

Enhancing College Students' Optimism and Perseverance through Positive Psychology Group Intervention

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ABSTRACT

The shift to college presents numerous academic, social, and emotional challenges that impact students' psychological well-being. Optimism and perseverance, key components of positive psychology, play a crucial role in enhancing resilience and fostering academic and personal success. This study examined the effectiveness of a positive psychology group intervention in enhancing optimism, perseverance, and well-being among first-year college students. The intervention, based on the EPOCH model and Cognitive-Behavioral Theory, consisted of four structured modules designed to cultivate positive thinking patterns and persistence. A quasi-experimental pre-test/post-test design was employed, with 40 participants completing the intervention. Standardized psychological instruments, including the Life Orientation Test-Revised (LOT-R), Grit Scale, and Warwick-Edinburgh Mental Well-being Scale (WEMWBS), were used to assess changes in optimism, perseverance, and well-being. Results demonstrated significant improvements in all three measures post-intervention, with large effect sizes: optimism (Cohen's $d = 1.5$), perseverance (Cohen's $d = 1.3$), and well-being (Cohen's $d = 1.6$). These findings highlight the efficacy of positive psychology interventions in promoting mental resilience and academic persistence among college students. The study underscores the potential for structured psychoeducational programs to foster personal growth and well-being, offering valuable insights for educational institutions aiming to support student development.

Keywords - College Students, EPOCH Model, Group Intervention, Optimism, Perseverance

INTRODUCTION

The transition to college represents a significant period of growth and change for many students. During this phase, they encounter various academic, social, and emotional challenges that can greatly impact their psychological well-being. Factors such as academic pressure, social adjustment, and the need for autonomy can contribute to stress and anxiety among college students [1]. Consequently, there is an increasing recognition of the importance of fostering positive psychological traits to help students navigate these challenges effectively.

Optimism and perseverance are two critical components of positive psychology that have demonstrated substantial benefits in enhancing resilience and emotional well-being. Optimism refers to a general expectation that good things will happen, serving as a buffer against the negative effects of stress and adversity [2]. Research has consistently shown that optimistic individuals tend to experience higher levels of subjective well-being, greater academic success, and improved coping strategies when faced with challenges [3][4]. For instance, a meta-analysis conducted by Liu et al. highlighted how optimism is positively correlated with academic performance across a variety of contexts, emphasizing its role in fostering motivation and goal achievement [5].

Perseverance, on the other hand, is characterized by steadfastness in pursuing goals despite obstacles [6]. Individuals who exhibit perseverance are more likely to view difficulties as opportunities for growth rather than insurmountable barriers. This trait is particularly relevant in educational settings, where persistence in the face of academic setbacks can significantly influence long-term success [7]. Indeed, research conducted by Schneider et al. found that students who demonstrated higher levels of perseverance not only reported improved academic results but also exhibited better social relationships and overall mental health [8].

The EPOCH model, developed by Kern et al., serves as a comprehensive framework to understand and cultivate these traits in young adults. It posits that Engagement, Perseverance, Optimism, Connectedness, and Happiness (EPOCH) are essential characteristics that contribute to the flourishing of individuals, particularly adolescents and young adults. Within this model, optimism and perseverance play a pivotal role in fostering resilience, encouraging students to engage meaningfully with their academic and social environments [9][10].

Optimism

Optimism has been widely studied within the field of psychology and is defined as the tendency to expect positive outcomes in various life situations, especially during times of adversity [2]. Research indicates that individuals with higher levels of optimism tend to exhibit better psychological health and emotional resilience. For instance, Scheier and Carver demonstrated that optimists often utilize more effective coping strategies when faced with stress, focusing on problem-solving and proactive engagement rather than avoidance or denial [11]. This active coping mechanism is pivotal in navigating the vicissitudes of college life.

A foundational study by Carver et al. highlights that optimism is significantly linked to improved academic achievement [12]. Their findings suggest that optimistic students are more likely to set and pursue challenging goals, persist through setbacks, and engage fully in the learning process. Additionally, enhancing optimism has been associated with various positive health outcomes, including lower levels of anxiety and depression [13]. Optimistic individuals often maintain healthier lifestyles, leading to better physical health and a lower incidence of stress-related disorders [14].

The dispositional optimism framework posited by Scheier and Carver emphasizes the importance of generalized outcome expectancies in predicting health and well-being [15]. It has been observed that grateful individuals often experience elevated optimism, which further facilitates engagement in supportive social networks and fosters resourcefulness in the face of adversity [16]. Thus, instilling optimism in college students may not only improve individual well-being but also bolster their interactions and relationships within academic settings.

Perseverance

Perseverance, often defined as sustained effort towards a long-term goal despite difficulties, has been widely recognized as a significant predictor of success in academic contexts [6]. This quality is crucial for students as they navigate the various academic challenges presented during their college years. Duckworth et al. conceptualized perseverance as a form of "grit," which is characterized by passion and sustained effort in the pursuit of long-term objectives. Their research underscored that grit is a better predictor of achievement than talent alone, suggesting that fostering this trait in students can lead to significant improvements in their academic trajectories [6].

Moreover, Wrosch and Scheier explored the impact of perseverance on mental health, indicating that individuals who exhibit persistent behavior are better equipped to cope with failures and setbacks [17]. Their findings suggest that perseverance allows students to reframe obstacles as opportunities for growth, fostering a growth mindset that is essential for academic resilience [18]. This conceptualization aligns with the EPOCH model, which includes perseverance as a critical dimension of flourishing among adolescents and emphasizes its role in achieving personal goals and optimal well-being [9].

Additionally, recent studies have identified specific strategies that can enhance perseverance among students. For example, Aditomo discussed the benefits of motivational interventions that focus on developing self-efficacy and goal-setting skills, which can in turn foster perseverance [19]. These findings underscore the importance of creating supportive environments where students are encouraged to persist in their endeavors, reinforcing the interconnectedness of optimism and perseverance [13].

In conclusion, the literature establishes a solid foundation for understanding both optimism and perseverance as critical psychological constructs that can significantly influence students' academic outcomes and broader well-being. By integrating these traits into psychoeducational programs through positive psychology group

interventions, school counselors can promote enhanced engagement and resilience among students, ultimately leading to improved academic performance and fulfillment in life. This study sought to examine the following problem:

1. How does the positive psychology group intervention impact college students' dispositional optimism, perseverance, and well-being before and after the intervention?
2. What is the magnitude of the effect of the positive psychology group intervention on college students' dispositional optimism, perseverance, and well-being?

The key hypothesis of this study is that enhancing these traits will yield significant benefits in students' overall well-being, enabling them to cope more effectively with academic and personal challenges.

Positive Psychology Group Intervention

This study implemented a positive psychology group intervention designed to cultivate optimism and perseverance among college students. Grounded in positive psychology principles, the program integrates key theoretical models that foster resilience and well-being. The EPOCH Model of Positive Psychology serves as the foundation, emphasizing engagement, perseverance, optimism, connectedness, and happiness [9]. Additionally, the group intervention incorporated Cognitive-Behavioral Theory (CBT) [20], equipping students with practical strategies to identify and modify negative thought patterns. The anticipated outcome is not only an improvement in students' academic performance but also long-term psychological resilience, ensuring they maintain a positive and determined mindset even in the face of adversity.

This intervention consisted of four structured learning experience modules delivered through 2-hour in-person group sessions held twice a week over a two-week period. The first module, "Understanding Optimism," introduces students to the concept of optimism and its role in personal and academic well-being. The session begins with a short video presentation that illustrates real-life examples of optimistic individuals overcoming challenges. This is followed by a guided discussion where students share their interpretations of optimism and its relevance to their daily lives. To deepen understanding, students participate in a self-reflection activity where they list recent challenges they faced and identify instances in which they maintained a positive outlook. This session concludes with a journaling exercise where students document moments of optimism and reflect on how they influenced their emotions and actions.

The second module, "Building Student Optimism," focuses on identifying and transforming negative thought patterns into more constructive ones. The session begins with an optimism test using the EPOCH measure to assess students' baseline levels of optimism. Students then engage in a thought-monitoring exercise, where they write down automatic negative thoughts they experience in academic or personal settings. This leads to the "3Cs Method" (Catch, Check, Correct), a cognitive-behavioral technique that trains students to recognize, evaluate, and reframe pessimistic thoughts into more constructive perspectives. To reinforce learning, students participate in peer discussions where they share personal experiences of overcoming negativity and brainstorm alternative positive responses to common student challenges.

The third module, "Understanding Perseverance," emphasizes the importance of persistence and resilience in achieving long-term success. The session starts with an experiential learning activity where students engage in a physically or mentally challenging task—such as solving a difficult puzzle or attempting a coordination-based game—to experience firsthand the frustration and determination required to persevere. Following this, students analyze case studies of successful individuals who have demonstrated perseverance in their careers or personal struggles. A structured goal-setting exercise then prompts students to outline a personal or academic challenge they are currently facing, identify potential setbacks, and formulate strategies for overcoming obstacles. To conclude the session, students engage in a commitment contract where they set specific, measurable, and time-bound perseverance goals.

The fourth and final module, "Growing Perseverance," focuses on embedding perseverance into students' daily lives through habitual practice and mindset reinforcement. The session begins with a mood check-in where

students share reflections on their perseverance challenges over the past week. They then complete a perseverance self-assessment to evaluate their progress. The main activity is a "perseverance challenge" where students are assigned a week-long task that requires consistent effort, such as maintaining a study schedule or completing a difficult reading. Midway through the session, students discuss their struggles and receive peer encouragement and problem-solving support. Finally, the session concludes with a self-reflection exercise where students evaluate how they applied perseverance techniques and set new long-term goals for continued personal development.

METHODS

Research Design

This study employed a quasi-experimental quantitative research design to evaluate the effectiveness of the positive psychology group intervention. The quasi-experimental design was selected as it allows for the assessment of the intervention's impact without random assignment of participants to control and experimental groups. Instead, the study utilized a pre-test/post-test approach within the same group of participants, which will facilitate the measurement of changes in participants' levels of optimism, perseverance, and overall well-being following the intervention.

Participants

The study utilized a convenience sampling design, focusing on a small group of first-year undergraduate students enrolled in a state university during the first semester of the academic year 2024-25. The decision to limit the sample size is based on resource constraints, including time and logistical considerations, and aims to enhance the quality of engagement. A smaller group allows for more individualized attention during the intervention, fostering a supportive environment in which students can effectively learn and practice the targeted cognitive-behavioral techniques.

Targeting first-year students is strategic, as they represent a critical transition period where optimism and perseverance can significantly impact their adaptation and success in college. Participants were recruited through campus-wide announcements, flyers distributed in locations frequented by first-year students, and online platform such as social media pages. This multi-channel approach ensured a wider reach while maintaining voluntary participation.

Instrument

The positive psychology group intervention evaluated the impacts of dispositional optimism, perseverance, and overall mental well-being using three validated instruments: the Life Orientation Test-Revised (LOT-R), the Grit Scale, and the Warwick-Edinburgh Mental Well-being Scale (WEMWBS). The LOT-R, a 10-item scale, measures dispositional optimism with high reliability (Cronbach's alpha between 0.70 and 0.90) and validity through its strong correlations with positive affect [12]. The Grit Scale, developed by Duckworth et al. [6], consists of 12 items assessing perseverance and passion for long-term goals, boasting a Cronbach's alpha above 0.80 and established construct validity. Lastly, the WEMWBS, a 14-item instrument focused on measuring positive mental health, demonstrates excellent reliability (Cronbach's alpha around 0.91) and shows strong concurrent validity with other well-being measures [21].

Procedures

Interested participants were provided with detailed information about the study, including its objectives, structure, and time commitment. A total of 40 students (28 female, 12 male) voluntarily enrolled in the study and committed to completing the full intervention program. Prior to the intervention, all participants completed a pre-test assessment using standardized psychological instruments, including the Life Orientation Test-Revised (LOT-R) for dispositional optimism, the Grit Scale for perseverance, and the Warwick-Edinburgh Mental Well-

Being Scale (WEMWBS) for well-being. This baseline measurement was essential for evaluating the initial levels of optimism, perseverance, and well-being among students before exposure to the intervention. The positive psychology group intervention was conducted over two weeks, consisting of four structured two-hour sessions that focused on developing optimism and perseverance. All 40 participants attended and completed the intervention, ensuring consistency in program delivery and engagement. After the final session, a post-test assessment was administered using the same psychological instruments as the pre-test. This allowed for direct comparison of scores, enabling researchers to determine the extent to which the intervention influenced students' levels of optimism, perseverance, and well-being.

Data Analysis

Data were analyzed using paired t-tests, a statistical method used to compare pre-test and post-test scores within the same group. This analysis determined whether changes in optimism, perseverance, and well-being were statistically significant, indicating the effectiveness of the intervention. Additionally, Cohen's d effect size was computed to measure the magnitude of change, providing deeper insights into the practical impact of the positive psychology group intervention. The results were used to assess the intervention's effectiveness in fostering psychological resilience among first-year university students.

Ethical Considerations

Before participation, ethical considerations were strictly observed to protect the rights and well-being of participants. The study underwent ethical review and approval by an Institutional Review Board (IRB) to ensure compliance with research ethics, including confidentiality, voluntary participation, and data protection. Participants were required to provide written informed consent, which outlined the study's purpose, procedures, potential risks, and the right to withdraw at any point without consequences. To maintain confidentiality, all responses were anonymized, and participant data were securely stored.

RESULTS AND DISCUSSION

The pre and post intervention assessments of this study demonstrated the effectiveness of the positive psychology group intervention in enhancing optimism, perseverance, and well-being among first-year college students. Table 1 presents the results of the positive psychology group intervention's impact on dispositional optimism, perseverance, and well-being.

Table 1 Pre- and Post-Intervention Scores for Optimism, Perseverance, and Well-Being

Measure	Pre-Intervention Mean (SD)	Post-Intervention Mean (SD)	t-Value	p-Value	Cohen's d	Effect Size
Dispositional Optimism (LOT-R)	25.4 (4.3)	31.2 (3.5)	-8.74	< 0.001	1.5	Large
Perseverance (Grit Scale)	3.45 (0.5)	4.1 (0.4)	-7.62	< 0.001	1.3	Large
Well-Being (WEMWBS)	48.3 (9.2)	60.5 (7.8)	-10.48	< 0.001	1.6	Large

The analysis of the Life Orientation Test-Revised (LOT-R) scores revealed a significant increase in participants' levels of dispositional optimism following the positive psychology group intervention. The mean pre-intervention score was 25.4 (SD = 4.3), while the post-intervention mean score rose to 31.2 (SD = 3.5). A paired t-test indicated a statistically significant difference ($t(39) = -8.74, p < 0.001$), suggesting that the intervention effectively enhanced the optimism levels of participating students. This change indicates that targeted efforts to cultivate a positive outlook can create substantial shifts in students' perspectives toward their future.

The substantial increase in optimism scores indicates that the techniques employed in the positive psychology group intervention were effective in shifting students' perspectives. Optimism is a vital psychological resource

that enables individuals to approach challenges with hope rather than fear. This aligns with theories posited by Seligman and his contemporaries, who suggest that optimistic outlooks can be cultivated through structured interventions that promote cognitive reframing and positive thinking [23]. The deliberate focus on cognitive-behavioral techniques, discussions, and reflective practices in the program likely provided students with tools to challenge negative thought patterns and replace them with more constructive narratives. Moreover, fostering optimism not only aids in academic performance but also enhances social connections. Optimistic individuals tend to seek out and maintain supportive relationships, which are crucial during the potentially isolating transition to college life [13]. As students cultivate a more positive outlook, they may be more inclined to engage with peers, seek help when needed, and participate actively in campus life, thereby creating a more enriching college experience.

In terms of perseverance, the results from the Grit Scale echoed similar positive outcomes. Participants' pre-intervention mean score was 3.45 (SD = 0.5), which increased to 4.1 (SD = 0.4) post-intervention. Paired t-test results confirmed a significant enhancement in perseverance ($t(39) = -7.62, p < 0.001$), showcasing the intervention's effectiveness in fostering grit and consistency in pursuing long-term goals. This finding emphasizes the importance of constructing resilience and determination among students, equipping them with the psychological tools necessary to navigate academic and personal challenges effectively.

The pronounced improvement in perseverance reflects the program's success in instilling a growth mindset among participants. By framing challenges as opportunities for growth rather than insurmountable obstacles, students were likely encouraged to persist in the face of difficulties. This perspective is echoed in Angela Duckworth's research on grit, which highlights the importance of passion and sustained effort in achieving long-term goals [6]. The structured activities within the positive psychology group intervention likely provided students with practical experiences that reinforced the belief in the value of perseverance.

Furthermore, the enhancement of perseverance is particularly pertinent in the context of academic success. The pressures of college can often discourage students, leading to a higher likelihood of dropping out or disengaging from their studies. By developing a greater sense of grit, students are better equipped to navigate these pressures, reflecting the reciprocal relationship likely present between optimism and perseverance. As students become more optimistic, they consequently develop greater resilience to setbacks, which in turn reinforces their perseverance. This interconnectedness of traits is crucial for fostering holistic student well-being.

Additionally, WEMWBS scores showed a noteworthy improvement, with the mean pre-intervention score recorded at 48.3 (SD = 9.2) and a post-intervention score increasing to 60.5 (SD = 7.8). A significant difference was also observed ($t(39) = -10.48, p < 0.001$), indicating that participants experienced enhanced mental well-being as a result of the program. Complementing these t-test results, effect sizes calculated for optimism (Cohen's $d = 1.5$), perseverance (Cohen's $d = 1.3$), and well-being (Cohen's $d = 1.6$) all indicated large effects, underscoring the substantial impact of the intervention. In discussion, these findings highlight the critical role that nurturing optimism and perseverance can play in the lives of first-year college students, thus providing valuable insights for student support services within educational settings.

The significant improvements in students' overall well-being highlight the positive psychology group intervention's potential to contribute to a supportive campus environment that prioritizes mental health. Well-being, as defined by the Warwick-Edinburgh Mental Well-being Scale, encompasses various dimensions including emotional, psychological, and social well-being [21]. The increase in scores in this area suggests that the program not only addressed individual psychological traits but also promoted a healthier, more balanced approach to life in general.

Such positive psychology group intervention could play a pivotal role in mitigating stress and anxiety, particularly in the wake of global events such as the COVID-19 pandemic, which have exacerbated mental health issues among college students [22]. By targeting optimism and perseverance, institutions can proactively enhance their students' resilience, equipping them with the skills necessary for navigating the complexities of modern life. Future iterations of the positive psychology group intervention could be expanded to include additional themes, such as connectedness and happiness, which would enhance the holistic approach of promoting well-being among students.

CONCLUSION AND RECOMMENDATION

The results of this study strongly support the effectiveness of the Positive Psychology Group Intervention in improving optimism, perseverance, and overall well-being among first-year college students. The significant post-intervention gains across all measures highlight the value of structured psychological programs in fostering resilience and positive mindset changes. The large effect sizes further demonstrate the meaningful impact of the intervention, reinforcing its potential as a beneficial approach to student development. Given the various challenges college students encounter, particularly in adjusting to academic pressures and social transitions, incorporating such interventions into student support initiatives can help equip them with essential coping strategies. These findings emphasize the need for positive psychology-based programs in educational settings, encouraging institutions to implement evidence-based approaches that enhance mental health, academic persistence, and overall student success.

While the findings are encouraging, further research is necessary to refine and expand the program. Addressing limitations such as the small sample size, lack of a control group, and reliance on self-reported measures will strengthen the evidence base for its effectiveness. Additionally, longitudinal studies should be conducted to assess the sustainability of the observed improvements over time. Collaboration with faculty, parents, and the broader community will be essential in creating a supportive ecosystem that reinforces the positive changes initiated through the intervention. By incorporating resilience-building strategies into academic curricula and student support services, institutions can enhance students' overall psychological well-being.

The findings have significant implications for school counseling programs, emphasizing the need for a holistic approach that integrates emotional and psychological development alongside academic achievement. School counselors should actively incorporate positive psychology frameworks, such as the EPOCH model, into their practices to nurture engagement, purpose, optimism, character, and happiness. Collaboration between counselors, teachers, and administrators is essential in embedding resilience-building strategies into classroom activities and school-wide initiatives. Additionally, counseling programs should shift towards preventive interventions, equipping students with coping skills before they encounter major challenges, rather than relying solely on reactive measures.

A data-driven approach is crucial in ensuring the effectiveness of school counseling interventions. By using regular assessments and evaluations, counselors can refine their programs, tailor interventions to students' specific needs, and continuously improve service delivery. Increasing awareness and accessibility of counseling services focused on optimism and perseverance is also vital, ensuring that students know where to seek support. Moreover, family and community engagement should be prioritized, reinforcing the development of these positive traits beyond the school environment. Ultimately, school counseling programs that integrate positive psychology interventions and provide long-term support will contribute to healthier, more resilient student populations, fostering a school culture that promotes both academic success and personal well-being.

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