Analysis of the Effect of Positive Mental Group Counseling for College Students Based on PERMA Model

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Abstract: The research explored the effects of positive psychological group counseling designed based on the PERMA model of positive psychology. Taking 1,500 students from a higher vocational college in Guangdong as the research object, they were randomly divided into an experimental group and a control group. The students in the experimental group were trained in a positive psychological group counseling course. Each training lasted three hours and a total of eight sessions. The control group of students do not accept any intervention. After quantitative and qualitative analysis, the study found that positive psychological group counseling can improve students’ positive emotions, happiness, life satisfaction, sense of life meaningfulness and positive coping styles, and reduce the negative coping styles of individuals. It also can maintain the individual's gratitude level, but it has no significant effect on reducing the individual's negative emotions.

Keywords: PERMA model, College students, Positive psychology, Group counselling, Mental health

1. Introduction

In recent years, with the rapid economic development and increasingly fierce social competition, personal, family and social problems caused by psychological problems among university students have emerged frequently, and the mental health of this group has gradually become a key concern for society and the state, and how to further improve the mental health of students and consolidate the current achievements of mental health education has become a hot spot for research today. The mental health of university students in China is not in a good condition, with about thirty percent of university students having psychological problems[1]. The sources of university students’ psychological problems are multifaceted, such as employment, academics and interpersonal relationships, etc. These sources are varied and burdensome and may lead to impaired psychological health among university students[2]. In addition to the practical factors that warn us of the need to increase attention to the psychological aspects of university students, the state has also called on various groups to work together to alleviate the current crisis. China has issued the Notice on Strengthening the Management of Students' Mental Health, calling for continuous attention to the mental health of university students, attempting to effectively improve the mental health of university students through multiple approaches, strengthening relevant education and instructional work, proposing reliable and scientific solutions to different types of student mental health problems, and strengthening the mental health of students in all aspects[3]. In addition, a large number of studies have been conducted from multiple perspectives. In addition, a large number of studies have been conducted to explore what curriculum formats or approaches can enhance and accurately measure college students' mental health from multiple perspectives, types and formats, such as taking peer counselling[4] and developing new psychological quality measurement scales[5], but a large number of studies are still needed to explore curriculum formats from different dimensions in order to face the ever-changing state of mental health among university students.

In view of the current realistic background of mental health education for university students and the need for theoretical development, this study intends to further develop the theoretical and model constructs on the design of mental health education courses for university students, therefore we will design a positive psychological group counseling based on the PERMA model proposed by Martin Seligman, the father of positive psychology, and explore its effects on students' mental health. The PERMA model contains five dimensions: positive emotions, engagement, relationships, meaning, and
accomplishment, and the theory of happiness it implies is an important path to cultivate college students' happiness in the new era. Positive psychological group counselling is a positive psychological intervention method that is in accord with China's national conditions. This method uses positive psychology as the theoretical cornerstone and uses group intervention to enhance mental health as well as well-being.

Past studies on the PERMA model have focused on the curriculum dimension based on the model and proposed strategies to improve students' well-being through the model, without exploring the effectiveness of the routes to enhance well-being in the PERMA model through quantitative research and qualitative studies, which lack data support. In addition, current scholars have begun to try to practice and improve positive psychological group counselling, focusing on the effects of positive psychological group counselling on individuals' positive dimensions, such as life satisfaction, overall happiness, and self-confidence, as well as the effects of positive psychological group counselling on individuals' negative dimensions, such as the effects on depressive symptoms and suicidal tendencies. These studies suggest that positive psychology group counselling is adapted to the Chinese context and confirm that a curriculum combining positive psychology and group counselling contributes to students' well-being and life satisfaction. However, these studies have neglected to explore the impact on 'trait coping', a key factor that can further influence psychological dimensions.

Trait coping is an area of concern in positive psychology, and refers to coping styles that are related to an individual's mental health and personality traits, and are taken by individuals after cognitive evaluation and after measuring their psychological state. Trait coping is divided into positive coping and negative coping, and the different coping styles that individuals choose can have different levels and directions of impact on their psychological well-being, for example, positive coping can promote psychological well-being, while negative coping can undermine psychological well-being. It is difficult to develop a comprehensive and systematic understanding of positive psychological group counselling and its effects without examining how positive psychological group counselling affects students' coping styles. Based on positive psychology theory and the PERMA model, this study uses a combination of quantitative and qualitative research to explore the effects of implementing positive psychological group counselling based on the PERMA model with university students, which not only enriches the research on the curriculum and positive psychological group counselling based on the PERMA model, but also provides data to support the effectiveness of the PERMA model in curriculum practice.

2. Quantitative research

2.1. Subject

The subjects in this study were 1500 first-year students from a higher education college in Guangdong. A random allocation method was used to assign the students into an experimental group and a control group, with 750 students in the experimental group and 750 in the control group. The criteria for screening eligible data were those who completed the pre and post-tests at the same time and the interval between the pre and post-tests was more than 2 months. A total of 1396 valid questionnaires were finally returned, with a recall rate of 93.06%, and all subjects were aged 18.57 years. The control group, i.e. those who did not participate in positive psychological group counselling and did not do any intervention, collected 696 data, of which 29.31% were male and 70.69% were female. The experimental group, which participated in positive psychological group counselling sessions as a class, collected 700 data, of which 49.38% were male and 50.62% were female. Finally, 696 sample data were randomly selected from the experimental group for this study to allow for better matching and analysis of the two groups.

2.2. Methodology

2.2.1. Positive and Negative Affect Scale

The Positive and Negative Affect Scale (PANAS) developed by Watson (1988) and others was used in this study. The scale includes positive emotion adjectives (e.g., "interested") and negative emotion adjectives (e.g., "ashamed"), 10 adjectives for each dimension, and is scored as follows: the scale is scored on a 5-point scale, with a range of 1 to 5 indicating a frequency range from "rarely or hardly ever" to "very often". The higher the score, the more intense the positive or negative emotion. The reliability of the scale is good and has been tested in a national study by Huang, Li et al (2003) 

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2.2.2. Gratitude Questionnaire-6

Students' gratitude levels were measured using the one-dimensional Gratitude Questionnaire-6 (GQ-6), which was developed by McCullough (2002) [18] and revised by Wei, Chang and Wu, Huiting (2011), and tested by domestic scholars [19,20]. The GQ-6 has six items and is scored on a 7-point scale, with a range of 1 to 7 indicating a range of agreement from "strongly disagree" to "strongly agree". The stronger the individual's tendency to be grateful, the higher the total score.

2.2.3. Satisfaction with Life Scale

To measure changes in students' life satisfaction, the study used the Satisfaction with Life Scale developed by Diener (1985) [21]. The scale has been tested in related domestic studies and its reliability is good and suitable for individual life satisfaction studies in the Chinese environment [22]. All five questions on the scale are scored on a 7-point scale, with a range of 1 to 7 indicating a range of agreement from "strongly disagree" to "strongly agree", and the higher the level of life satisfaction, the higher the score.

2.2.4. Subjective Happiness Scale

The scale used to measure students' subjective well-being was developed by Lyubomirsky [23] and has good reliability and validity in China [24]. It consists of four questions, each rated by the individual's subjective feelings, ranging from 1 to 7. The scoring rule for the subjective well-being score is the average score of the four questions, and the maximum value of the measured well-being score is 7.

2.2.5. Meaning in life Questionnaire

This study used the Meaningful in Life Questionnaire (MLQ) developed by Steger et al, which has been translated and tested by domestic researchers as being applicable to university students [25,26]. The questionnaire consists of 10 questions and includes two dimensions: life meaning experience and life meaning seeking. The scale is a 7-point scale, with a range of 1 to 7 indicating a range of agreement from 'strongly disagree' to 'strongly agree', with the stronger the individual's sense of meaning in life, the higher the total score.

2.2.6. Trait Coping Style Questionnaire

Trait Coping Style Questionnaire designed by Jiang, Huang and Lu (1993) [27], which includes both the individual positive coping dimension (PC) and the individual negative coping dimension (NC). Each dimension has 10 items and a total of 20 questions. On a 5-point Likert scale, a scale of 1 to 5 indicates a range of agreement from 'strongly disagree' to 'strongly agree', with higher scores on the scale indicating a greater tendency to adopt positive or negative coping styles. The scale has been tested in China and found to have good reliability and validity in the Chinese [15].

2.3. Experimental Design and Intervention Programme

2.3.1. Experimental Design

The 1500 subjects in this study were randomly divided into an experimental group and a control group of 750 students each. The control group did not undergo any intervention, while the experimental group would receive training in a positive group counselling programme developed through literature reading, book reading, expert supervision and generalisation of practical experience. Before the positive group counselling programme training, the experimental and control groups complete separate questionnaires, i.e. pre-tests. The experimental group was then given a class-based programme based on the PERMA model, led and guided by a trained psychologist. The sessions were interactive, experiential and open-ended, and were conducted in eight sessions of three hours each, once a week. Students were required to do a daily "Happiness" punch card from the beginning of the course, recording and sharing at least three "good things" each day and expressing gratitude. Students were required to record and share at least three "good deeds" each day, and express their gratitude. At the end of the course, the experimental and control groups completed the questionnaire again, i.e. the post-test, so that it could be compared with the pre-test, with an interval of more than two months between the pre and post-tests.

2.3.2. Intervention Programme

Based on the PERMA model and the characteristics of the coping styles that positive psychology focuses on, the programme designed a positive psychology group counselling programme with the content shown in Table 1. The aims of the programme are as follows: at the cognitive level, to promote students' understanding of positive psychology and develop a positive self-concept, enhance their self-
esteemed and self-confidence, explore the meaning of life and strengthen their ideal beliefs; at the emotional level, students will learn to manage their emotions, enhance positive emotions and experience the bliss of focus and engagement; at the practical level, they learn to consciously use their strengths in life, focus on the present moment, build quality intimate relationships, enhance their "perseverance" and "resilience", and face setbacks and challenges with courage to transcend themselves.

Table 1: Programme of positive psychological group counselling activities based on the PERMA model.

<table>
<thead>
<tr>
<th>No.</th>
<th>Theme</th>
<th>Purpose</th>
<th>Procedure</th>
</tr>
</thead>
</table>
| 1   | First Experience of Happiness  | Get an overview of the course and be clear about the objectives of the experiential course. Learn in a group setting to increase the well-being experience. | ① Warm-up activity: "Squirrel moving"  
② Theme activities: "Rainy Variations", "Snowball", Team show - what a joy to learn in a group, "the Kings and the Angels"  
Homework: write down three little happiness |
| 2   | Positive Strengths             | Develop a positive self-concept and be happy with themselves. Develop positive psychological qualities of self-esteem and self-confidence. | ① Warm-up activity: "finger scratching"  
② Themed activities: Strengths Declamation, Strengths "Bombing", My Highlight Moment  
③ Assignment: My strengths in practice |
| 3   | Positive emotions              | Understand the basics of emotions, recognise positive emotions and view negative emotions correctly. Manage their emotions and learn ways to enhance positive emotions. | ① Warm-up game: "You Play, I Guess"  
② Themed activities: Emotional cosplay, Emotional chess game, Happy magic game  
③ Assignment: Emotion diary |
| 4   | Positive engagement            | Learn about theories related to engagement, feel the experience of flow from focus and engagement, learn to use meditation to relax, positive thinking to focus on the present moment and improve concentration. | ① Warm-up activity: The Cat and the Mouse  
Thematic activities: Mindfulness exercise, "My secret garden", Scanning body meditation  
③ Assignment: Mindfulness exercise |
| 5   | Positive relationships         | Learn the relationship between relationships and happiness and acquire the skills and methods to build positive relationships and intimacy in their lives to build good relationships. | ① Warm-up activity: "Sprint"  
Themed activities: "Smiling Star", Proactive Response Scenario Simulation, Gratitude and Helping Good deeds Sharing  
③ Assignment: "Surprise Helpers" |
| 6   | Positive achievements          | Understand the relationship between achievement and happiness, and acquire methods and skills to develop resilience, growth mindset and resilience to enhance resilience and coping skills to enjoy achievement. | ① Warm-up activity: "Stand out"  
Themed activities: Stories of growth through adversity, "Titanic", "Breakthrough", My support system  
Assignment: 21-day habit development plan |
| 7   | Meaning seeking                | Understand the meaning of life, the factors that affect its meaning and explore the meaning and value of life. | ① Warm-up activity: Evolution  
Theme activities: "Life on A4", "Survival on a desert island", "High stage speech"  
③ Assignment: A letter from the future |
| 8   | “Happy Sailing”                | Evaluate the group's journey, members give each other blessings and feedback, and end the group counselling. | ① Warm-up activity: "Counting the Seven Orders"  
Theme activities: Happiness Creative Show, "Kings and Angels Revealed", "Happiness Retrospective", "Happiness Drifting Bottle"  
Course Summary: Finish the Final Summary Record Sheet |

2.4. Statistical Methods

Statistical methods such as independent sample and correlated sample t-test were used in this study,
and the statistical software was SPSS 24.0.

2.5. Quantitative Research Results

2.5.1. Analysis of Pre-test Differences between the Experimental and Control Groups

Pre-test difference analyses were conducted on positive and negative emotions, gratitude levels, life satisfaction, happiness, perceived meaningfulness of life and trait coping dimensions to test the homogeneity of the two groups. The t-test for differences between the two groups on the pre-test dimensions was shown in Table 2. The data in Table 2 shows that for the positive and negative emotions, gratitude level, life satisfaction and happiness level dimensions, there were no significant differences between the experimental and control groups before the intervention (all p-values were greater than 0.05), indicating that overall, the experimental and control groups were homogeneous before the intervention. The table shows that there were differences in the life meaning seeking dimension as well as the trait coping dimension, which may have had an impact on the t-test. The differences may be due to the fact that, for practical and objective reasons, students in the experimental and control groups participated in the project as a class without pre-test screening, so that students with relatively extreme scores were not excluded and students were not re-matched and grouped according to their psychological indicator status, and although the subjects selected had similar demographic backgrounds, the sample size was large and a randomised approach was used to maintain each individual's psychological indicators exact match remained difficult. Therefore, some variability in some of the dimensions emerged.

Table 2: Results of the analysis of pre-test variance between the experimental and control groups.

<table>
<thead>
<tr>
<th>Experimental conditions (Mean ± SD)</th>
<th>Experimental group (n=696)</th>
<th>Control group (n=696)</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive Emotion Pre-test</td>
<td>28.53±5.90</td>
<td>28.59±6.12</td>
<td>-0.029</td>
<td>0.834</td>
</tr>
<tr>
<td>Negative Emotion Pre-test</td>
<td>21.39±6.37</td>
<td>21.89±6.67</td>
<td>-1.055</td>
<td>0.147</td>
</tr>
<tr>
<td>Gratitude pre-test</td>
<td>32.68±5.59</td>
<td>32.73±5.63</td>
<td>-0.162</td>
<td>0.871</td>
</tr>
<tr>
<td>Satisfaction pre-test</td>
<td>18.20±6.48</td>
<td>17.62±6.74</td>
<td>1.637</td>
<td>0.102</td>
</tr>
<tr>
<td>Happiness Level Pre-test</td>
<td>19.35±4.47</td>
<td>18.99±5.04</td>
<td>1.423</td>
<td>0.155</td>
</tr>
<tr>
<td>Meaningful Life Experience Factor Pre-test</td>
<td>22.45±5.69</td>
<td>22.38±5.88</td>
<td>0.222</td>
<td>0.824</td>
</tr>
<tr>
<td>Life Meaning Seeking Factor Pre-test</td>
<td>25.01±6.61</td>
<td>25.75±6.39</td>
<td>2.123</td>
<td>0.034</td>
</tr>
<tr>
<td>Positive coping pre-test</td>
<td>31.61±5.86</td>
<td>30.43±6.44</td>
<td>3.591</td>
<td>0.000**</td>
</tr>
<tr>
<td>Negative coping pre-test</td>
<td>33.22±5.00</td>
<td>33.80±5.85</td>
<td>-2.009</td>
<td>0.045*</td>
</tr>
</tbody>
</table>

*p<0.05; **p<0.01

2.5.2. Analysis of the Difference in Mood between the Experimental and Control Groups

Table 3 shows the results of the t-test for positive and negative emotions in the two groups. Based on the results in Table 2, we can conclude the following results: on the dimension of positive affect, there was a significant increase in positive affect in both the control group as well as the experimental group (t=-7.654, p<0.001; t=-8.595, p<0.001), indicating that positive psychological group counselling can increase the positive affect of individuals. There was a significant increase in negative emotions in both the control group (t=-7.115, p<0.001) and the experimental group (t=-5.994, p<0.001). Therefore, from the above results, it is clear that for students' positive emotions, positive psychological group counselling has a good contribution. There was a significant increase in negative affect in both the experimental and control group conditions, indicating that positive group counselling did not have a significant mitigating effect on individual negative affect.

Table 3: Positive and negative emotions in the experimental (N=696) and control (N=696) groups t-test.

<table>
<thead>
<tr>
<th>Experimental conditions</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive emotion</td>
<td>28.59±6.12</td>
<td>30.48±6.01</td>
<td>-7.654</td>
<td>0.000***</td>
</tr>
<tr>
<td>Negative emotion</td>
<td>21.89±6.67</td>
<td>23.80±6.88</td>
<td>-7.115</td>
<td>0.000***</td>
</tr>
<tr>
<td>Experimental group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Positive emotion</td>
<td>28.53±5.90</td>
<td>30.49±6.05</td>
<td>-8.595</td>
<td>0.000***</td>
</tr>
<tr>
<td>Negative emotion</td>
<td>21.39±6.37</td>
<td>22.84±6.73</td>
<td>-5.994</td>
<td>0.000***</td>
</tr>
</tbody>
</table>

*p<0.05; **p<0.01; ***p<0.001
2.5.3. Analysis of Differences in Levels of Gratitude between the Experimental and Control Groups

The t-test results in Table 4 show that there was no significant difference in the levels of gratitude in the experimental group on the pre-test as well as the post-test (t=1.869, p>0.05); however, there was a significant difference in the levels of gratitude in the control group on the pre-test and post-test (t=4.160, p<0.001), indicating a significant decrease in gratitude levels in the control group. This suggests that although students who participated in positive psychological group counselling did not increase their own levels of gratitude, they could prevent a decline in gratitude levels and maintain students' gratitude at a certain level.

Table 4: Gratitude level t-test for experimental group (N=696) and control group (N=696).

<table>
<thead>
<tr>
<th>Experimental conditions</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group</td>
<td>Gratitude</td>
<td>32.73±5.63</td>
<td>31.86±6.03</td>
<td>4.160</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>Gratitude</td>
<td>32.68±5.59</td>
<td>32.30±5.71</td>
</tr>
</tbody>
</table>

*p<0.05; **p<0.01; ***p<0.001

2.5.4. Analysis of the Difference in Happiness between the Experimental and Control Groups

Table 5 shows the results of the t-test for the two groups of happiness level data. The data illustrates that there was a significant increase in the happiness level of the experimental group (t=-4.852, p<0.001); there was also a significant increase in the happiness level of the control group (t=-2.99, p<0.001). This indicates that positive psychological group counselling can better enhance students' happiness.

Table 5: Happiness level t-test for experimental group (N=696) and control group (N=696).

<table>
<thead>
<tr>
<th>Experimental conditions</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group</td>
<td>Happiness</td>
<td>18.99±5.04</td>
<td>19.50±4.39</td>
<td>-2.99</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>Happiness</td>
<td>19.35±4.47</td>
<td>20.20±4.17</td>
</tr>
</tbody>
</table>

*p<0.05; **p<0.01; ***p<0.001

2.5.5. Analysis of the Difference in Life Satisfaction between the Experimental and Control Groups

The data in Table 6 shows the results of the t-test for life satisfaction for both groups. The data shows that the difference in life satisfaction for the control group reached a level of significance (t=-6.706, p<0.001). There was also a significant difference in life satisfaction in the experimental group (t=-6.741, p<0.001) and a higher level of posttest (M=19.87, SD=6.52), indicating that positive psychological group counselling had a significant contribution to promoting life satisfaction in the students.

Table 6: T-test for life satisfaction in the experimental (N=696) and control groups (N=696).

<table>
<thead>
<tr>
<th>Experimental conditions</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group</td>
<td>Life satisfaction</td>
<td>17.62±6.74</td>
<td>19.28±6.77</td>
<td>-6.706</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>Life satisfaction</td>
<td>18.20±6.48</td>
<td>19.87±6.52</td>
</tr>
</tbody>
</table>

*p<0.05; **p<0.01; ***p<0.001

2.5.6. Analysis of the Difference in the Meaning of Life between the Experimental and Control Groups

The data in Table 7 shows that there was a significant increase in the meaningful life experience factor in the control group (t=-3.421, p<0.001) and a significant increase in the post-test level of the meaningful life experience factor in the experimental group (t=-4.646, p<0.001) compared to the pre-test level, but there was no significant difference in the meaning seeking factor in the control group (t=-1.03, p>0.05) in the t-test analysis. In the experimental group, the post-test level of the meaning-seeking factor was significantly higher than the pre-test level (t=-3.495, p<0.001). This indicates that the intervention had a facilitative effect on both the experience factor and the seeking factor, and that the enhancement of students' sense of meaning in life can be effectively promoted through the positive psychological group counselling approach.
Table 7: Meaningful life t-test for the experimental (N=696) and control groups (N=696).

<table>
<thead>
<tr>
<th>Experimental conditions</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life Meaning Experience Factor</td>
<td>22.38±5.88</td>
<td>23.09±5.67</td>
<td>-3.421</td>
<td>0.001**</td>
</tr>
<tr>
<td>Life Meaning Seeking Factor</td>
<td>25.75±6.39</td>
<td>26.00±5.10</td>
<td>-1.03</td>
<td>0.303</td>
</tr>
<tr>
<td>Experimental group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Life Meaning Experience Factor</td>
<td>22.45±5.69</td>
<td>23.45±5.63</td>
<td>-4.646</td>
<td>0.000***</td>
</tr>
<tr>
<td>Life Meaning Seeking Factor</td>
<td>25.01±6.61</td>
<td>25.93±5.09</td>
<td>-3.495</td>
<td>0.000***</td>
</tr>
</tbody>
</table>

*p<0.05; **p<0.01; ***p<0.001

2.5.7. Analysis of the Differences in Trait Coping Styles between the Experimental and Control Groups

As can be seen in Table 8, the results of the t-test for the two groups of traits coping styles showed no significant difference between positive and negative coping in the control group (t=1.028, p>0.05; t=1.809, p>0.05). In line with our expectations, the post-test level of positive coping was significantly higher than the pre-test level in the experimental group (M=36.13, SD=4.77, t=-16.43, p<0.01), indicating that receiving positive psychological group sessions significantly facilitated positive coping in individuals. In addition, the post-test level of negative coping in the experimental group was lower than the pre-test level (M=28.19, SD=6.12, t=15.793, p<0.01), indicating that there was a significant moderating effect of positive psychological group counselling on students' negative coping.

Table 8: Trait coping style t-test for experimental group (N=696) and control group (N=696).

<table>
<thead>
<tr>
<th>Experimental conditions</th>
<th>Pre-test</th>
<th>Post-test</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NC</td>
<td>30.88±6.77</td>
<td>30.43±6.44</td>
<td>1.809</td>
<td>0.071</td>
</tr>
<tr>
<td>PC</td>
<td>33.56±5.79</td>
<td>33.80±5.85</td>
<td>-1.028</td>
<td>0.304</td>
</tr>
<tr>
<td>Experimental group</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NC</td>
<td>31.61±5.86</td>
<td>28.19±6.12</td>
<td>15.793</td>
<td>0.000***</td>
</tr>
<tr>
<td>PC</td>
<td>33.22±5.00</td>
<td>36.13±4.77</td>
<td>-16.43</td>
<td>0.000***</td>
</tr>
</tbody>
</table>

NC for "negative coping"; PC for "positive coping"; *p<0.05; **p<0.01; ***p<0.001

2.6. Summary

Based on the above data analysis, it can be seen that positive psychological group counselling can increase students' positive emotions, happiness, life satisfaction, positive coping styles, can keep students' gratitude index at a relatively stable level, helps students to positively experience the meaning of life and seek meaning or purpose in life, and can effectively reduce students' negative coping. However, the effect on students' negative emotions is not significant.

3. Qualitative Research

3.1. Research Subjects

In this study, after completing the positive psychology group counselling programme, 38 students who had participated in the programme were interviewed and their reflections on the programme were collected.

3.2. Methodology

38 students agreed to participate in the interviews and the collection of reflections on the course. A semi-structured interview was used, with a structured section asking respondents to answer whether they had gained something from the course, whether they had learnt something relevant (e.g. ways to cope positively), whether they had a more positive perspective on life, whether they found the class interesting, etc. The unstructured section consisted of students' personal and detailed reflections on the course. The interviews ranged from 10 to 20 minutes in length, with an average length of about 15 minutes. All
structured sections were translated into quantitative indicators and the unstructured sections of the interviews were translated into 19 pages of textual information.

3.3. Results

The interviews revealed that before the course began, first-year students were starting university and were confused about their orientation and what they knew about positive psychology. At the same time, students had low emotional commitment to the team, less perception of others and a weaker sense of teamwork. After the completion of the positive psychology group counselling course, most of the students were better able to address the above-mentioned issues and gave a lot of feedback, mainly in the following three areas.

Firstly, students gained a lot of knowledge about positive psychology. 85.7% of students felt that they had learned a lot from the positive psychology group counselling. More than 70% of the students had a better understanding of emotion management, stress management, interpersonal communication and teamwork. In addition, students also mentioned in the course summary that "the teacher used a combination of theory and games to teach the course, which was very interesting" and "I learnt a lot about psychology", which shows that the positive psychology group counselling has enabled students to learn and understand about positive psychology. The group was a great opportunity for students to learn about positive psychology.

Secondly, students begin to be willing to try to actively practice the knowledge in their lives to discover and create happiness in their lives. Students are aware of the positive directions they can take in their lives through their learning. For example, 77.4% of students felt that they could find one thing that made them happy every day after the course tutorials; 87% of students felt that they would start to actively listen to their friends' troubles and give positive advice. In terms of interpersonal relationships, many students also used what they had learnt in their relationships to significantly improve the quality of their relationships, for example, "The happiness class has brought me closer to my classmates and I have gained a new understanding of other students." and "I am now very open-minded and optimistic, as I used to have difficulties making friends". In terms of self-awareness, students commented that they "felt bored when they first found out they were going to play the game, but they became very involved in the game", "I feel like I want to get involved in the game", and "I understand that getting happiness can also be a good thing. I understand that happiness can also be a result of the level of commitment to something and the sense of achievement afterwards," indicating that the students' sense of commitment and achievement were enhanced through positive psychology group counselling, which further stimulated their interest in learning. In addition, students were more willing to explore the meaning of events and experience the sense of meaning of events, for example, "I started to find it meaningful to record my happiness every day", "I slowly came to appreciate the meaning of happiness class", and "I thought about the meaning of happiness class before". Before I would think, what is the meaning of a happiness lesson, but now I think I have the answers to these questions".

Thirdly, there was an increase in the positive qualities and attitudes of the students. 86.7% of the students felt that they were more courageous in facing their true selves after the course; more than 80% of the students felt that they were looking forward to their future life and would actively seek help from the psychology teacher when they faced difficulties that were difficult to solve. In addition, the students' course summary also stated that "I was afraid to let myself relax because I failed in the college entrance examination, but the positive psychology group counselling course helped me to learn to relax and enjoy life. In the course of the programme, the students said, "At first, it was just a task, but after a long time, I found that there were still things that I could do every day to be happy, and "Positive psychology group counselling is not just about playing games and doing activities, it is more about understanding how to improve happiness and to be more positive about life."

4. Discussion

(a) Positive psychological group counselling has a positive impact on the psychological well-being of individuals. To explore the effects of positive psychological group counselling on students, a quantitative analysis and a qualitative analysis were conducted, the results of which partially validated our expectations. The results of our empirical study show that positive group counselling based on the PERMA model has a positive effect on positive emotions, happiness, life satisfaction and positive coping styles, and that students are more likely to experience life positively and seek meaning or purpose in life, less likely to forget to be grateful for people or things around them, and less likely to cope negatively.
Qualitative research shows that in positive psychology groups, students can learn about and observe themselves, learn from others, and support each other in gaining empathy, forming a strong support system, allowing each other to feel the positive changes that positive psychology brings to themselves and to their relationships, and gaining a sense of engagement and achievement, a sense of the meaning of events, and an increased experience of their own happiness. In addition, positive psychology group counselling allows students to combine the theoretical knowledge of positive psychology with practice and to focus more on positive messages in their lives. Therefore, the findings of this study echo past research\[11,28\] that conducting positive psychology group counselling can significantly and positively influence the positive aspects of students' psychology, effectively guiding them in a positive direction and promoting their psychological well-being. In addition, we have enriched the research on individual trait coping under positive psychological group counselling to explore the effectiveness of positive psychological group counselling in multiple dimensions.

(b) There are also some limitations in positive psychological group counselling. This is reflected in the insignificant effect of group counselling on the relief of negative emotions. Past studies have suggested that positive psychological group counselling can effectively reduce students' negative emotions\[12\], but this result was not verified in our study. Possible reasons for this, according to the author, are that positive psychological group counselling is a form of group counselling which focuses on the common psychological components of the group. Negative emotions in individuals are more likely to arise from particular events or feelings that are specific to the individual. For example, if an individual's wishes or needs are not met, negative emotions may arise\[29\]. Group counselling is not comprehensive and has difficulties in catering to the specific needs of the negative aspects of the individual, and cannot really address the source of the negative emotions of the individual. Future research can therefore explore how to develop more comprehensive positive psychology group counselling programmes that can effectively reduce negative emotions.

(c) Implications for the future development of student mental health related work in universities. First, future practice could consider combining the advantages of group-level and individual-level counselling. The combination of positive psychological group counselling and the provision of individual psychological counselling services will provide universal counselling for students' psychological education as well as for solving individual specific psychological problems, achieving a combination of universal and personalised psychological education. Positive group counselling can enhance students' positive emotions, happiness, love, gratitude and other positive attitudes, while individual counselling can help students face their individual psychological problems in a targeted way, making up for the shortcomings of positive group counselling. Secondly, group counselling requires member-to-member communication and interaction, and in this interaction may give rise to a comparative mentality among individuals, i.e. social comparison. According to social comparison theory, social comparison is prevalent in the process of interaction with human beings, and individuals gain perceptions of themselves through comparison with others around them, and this comparison may lead to negative emotional experiences and increase individuals' anxiety and depression\[30\]. This suggests that future positive psychology group counselling could include a curriculum based on social comparison theory to teach students to properly face the strengths and weaknesses of others and to properly deal with the feelings of disparity generated by social comparison. Finally, in future positive psychology group counselling practice, in addition to positive psychology-related practical activities, group leaders can also add practical activities on how to view and deal with negative states to guide students to accept their own inadequacies and reconcile with themselves and the world, thus enhancing the effectiveness of positive psychology group counselling.

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References


