Studies have shown that self-efficacy is significantly negatively correlated with depression, and social support is significantly negatively correlated with depression. This paper mainly summarizes the status quo of depression, self-efficacy and social support of college students in existing studies, and summarizes the corresponding intervention programs. It provides a theoretical basis for further research.

Keywords: Depression; General Self-Efficacy; Social Support.

1. Introduction

According to a 2023 World Health Organization report, an estimated 3.8% of the population suffers from depression, including 5% of adults (4% of men and 6% of women), and 5.7% of people over the age of 60. More than 265 million people in the world suffer from depression, with an 18% increase in depression in the last decade [1]. The incidence of depression is about 50% higher in women than in men. Worldwide, postpartum depression accounts for 17.7% of patients [2]. People with depression often lack positive emotions and are unable to find positive meaning. One of the major risks of depression is suicide. According to the WHO, suicide is the fourth leading cause of death among people aged 15-29. College students fall right into that age range.

Depression is a common mental health problem among college students [3]. The prolonged existence of such mental health problems will negatively affect the entire life course of the patient, leading to serious psychological, cognitive, social and occupational impairments [4]. Social support is an important social resource for individuals to cope with stressful life events and plays an important role in the occurrence of depression. Self-efficacy is a person's speculation and judgment about their ability to perform a certain behavior. Due to the central position of self-efficacy in human self-regulation, its application in the field of physical and mental health has received extensive attention. As a multi-dimensional concept, social support is also an important social resource for individuals to cope with stressful life events, which plays an important role in the occurrence of depression.

Studies have shown that college students' general self-efficacy is significantly correlated with depression, and the higher the general self-efficacy, the lower the depression level [5]. A study on medical students in Chongqing, China shows that the reduction of subjective support, objective support and utilization is significantly negatively correlated with depression [6].

This paper reviews the literature on depression, self-efficacy and social support of college students, in order to reduce the incidence of depression among vocational medical students, improve their self-efficacy and social support, and provide references for formulating effective intervention programs.

2. Depression

2.1. Current Situation of Depression in College Students

The random effects model was used for meta-analysis, and the incidence of depression among Chinese college students from 2010 to 2020 was 31.38% [7]. According to a study in 2020, the average rate of depression among Chinese college students is 32%~38% [8]. In the same year, it was reported that the proportion of Chinese medical students suffering from depression was 57.5% respectively [6]. In other words, the proportion of depression among medical students in China is significantly higher than the average level of college students. In addition, there are also many reports in other countries that the incidence of depression among medical college students is higher than that of other college students [9]. This may be because medical students need to complete more courses in the same amount of time, and the courses are more demanding and difficult. Heavy academic pressure can affect students' sleep quality and sleep duration, reducing their social time [10].

The incidence of depression shows a gender difference. However, there is some controversy about this point in the past research. Studies have shown that the level of depression in women is higher than that in men [11]. First, because there are physiological differences between women and men, such as hormone and cortisol levels [12]. These biological differences will affect people's behavior and emotions, for example, women are more sensitive and vulnerable to stress and bad emotions. Secondly, women and men are assigned different social roles, for example, men are more likely to be encouraged by their parents to be brave and confident when they are young [13]. However, a study on Chinese college students showed that the anxiety level of women was higher than that of men, and the depression level of men was higher than that of women [14]. More studies have shown that the incidence and level of depression in women is higher than that.
in men [15]. Salk et al. [16] found through literature statistics that the gender difference in the incidence of depression peaked in adolescence, that is, at the age of 13-15, but then the difference would decline. Gender is no longer a significant factor in the incidence of depression in adulthood.

Of course, in addition to academic pressure, medical students also face financial problems and other problems like other students [17]. Economic pressure is a threat to survival, from depression [18]. Therefore, students with low family experience less financial stress and are less likely to suffer greater economic pressure are more depressed [6]. There is evidence that adults with greater savings or home equity experience less financial stress and are less likely to suffer from depression [18]. Therefore, students with low family income are more likely to be the target of intervention.

Students have been living with their parents for 18 years before entering college. The family environment and parent-child relationship constructed by parents will directly affect children's mental health and social ability. Research has shown that parents' cognitive and empathic abilities are negatively associated with mental health problems in children [19]. There is a correlation between parents' education level and children's depression [20].

Affected by COVID-19, an epidemiological survey of college students in Wuhan, China in 2021 found that the incidence of depression among college students in Wuhan was as high as 62.91% [21]. Wuhan has experienced a large outbreak, so the incidence of depression is significantly higher than the national average. This suggests that in the post-pandemic era, students who have experienced more severe infections may be targeted for intervention.

2.2. Depression Intervention Program

Cognitive-behavioral therapy (CBT) is an effective intervention for college students with depression. This method is widely used and has significant therapeutic effects [22]. Specifically, CBT can be divided into three steps: (1) Identify negative beliefs. In 1-on-1 counseling or group counseling, negative perceptions of respondents were found. It is also possible to determine the negative ideas of the interviewees by doing no homework, keeping a diary, recording emotional tables, etc. (2) Change negative attitudes. Challenge negative beliefs by asking questions such as "Does it have to happen what you think?" and "What else could it be?" Guide questions to help interviewees see the positive aspects of the situation and establish a positive concept. (3) Develop coping ability. In consultation and training, respondents are trained to cope with and solve common problems. By assigning homework, respondents can apply what they have learned, thereby eliminating and reducing difficulties and reducing the likelihood of depression recurrence.

In addition, there is a treatment for depression called interpersonal therapy (IPT). This intervention has also been very effective in improving depression [23]. IPT measures can be specifically divided into 4 parts: (1) Exploring the interpersonal relationship of the patient's depression: The therapist will help the patient explore the role that their interpersonal relationship plays in their depression. This may include discussing the individual's current relationship, their past relationships, and their expectations for the relationship. (2) Identify interpersonal problem areas: The therapist will help the individual identify the specific interpersonal problem areas that are causing their depression. This may include discussing the individual's symptoms, their thoughts and feelings about their relationship, and their behavior in the relationship. (3) Develop a treatment plan: The therapist and the individual will develop a treatment plan that addresses specific relationship problem areas. This may include setting treatment goals, identifying strategies to achieve those goals, and practicing new skills. (4) Monitoring progress: The therapist and individual will monitor progress throughout the treatment process. This may include reviewing the individual's symptoms, their thoughts and feelings about their relationship, and their behavior in the relationship.

3. Self-Efficacy

3.1. Self-efficacy of College Students

Self-efficacy was first proposed by American psychologist Bandura. The sense of self-efficacy will affect many qualities of college students. For example, entrepreneurial self-efficacy will affect students' entrepreneurial intention and employment success rate [24,25]. Yan et al. [26] found that college students' career decision self-efficacy positively predicted their employability. Research on nursing students shows that professional self-efficacy is negatively correlated with academic burnout of nursing students [27]. Financial self-efficacy plays a partial mediating role in the relationship between financial literacy and risky credit behavior [28]. Academic self-efficacy plays a significant role in promoting academic achievement [29].

General self-efficacy is a class of non-specific self-efficacy. Dura sees it as people believing in their ability to organize and execute the actions needed to manage future situations. A study was conducted on 310 undergraduate students from different universities in China, and the results showed that their average generalized self-efficacy was 31.03, that GSE was significantly positively correlated with emotional intelligence, and that GSE was significantly negatively correlated with academic burnout of nursing students [27]. Financial self-efficacy plays a partial mediating role in the relationship between financial literacy and risky credit behavior [28]. Academic self-efficacy plays a significant role in promoting academic achievement [29].

The research results on gender differences in general self-efficacy are controversial. Some studies have shown that general self-efficacy will increase with the increase of grade level [36], while some studies have shown that there is no significant difference in general self-efficacy between different grades [37], and other studies have shown that general self-efficacy will decline from freshman to junior [38]. This may be caused by the difference in the nature of different majors. If we want to find the law of self-efficacy changes with grades, it is more meaningful to separate professional seminars. Another way to explore this is to classify the basic self-efficacy of the freshman year and then track it.

The research results on gender differences in general self-efficacy of Chinese college students are consistent. Men's general self-efficacy is significantly higher than women's
This may be due to the influence of gender roles given by Chinese traditional culture, which makes men feel superior to women in society. Men, on the other hand, are physically taller, more powerful and have an advantage when it comes to problem solving. Studies have shown that men's general self-efficacy comes more from external motivation, while women's general self-efficacy has a higher average in internal motivation. External motivation depends on external environment, and external environment is unstable. When male college students receive external rewards in academic or other aspects, such as excellent grades, scholarships, etc., and the higher the external motivation, the higher the self-efficacy. Conversely, when they experience failure, this "punishment" reduces their sense of self-efficacy.

In addition, general self-efficacy may also be affected by parental education, family income, depression, social support and other factors.

### 3.2. General Self-efficacy Intervention Programs

It has been pointed out in the literature that cognitive education and cognitive strategy training can improve the academic self-efficacy of college students and comprehensively improve their mental health. In China, there are groups that specifically intervene in college students' general self-efficacy. This intervention was named "group psychological counseling for hope trait". Participants will undergo group counseling once a week for 2 hours per week for 4 weeks. This requires a counselor with more than 3 years of experience in group intervention and psychological counseling. The themes of intervention are goal, dynamic thinking and path thinking. The activities include warm-up games, self-exploration activities, group discussion, homework, etc. This intervention method has been verified many times, and it has been proved that it can effectively improve the general self-efficacy of college students.

Regular sports activities can improve college students' self-efficacy and emotional intelligence, and effectively promote students' physical and mental development, especially aerobic exercises such as swimming, jogging, yoga and so on.

### 4. Social Support

#### 4.1. Social Support for College Students

The study of social support originated in sociology. Some researchers have pointed out that the loss of social relationship is closely related to suicide. In the early 1970s, the concept of social support was introduced into the psychiatric literature, and numerous studies have been conducted on the relationship between social support and physical and mental health through quantitative evaluation in sociology and medicine. Sociologists, psychiatrists, epidemiologists, psychologists, and others have all explained the meaning of social support from their own theoretical perspectives. Until now, the definition of social support has been widely divided. Defining social support from different perspectives shows that social support is a concept with multiple structures, and it is difficult to fully encompass all the connotations of social support in a single definition.

Social support is thought to be a protective factor and especially a source of happiness. Especially in the study of adolescents, social support is seen as a manifestation of community social capital. Studies have shown that mental health outcomes associated with social support include traumatic stress, emotional distress, psychological distress, burnout, anxiety, and stress. Adequate management and supervisory support and support provided by colleagues, peers, friends and family are associated with reduced levels of traumatic stress and emotional distress. On the other hand, teenagers are more willing to talk about their problems with their peers than their parents. The link between teachers' support and students' mental health has been revealed, rather than the support of family and friends. The intervention of teacher-parent-peer support to students forms a complete system for maintaining students' mental health.

The results showed that people with large social networks received more types of social support. From the perspective of help objects, college students' social support resources are mainly concentrated in five categories: family, friends, relatives, teachers and classmates. Among them, the support of friends and family is particularly important for college students to maintain healthy psychology. Today's college students, the Internet can provide them with more social support than in reality.

The sources of support you need vary at different times in your life. Parental support is most important among children and adolescents, while adults and older adults rely more on spouses, followed by family, and then friends. Perceived social support is directly related to both anxiety and depression. The Open University study showed significant differences in objective social support between men and women. The score of objective support of men was significantly higher than that of women, and the level of subjective social support of women was higher. A survey on disabled college students in China's open education environment shows that subjective support, objective support and utilization are significantly correlated with a variety of health indicators. The study also found that married students scored higher in subjective support dimension and total score of social support than unmarried students. Middle-aged students' subjective dimension scores and total scores are higher than those of young students. Scores on the objective support dimension are lower than those on the subjective support dimension for the same population.

#### 4.2. Intervention Programs for Social Support

CBT is widely used to improve social support and has a significant therapeutic effect. To be specific, it can be carried out in three steps: 1. Identify cognitive risk factors, such as core negative beliefs. In individual counseling or group counseling, the respondents' negative perceptions were found. It is also possible to determine the negative ideas of the interviewees by doing no homework, keeping a diary, recording emotional tables, etc. 2. Focus on cognitive skills and cognitive restructuring. Challenge negative beliefs by asking questions such as "Does it have to happen what you think?" and "What else could it be?" Guide questions to help interviewees see the positive aspects of the situation and establish a positive concept. 3. Develop core problem solving skills. In consultation and training, respondents are trained to cope with and solve common problems. By assigning homework to enable respondents to apply what they have learned.
learned, difficulties are eliminated and reduced, and the likelihood of depression recurrence is reduced [60].

Group therapy can include group sports, discussions, and a variety of group activities. This can help students establish a fixed and open group and create opportunities for students to participate. In addition, students' social support can be improved through skill development, such as self-confidence training or communication skills training. Support groups can be built to bring students together to provide each other with support and understanding through seminars and discussions. Finally, students can organize volunteer services so that they can make new friends and give back to the society.

5. Conclusion

From the results summarized in the paper, we can see that the depression level of medical students is higher than that of ordinary college students. The higher the level of self-efficacy and social support, the lower the level of depression. The higher the self-efficacy, the higher the level of social support. Population characteristics that affect depression, self-efficacy and social support may include gender, major, grade, family income and parental education.

In order to keep medical college students mentally healthy, it is necessary to conduct further investigations on their depression, general self-efficacy and social support levels, and explore whether there is a mediating relationship between them. Interventions to address vulnerability factors in college students may include CBT, IPT, group therapy, individual counseling, and physical exercise.

References


[45] Li S. The relationships among self-efficacy, social support, and self-care behavior in the elderly patients with chronic pain (a STROBE-compliant article)[J]. Medicine, 2021, 100(9).


