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Article

Problems and Countermeasures of Mental Health Education of College Students under the Background of Big Data

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Abstract

Along with the unceasing improvement of the social information level, the big data idea and the technology change people's thinking cognition and the work habit, and also have become the important topics for studying the mental health education of college students. Based on the opportunities and challenges resulting from big data in mental health education of college students, this paper analyzes and explains such issues as the complicated educational management system, insufficient integration of discipline construction, the lack of standardization of teaching arrangements and the low level of "three-oriented" faculty in mental health education of college students. In order to strengthen the consciousness of data analysis and the concept of information education, the paper puts forward such scientific countermeasures as building big data platforms, health service institutions and educational teaching models, improving mental health education activities and building sound security mechanisms for mental health education in colleges and universities, so as to realize the organic integration of big data and college students' mental health education, and lay a solid foundation for the future of college mental health education.

Keywords

Big Data • Opportunities and Challenges • Mental Health Education • Informatization • Problems and Countermeasures

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In recent years, with the continuous enhancement of the national scientific and technological level, the big data technology and ideas have infiltrated into the work and life rapidly, which has brought profound influence on people's thinking, cognition and behaviour habits. It can be said that we have quietly entered the era of big data, all the materials created in the society can be stored and mined through data and information, and then applied after statistics in solving practical problems, completing the transformation from data to knowledge. As long as you can extract the data information from the concrete questions and complete the scientific analysis of the data, you can obtain the deeper connotation from the data, and thus stand out in the fierce competition (Baggio *et al.*, 2015).

The mental health education of college students is still an important subject for research in the age of big data. The traditional research forms of mental health education in colleges and universities are stratified sampling and systematic sampling, and the data and results of investigation are not scientific. With the increasing maturity of big data technology, we can extract a lot of valuable information from the mass data generated from WeChat, Weibo, QQ and others, and investigate the students' psychological state, emotional change and employment intention, explore the psychological law of students, and scientifically predict and treat students with psychological risk behavior. Therefore, it is necessary to study the mental health problems of college students in the context of big data (Bahrami, Mazaheri & Hasanzadeh, 2016; Benkaddour & Bounoua, 2017).

From the perspective of big data technology and college students' mental health education, this paper analyzes the challenges and opportunities in college students' mental health education, and explains such issues as the complicated educational management system, insufficient integration of discipline construction, the lack of standardization of teaching arrangements and the low level of "three-oriented" faculty in mental health education of college students. With the technology of data analysis and information processing, according to the needs of the times, the paper puts forward such scientific countermeasures as building big data platforms, health service institutions and educational teaching models, improving mental health education activities and building sound security mechanisms for mental health education in colleges and universities, which reflects the advantages of the big data platform in the mental health of college students, and makes a solid foundation for the new high-tech mental health education in the new era.

Opportunities and Challenges of College Students' Mental Health Education under the Background of Big Data

Opportunities

The traditional practice activities of college students' mental health education are usually carried out under the condition that the practice objects are informed in advance, and the practice objects inevitably join the subjective judgment and complete the practice investigation activities without objectivity. The investigation activities are also subject to time and place restrictions, and so test results are not targeted. In order to solve the

problem of poor sample representativeness of traditional research methods, big data technology can be used to make horizontal comparison and vertical processing analysis of all data of the investigated objects. In addition, the practice objects are tested under the unconscious condition, which can more objectively reflect the real psychological idea of the students, greatly promotes the formation of the teaching mode of "teaching according to the students' aptitude" and the big data platform can update the data information in a timely manner, saving research costs and improving research efficiency (Conley, Shapiro, Kirsch & Durlak, 2017; Reddy, Rao, & Govardhan, 2017).

Challenges

At present, with the efficient development of information technology, students can learn the knowledge of big data independently according to the need, and master the most advanced data processing technology and algorithm design. The speed and quality of the learned knowledge are likely to surpass the teachers in colleges and universities. This phenomenon will make the authority of mental health educators be severely challenged. Such challenge is cruel but positive. Both the educators and the students should face up to this challenge and set up the educational concept of learning from each other and teaching each other, creating a harmonious and win-win teaching atmosphere (Henderson, Hawke & Chaim, 2017).

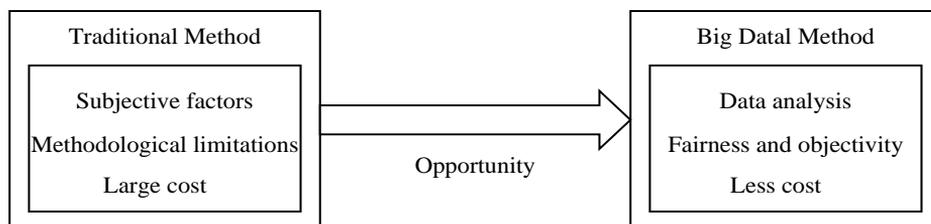


Figure 1. Opportunities for psychological health education of college students.

Problems in Mental Health Education of College Students

Using the method of historical analysis and practical investigation, this paper makes a questionnaire survey of 1,390 students, counsellors and psychological teachers who are engaged in mental health education in 38 colleges and universities in China. At the same time, we conduct communication records with 88 students in the interview room, and summarize and analyze the problems in mental health education of college students.

Complicated management system of education work

At present, there are three main management systems of mental health education in colleges and universities: inclusive, parallel and independent. The inclusive organizational structure combines the mental health education center and the ideological and political education, and has a good overall coordinating effect. Most colleges and universities adopt this management system as shown in Figure 2.

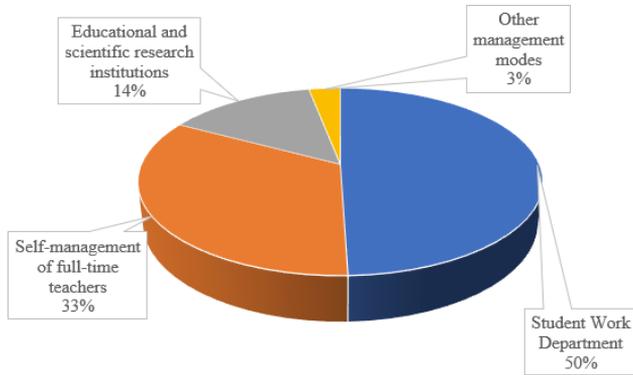


Figure 2. The design procedure of the questionnaire.

As can be seen from Figure 2, the proportion of parallel and independent management systems is 14% and 33%, respectively. There are some problems in the parallel management system that weaken the important function of ideological and political education and fail the implementation of the mental health education for college students in an all-round way. Party committee, hospital and other departments of colleges and universities are unable to play their full-time administrative characteristics. The independent management system lacks the regulation and control of the core leaders in colleges and universities, and the related professional courses, practical activities and resource allocation cannot get the most scientific and fair allocation, so the mental health education work is divided by the functions of various administrative parts as shown in Figure 3, and cannot form a joint force.

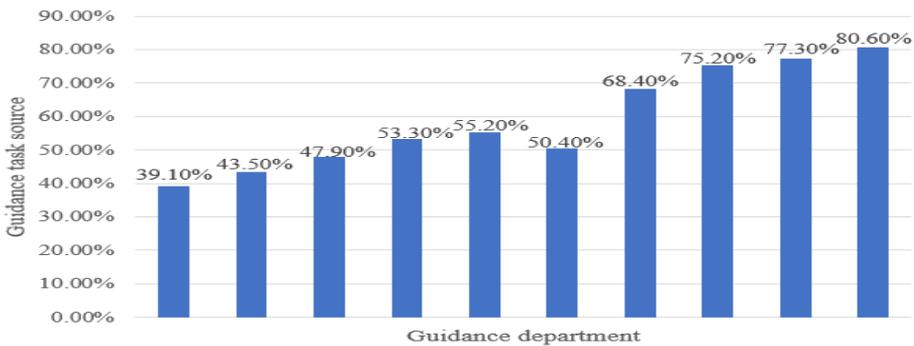


Figure 3. Functional Part of Mental Health Education.

Insufficient integration of discipline construction

There are some problems in the discipline construction of mental health education, such as insufficient integration of consultation and educational concepts, educational contents and educational methods, more specifically, in terms of integration of educational methods, concepts and contents. They pay too much attention to the development rules and demands of educational contents to college students, and neglect the requirements

of personal development and social morality, thus misleading students' feelings, career and other important choices, which lead to the psychological problems. The psychological counselling in the practice activities of mental health education is still the method of active intervention, value guidance, biofeedback, cognitive therapy, behavioral therapy and psychoanalytic methods (Allen, Cisneros & Tellez, 2015), which have different effects in students' psychotherapy. The specific experimental statistical results are shown in Figure 4.

Lack of standardization of teaching arrangements

The curriculum of college students' mental health education is mainly set according to the Basic Requirements for the Teaching of Mental Health Education for Students in Regular Colleges and Universities, but the curriculum cannot regulate the mental health education of college students during their whole college period, unlike the common basic courses such as English, advanced mathematics, ideological and moral cultivation in credits and class hours (Yael et al., 2014). The form and requirements of the curriculum cannot meet the teaching objectives. According to the survey results in Figure 3.4, only 10.7% of colleges and universities offer a mental health education course every two weeks, and 55.4% of colleges and universities offer mental health education once a week. In 33.9% of colleges and universities, there are no fixed requirements for class hours and can be replaced by related lectures and other courses. It is impossible to realize the standard arrangement and guidance of basic courses, which seriously affects the teaching quality.

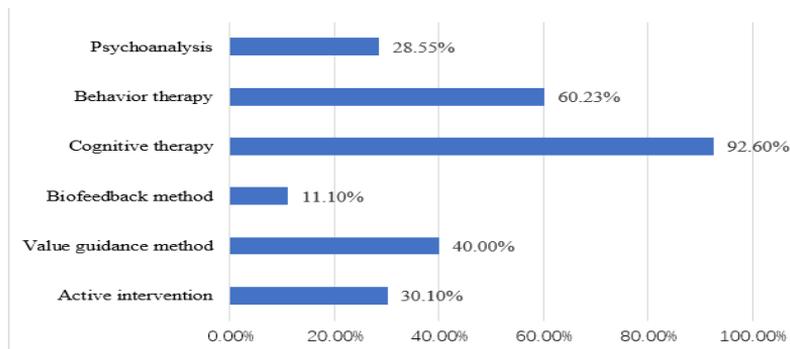


Figure 4. Common psychological counselling methods.

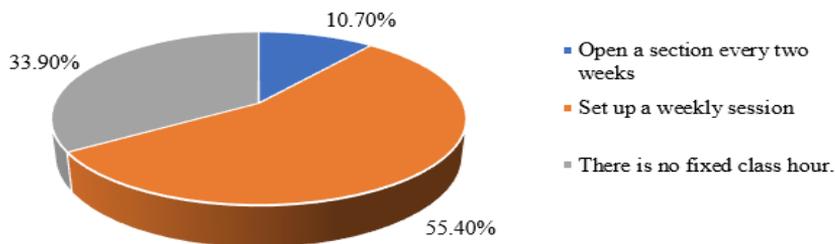


Figure 5. Current situation of class hours for mental health education.

In addition to the lack of standardization of curriculum as shown in Figure 5, the selection of teaching materials is also open to discussion. There are no uniform standards and norms in the selection of teaching materials. Different teachers will choose teaching materials of different levels and systems according to their own cognition. These teaching materials cannot achieve quality assurance in a detailed knowledge system, case materials and teaching results. The lack of scientific teaching material standards will lead to great differences in the contents and methods of teaching, which will lead to different directions with the deepening of psychological health teaching, and also makes the teaching methods and content of the course arbitrary and lack of normative constraints (Harris, 2014).

The low level of "three-oriented" faculty

At present, the teaching staff of mental health education of college students is less expert, specialized and professional. Most of the professionals with professional education background lack the professional qualities of higher teachers. On the other hand, the teachers with ideological and political education professional accomplishment have some deficiencies in the knowledge ability of mental health specialty, which makes the development of teachers meet the bottleneck, the mismatch of the team construction, specialty setting and academic education, the lack of professional knowledge and ability and others.

Mismatch of specialty setting with academic education According to the survey results of 38 colleges and universities, only half of the full-time teachers have received the psychology and Marxist theory study, and less than 3% of the teachers have received the mental health education, as shown in Figure 6.

Most of the psychology specialty in colleges and universities has a station for a master's degree, but there are few teachers and institutes with high-level academic education, and even fewer institutes can recruit doctorates every year, which has a direct impact on the match between academic education and specialty setting for teachers in colleges and universities (Riebschleger, Onaga, Tableman & Bybee, 2014).

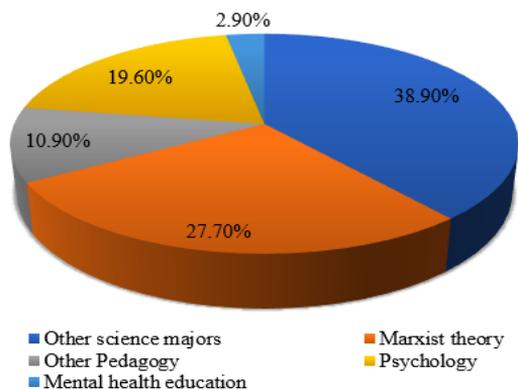


Figure 6. Educational background of teachers in mental health education.

Lack of professional knowledge and ability: The certification of professional technical ability of mental health teachers by the State mainly passes the certification of professional qualifications of teachers in mental health education. However, only 17.6% of the students in colleges and universities hold such certificates and engage in the mental health education. In colleges and universities, many of them who are engaged in psychological health teaching and auxiliary work hold the qualification certification of psychological teachers or the qualification certification of national or provincial psychological counsellors. These data (Figure 7) are sufficient to reflect a great gap in teachers with professional qualifications and techniques in institutions of higher learning, so that many people who are not professionally competent or who do not meet professional requirements are also engaged in mental health education, which has seriously affected the construction of teachers (Veldman, Bültmann & Reijneveld, 2015).

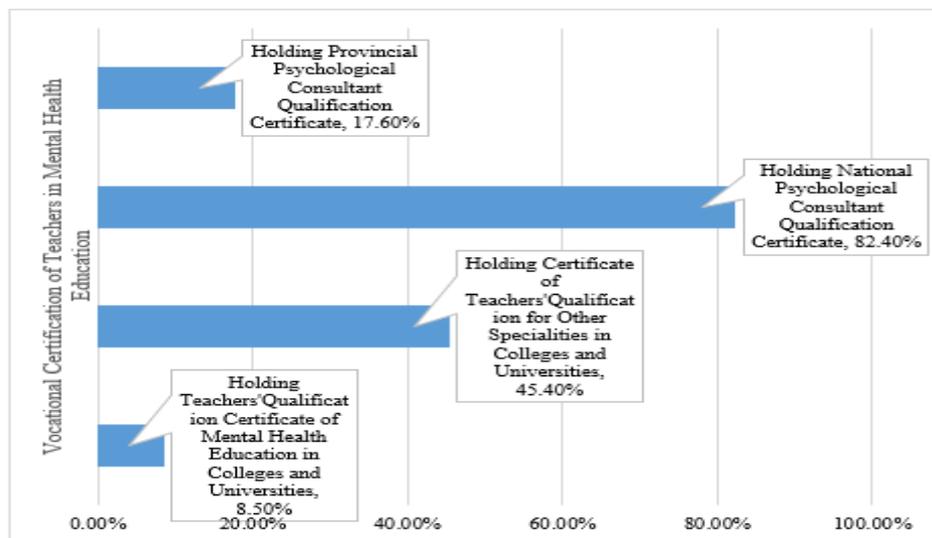


Figure 7. Professional certification of teachers in mental health education in colleges and universities.

Study on the Countermeasures of Strengthening Psychological Health Education in Colleges and Universities

Establishing a big data platform for mental health education in colleges and universities

First, a screening and analysis platform is established to analyze the psychological law and characteristics of college students through college students' mental health information database and archive database. In the process of data collection, keep students' personal privacy information confidential so as not to cause huge loss due to leakage of students' information; second, a psychological prediction system is established to analyze the information of the students in the database, make abnormal prediction according to the information of the students' psychological data, establish different levels of prediction according to different grades, and improve the management system of dynamic mental health education; third, an active implementation platform is established, according to students' psychological public issues from big data analysis, the promotion of mental

health knowledge should be carried out with lectures on popularization of science and publicity; for students with special psychological conditions, it is necessary to carry out psychological dredging and counselling pertinently and play a guiding role (Pereira, Wen, Miguel & Polanczyk, 2015).

Setting up a health service organization based on big data

Mental health service organizations in colleges and universities should include big data sharing platform teams, professional psychological teacher service teams, counsellors and class teachers, and mental health service organizations. These mental health service organizations play an important role in functions, business, promotion, guidance, etc., especially for students with psychological problems in colleges and universities, they can find appropriate ways to solve the problems when psychological diseases occur. In the shortest time, it's possible to produce the most effective effect on the problem, then these service organizations will achieve the original purpose (Ramsey, 2015).

Construction of education and teaching mode based on big data

In addition to the traditional feeding teaching method, we should also set up a big data platform for online education to create an environment in which mental health education and the Internet are integrated. The course contents and modes can be selected according to personalized recommendation and customization to achieve the most direct and effective communication between students and teachers. This education and teaching mode has completely broken the restrictions on time, place, content and mode in the traditional teaching mode, can also actively promote the role and position of teachers in teaching, realize the mutual communication between teachers and students in the virtual environment of the Internet, stimulate students' enthusiasm and desire for mental health education and thus achieve a win-win goal (Foreman & David, 2015).

Activities to improve mental health education

First, innovate the form of activities, making full use of the high enthusiasm of college students for the new internet media platform, young students can be encouraged to take an active part in the new activities, and fully adhere to the combination of online teaching and offline activities. There will be different tasks every day, week and month, the completion results of the task can be displayed on the network platform to form a good atmosphere of comparison and catch-up. Second, innovate carriers of activities, relying on such platforms as WeChat, QQ, Weibo, e-mail, and mental health education website to provide students with a personalized psychological consultation platform, and hold an activity month and week on University Students' Mental Health Day and World Health Day, and carry out colourful activities to attract more college students. Third, innovate contents of the activities, pushing the psychological knowledge that the students interested in in the database of the big data platform, fully and actively giving play to the needs of the students, carrying out novel activities such as psychological melodrama, quality development training, and group psychological activities, and enabling the students to grow up and make progress in the educational activities.

Improving the guarantee mechanism

Colleges and universities should set up a special leading group for mental health education under the background of big data, which should be responsible for overall planning and designation of developing big data mental health education in colleges and universities, actively building a backbone team of teachers with high-level professional quality, hiring high-level experts in mental health education regularly for the guidance on the construction of teachers, and arranging young teachers to study and receive training in enterprises, universities, institutes and other places, so as to achieve a good guarantee mechanism of "bringing in and going out."

Conclusions

Under the background of big data, college students' mental health is facing opportunities and challenges, and has gradually become one of the hot topics in social research. This paper makes a questionnaire survey of 1,390 students, counsellors and psychological teachers who are engaged in mental health education in 38 colleges and universities in China and analyzes and summarizes such issues as the complicated educational management system, insufficient integration of discipline construction, the lack of standardization of teaching arrangements and the low level of "three-oriented" faculty in mental health education of college students. Then, the paper puts forward such scientific countermeasures as building big data platforms, health service institutions and educational teaching models, improving mental health education activities and building sound security mechanisms for mental health education in colleges and universities, so as to realize the organic integration of big data and college students' mental health education. It is of great significance to improve the psychological health education of college students.

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