The Synergetic Effect of College Students' Ideological and Political Education and Mental Health Education

GE HONGBING*, WANG BAOZHI
Hunan Judicial Police Vocational College, Changsha 410131, Hunan, China

ABSTRACT: College and universities have a high degree of concern about the growth environment of students. In order to promote the growth of the effectiveness of college students' political thought and mental health, colleges and universities need to solve a large number of difficult problems. In this study, with the theory of synergy, college students' ideological and political education and mental health problems were studied; with the research methods of survey and analysis, the ideological and political quality of college students and their mental health were investigated and analyzed from several angles; the associative cognition and attitude of college students' ideological and political education and psychological form were discussed. The results show that the current political and mental health education in colleges and universities is not strong, and the growth environment of college students needs to be optimized. Therefore, the complementary education concept of ideological and psychological education was put forward, and an idea that the cooperative education and learning should be strengthened to give full play to the advantages of two parties to achieve the effect of collaborative education was proposed.

INTRODUCTION

The unitary education method is unable to meet the current situation of the development of higher education now, and the collaborative education methods and ideas will become the main themes of the future development of education [1]. This theory was first proposed by physicist Harmann.Hak-en, and it mainly includes physical principles such as the synergy. During the course of the study, experts discovered the basic physical phenomena of ordered and disordered lasers, and summarized the characteristics of the synergetic structure. The scientific concept of synergy can provide a different perspective for the world outlook and outlook on life, so the scope of the study of the theory will be broader. Synergy theory has been developed to other areas of natural science and technology, but there are still some rooms for collaborative science to development [2]. In the early 1980s, Professor Harmann. Hak-en stressed two standards of the synergetic theory: the first standard is the system of uninterrupted cooperation, and the second standard is the cooperation and competition between the different disciplines.

According to the evaluation of different value evaluation systems, the dual connotation of ideological and political education and mental health education in colleges and universities can be divided into different disciplines. However, from the point of view of the object of education, the coordination of the object is more uniform. In this case, the combination of ideological and political education and psychological education will become more reasonable, and the development of collaborative education will become more scientific [3].

The development of society can't be separated from the progress and innovation of science and technology. The cultivation of talents depends on the cultivation of good education in colleges and universities. Therefore, the development of colleges and universities is likely to push science and technology to a higher level. Therefore, in order to solve the common problems, people always need to constantly explore and break through the technical level. In the aspect of solving problems in the field of science, the research methods are the same [4]. In the past 30 years after the reform and opening up, China has entered the downstream stage of economic development, bringing a variety of social problems. At present, there have been the partial dislocation of outlook on life and values of college students' learning and life on campus, the lower quality of the local phenomenon, and even local extreme events,
causing extremely severe social influences [5]. These problems have brought strongly negative impacts on the normal operation and management of colleges and universities, and they will harm the normal and healthy development of college students. In recent years, some intentional wounding incidents in colleges and universities have prompted us to look at the issue of education. Under such circumstances, people have to pay attention to the ideological and political education of college students and the physical and mental health of college students.

2. A summary of the synergy of ideological and political education and mental health education in colleges and universities

2.1 The connotation of ideological and political education and mental health education in colleges and universities

Ideological and political education is a reasonable tool for our party to rule the country. The working stages of each class are guided and directed by political thought. There are some differences in the ideological and political education in different organs and enterprises [6]. Ideological and political education is a planned and organized set of collective idea and concept of social groups, and it can make practical activities in the ideological and political education get the correct and reasonable extension. After the implementation of ideological and political education in the college students' education level, the education in colleges and universities is the main body. At the same time, it also needs the coordination of society and family. Compared with the targeted education system, it can improve the political, ideological and moral education of college students. Therefore, standardized ideological and political concepts and moral qualities can be realized [7]. The main body of education in colleges and universities is a group of students, so all the development and the ultimate goal of education should be finished for college students, which is the main idea of development of any college and university. For the ideological and political education, the ideological and political situation with the change of the environment has also been showing the characteristics of diversity, so the traditional education of college theoretical course is not complete to do the ideological and political education well [8]. The auxiliary groups of ideological and political education are teachers of the specialized course and instructors of the university and some political work cadres. The student's life can't be separated from society and family, so these big environments are also educational resources that can't be ignored, as shown in figure 1. Human growth and development can't be separated from health, because that health is the driving force of human development. Health includes physical health and mental health. However, with the development of society and times, college students are under great pressure both physically and mentally, and the environment is becoming more and more diversified, so the psychological health education in universities is becoming more and more important [9]. According to the psychological characteristics of college students at a certain period and technology related education and psychology, the psychological education in colleges and universities can carry out the university curriculum of mental health education, and guide and optimize the education activities or mental health. In the process of growing up, the inevitable psychological problems should be solved, and the comprehensive and healthy development of the college students' psychological quality should be promoted. Psychological health education in colleges and universities generally uses the theory and knowledge of related disciplines to guide the psychological problems of college students in colleges and universities [10]. Therefore, for college students at different grades, the same educational guidance should not be taken to carry out psychological education and dredging. According to the experience of students and different stages of growth, education methods of the specific analysis for specific issues should be adopted. In general, the health education in colleges and universities can divided into several aspects: the adaptability of the environment, the exchange of pressure in the process of interpersonal communication, as well as the appropriate situation of emotional training, and so on. According to the general situation of students' psychological problems, the systematic psychological teaching of classroom education should be launched firstly, followed by the psychological flexible education [11].

**Fig. 1** Ideological and political education in colleges and universities
The Synergetic Effect of College Students' Ideological and Political Education and Mental Health Education

The theoretical connotation of collaboration has a wide range of applications, and its application has developed into the field of education in recent years. Generally speaking, most of the synergy in education is represented by the coordinated development of schools, families and the society. There are few theoretical researches on collaborative education among some disciplines [12]. Synergy is the core of synergetics. The coordinated development of ideological and political education and psychological health education in colleges and universities requires the integration of them. Therefore, in the educational system of colleges and universities, the influence factors between curriculum and teachers and students should give full play to the coordination role between them. The role of ideological and political education and mental health education in colleges and universities requires an open environment, such as the connection within the school system, or the interaction between schools, families, and the society [13]. The coordinated development of ideological and political education and psychological health education in colleges and universities is a relatively antagonistic process. After absorbing the advantages of the development of college Students' health education, the independent system between them can make up for their own shortcomings, so as to give better play to the synergy between them, and promote the healthy growth of college students. In addition, the synergy between ideological and political education and mental health in universities is not the process of mechanical summation between them. Synergy among various influencing factors should be achieved through the close collaboration and organic integration [14]. Promoting the healthy growth of students in all aspects is the aim of higher education. College students not only need to master the basic business skills, but also need to improve the physical and psychological physique, so as to contribute to the great rejuvenation of the Chinese nation [15].

Universities in our country have obtained considerable achievements in the theoretical education aspect of science and technology, but there are some problems in the ideological and political education and mental health education in colleges and universities, so the coordinated development of them needs to be enhanced urgently [16]. Our party attaches great importance to the ideological and political education. During the war years, the construction of the party and the application of the thought played an important role. But at present, the ideological and political education in colleges and universities is not targeted. During the period of the initial stage of reform and opening up, China's market was not perfect. However, with the popularization of information and internet technology, as well as the increase of college students' information, there are some negative influences and inappropriate comments in the information ocean. These remarks and ideas sometimes have a negative impact on college students and they can limit the formalization of education. In terms of the psychological education, our education started relatively late, and the main reason was the irrational mental health situation, as well as the weak teaching power of professional teachers [17]. Because of their own educational systems, some students have suffered a lot from their mental health. The timeliness of related education should be promoted by customer service to promote the synergy between them. Ideological and health education in colleges and universities should adopt relevant theories and techniques, as shown in figure 2. Human thinking and mental state are different aspects of research, but they always appear together. The psychological basis of psychology is the guide to psychological problems [18]. At the same time, ideological and political education and psychology will distribute a reasonable educational environment in the system, so teachers and educational platforms can be integrated. There are many teachers engaged in ideological and political education in colleges and universities, and there are many forms of teaching. Psychology education is closer to life, so it can arouse students' interests. In particular, in psychological counseling, the reference point of the combination of ideological and political education should be found out to promote the synergy between them.

3. Research methods of synergetic effect of ideological and political education and mental health education of college students

3.1 Theoretical methods of synergy

Similarity based collaborative computing is a method of computing and expressing the neighborhood of two different kinds of items. The
similarity between items was obtained through collaborative computation of adjacent projects. By modifying the correlation coefficient of cosine similarity, the similarity was calculated. The calculation expression formula is [19]:

$$\text{sim}(i, j) = \cos(i, j) = \frac{\mathbf{u}_i \cdot \mathbf{v}_j}{\|\mathbf{u}_i\| \|\mathbf{v}_j\|}$$  \hspace{1cm} (1)

For the calculation of coordination degree of the calculation project, the calculation expression formula is:

$$\text{sim}(u, v) = \cos(u, v) = \frac{\mathbf{u} \cdot \mathbf{v}}{\|\mathbf{u}\| \|\mathbf{v}\|}$$  \hspace{1cm} (2)

For the similarity of the two items, the scoring set of the two items was calculated within the range allowed by the data. There were some deviations between the result of the project and the average result, but it will not affect the calculation after the amendment. The calculation expression formula is [20]:

$$\text{sim}(i, j) = \frac{\sum_{u \in U_i} (r_{ui} - \bar{r})(r_{uj} - \bar{r})}{\sqrt{\sum_{u \in U_i} (r_{ui} - \bar{r})^2} \sqrt{\sum_{u \in U_j} (r_{uj} - \bar{r})^2}}$$  \hspace{1cm} (3)

In the process, the implicit feedback information for prediction was analyzed, and the Jaccard coefficient can measure the synergy of the project for the calculation matrix between the items. The formula for calculating the degree of synergy is:

$$\text{sim}(i, j) = \frac{\mathbf{U}_i \cap \mathbf{U}_j}{\mathbf{U}_i \cup \mathbf{U}_j}$$  \hspace{1cm} (4)

There is a strong correlation between the two items required for coordination, such as the influence factors of ideological and political education and psychological education, the classroom, or environmental factors. At this time, the calculation formula of the proportion and synergy of measurement items is:

$$\text{sim}(u, v) = \frac{I_u \cap I_v}{I_u \cup I_v}$$  \hspace{1cm} (5)

Based on the results of project synergy, synergy results were evaluated within collaborative filtering algorithms. The calculation expression formula of estimate is:

$$r_{uv} = \frac{\sum_{i \in S} \text{sim}(i, j) r_{ui} r_{vj}}{\sum_{i \in S} \text{sim}(i, j)}$$  \hspace{1cm} (6)

According to the correlation degree of collaborative projects, the similarity was compared. The expression formula of prediction synergy based on SVD model is:

$$r_{uv} = q^T_i p_u = \sum_{i \in S} q_i p_{u,s}$$  \hspace{1cm} (7)

### 3.2 Investigation and research methods

In order to meet the requirements of the study, the research work of questionnaire analysis was carried out in this paper. The detailed information was investigated, analyzed and verified with an aim to grasp the ideological and political quality and mental health status of college students. Through synergy theory, factors that influence healthy growth were analyzed and studied. College students of different specialties (mechanical colleges, humanities colleges, science colleges, etc.) in a university were chosen as the objects of this study. Among students of different majors, freshmen and senior students, as well as graduate students were selected for the classified investigation and analysis.

The basic information of the subjects is shown in table 1.

<table>
<thead>
<tr>
<th>Category</th>
<th>Gender</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Number</td>
<td>32</td>
<td>54</td>
</tr>
<tr>
<td>Percentage</td>
<td>37%</td>
<td>64%</td>
</tr>
</tbody>
</table>

The questionnaire included topics and contents, and the time was from 2017 March to 2017 April. Survey questions were all objective questions, and the contents of the survey were mainly about college students’ basic recognition of the political form, the basic life beliefs of college students, the basic ideology of college students, the social responsibility of college students, and the students’ consciousness of behavior. In order to gain a better understanding of the subjects, the political aspects and professional information of the subjects were investigated, as shown in table 2.

<table>
<thead>
<tr>
<th>Political outlook</th>
<th>Post</th>
<th>Major</th>
</tr>
</thead>
<tbody>
<tr>
<td>Party members</td>
<td>33</td>
<td>51</td>
</tr>
<tr>
<td>Mass cadres</td>
<td>39%</td>
<td>59%</td>
</tr>
</tbody>
</table>

The design method of questionnaire used in the investigation and analysis was drawn from the psychological self-assessment scale. Combined with
the influencing factors, the political and ideological quality of college students and the attitude of college students to the synergetic effect of mental health education were analyzed. After being revised, the questionnaires were issued layer by layer, and were recycled after test. In the study, 120 questionnaires were randomly distributed; 100 questionnaires were recovered; the effective questionnaire accounted for 86%, as table 3.

<table>
<thead>
<tr>
<th>Project</th>
<th>Release quantity</th>
<th>Recovery quantity</th>
<th>Effective quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>120</td>
<td>100</td>
<td>86</td>
</tr>
<tr>
<td>Percentage</td>
<td>100%</td>
<td>83%</td>
<td>86%</td>
</tr>
</tbody>
</table>

After obtaining the survey data, with the mathematical statistics method, combined with the data processing of Excel tables and Matlab software, research results of synergetic effects of ideological and political education and mental health education of college students were obtained.

4. Analysis results and discussion of the synergetic effects of ideological and political education and mental health education of college students

4.1 Results of investigation and analysis

In the investigation and analysis of the current political form and identity of our country, a number of investigation and analysis problems were put forward for the guidance of politics in the complicated environment. 30% of the students expressed great support for adhering to the existing socialist ideology in China and ensuring the core position of Marx's guiding ideology. More than 50% of the students agreed with this view. In terms of the principle of adhering to the principle of reform and opening up, almost everyone agrees. According to the survey, more than 50% of the students were very confident to the ruling of leading collective headed by general secretary Xi Jinping, as shown in figure 3.

![Fig.3 The results of investigation and analysis of political form and identity](image1)

In the investigation and study on college students' emotional psychological leading, 17% of the students thought that they are often in a state of excitement; 82% of the students thought that they are often in a state of calm; there were 64% of the students feel very happy; there were 10% of the students sometimes feel anxious. Survey data show that, at present, under the condition of great academic pressures, the dominant mood of college students is basically reasonable, as shown in figure 4.

![Fig.4 The investigation results of College Students' psychological dominant emotion](image2)

College students have different understandings of the purpose of ideological and political education, so students' understandings and attitudes towards ideological and political education will change accordingly. In the survey, 6% of the students knew very well the whole system of ideological and political education, and 9% of the students completely did not understand the system of ideological and political education. Therefore, the university students are not yet fully aware of the party's policy line, as shown in figure 5.
18% of the students thought that courses the ideological and political courses are relatively rich; 58% of the students thought that the contents of the course should be more attractive; 10% of the students thought that the contents of ideological and political education are inconsistent with the actual life, as shown in figure 6.

Students are exposed to more life stresses and study pressures. In the survey, 35% of the students thought that the school's psychological education courses are extremely necessary; 8% of the students thought that the school's psychological education courses are completely not necessary, as shown in figure 7.

4.2 Discussion

The purpose of education is the healthy growth of students, general secretary Xi Jinping proposed that people's freedom, equality and all-round development are the core purposes of ideological and political education and mental health education in colleges and universities. In order to comprehensively develop the ideological, political and mental health of college students, educators should adhere to the educational concept of "people first". The cooperative education of political and ideological education and psychological health needs the practice basis. The guiding ideology of Marx tells us that practice is the sole criterion for testing truth. Therefore, from the point of view of synergy, we should respect the materialism of Marx thought and adhere to the practical characteristics of ideological and political education and psychological education. The ideological and political education course and the psychological health education should promote the good psychological development and the correct ideological and political guidance synergy. College students are under great pressures of study, work, interpersonal relationship and employment. Therefore, through the guidance of political thought in the process of psychological education, mental health education can guide the students' mental health, so as to promote the application of ideological and political theory in students' mental health education and to achieve the synergy.

5. Conclusions

Reform and development have promoted the rapid development of economy, and the change of environment is affecting the thinking and psychology of contemporary college students. Many college students now pay more attention to the development of new things around them. Therefore, faced with all sorts of strange things in the society,
many students are suffering from the psychological confusion and immaturity of political thoughts. In view of the above problem, from March 2017 to April 2017, the investigation of the synergy between the ideological and political education and the psychological health education was carried out. The survey data were mainly based on students' understandings and attitudes, and they were analyzed by the mathematical statistics. The results show that most students agree with the synergetic effect of ideological and political education and mental health education. Combined with the data results, the path of synergy between political, ideological and psychological education was obtained. These measures can set up an open environment for the synergy between ideological and political education and mental health education of college students, and lay a solid foundation for the all-round development of college students' physical and mental health. There are few collaborative theories in humanities and social science research areas, leading to the lack of comparative analysis of survey and analysis. Therefore, this aspect needs to be improved in the future research process.

6. ACKNOWLEDGMENT

The work presented in this paper is supported by Hunan Province Education Science "13th Five-Year" program: Study on the nourishment of socialist core values at the national level from the perspective of traditional culture

7. REFERENCES