The Relationship between College Students' Shyness and Depression: Multiple Mediating Model Test

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Abstract: 876 college students were investigated with the college students shyness scale, negative automatic thinking scale, emotion regulation scale and self-rating depression scale to explore the multiple mediating effects of negative automatic thinking and emotion regulation (cognitive reappraisal and expression inhibition) on the relationship between shyness and depression. Results: (1) Shyness, negative automatic thinking, suppression of expression and depression are significantly and positively correlated. Cognitive reappraisal is significantly negatively correlated with depression and negative automatic thinking, and significantly positively correlated with expression inhibition. (2) Shyness can not only affect depression through the mediation of negative automatic thinking and expression inhibition respectively, but also can affect depression through the chain mediation of negative automatic thinking and cognitive reappraisal.

Keywords: Shyness; Depression; Negative automatic thinking; Cognitive reappraisal; Expression inhibition

1. Asking Questions

At present, the prevalence of mental illness among college students at home and abroad is generally high [1-2], and depression (Depression) is especially common in today's university campuses. Depression is a state of abnormally low mood and unpleasant negative emotions. The negative impact of depression on college students' school adaptation and social adjustment is becoming more and more prominent. Long-term depression can lead to psychological disorders and even suicide [3]. Therefore, mitigating and improving, while reducing and controlling college students' depression has become an urgent problem to be solved.

The causes of depression are complex. According to the quality-depression theory of depression, depression is mainly caused by the combination of cognitive quality (such as personality, attribution, etc.) and stress events [4]. As an important personality trait, Shyness refers to the tendency of an individual to feel evaluated by others in the process of interpersonal communication, thus creating a tendency to feel embarrassed, nervous or worried in front of others [5]. Individuals with shyness are more likely to cause depression [6], hindering their personal development and socialization process. For example, a longitudinal study found that children's shyness scores at ages 1.5, 2.5, 4.5, and 8-9 were important predictors of depressive symptoms at 12-13 years of age [7]. Bould's study found that the shyness of a 6-year-old child can predict depression at the age of 18 [8].

Although many studies have shown that shame affects depression, the process of shame affecting depression is not clear. Only a small number of studies have explored the role of parental parenting behavior in the relationship between shame and depression, and the conclusions are very limited.

Therefore, it is necessary to further investigate the mechanism of the impact of shame on college students' depression, in order to further understand how shame "how" affects college students' depression [9]. This paper finds through literature review that negative autonomic thinking (Nega-tiveautomaticthinking) may play a key role. Negative automatic thinking comes from Beck's cognitive theory of emotional disorders, which refers to a kind of thinking flow that is negative, seems to be automatically emerging, and often associated with negative emotions [10]. Baker believes that depression does not give him a negative view of himself, but rather because he has developed a negative perception of himself and

has developed depression [11]. The cognitive theory of emotional disorders believes that both negative and emotional disorders interact and reinforce each other, eventually forming a vicious circle. Numerous studies have shown that depression is closely related to negative automatic thinking. For example, Chen Shulin and others have found that negative automatic thinking is the most direct cause of depression [12]. The results of Huang Chebai study showed that the automatic thinking score of patients with depression was significantly higher than that of non-depressed patients, indicating that there is a certain correlation between depression and negative automatic thinking [13]. Zhang Yuejuan et al.'s research on college students found that negative automatic thinking can significantly predict the depression of college students [14].

Henderson's social adaptation model illustrates the cognitive process of shy individuals, pointing out that shy individuals will first make negative predictions, whether they are close to social situations or enter social situations, not only sensitive to the negative evaluation of others, but also tend to think of others. They also make negative comments on themselves, threatening their self-esteem and thus avoiding and fearing social situations. This negative cognition of the shy individual runs through the whole social process. Over time, it will form a fixed mindset in the mind. When it encounters the corresponding stimulus, it will automatically emerge without the censorship of consciousness, forming a vicious circle, and all These negative perceptions will continue to exacerbate this vicious circle [15]. Empirical studies have found that shy adolescents are more likely to report negative self-recognition [16-17]. In summary, the website "Introduction to Annual Project Results" puts forward the hypothesis that college students' shame may affect their depression through the intermediary role of negative automatic thinking.

Emotion regulation refers to the process of an individual's influence on what kind of emotions, when and how emotions occur, and how they affect emotional experience and expression. They fall into two categories: cognitive re-evaluation (Cog-nitivereappraisal) and expression suppression (Expressionsuppres). -sion)[18]. Cognitive re-evaluation refers to changing the understanding and cognition of emotional events, redefining events, and more positively and optimistic about events that trigger individual negative emotions; expression inhibition refers to suppressing ongoing or upcoming emotional expression behaviors. Gross et al. found that individuals who are good at using adaptive emotional adjustment strategies such as cognitive reevaluation have more positive emotional and positive emotional expressions, and negative emotional and negative emotional expressions are less. Indicators of happiness, satisfaction, depression, etc. are more active [19]. A shy individual does not have confidence in his or her emotional expression and ability to adjust. This deficiencies in belief leads to an individual's psychological problem of a large amount of loneliness [20], which may lead to depression. Wu Wei et al. [21] found that shy college students will adopt an expression suppression strategy, which leads to their impaired function in emotional regulation and more likely to lead to negative emotions. Therefore, hypothesis 2, college students' shame may affect their depression through the mediating effects of emotional regulation (cognitive re-evaluation, expression inhibition).

In addition, Cognition of Personality - Theory of Emotional System[22] Pointed out Events Encountered by Individuals Will Interact with Complex Cognition in Their Personality System - Emotional Unit, and Ultimately Decide Individual Behavior. The cognitive emotion unit is mainly composed of expectations and beliefs, emotions, goals and values, abilities and self-regulation plans. Therefore, this study assumes that negative automatic thinking, a negative cognition, will affect the emotion regulation strategies of shy individuals and may further lead to the occurrence of individual depressive emotions and negative behaviors. And empirical research also shows that emotion regulation strategy plays a key role in the relationship between negative automatic thinking and negative emotions such as depression. The more negative automatic thinking individuals. The less positive emotion regulation strategies are used by cognitive reappraisal[23]. There is also research finding that the more negative automatic thinking teenagers have the less cognitive reappraisal and adjustment strategies.Lead to the increase of emotional and behavioral problems of teenagers[24]. So, Proposes Hypothesis 3, College students' shyness can affect their depression through the chain mediation of negative automatic thinking - emotion regulation (cognitive reappraisal, expression inhibition).

Based on the above analysis, this study explores the following three problems with college students: (1) examining the relationship between college students' shame and depression; (2) examining negative automatic thinking, emotional regulation (cognitive re-evaluation, expression suppression) Multiple mediating roles between college students' shame

and depression. It is assumed that the relationship between the variables is shown in Figure 1.
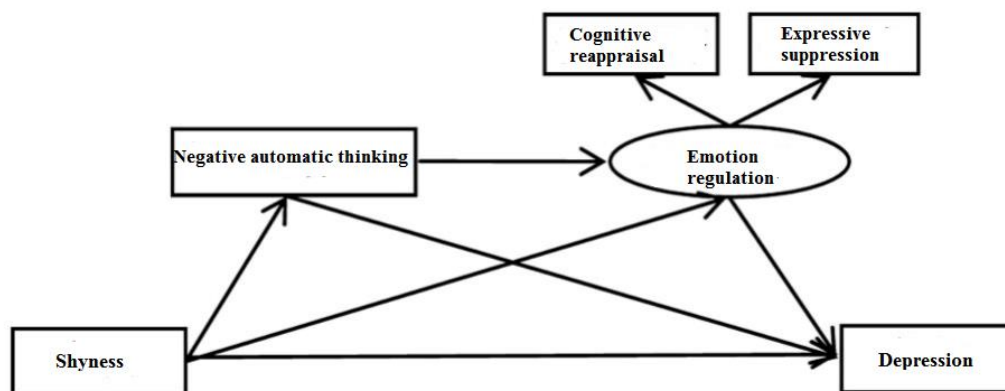

Figure 1 Relationship between College Students' Shyness and Depression: Complex Multiple Mediating Model

2. Research Methods

2. 1 Subject

In this study, a random sampling method was used to randomly select 900 students from grades 1 to 4 in Shandong University. The final effective questionnaire was 876, and the effective recovery rate was 97.33%. The age range is 17-23 years old (M=19.50, SD=1.84), including 351 boys and 525 girls.

2. 2 Research Tool

2. 2. 1 College Students Shyness Scale

Adopts Henderson's "Students' Shame Scale" revised by Wang Qianqian (2007), 17 topics include four dimensions: seeking approval, self-blame, fear of rejection, and self-restriction of expression. 5 points scoring, the higher the score, the higher the level of shame. The internal consistency coefficient of the total scale in this study is 0.88, and the internal consistency coefficients of each dimension are 0.74, 0.76, 0.69, and 0.68, respectively. The fitting indicators of the questionnaire are: X2/df=4.04, GFI=0.94, IFI=0.93, CFI=0.93, RMSEA=0.06, the questionnaire has good reliability.

2. 2. 2 Negative Automatic Thinking Questionnaire

The automatic thinking questionnaire (ATQ) compiled by Hollon and kendall(1980) has 30 questions, 5 Point Score. The higher the total score, the more frequent the negative automatic thinking appears. The internal consistency coefficient of the questionnaire in this study was 0.96; the fitting indicators of the questionnaire were: $\chi 2/df=4.58$, GFI=0.89, IFI=0.94, CFI=0.94, RMSEA =0.06, the questionnaire has good validity.

2. 2. 3 Emotion Regulation Scale

Using the emotional adjustment scale compiled by Wang Li (2007), including two dimensions of cognitive re-evaluation and expression inhibition, 14 questions, 7 questions in each dimension, including 1 measurement for happiness, disgust, sadness, fear and The five emotions are regulated by the anger, and two are the subjects that measure whether the individual often uses a certain strategy. 7 points score. The internal consistency coefficient of the total table in this study was 0.84. The internal consistency coefficient of cognitive re-evaluation is 0.86, and the internal consistency coefficient of expression inhibition is 0.80. The fitting indicators of the questionnaire are: $\chi 2/df=4.36$, GFI=0.95, IFI =0.94, CFI=0.94, RMSEA=0.06, the questionnaire has good reliability.

2. 2. 4 Self-Rating Depression Scale

A self-rating depression scale (SDS) prepared by Zung (1965) was used for 20 questions, 4 points scoring, 10 questions for reverse scoring. Depression index less than 0.50 for no depression, 0.50-0.59 for mild depression, and between 0.60-0.69 for moderate to Major depression, greater than 0.70 is severe depression. The internal consistency coefficient of the total scale in this study was 0.83; the fitting indicators of the questionnaire were: $\chi2/df=3.73$, GFI=0.93, IFI=0.90, CFI=0.89 , RMSEA=0.06, the questionnaire has good reliability.

2. 3 Common Method Deviation Test

All self-evaluation questionnaires were used in the study. Because the same measurement method and the same test questions may cause artificial co-variation of the results, a common method deviation test is needed. Common method deviations were tested using the Harman single factor test. Exploratory factor analysis was performed on each variable of the model. The results showed that the variance explained by the first factor was 23.08%, which was less than 40%. Therefore, the common method bias in the study is not serious.

2. 4 Data Processing

Adopt SPSS19.0, Amos20. 0 and MPLUS 7. 0 Software for Data Statistics and Analysis.

3. Research Results

3. 1 Descriptive Statistics and Correlation Analysis

Correlation analysis was carried out on five variables: shyness, depression, negative automatic thinking, cognitive re-evaluation and expression inhibition. The results are shown in Table 1. Correlation analysis showed that there was a significant positive correlation between shyness, negative automatic thinking, expression inhibition and depression: cognitive reassessment was significantly negatively correlated with depression and negative automatic thinking, and positively correlated with expression inhibition, and was not significantly associated with shame.

Table 1 Descriptive statistics and correlation analysis results of each research variable (n = 876)

	M	SD	1	2	3	4	5
1 Shyness	48. 68	10. 71	1				
2 Depression	37. 32	7. 28	0. 46 ***	1			
3 Negative automatic thinking	54. 42	19. 57	0. 55 ***	0. 65 ***	1		
4 Cognitive reappraisal	34. 54	6. 94	− 0. 05	− 0. 29 **	− 0. 21 ***	1	
5 Expressive suppression	26. 96	7. 20	0. 26 ***	0. 15 ***	0. 16 ***	0. 31 ***	1

3. 2 Multiple Mediations Model Test

In order to test the multiple mediating effects of negative automatic thinking, emotional regulation (cognitive re-evaluation, expression inhibition) between shame and depression, A-mos20.0 was used to establish a multi-media model, and the model test was conducted to establish depression as a dependent variable. Shame is an independent variable, negative automatic thinking, cognitive re-evaluation, and expression suppression as multiple mediators of mediator variables. According to the standardized path coefficient, the insignificant path is deleted sequentially from small to large. The final result is shown in Figure 2. The fitting indexes are: $\chi2/df=1.48$; RMSEA=0.02; GFI=1.00; AGFI= 0.99; CFI=1.00; TLI=1.00, the model fits well, assuming the model is established.
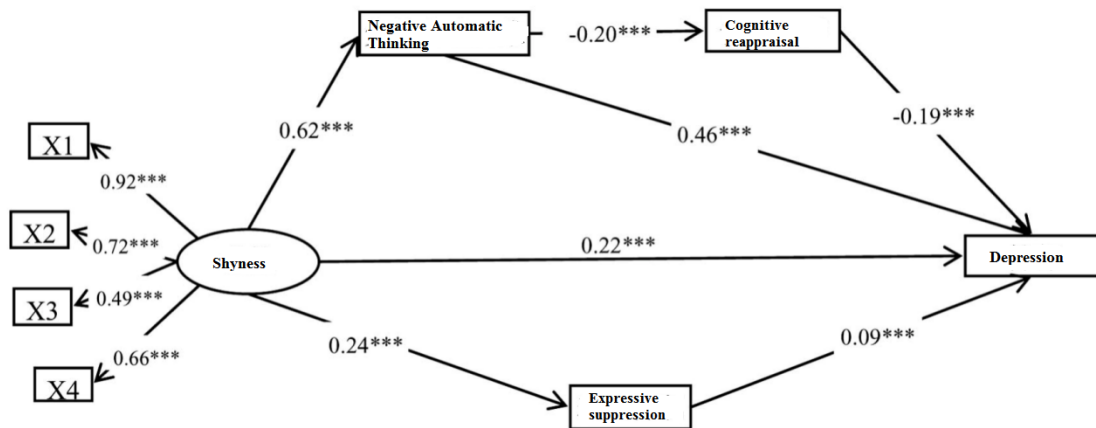
Figure 2 Relationship between College Students' Shyness and Depression: Negative Automatic Thinking, Cognitive Re-evaluation and Multiple Mediators of Expression Inhibition

As can be seen from Figure 2, shyness not only predicts depression directly ($\gamma = 0.22$, P < 0.001), but also predicts depression through the negative effects of negative automatic thinking and expression inhibition, respectively: Positive predictive negative automatic thinking ($\gamma = 0.62$, P < 0.001), negative automatic thinking can significantly predict depression ($\gamma = 0.46$, P < 0.001); shame can be significantly positive Expression inhibition was predicted ($\gamma = 0.24$, P < 0.001), and expression inhibition was able to significantly predict depression in the positive direction ($\gamma = 0.09$, P < 0.001).

In addition, Shyness also predicts depression through the chain-mediated role of negative automatic thinking and cognitive re-evaluation, as follows: shyness can significantly positively predict negative automatic thinking, negative automatic thinking can significantly negatively predict cognitive re-evaluation ($\gamma = -0.20$, P < 0.001), cognitive reassessment significantly negative predictive depression ($\gamma = -0.19$, P < 0.001).

The model was established by Mplus7.0 software to further test the significance of negative automatic thinking, cognitive re-evaluation and expression inhibition mediation. The test results are shown in Table 2. 95% confidence intervals in each path do not contain 0. The multiple mediation effect is established. The total effect = direct effect + indirect effect is 0.59. Among the indirect effects, negative mediation has the greatest mediating effect.

Table 2 Mediation effects and 95% confidence intervals in multiple mediation models

Path	Standardized introduction effect estimation	Effect size	Mean indirect effect	95% confidence interval	
shyness→Negative automatic thinking→depression	0. 62* 0. 46 = 0. 29	48. 47%	0. 19	0. 16	0. 23
shyness →Negative automatic thinking→Cognitive reappraisal → depression	0. 62* (−0. 20) * (−0. 19) = 0. 02	4. 02%	0. 02	0. 01	0. 03
shyness→expressive suppression→depression	0. 24* 0. 09 = 0. 02	3. 67%	0. 01	0. 01	0. 03
Negative automatic thinking →Cognitive reappraisal→depression	(−0. 20) * (−0. 19) = 0. 04		0. 01	0. 01	0. 02
indirect effect	0. 37	61. 86%			
Direct effect	0. 22	37. 39%			

4. Discussion

4. 1 Correlation among Variables

Research results show that shyness and depression are significantly positively correlated. Compared with non-shy college students, Shy college students have higher depression degree. Previous studies have also shown that shame can predict adverse emotions such as depression and is associated with psychological maladaptation [25]. Abramson's theory of depression hopes that depressed patients will overestimate the threat of stress events and underestimate their ability to cope and mobilize resources, thus falling into pessimism [26]. It is often easy for a shy individual to encounter an external threat, to be more inferior, and to have a negative evaluation of self-propensity [27-28]. This personality trait is prone to

emotional problems.

There is a significant positive correlation between shame and negative automatic thinking. According to the social adaptation model, shy individuals have an automated negative thinking in social situations, that is, they are habitually adopting a negative attitude and cognitive mode in the face of anything. Treating, even oneself, can't detect these negative ideas that are automatically emerging.

Shyness was significantly positively correlated with inhibition of expression and was not significantly associated with cognitive reassessment. Most shy individuals are introverted, especially in the face of strangers or heterosexuals. Due to excessive attention to themselves, tension and anxiety are generated, which leads to restraint in emotional expression and behavioral performance; plus its own negative nature. Cognitive thinking characteristics, so shy individuals are often not good at and rarely use cognitive reevaluation strategies.

Negative automatic thinking is significantly positively correlated with depression. Negative thinking is an attitude of cognitive dissonance, a negative thinking mode and is also an important indicator of effective positive prediction of depression[29]. Previous studies have shown that the use of two emotion regulation strategies, cognitive reappraisal and expression inhibition will produce different emotional experiences[30-31]. The use of expression inhibition strategy will produce negative emotional feelings and will have a negative impact on psychological adaptability, while the use of cognitive reappraisal strategy will produce positive emotional experience. The results of this study also show that depression is significantly positively correlated with non-adaptive expression inhibition strategies and is significantly negatively correlated with adaptive cognitive reappraisal strategies.

In addition, it is worth noting that this study found that, without considering personality (shyness) factors, individuals' cognitive reassessment strategy and expression inhibition strategy are significantly positively correlated. The reason for this is that cognitive reassessment and expression inhibition are, in the final analysis, a kind of emotional regulation strategy, but the regulation mode is different from the result. Previous studies have found that cognitive reappraisal occurs in the early stage of emotion generation, which USES a positive emotional connotation to reduce negative emotional experience and is more conducive to reduce or even eliminate negative emotions. Expression inhibition occurs after the generation of emotions, mainly by suppressing negative emotions, and only reduces the external expression of negative emotions, but negative emotional experience still exists [32].Therefore, cognitive reappraisal and expression suppression as emotion regulation strategy can effectively reduce the negative emotions, the individual, but in comparison, cognitive reappraisal strategy better able to reduce a person's negative emotional experience [33] and related analysis results of this study also verified the discovery, namely cognitive reappraisal is negatively related to the depression, and can significantly negative predict depression;Expression inhibition was significantly positively correlated with depression and could significantly positively predict depression.

In a word, there is a close connection between shyness, depression, negative automatic thinking and emotional regulation. College students with high levels of shyness have higher frequency of negative auto-thinking, higher levels of depression, and more expression suppression in emotional regulation strategies, and less cognitive re-evaluation strategies.

4.2 Relationship between College Students' Shyness and Depression : Negative Automatic Thinking, Multiple Mediators of Cognitive Reevaluation and Expression Inhibition

Negative automatic thinking and emotion regulation strategy (Cognitive reappraisal and expression inhibition) have multiple mediating effects between shyness and depression. Shyness not only directly influences depression, but also indirectly influences depression through negative automatic thinking and emotional regulation strategies.

Multiple mediation model shows that shyness affects depression through three paths: shyness - negative automatic thinking - depression, shyness - negative automatic thinking - cognitive reappraisal - depression and shyness - expression inhibition - depression. Mediating effect analysis shows that the mediating effect of negative automatic thinking is the largest and the proportion of the effect of expression inhibition and cognitive reappraisal is very small. This shows that negative automatic thinking plays a greater role in the influence of shyness on depression. In the path of negative automatic thinking to depression, in addition to the direct path, it also indirectly affects depression through cognitive reappraisal, which indicates that when faced with negative events in life, shy people are easy to start negative automatic

thinking, which can directly lead to the occurrence of depression.On the other hand, shy people are instinctively accustomed to initiating negative automatic thinking. According to the cognitive resource theory, the total cognitive resources of individuals are limited, and excessive resources allocated to negative cognition will inevitably lead to the decrease of resources in other cognitive activities [34].Therefore, shy people spend most of their cognitive resources on negative automatic thinking, and seldom use the positive strategy of cognitive reappraisal, which is unable to correct irrational cognition in time, thus increasing the possibility of depression.

In addition, according to the results of this study, shy college students use less adaptive emotional regulation strategies, such as cognitive reappraisal, and more non-adaptive emotional regulation strategies, such as expression inhibition. For the shy, the distinctive features of his character is partial to "suppress", appeared negative emotions, they are often not by talking, catharsis, take the initiative to adjust or seek help to solve their emotional problems, but in a way that is more used to suppress their emotions through regulate mood, show the negative emotions don't seem to be on the surface, but it is only to control the emotions of the external performance, emotional experience has not changed. In addition, because individuals conceal their true inner feelings in stressful situations, negative emotions cannot be expressed normally, which will make individuals become more depressed and their negative emotional experience become more profound.Over time, depression is highly likely.

In conclusion, the reason why shy individuals are prone to depression has a lot to do with their cognitive style and emotional processing strategies.Influenced by their personality characteristics, shy individuals tend to view things around them negatively. This dissonant attitude makes them easily form negative automatic thinking cognitive patterns, such as arbitrary inference and selective negative gaze.Once confronted with stress events, they can easily start negative automatic thinking, in a negative view of themselves, in the future, and the world, and negative automatic thinking on the one hand can directly induce depression, on the other hand also can reduce the use of cognitive reappraisal strategy actively, can not be timely and effective adjustment to produce more negative automatic thinking of helplessness, inhibit the use of negative emotion regulation strategies and expression, make shyness is prone to depression.

5. Educational Inspiration

College is a very important transition period of life, which plays a connecting role in the individual's life, but it is also a period when individuals are prone to various psychological problems.The shyness of college students and their way of thinking have a significant impact on their depression. Based on the results of the study, the following Suggestions are put forward in the hope of providing some reference for mental health workers in colleges and universities.

5. 1 Popularize Depression Knowledge, Actively Prevent and Treat

At present, depression is becoming more and more common in college campuses, and the detection rate of depression among college students is increasing. However, many college students with obvious depressive symptoms do not receive any treatment. This phenomenon must be paid attention to by leaders, teachers and students in colleges and universities. It is very necessary for mental health workers to popularize the knowledge related to depression, make college students understand depression, and learn to identify depression, so as to promote the prevention and treatment of depression. Colleges and universities can set up comprehensive and professional psychological counseling teams to conduct timely psychological counseling and intervention for severely depressed students.

5. 2 Starting with Personality, Guiding Students to Form Correct Understanding of Self

Research results show that shy college students will produce more depression, and the degree is more serious than that of non-shy college students. For this phenomenon, School mental health workers should give targeted and active guidance to college students with different shyness levels. Through various ways to guide shy college students to realize their own personality defects and shortcomings, trying to improve the personality of the negative side; Encourage those college students who are too shy to know themselves correctly and build up self-confidence; To strengthen the corresponding social skills training for shy college students, help them learn to establish harmonious interpersonal relations,

reduce the possibility of depression.

5. 3 Cultivate students' rational thinking and form reasonable cognition

School mental health workers and college teachers should train college students' rational thinking and form reasonable cognition.Train college students' rational thinking and form reasonable cognition.The results of this study show that shy and non-shy college students have significant differences in cognitive style, and the characteristics of negative automatic thinking are more obvious.

Mental health workers should guide the cognitive thinking mode of college students, especially those with high levels of shame and depression, and guide them to realize that their depression is related to their negative cognitive style and help them correct incorrect thinking. Learn a rational and positive cognitive style to promote the prevention and relief of negative emotions such as depression.

5. 4 Improving Students' Emotion Regulation Ability

College Students Should learn to Regulate Emotions. In addition to the school to do a good job of guidance and prevention, college students themselves should also increase self-openness, improve emotional expression ability and learn to control and adjust their emotions. When depression and other negative emotions occur, do not blindly suppress the emotions, but should be through cognitive reappraisal, rational cognition, attention transfer, appropriate catharsis, exercise and other more reasonable ways to relieve and eliminate negative emotions, reduce the possibility of depression, so as to improve the level of mental health.

References

1. Johnny. Changes in Mental Health Status of Freshmen from Different Places of Origin (2006~2013). Psychological Exploration, 2015, 35(6):561-566.
2. Wei Jin. Cross-sectional Study on Prevalence and Related Factors of Depression and Anxiety among College Students in Zhejiang Province. Master's Thesis. Zhejiang: Zhejiang University, 2014.
3. Lai Xuefen. Meaning of Life and Depression of College Students: Mediating Role of Self-efficacy. Journal of jiaying university, 2016, 34(3):78-82.
4. Qiu Bingwu, Wang Jisheng. Review of Quality Stress Theory in Depression Research. Psychological Science, 2000, 23(3):106-107.
5. Henderson L, Zimbardo P. Shyness, social anxiety and social phobia. In S. G. Hofmannand P. M. DiBar-tolo(Eds.). From social anxiety to social phobia(pp. 46-64). Boston, MA: Allyn and Bacon, 2001.
6. Hodge, Tatiana. The effects of shyness and social support on collectivism and depression. Master degree. Ball State University, 2011.
7. Karevold E, Roysamb E, Ystrom E, et al. Predict or sand pathways from infancy to symptoms of anxiety and depression in early adolescence. Developmental Psychology, 2009, 45(4):1051-1060.
8. Bould H, Araya R, Pearson R M, et al. Association between early temperament and depression at 18 years. Depression & Anxiety, 2014, 31(9):729-736.
9. Wen Zhonglin, Ye Baojuan. Adjusted Intermediate Model Test Method: Competition or Substitution ? Journal of Psychology, 2014, 46(5):714-726.
10. Beck A T. Cognitive therapy and the emotional disorders. New American Library, 1976, 168(4):528-533.
11. Beck A T, Padesky C A. Science and philosophy:Comparison of cognitive therapy and rational emotive behavior therapy. Journal of Cognitive Psycho therapy, 2003, 17(3):211-224.
12. Chen Shulin, Zheng Quanquan. Stressor, study on the relationship between cognitive evaluation and depressive disorder. Chinese Journal of Clinical Psychology, 2000, 8(2):104-106.
13. Yellow Car White. Research on the Relationship between Depression and Negative Automatic Thinking. Journal of Binzhou Medical College, 2002, 25(1):31-32.
14. Zhang Yuejuan, Yan Kele, Wang Jinli. Life Events, Path Analysis of Negative Automatic Thinking and Coping Styles Affecting Depression of College Students. Psychological Development and Education, 2005, 21(1):96-99.
15. Bortnik K, Henderson L, Zimbardo P. Theshy Q, a measure of chonic shyness: Associations with inter-personal motive sand interpersonal values. 36th Annual Conference of the Association for the Advancement of Behavior Therapy, 2002. 14-17.
16. Fordham K, Stevenson-Hinde J. Shyness, friendship quality and adjustment during middle childhood. Journal of Child Psychology and Psychiatry and Allied Disciplines, 1999, 40(5):757-768.
17. Rubin K H, Chen X, Mcdougall P, et al.Thewa-terloo longitude in a project: Predicting internalizing and

externalizing problem sin adolescence. Development and Psychopathology, 1995, 7(4):751-764.

18. Gross, J. J. The emerging field of emotion regulation:An integrative review. Review of General Psychology, 1998, 2(5):271-299.
19. Gross J J, John O P. Individualdifferencesintwoe-motionregulationprocesses:Implications for affect, relationships, and well-being. Journalism of Personality and Social Psychology, 2003, 85(2):348-350.
20. Li Caina, Dang Jian Ning, He Shanshan, Etc. Shyness and loneliness - multiple mediating effects of self-efficacy. Journal of Psychology, 2013, 45(11):1251-1260.
21. Wei wu, Tao Rong, Chen Tingting, Etc. Emotion Regulation and Implicit Attitude of Shy and Non-shy College Students. Chinese Journal of Health Psychology, 2014, 22(1):114-116.
22. Mischel, W, Shoda, Y. A cognitive-affective system theory of personality: Re-conceptualizing situations, dispositions, dynamics, and in variance in personality structure. Psychological Review, 1995, 102(2):246-268.
23. He Xiaofei. Emotion Regulation of College Students, Research on the Relationship between Automatic Thinking and Depression. Master's Thesis. Hebei : Hebei Normal University, 2009.
24. Flouri E, Panourgia C. Negative automatic thoughts and emotional and behavioural problems in adolescence. Child & Adolescent Mental Health, 2014, 19(1):46-51.
25. Ying Zhou, Liu Junsheng. 3~8 Relationship between Shyness and Psychological Adaptation of Grade Students: An Mediated Adjustment Model Test. Psychological Science, 2015, (4):861-869.
26. Alloy L B, Just N, Panzarella C. Attributional style, daily life events, and hopelessness depression: Sub-type validation by prospective variability and specificity of symptoms. Cognitive Therapy and Research, 1997, 21(3):321-344.
27. Chen Yingmin, Zhang Wenxian, Tao Jing et al. The Impact of Junior High School Students' Shyness on School Adaptation: Testing of Multiple Intermediary Models. China's Special Education, 2017, (8):74-78.
28. Chen Yingmin, Han Xue, Zhang Yuanjin, et al. Parental Rearing Style of Middle and Primary School Students, Relationship between Shyness and Social Adaptation. China's Special Education, 2015, (10):63-66.
29. Hjemdal O, Stiles T, Wells A. Automatic thoughts and meta-cognition as predictors of depressive or anxious symptoms: A prospective study of two trajectories. Scandinavian Journal of Psychology, 2013, 54(2):59-65.
30. Gross J J. Emotion regulation: Current status and future prospects. Psychological Inquiry, 2015, 26(1):1-26.
31. MaWei Na, Yao Yujia, Sangbiao. Adjustment of Cognitive Reevaluation and Expression Inhibition on Emotional Response in Unconscious Level. Journal of East China Normal University (Education Science Edition), 2012, 30(4):58-62.
32. Cheng Li, Yuan Jiajin, He Yuanyuan et al. Emotion Regulation Strategy: Cognitive Appraisal Better than Expression Inhibition. Advances in psychological science, 2009, 17(4):730-735.
33. Cheng Li, He Yuanyuan, Ouyang Hanlu et al. Regulation of Terror Emotion: Cognitive Appraisal Better than Expression Inhibition ——— A, ERP and Research. Psychological Science, 2011, 34(4):925-930.
34. Egeth H, Kahneman D. Attention and effort. American Journal of Psychology, 1975, 88(2):339-340.