

# Construction of Action Model of Students' Mental Health Education System Based on Positive Psychology

Yao Shu-guang

**Abstract:** The investigation of students' mental health and personality characteristics provide a good awareness of the main problems in the mental health of student groups, to find effective intervention measures for the psychological counseling of students and promote the mental health of students. This study selected students as the research objects and conducted investigations on their psychological symptoms, subjective wellbeing, social support, and self-efficacy. A two-factor mobility model was constructed and tested for its various fitness indicators based on the collected data, verifying the mental health two-factor mobility model's applicability in student groups. Mental health problems mainly focus on five factors of obsessive-compulsive symptoms, emotional imbalance, learning pressure, maladjustment, and interpersonal tension and sensitivity. The detection rate of the student's mental health abnormality scale for the study object is very high, and the detection rate of the moderate and severe psychological problem scale is also very high, which requires more vigilance and attention. Emotional stability, school relationships, and school adaptation have a significant impact on students, and there is a close relationship between personal behavior and mental health. The overall incidence of students' bad behavior is relatively low, and the health hazard is relatively high. Gender, emotional stability, school conditions, and school intimacy have significant effects on it. It is recommended to carry out targeted mental health education and personal behavior intervention strategies based on students' characteristics.

**Keywords:** mental health two-factor action force model; personal behavior; personality characteristics; mental health education courses

## Introducción

Quality education requires a comprehensive development of students' moral, intellectual, physical and psychological aspects. The psychological aspect is particularly an essential part of it and has a tremendous effect on developing their other attributes (Happell, 2019; Baik, 2019; Maciejczak, 2018; Jovic, 2018). It is both the starting point and the endpoint of quality education. It often affects students' learning attitude and outlook about their future endeavors, irrespective whether their mental state is normal and healthy and whether the understanding and handling of school relationships, classmate relationships, and learning problems are correct or not (Duffy A, 2019; Altintas & Karaaslan, 2019). Therefore, mental health is a prerequisite and basis for the development of good psychological quality of students. Hence, a good psychological quality improves students' mental health as well (Proulx, 2019; Casas-Rosal et al., 2019; Bae & Han, 2019; Aras, 2019; Maluleke et al., 2019).

Research and development in the domain of mental health are closely related to the degree of economic growth (Barkham, 2019). Some developed countries studied mental health education relatively early (Oswalt, 2020). For instance, the Japanese education circle worked hard to carry out a series of research in line with the Japanese cultural background and college students' psychological and physical characteristics. The Japanese education system has several features that are seen in their activities (Hu K S, 2019; Erol & Velioglu, 2019; Garidzirai et al., 2019; Maluleke & Dlamini, 2019; Fuentes-Azpiroz et al., 2019). Mental health education has become an integral part of their school education, and

student staff plays a significant role in imparting it (Gulliver, 2019). Likewise, in France, psychological counseling has become a symbol of modern schools. The French Ministry of Education focuses on psychological practices on three aspects: orientation, prevention, and integration. In Germany, the types of school psychology services are more distinctive (Marcussen, 2019). Special attention is paid to students' career guidance and orientation work in addition to special education, behavior correction, and academic guidance. At the same time, German vocational education focuses on the spirit of self-reliance, self-confidence, and self-improvement, people's sense of cooperation and communication skills. It also enhances innovative thinking and growth desire as a high-level psychological demand, and cultivation of critical abilities in vocational education (Yamaguchi, 2020).

Pedagogically speaking, various schools' curricula are made compatible with the cognitive capacities of learners. The scope of the psychological services of a school is quite extensive throughout the world, but it encompasses career and academic guidance, personality, educational consultation, and education curriculum intervention (Kratt, 2019). These initiatives are seen as reform measures to improve mental health education practices and theoretical research in most developed countries in Europe, America, and Japan (Happell, 2019). As a result, people's psychological contradictions and conflicts are expressed in new content and forms. The content, scope, and form of such psychological services also vary significantly in each country due to factors such as the development basis of

psychology, school education system and scale of development, the number and quality of school psychologists, and the country's economic, cultural and historical traditions (Pascoe, 2020). Since any traditional "ideological work" model is challenging to achieve in reality, psychological counseling instead is much relied upon as a mode of "ideological work modernization."

However, the rise of positive psychology that has replaced the traditional mental health model employs psychopathological indicators as the only measure of mental health, although such measures are criticized by emerging scholars (Sandhu, 2019; Douglass, 2019). It is also stated that the absence of psychopathology cannot be regarded as a useful definition of an individual's mental health status (İnan, 2019). "Mental health is the absence of mental illness" does not hold any longer (Friedman, 2020). Psychopathy is only a necessity but not a sufficient standard for evaluating mental health. Researchers have further argued that health is a lack of mental illness and the degree of positive traits (Halladay, 2019) and thus requires adjustment of research methods with pathological psychology as the main content (McMorris C A, 2019). It has also been stated that even if an individual's mental illness symptoms were cured, it would be impossible to determine whether he had healthy psychology (Roche, 2019). Accordingly, in the mental health assessment system, positive indicators such as Subjective Well-Being (SWB) have been added to screen individuals or populations that are at high risk of mental health. In order to have a more comprehensive and rich understanding of human mental health in mental health assessment, it is suggested to integrate the unfavorable indicators of psychopathology and the positive indicators of subjective wellbeing. In this manner, a two-factor action force model of mental health will gradually be formed.

This paper studies the applicability of the dual-factor action force model of mental health in students and clarifies this model's applicability to students. The two-factor action force model of mental health has apparent advantages over the traditional psychopathological model, proving that it is suitable for student groups. This model can be used to explain and analyze the practical work of mental health education. If students' psychological problems cannot be relieved in time, it will seriously endanger students' physical and psychological health. This survey specifically studied the impact of different genders, parental education levels, and other school economics on students' mental health. Simultaneously, it also made relevant analysis in terms of personal behavior and analyzed the subjective and objective factors that affect students' mental health. The paper highlights a relatively accurate and comprehensive understanding of the basic conditions of students' mental health. It provides theoretical support for improving students' mental health, and proposes countermeasures to promote the development of regional students' mental health education.

The rest of this article is organized as follows. Section 2 discusses the qualitative and positioning of the school mental health education curriculum evaluation system from positive psychology point of view. Section 3 establishes and tests the two-factor action model of mental health. Section 4 presents the research results and analysis. Section 5 summarizes the full text.

## **Qualitative positioning of the evaluation system of school mental health education curriculum from the perspective of positive psychology**

### *Characteristics of the school mental health education curriculum*

The school mental health education curriculum is based on psychological factors determined by school students' grade, age, school, and other characteristics, with mental health knowledge as the content. The mental health education curriculum also has sections and modules related to traditional courses. These sections or modules refer to different aspects of mental health education that aim to improve the level of students' mental health and must be based only on students. The curriculum construction should not only be student-centered but the teaching process should also be student-led. It means that the curriculum should include sections like development of self-awareness, adaptation to the environment, control of negative emotions, career planning, and above all, resolution of learning puzzles such as solving love, friendship and interpersonal communication puzzles. To solve these puzzles, teachers can only help students develop the ability to solve these problems from a supporter's perspective. This fundamental feature determines that the core of the mental health education curriculum can only be the student. The schematic diagram (Figure 1) of the psychological education mechanism highlights this more effectively.

School mental health education courses should be based on experience. The students' judgment criterion for the knowledge of mental health should be truly mastered in such a manner that students are able to apply it to their daily lives in order to solve puzzles they encounter. This application is not just following the strict physical knowledge like knowledge of physics but it is due to the principle of causality. The decisive event will inevitably happen, and only when students reach a deep understanding of what they have learned in the classroom can they use it flexibly in life. For students to have an in-depth account of mental health knowledge, teachers' teaching methods are not as simple as those used in ordinary courses. Teachers need to use group counseling, game therapy, psychodrama, and other methods to allow students to participate and experience personally. These activities create situations to produce an understanding of nature of things, thereby allowing teachers to play a guiding role.

The teaching content of mental health education courses should be closely related to students' lives. The mental health knowledge taught in the classroom is a summary of the essential laws of life phenomena. This determines that the school and life are interdependent, and the curriculum's effect can be improved. This can result in the improvement of students' quality of life, which can also affect the effect of the classroom teaching. School mental health education courses therefore should include activities as primary

teaching method. This coincides with the principle of life as a continuous activity process. The mental health education course should therefore be more based on life's experience derived from activities as its source. Therefore, to make classroom teaching effective, the teacher ought to use activities that improve the mental health.

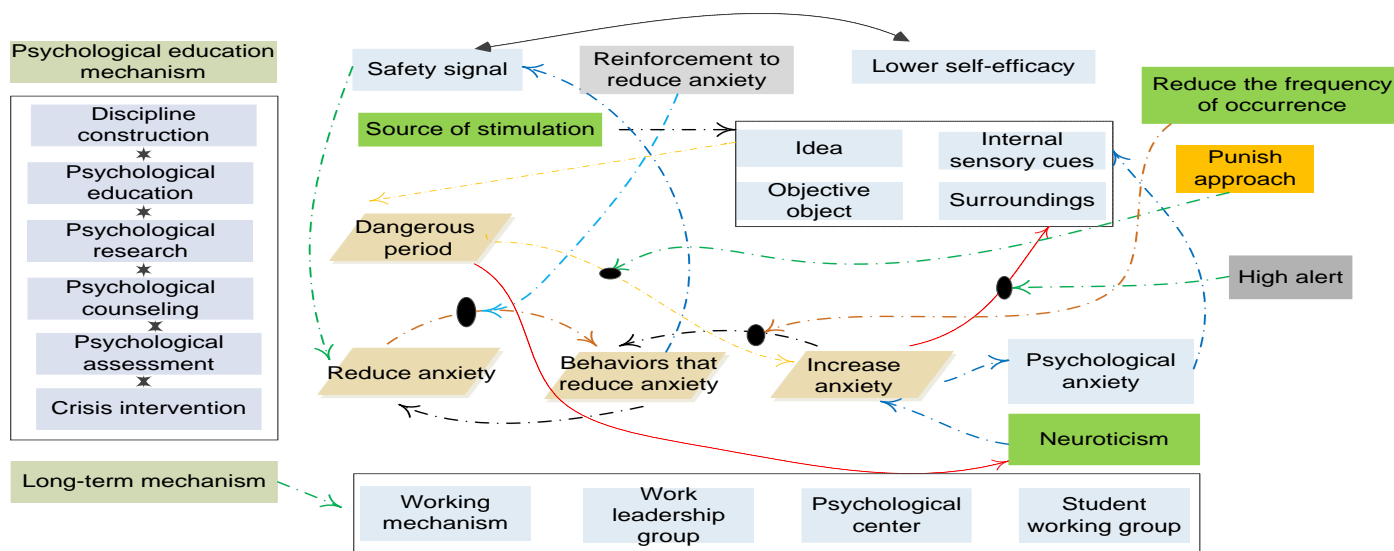


Figure 1. Schematic diagram of psychological education mechanism

**The impact of educational views and metaphors on the evaluation system**

The concept of education refers to people's understanding of educational elements such as educators, educational content, educational objects, methods, attributes and relationships. Metaphor is a kind of cognitive behavior, language behavior as well as cultural behavior, which expresses perception, experience, imagination, and understanding of one thing by making a comparison with another, highlighting the similarity in both things. A qualified education evaluation system must be based on in-depth knowledge and correct interpretation of the education concept and the metaphors it embodies. The analysis of metaphors embodied in the education concept helps in building a good school mental health education evaluation system.

The educational institution is viewed metaphorically as a factory where courses are tools, students are parts, teachers are workers, subject designs are product specifications and improvement of teaching methods are technology improvements, while future employers are consumers. The factory metaphor occupies an absolutely dominant position in most current universities, but it has been more complicated and better disguised. This metaphor means that the educator and the educated are in mutually independent positions. The educator can use specific technical means to produce, manufacture, and improve the product, that is, the educated graduate.

The concept of making use of the factory metaphor for an educational institution has produced considerable achievements in its initial development stages. In a factory, people who master specific skills are transferred to more suitable and relevant jobs. A similar model is pertinent for the progress of an educated society. Today, when society has made tremendous progress, its requirement for practitioners is continually increasing. This requirement is fulfilled only through a deeper understanding of education. On the contrary, the traditional education evaluation program only judged whether education achieved its teaching goals. This kind of approach for education was inappropriate. The education evaluation system should also adapt to society's trends and times. Regular and corresponding revisions should be made in the evaluation content and evaluation standards.

Another relatively new metaphor for education is the journey metaphor. The keynote of the journey metaphor is contrary to the quantitative and mechanistic evaluation approach, which emphasizes the use of paper-and-pencil tests to measure the operational definition of goals. It decomposes the plan into inputs, processes, and results. The metaphor runs like this: a course is the route of the student's travel and the teacher is an experienced guide who is aware of the travel route. Each student is affected differently due to personal preference, mind, interest, travel purpose, and journey design. The teacher's task is to design the route richer and more accurately to meet students' needs as much as possible. The journey metaphor is thus a view of

education that pays equal attention to process and result and believes that it produces the desired effect. Like in a journey, teachers and students negotiate the travel destination or the learning outcomes on an equal basis during the implementation of the program. It is continuously revised during the re-implementation process, thereby bringing the education process forward.

The student mental illness prevention system and information feedback are shown in Figure 2.

**Analysis of theoretical system indicators**

System indicators are standards set to achieve a particular purpose. A good set of standards can more effectively measure whether the overall objectives have been effectively achieved. In the evaluation system of mental health education courses, improving mental health education quality effectively is the overall goal. To accomplish this goal and to effectively carry out the evaluation process, it is

necessary to enhance students' course grades by refining corresponding indicators. This requires evaluation of appropriate inputs by setting of teaching objectives and meeting the requirements of students' growth. Apparently, teaching methods should also meet the evaluation requirements to ensure making the required impact of teaching and meeting the objectives of mental health education curriculum as well as physical and mental aspects of students. To ensure a high quality of teaching process, the school is also expected to provide necessary places, funds, software, and teaching hardware. There should be a corresponding retraining plan for the school's faculty and staff to ensure that the faculty and staff's professional standards meet the teaching requirements. To provide teachers' teaching enthusiasm, it is best to develop a teacher incentive mechanism too.

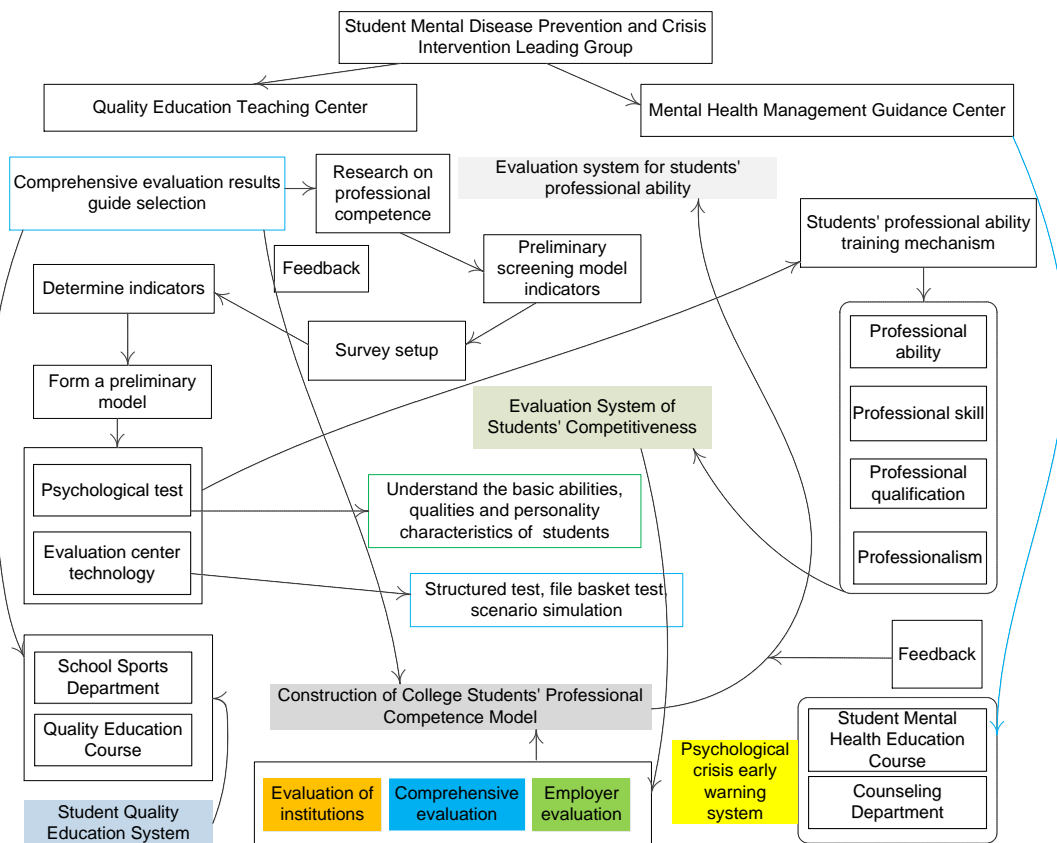


Figure 2. Student mental illness prevention system and information feedback

**Analysis of theoretical system indicators**

System indicators are standards set to achieve a particular purpose. A good set of standards can more effectively measure whether the overall objectives have been effectively achieved. In the evaluation system of mental health education courses, improving mental health education quality effectively is the overall goal. To accomplish this goal and to effectively carry out the evaluation process, it is necessary to enhance students' course grades by refining corresponding indicators. This requires evaluation of appropriate inputs by setting of teaching objectives and meeting the requirements of students' growth. Apparently,

teaching methods should also meet the evaluation requirements to ensure making the required impact of teaching and meeting the objectives of mental health education curriculum as well as physical and mental aspects of students. To ensure a high quality of teaching process, the school is also expected to provide necessary places, funds, software, and teaching hardware. There should be a corresponding retraining plan for the school's faculty and staff to ensure that the faculty and staff's professional standards meet the teaching requirements. To provide teachers' teaching enthusiasm, it is best to develop a teacher incentive mechanism too.

Process evaluation includes several prerequisites: first, whether the teaching materials are used reasonably and adequately; second, whether professional consulting institutions such as psychological consultation rooms are connected to the curriculum; third, whether there is a communication mechanism between the school and parents; fourth, whether the development of the curriculum can support the development of students' skills and interests; and finally, whether the classroom atmosphere meets the requirements of the teaching process. Achievement evaluation includes students' mastery of some basic psychological knowledge and changes in students' learning motivation. The most important thing is whether the students' mental health has been substantially improved. In the case of an excellent teaching level, it is also necessary to make requirements for the teaching effect's sustainability. The education system of a school is an integral part of the entire domestic education system.

## Establishment and test of a two-factor action capacity model for mental health

### Establishment and testing of the two-factor action force model

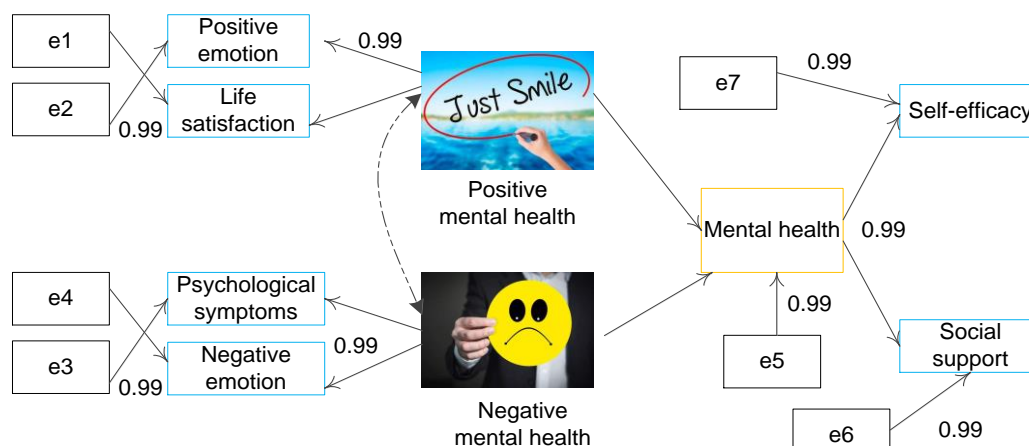


Figure 3. A two-factor action model of mental health

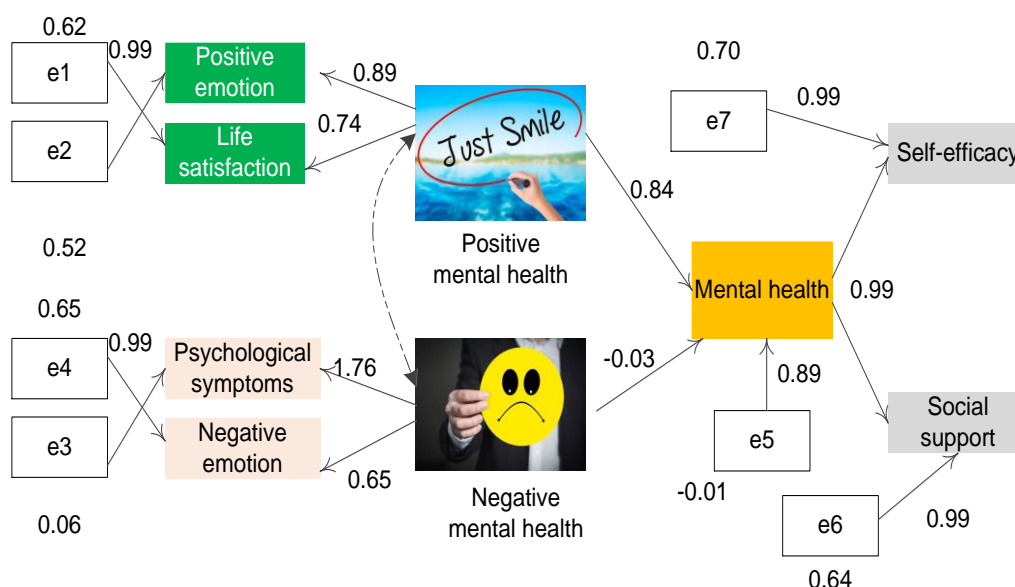
When verifying this model, the positive emotion of the observed variable of positive mental health in the model corresponds to the scores of the tested positive scale in the PANAS (Positive and Negative Affect Schedule) of students, and the other experimental variable, life satisfaction, corresponds to the measured object's scores. The experimental variable of negative mental health psychological symptoms corresponds to the test subject's GHQ-12 scale score. The other observation variable, negative emotion, corresponds to the score of the negative scale in the test subject PANAS. The observed variable of social support corresponds to the PSS (Perceived Stress Scale) score of the test subject. The other experimental variable of self-efficacy corresponds to the score of the test subject GSES (General Self-Efficacy- Schwarzer).

To find out the fit of the two-factor action ability model of mental health among students, we first establish a two-factor mental health test model. We construct a latent variable representing the overall mental health model. The corresponding measurement indicators of this model are social support and self-efficacy. We make two potential variables: positive mental health and negative mental health. Positive mental health corresponds to two measurement indicators: life satisfaction and positive emotion. Negative mental health corresponds to two measurement indicators: psychological symptoms and negative emotions. Among them, social support, self-efficacy, life satisfaction, positive feelings, psychological symptoms, and negative emotions are observation variables in the model. Positive mental health and negative mental health are external latent variables. Mental health is internal latent variable. In this model, since positive mental health and negative mental health affect mental health together, the two also affect each other. The collected data on various aspects of students' mental health is later substituted for testing. Through continuous model modification, the final structural equation model diagram is shown in Figure 3.

In Structural Equation Modeling (SEM) model verification, covariance is a fundamental concept. The covariance matrix is an essential data in the analysis of the SEM model. The theoretical model can be described and verified. SEM analysis is based on the agreement. The so-called covariance is the linear relationship between two variables. This study established a covariance matrix between variables based on the measured data. In this model, the covariance matrix between variables is shown in Table 1. Based on the establishment of the covariance matrix between variables, the measured data on the students' mental health are substituted into this model for calculation, and the resulting model path diagram is shown in Figure 4.

**Table 1.** Covariance matrix between variables

Variable	Psychological symptoms	Life satisfaction	Positive emotion	Negative emotion	Social support	Self-efficacy
Psychological symptoms	1	-0.26	-0.31	0.44	-0.36	-0.27
Life satisfaction	-0.27	1	0.31	-0.13	0.32	0.26
Positive emotion	-0.3	0.31	1	-0.07	0.34	0.35
Negative emotion	0.4	-0.13	-0.06	1	-0.28	-0.11
Social support	-0.36	0.32	0.34	-0.28	1	0.22
Self-efficacy	-0.27	0.27	0.35	-0.11	0.22	1



**Figure 4.** Path diagram of the two-factor action model of mental health

In this study, AMOS7.0 was used to test the fit of the model. When the AMOS7.0 software outputs the model fitness summary table, it presents the fitness statistics of three different models: the present model, the saturated model, and the independent model. Since adaptation statistics are more significant in the judgment of the model fitness statistics, only the present model's adaptation statistics are presented here.

$\chi^2$  is the chi-square value of the model, and the cost is the minimum sample difference function value, which is 16.100 here, and the degree of freedom is 6. The significance probability value of the chi-square value test is  $0.013 < 0.05$ , indicating that the causal path diagram model of this model is more likely to be consistent with the actual data;  $\chi^2/df$  is the ratio of chi-square to degrees of freedom, and the rate of the two can be an indicator of the fit of the model. This value is less than 1 which indicates that the model is over-fit, if it is greater than 3 (the loser is 5), it suggests that the model is not well fit. A value between 1 and 3 indicates that

the model is fit. If the model value is 2.683, it means that the fit between the hypothetical model and the sample data is acceptable.

RMR is the mean square and square root of the residual, equal to the square root of the average of the variance and covariance of the adaptation residual. The smaller the value, the better is the transformation of the model. Generally, its value below 0.05 is an acceptable adaptation model. The model value of 0.034 indicates that the model fit is proper. While GFI is the fit index, and the larger its value, the greater is the variance of the observation matrix. This explains the sample data in the theoretical construction of the replication matrix, which presents a greater fit between the two high values. If the value is between 0 and 1, and closer to 1, it proves a better model fit. The general criterion is that the GFI value is more significant if it is more than 0.90. This model's value is 0.986, indicating that the model path diagram has a good fit with the actual data. The AGFI is the adjusted fit index, and its value is also between 0 and 1.

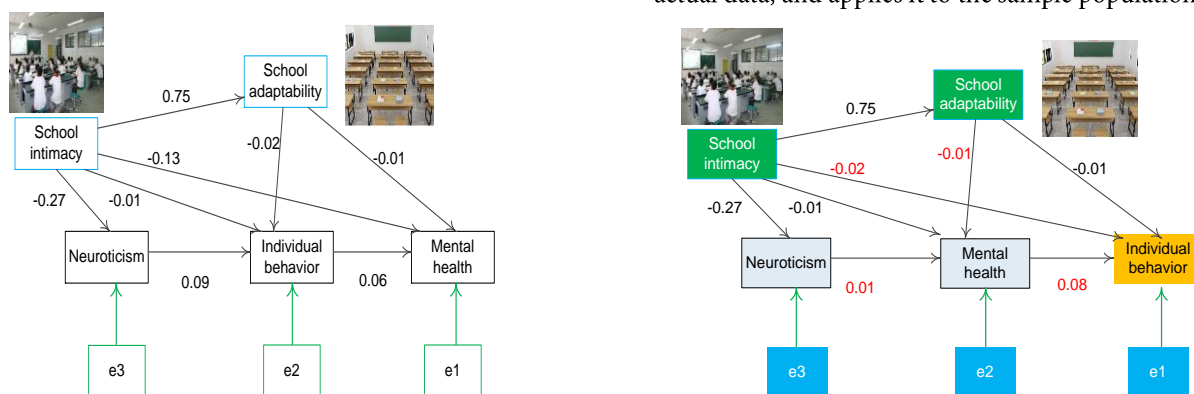
The closer to 1, the better is its degree. This model is 0.951, which means that the model fits well.

NFI is the standard adaptation index while RFI is the relative adaptation index, IFI is the value-added adaptation index, and TLI is the non-standard adaptation index. The CFI is the comparative adaptation index. Most of these values are between 0 and 1. The closer to 1, the better is the model fit; the smaller, the worse is the model fit. The TLI, CFI, and IFI values may be greater than 1. Generally speaking, the above five indicators' standards to determine whether the model path diagram fits the actual data are all above 0.90. This model's four hands are far greater than 0.90, and the RFI value is also close to 0.90, indicating that the model fit is acceptable.

RMSEA is the mean square and square root of asymptotic residual, which is usually regarded as essential adaptation index information—the smaller the value, the better is the model's adaptation. Generally speaking, when its value is higher than 0.10, the model is not well adapted. If the value is between 0.08 and 0.10, the model is acceptable and has normal adaptation. If it is between 0.05 and 0.08, it means the model is good and a proper fit. If its value is less than 0.05, the model fit is perfect. This model's RMSEA value is 0.066, indicating that the model is good and has a good fit.

The CN value is the critical sample number. Its meaning refers to the minimum sample size value needed to obtain the degree of adaptation of a theoretical model based on statistical testing. The general criterion or recommended amount is greater than or equal to 200. When the CN index value is more significant than 200, the theoretical model can properly reflect the actual sample's nature. The data in the CN column in the table above includes the values when the significance level is  $\alpha=0.05$ , and the significance level is  $\alpha=0.01$ , which respectively represents the maximum number of samples that accept the null hypothesis model when the significance level is  $\alpha=0.05$ , and the significance level is  $\alpha=0.01$ . In this model, the CN value is 302 when the significance level is  $\alpha=0.05$ , and the CN value is 404 when the significance level is  $\alpha=0.01$ . Both are greater than 200, indicating that this model can appropriately reflect the actual sample's nature.

Based on the above indicators, the mental health two-factor action capacity model constructed by this research has absolute fit statistics (chi-square freedom ratio, RMR, RMSEA, etc.) and value-added fit statistics (NFI, CFI, etc.) as well. Simple fit statistics (CN, etc.) also reach an acceptable range, and some of the indicators have got a good fit. It shows that the theoretical model can achieve a good fit with the sample data. It reflects the current situation of the actual data, and applies it to the sample population tested.



(a) Path diagram of abnormal mental health effects (b) Path diagram of individual behavior path model

Figure 5. Action path diagram

**Analysis of mental health path model**

From Figure 5 (a), it can be seen that school intimacy has a direct effect on abnormal health levels, with a magnitude of -0.13. There are indirect effects, mainly through two indirect effects: school intimacy → personal behavior → abnormal mental health level, school intimacy → Neuroticism → Personal behavior → abnormal level of mental health. Theoretically, therefore, the school intimacy changes by one unit, and the abnormal level of mental health changes by -0.14 units. School fitness has direct and indirect effects on abnormal levels of mental health. The path of effect is school fitness→ personal behavior →abnormal level of mental health. In theory, the school adaptability changes by one

unit, and the individual behavior score changes by -0.01 units. Neuroticism has an indirect effect on healthy behaviors, neuroticism →personal behavior→ abnormal level of mental health. Theoretically, the standard of neuroticism changes by one unit, and the score of abnormal mental health level changes by 0.01 units.

Figure 5(b) presents that school intimacy has two indirect effects on personal behavior: school intimacy → abnormal level of mental health → personal behavior, school intimacy → neuroticism → abnormal level of mental health → personal behavior. Theoretically, the school intimacy changes by one unit, and the personal behavior score changes by -0.03 units. School fitness has direct and indirect effects on personal behavior: school fitness→ abnormal level

## Construction of Action Model of Students' Mental Health Education System Based on Positive Psychology

of mental health → personal behavior. In theory, the school adaptability changes by one unit, and the individual behavior score changes by -0.01 units. Neuroticism has an indirect effect on healthy behaviors, neuroticism → abnormal levels of mental health → personal behavior. Theoretically, the standard of neuroticism changes by one unit, and the individual behavior score changes by 0.01 units.

### Research results and analysis

#### Gender differences in abnormal levels of students' mental health

In comparing the differences in the scores of various factors between men and women, there is a statistically significant difference in the total score ( $t = -2.601$ ,  $P < 0.05$ ), and the scores of girls are significantly higher than that of boys. Specifically, emotional instability ( $t = -2.075$ ,  $P < 0.05$ ), obsessive-compulsive symptoms ( $t = -2.741$ ,  $P < 0.01$ ), learning pressure ( $t = -2.644$ ,  $P < 0.01$ ), anxiety ( $t = -3.407$ ,  $P < 0.01$ ) and depression ( $t = -2.895$ ,  $P < 0.01$ ) have statistically significant differences in the scores of boys and girls, indicating that the risk of boys and girls is different on these factors. Girls are significantly higher than boys, as shown in Figure 6.

#### Relationship between personality characteristics and mental health

In comparing personality dimension E among the three categories of introversion, intermediate, and extroversion, the difference in the detection rate of the psychological abnormality scale was significant ( $\chi^2 = 8.041$ ,  $P < 0.05$ ). However, the difference in the detection rate of moderate and severe abnormalities was not statistically significant. There were significant statistical differences in the detection rate of psychological abnormalities on the personality dimension N and the difference between moderate and severe psychological abnormalities ( $\chi^2 = 91.31$ ,  $P < 0.01$ ;  $\chi^2 = 163.621$ ,  $P < 0.01$ ). The detection rates of typical stable, tilted stable, intermediate, tilted instability, and moderate to severe abnormalities in typical instability were 78.7%, 69.0%, 35.7%, 13.8%, and 4.8%, respectively, showing a significant linear trend. In terms of temperament, students with mucus and polyhematism have lower mental health levels, with abnormal detection rates of 91.2% and 95.1%. The abnormality detection rates were 66.1% and 68.1%, and the moderate and severe abnormality detection rates were 12.1% and 18.1%. There were significant statistical differences in the detection rates of the four temperament psychological problems.

Figure 7 shows a comparison of the detection rates of psychological problems among students in different personality categories.

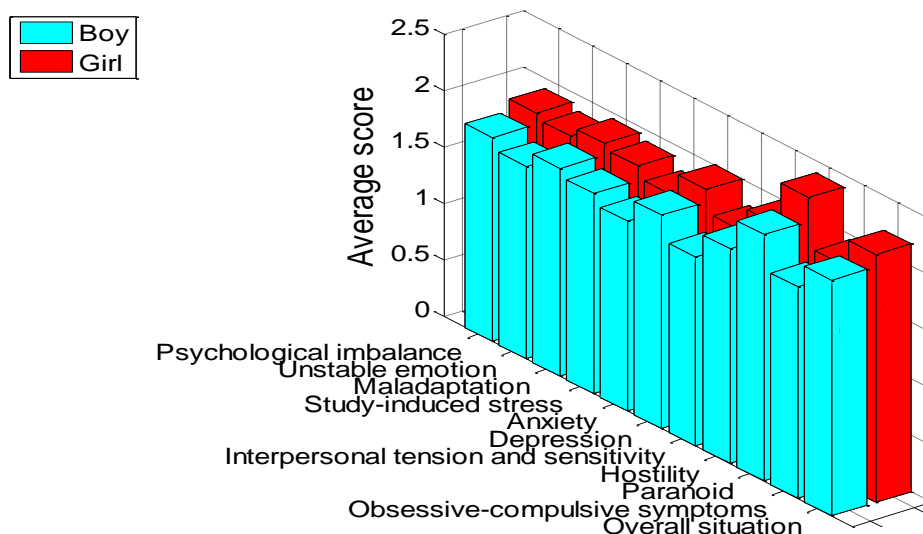


Figure 6. Comparison of average scores of male and female junior high school students in the mental health factors



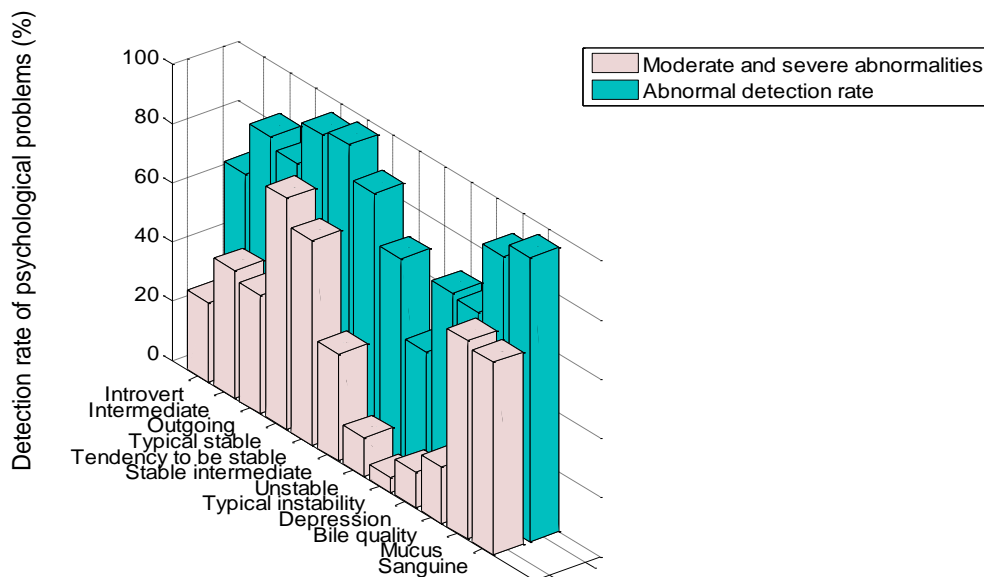


Figure 7. Comparison of the detection rate of psychological problems among students of different personality characteristics

**The correlation between personal behavior and mental health**

There is a significant positive correlation between comprehensive personal behavior and overall mental health status ( $r=0.260$ ). The age at which smoking started, the number of cigarettes, the time spent playing video games, and the number of fights were positively correlated with secondary school students ( $r=0.082$ ,  $r=0.096$ ,  $r=0.101$ ,  $r=0.088$ ). In terms of various factors, there is a certain positive correlation between the smoking onset age and students' mental health, interpersonal tension and sensitivity, depression, maladaptive depression, and emotional instability scores ( $r=0.081$ ,  $r=0.082$ ,  $r=0.105$ ,  $r=0.119$ ). There is a certain positive correlation between the

number of cigarettes and the hostility of students' mental health, interpersonal tension and sensitivity, depression, anxiety, maladjustment, and emotional instability ( $r=0.106$ ,  $r=0.120$ ,  $r=0.113$ ,  $r=0.095$ ,  $r=0.082$ ,  $r=0.146$ ). Time spent playing video games is significantly positively correlated with students' mental health of obsessive-compulsive symptoms, paranoia, hostility, learning pressure, emotional instability, and psychological imbalance ( $r=0.103$ ,  $r=0.080$ ,  $r=0.105$ ,  $r=0.092$ ,  $r=0.102$ ,  $r=0.105$ ); there is a positive correlation between the number of fights and students' mental health of paranoia, hostility, interpersonal tension and sensitivity, maladjustment, emotional instability and psychological imbalance scores ( $r=0.106$ ,  $r=0.126$ ,  $r=0.082$ ,  $r=0.137$ ,  $r=0.096$ ,  $r=0.088$ ), as shown in Figure 8.

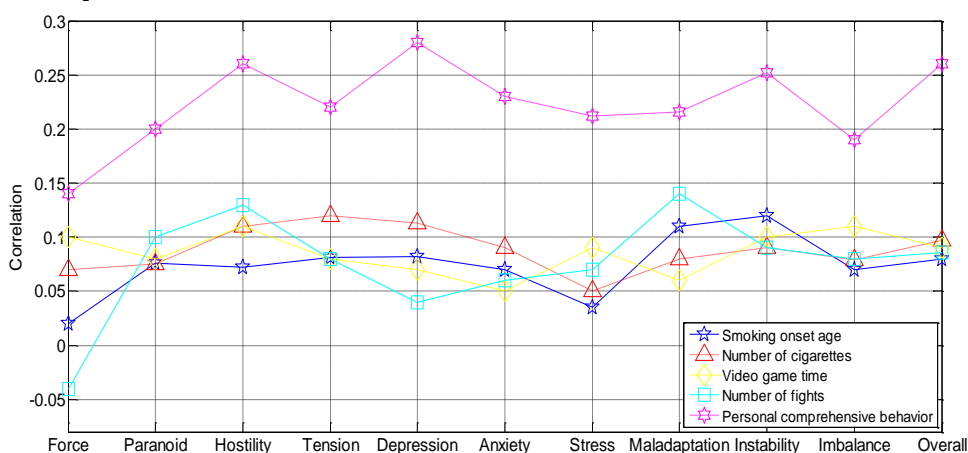


Figure 8. Correlation between personal behavior and mental health factor scores of junior students ( $r$ )

**Analysis of the relationship between mental health level distribution and personal behavior**

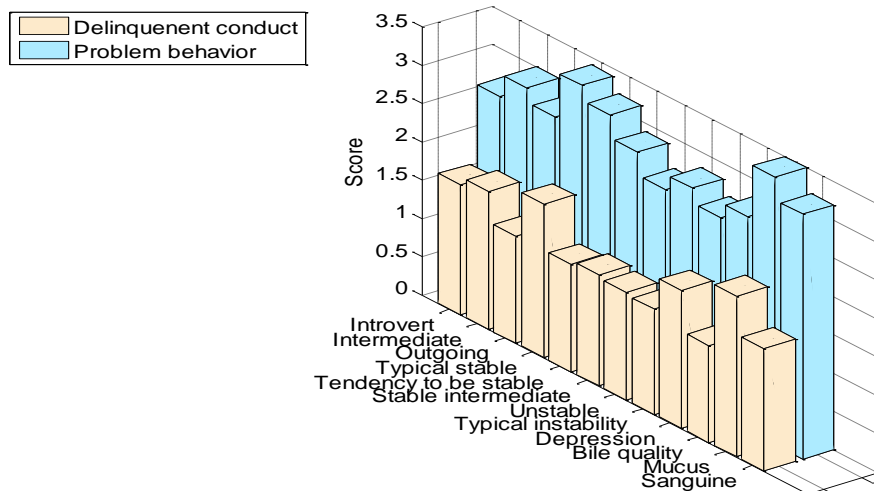
The results in Figure 9 show that different temperament types have statistically significant effects on the mean of deviant behaviors ( $F=6.603$ ,  $P<0.01$ ), and they are bile type

( $1.27\pm 1.21$ ) and depressive type ( $1.78\pm 1.12$ ). There are significant differences between type ( $2.10\pm 2.06$ ) and multi-blood type ( $1.61\pm 1.21$ ); different temperament types also have statistically significant effects on the mean problem behavior ( $F=9.073$ ,  $P<0.01$ ). Specifically, there are no

**Construction of Action Model of Students' Mental Health Education System Based on Positive Psychology**

significant differences between qualitative and mucous, depressive, and bile qualitative types. There are no significant differences between the other two temperament types (i.e., depressive typology (2.56±1.24) and poly-hematological type (3.19±1.34)), and mucous typology

(3.49±1.35); bile type (2.81±1.12), polysemous type (3.19±1.34), mucous type (3.49±1.35)) were significantly different.

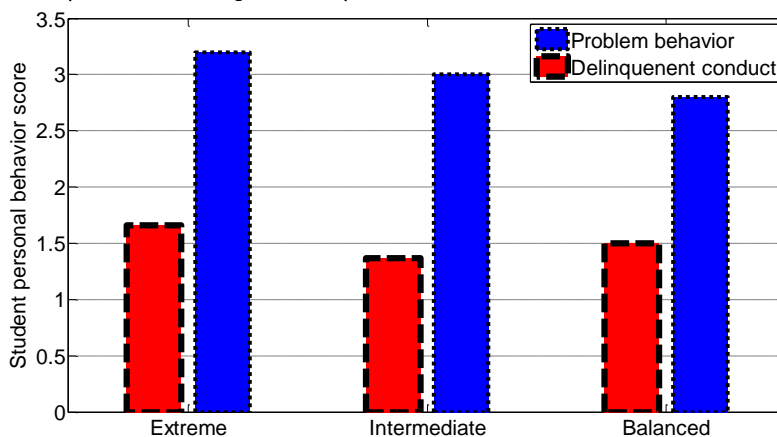


**Figure 9.** Comparison of different personality characteristics categories in students' behavior scores

The impact of school types on individual behaviors shows that for destructive actions, the scores of extreme, intermediate, and balanced school students are 1.65±1.54, 1.34±1.21, and 1.56±1.24, respectively, and there is no significant difference in average score. For bad behavior, the scores of extreme, intermediate, and balanced school students were 3.08±1.22, 3.01±1.28, 2.83±1.25, and there was no significant statistical difference in the average score (F=1.92, P>0.05). The comparison of different school categories on students' behavior scores is shown in Figure 10.

traits, school intimacy and adaptability, and mental health level are operated as independent variables. The analysis is analyzed by Backward multiple linear regression. The results show that school economic conditions, emotional stability, school intimacy, and mental health affect personal behavior. The model has a good fit (F=81.44, P<0.0001), and the independent variables can explain 45.0% of the dependent variables. In terms of the impact of various factors on personal behavior, school economic conditions are the largest, followed by neuroticism and school intimacy. Figure 11 shows the results of linear regression analysis of influencing individual behavior factors.

The total score of individual behavior is used as the dependent variable, and necessary information, personality



**Figure 10.** Comparison of different school categories on students' behavior score

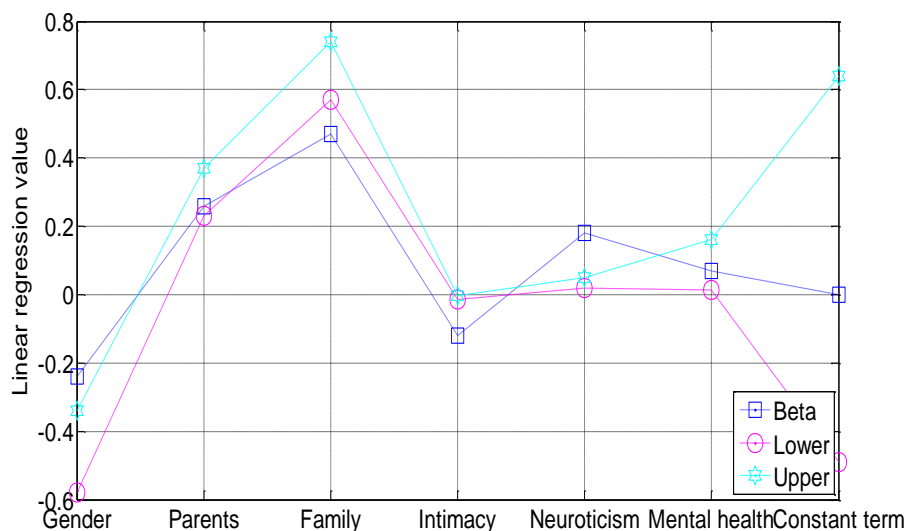


Figure 11. Linear regression analysis results of personal behavior factors in influence

## Conclusion

This study conducted a sample survey of the student population. It measured the level of psychological symptoms, life satisfaction, positive and negative emotions, social support (including school support, friend support, and other support), and self-efficacy. Based on positive psychology theory, a two-factor mental health predictive model was constructed, and data was used for continuous verification and correction. Finally, a two-factor mental health action force model was established among students. The overall incidence of students' behavior was relatively low. Boys were generally higher than girls. The main factors that affected personal behavior included school economics, like parents living in another city, neuroticism, school intimacy, and abnormal levels of mental health. Good school conditions were found a risk factor for personal behavior. Abnormal mental health interacted with personal behavior. There is a significant positive correlation between individual comprehensive behaviors and students' overall mental health problems and each factor. Specific and different personal actions showed varying degrees of impact on students' mental health. Mental health abnormalities may promote the occurrence and frequency of individual

problem behaviors. The same personal severe problem behaviors or high-frequency problem behaviors can also cause abnormal mental health occurrences. Therefore, in school psychological education, special attention should be paid to the mental health and personal problem behavior changes of junior students. At the same time, targeted and reasonable intervention measures should be adopted to improve middle schools' mental health and prevent health-damaging behaviors. The combination of the two has an ideal effect.

## Acknowledgements

Funded by the Humanities and Social Science Research Project of the Department of Education of Henan Province : Action Research on Strengthening the Construction of Mental Health Education Teachers in Primary and Secondary Schools-Taking Anyang City as an Example (2018-ZZJH-007)

## References

- ALTINTAŞ, İ. N., & KARAASLAN, H. (2019). Peer assessment and active learning experiences of social studies teacher candidates. *Review of International Geographical Education Online*, 9(2), 319-345.
- Baik C, L. W. (2019). How universities can enhance student mental wellbeing: the student perspective[J]. *Higher Education Research & Development*, 2019, 38(4): 674-687. <https://doi.org/10.1080/07294360.2019.1576596>
- Barkham M, B. E. (2019). Towards an evidence-base for student wellbeing and mental health: Definitions, developmental transitions and data sets[J]. *Counselling and Psychotherapy Research*, 2019, 19(4): 351-357. DOI: 10.1002/capr.12227
- Kratt, D. (2019). Teachers' perspectives on educator mental health competencies: A qualitative case study. *American Journal of Qualitative Research*, 2(1), 22-40. <https://doi.org/10.29333/ajqr/5792>
- Douglass M, M. B. (2019). Evaluation of the impact of a social media-focused intervention on reducing mental health stigma among pharmacy students[J]. *Mental Health Clinician*, 2019, 9(3): 110-115. doi: 10.9740/mhc.2019.05.110

## **Construction of Action Model of Students' Mental Health Education System Based on Positive Psychology**

- Duffy A, S. K. (2019). Mental health care for university students: a way forward?[J]. *The Lancet Psychiatry*, 2019, 6(11): 885-887. doi: 10.1016/S2215-0366(19)30275-5.
- Friedman N M G, D. B. (2020). Implementation of a Mental Health Task Force in a collegiate-based emergency medical services organization[J]. *Journal of American college health*, 2020, 68(5): 460-464. doi: 10.1080/07448481.2019.1583654
- Garidzirai, R., Meyer, D. F., & Muzindutsi, P. F. (2019). The impact of economic sectors on local economic development (led): the case of the Capricorn region, Limpopo province, South Africa. *International Journal of economics and finance studies*, 11(2), 20-35.
- Jović, D. (2018). Accession to the European Union and perception of external actors in the Western Balkans. *Croatian International Relations Review*, 24(83), 6-32.
- Casas-Rosal, JC, del Rosal, DEC, Caridad, JM, & Tabales, JMN (2019). Real estate market in Spain: A tool for supply analysis. *Cuadernos de Economía: Spanish Journal of Economics and Finance*, 42 (120), 207-218.
- Bae, Y., & Han, S. (2019). Academic Engagement and Learning Outcomes of the Student Experience in the Research University: Construct Validation of the Instrument. *Educational Sciences: Theory & Practice*, 19(3).
- Aras, A. (2019). The Effect of Mobbing Levels Experienced by Music Teachers on Organizational Commitment and Job Satisfaction. *Eurasian Journal of Educational Research*, 84, 29-56.
- Maciejczak, M. (2018). Quality as Value-added Bioeconomy: Analysis of the EU Policies and Empirical Evidence from Polish Agriculture. *AgBioForum*, 21(2), 86-96.
- Maluleke, W., Mokwena, R. J., & Olofinbiyi, S. A. (2019). An Evaluative Study On Criminalistics: Stock Theft Scenes. *International Journal of Business and Management Studies*, 11(1), 101-138.
- Erol, İ., & Velioglu, M. N. (2019). An Investigation Into Sustainable Supply Chain Management Practices In A Developing Country. *International Journal Of Ebusiness And Egovernment Studies*, 11(2), 104-118.
- Maluleke, W., & Dlamini, S. (2019). The Prevalence Of Organised Cross-Border Crimes In South Africa: A Non-Empirical Statistical Data Analysis On Stock Theft And Hijacking Of Motor Vehicles. *The International Journal of Social Sciences and Humanity Studies*, 11(1), 116-145.
- Fuentes-Azpiroz, M., Feu, S., Calleja-González, J., & Jiménez, A. C. (2019). Analysis of the Perception of the Effort Between Players and Coaches in Minibasket Competition. *Revista de psicología del deporte*, 28(3), 42-45.
- Gulliver A, F. L. (2019). University staff mental health literacy, stigma and their experience of students with mental health problems[J]. *Journal of Further and Higher Education*, 2019, 43(3): 434-442. <https://doi.org/10.1080/0309877X.2017.1367370>
- Halladay J E, D. J. (2019). Mindfulness for the mental health and wellbeing of post-secondary students: A systematic review and meta-analysis[J]. *Mindfulness*, 2019, 10(3): 397-414. <https://doi.org/10.1007/s12671-018-0979-z>
- Happell B, P.-P. C. (2019). Changing attitudes: The impact of Expert by Experience involvement in Mental Health Nursing Education: An international survey study[J]. *International journal of mental health nursing*, 2019, 28(2): 480-49. doi: 10.1111/inm.12551
- Happell B, W. S. (2019). 'There's more to a person than what's in front of you': Nursing students' experiences of consumer taught mental health education[J]. *International Journal of Mental Health Nursing*, 2019, 28(4): 950-959. doi: 10.1111/inm.12596
- Hu K S, C. J. (2019). Maladaptive perfectionism, impostorism, and cognitive distortions: Threats to the mental health of pre-clinical medical students[J]. *Academic Psychiatry*, 2019, 43(4): 381-385. DOI: 10.1007/s40596-019-01031-z
- İnan F Ş, G. N. (2019). The Impact of Mental Health Nursing Module, Clinical Practice and an Anti-Stigma Program on Nursing Students' Attitudes toward Mental Illness: A Quasi-Experimental Study[J]. *Journal of Professional Nursing*, 2019. doi: 10.1016/j.profnurs.2018.10.001
- Marcussen M, N. B. (2019). The effects of Interprofessional education in mental health practice: findings from a systematic review[J]. *Academic Psychiatry*, 2019, 43(2): 200-208. doi: 10.1007/s40596-018-0951-1
- McMorris C A, B. J. (2019). Mental health issues in post-secondary students with autism spectrum disorder: Experiences in accessing services[J]. *International Journal of Mental Health and Addiction*, 2019, 17(3): 585-595. <https://doi.org/10.1007/s11469-018-9988-3>
- Oswalt S B, L. A.-S. (2020). Trends in college students' mental health diagnoses and utilization of services, 2009–2015[J]. *Journal of American college health*, 2020, 68(1): 41-51. doi: 10.1080/07448481.2018.1515748
- Pascoe M C, H. S. (2020). The impact of stress on students in secondary school and higher education[J]. *International Journal of Adolescence and Youth*, 2020, 25(1): 104-112. <https://doi.org/10.1080/02673843.2019.1596823>
- Proulx C N, C. R. (2019). Associations of lesbian, gay, bisexual, transgender, and questioning–inclusive sex education with mental health outcomes and school-based victimization in us high school students[J]. *Journal of Adolescent He.* doi: 10.1016/j.jadohealth.2018.11.012
- Roche M J, J. N. (2019). Elections have consequences for student mental health: an accidental daily diary study[J]. *Psychological reports*, 2019, 122(2): 451-464. doi: 10.1177/0033294118767365

- Sandhu H S, A. A. (2019). Mental health stigma: explicit and implicit attitudes of Canadian undergraduate students, medical school students, and psychiatrists[J]. *The Canadian Journal of Psychiatry*, 2019, 64(3): 209-217. doi: 10.1177/0706743718792193
- Yamaguchi S, F. J. (2020). Mental health literacy programs for school teachers: A systematic review and narrative synthesis[J]. *Early Intervention in Psychiatry*, 2020, 14(1): 14-25. doi: 10.1111/eip.12793