The Influence of Positive Psychology Interventions on Adolescent Well-being: A Systematic Literature Review

Mengfei Fu

Melbourne Graduate School of Education, The university of Melbourne, Melbourne, 3000, Australia

294766567@qq.com

Abstract. With rising living standards, there has been a growing focus on well-being in recent years. Adolescence, widely recognized as a pivotal stage in life, has drawn significant interest from researchers and scholars across disciplines due to its profound impact on adolescents' well-being. Positive psychology interventions originated in the 1990s and have experienced rapid growth into the 21st century. Increasingly, researchers have recognized the potential of positive human attributes in mitigating mental illnesses, leading to the emergence of positive psychology interventions. However, most researchers have focused on studying positive psychology interventions within the realm of clinical medicine, with fewer studies conducted in the field of education. Therefore, this paper employs a systematic literature review methodology to examine and consolidate the research on positive psychology interventions and well-being within the realm of education over the past decade. It is found that (1) In the past few years, psychologists have paid more and more attention to the impact of positive psychology on adolescent well-being, and there are more studies on this in Western countries. (2) Positive psychology interventions yield substantial short-term benefits for adolescents' well-being, including fostering positive emotions and enhancing their resilience. (3) There is limited research in the realm of education regarding the effects of positive psychology interventions on the well-being of at-risk adolescents.

Keywords: Positive Psychology Interventions, wellbeing, adolescent.

1. Introduction

With the continuous advancements in technology and economic development, psychological issues have garnered significant attention, evolving into a focal point within the global public health discourse [1]. Mental health concerns, with potential repercussions such as diminished quality of life and an elevated risk of disability [2], have become increasingly prevalent. The gravity of these issues is particularly pronounced among adolescents, as extensive research indicates that the majority of adult mental disorders originate during adolescence and early childhood [3]. Recognized as a crucial developmental stage, adolescence poses formidable challenges, both physically and psychologically. Adolescents undergo significant changes, encompassing physical growth, weight gain, alterations in appearance, the awakening of self-awareness, and the formulation of their life perspectives. These transformations may contribute to psychological issues like low self-esteem, distress, and anxiety, subsequently leading to undesirable behaviors.

Despite psychologists acknowledging the significance of mental health during adolescence, the predominant focus has been on the treatment of mental disorders. Chakhssi et al. (2018) noted a tendency among psychologists to neglect the promotion of well-being and positive functioning while concentrating on the treatment of mental illnesses [4]. Additionally, a study by Suldo et al. (2014) highlighted a scarcity of research on interventions aimed at enhancing well-being among adolescents [5]. Recognizing the need to proactively address psychological problems in adolescents, Positive Psychology Interventions (PPIs) have garnered increased attention from psychologists due to their potential to boost positive emotions and behaviors through various daily life activities [6].

Therefore, the objective of this paper is to examine the impact of PPIs on adolescent well-being.

The current research employs a systematic literature review approach to delve into the influence of PPIs on adolescent well-being. The initial section introduces the significance of PPIs and adolescence in relation to well-being. Subsequently, the key terms "Positive Psychology Interventions" and the definition of "well-being" are elucidated within the context of this study. The

research methodology, involving a systematic literature review and the criteria for selecting relevant literature, is then analyzed. Finally, the paper scrutinizes 13 selected papers that meet the inclusion criteria.

2. Literature Review

2.1. Positive Psychology and Positive Psychology Interventions

In the late 1990s, positive psychology (PP) emerged [7], subsequently experiencing dynamic growth. Seligman and Csikszentmihalyi (2000) proposed that PP contributes to the flourishing of individuals, groups, and communities [8]. PP research primarily encompasses four areas [9]. The first area explores the influence of positive emotions on mental and physical well-being. The second area focuses on positive personal traits such as values and personality. The third area delves into positive interpersonal relationships, including friendships with classmates and teacher-student relationships. The fourth area examines positive community aspects, spanning family, school, and community dynamics. Additionally, Wood and Johnson (2016) [10] state that PP aims to enhance well-being through identification, development, and evaluation, incorporating practices like expressing gratitude, cultivating optimism, and leveraging personal strengths to achieve goals.

Concurrently, PP is concerned with the development of Positive Psychology Interventions (PPIs). Westerhof and Keyes (2010) argue that PPIs stem from the understanding that well-being and psychopathology are distinct yet interconnected constructs [11]. Sin and Lyubomirsky (2009) define PPIs as programs, activities, or treatments fostering positive emotions, cognitions, and behaviors [12]. In essence, PPIs encompass exercises such as expressing gratitude, utilizing personal strengths, and blessing others, promoting well-being by enhancing activities that generate positive emotions and cognitive behaviors rather than solely reducing negative emotions.

PPIs are categorized into single-component interventions and multi-component interventions [13]. Single-component interventions, for instance, involve practices like daily gratitude journaling. Multi-component PPI interventions, as defined by Seligman (2018), engage in exercises comprising two or more well-being components [14].

2.2. Well-being

From a PP perspective, well-being comprises three components: positive emotion, engaged life, and meaningful life, each of which is assessable [15]. Positive emotion, the first component, encompasses feelings such as happiness, contentment, and cheerfulness—an enjoyable way of living each day. The "Engaged Life," the second component, involves leading a life in a state of flow, closely aligned with the visions of Aristotle and Thomas Jefferson. A key aspect of the Engaged Life is the concept of flow, characterized by losing self-awareness, experiencing timelessness, and becoming one with an activity [16]. The third component, meaningful life, entails recognizing one's greatest strengths and utilizing them to become a better version of oneself [15].

Research indicates a connection between well-being and specific personal traits [17]. For instance, Diener and Diener (2009) argue that there exists a robust association between well-being and personality traits such as optimism, self-esteem, and gratitude [18]. Optimistic individuals tend to approach challenges with positivity, thereby enhancing their overall well-being. Furthermore, both genetic and environmental factors play a role in shaping well-being [19, 20]. For example, an individual's cultural background and family upbringing are notable factors. When an individual grows up in an exceptionally oppressive environment, they may experience psychological pressures beyond the norm, potentially leading to compromised well-being.

3. Research Questions

As previously noted, psychologists predominantly prioritize research on mental illness, overlooking investigations into well-being promotion and positive change. Furthermore, studies

addressing measures to enhance adolescent well-being are often disregarded [4, 5]. Hence, the objective of this dissertation is to explore the impact and efficacy of positive psychology interventions on adolescent well-being. Accordingly, the research question is formulated as follows:

RQ1: Can positive psychological interventions exert a positive impact on all facets of adolescent well-being, encompassing aspects such as socialization, resilience, and more?

RQ2：To what extent are positive psychology interventions effective in bolstering the well-being of at-risk adolescents, including those facing socio-economic challenges or grappling with mental health issues?

4. Method

This study employed the research method of systematic literature review.

4.1. Literature Searching

Web of Science was chosen as the electronic database for literature search. Initial keyword searches using "Positive Psychology Intervention" and "well-being" yielded limited relevant literature. Consequently, the search keywords were expanded to include (“positive psychology intervention” OR “positive education”) AND (“wellbeing” OR “psychological wellbeing” OR “happiness”). In summary, this study retrieved a total of 890 relevant documents from SSCI and SCI journal articles, spanning from 2016 to 2023, through Web of Science—an extensive educational database.

4.2. Literature Screening

Literature search primarily identifies relevant literature, and further screening is imperative to determine its suitability for use. According to Hutchison (1993), screening criteria should be concise and clear, facilitating quick comprehension [21]. Additionally, Green et al. (2006) emphasize that effective inclusion criteria should consider language, relevance to the study content, and avoid an excess of criteria to prevent a scarcity of studies in the literature [22].

The inclusion criteria for this study were: (1) studies related to "Positive Psychology Intervention" and "well-being" within the field of pedagogy; (2) studies related to "Positive Psychology Intervention" and "well-being"; (3) empirical studies; (4) publication date between 2016-2023; (5) English language publication; and (6) accessibility to the full-text of the literature.

The exclusion criteria were as follows: (1) literature limited to abstracts only or not published in English; (2) literature unrelated to Positive Psychology Intervention and well-being; (3) literature lacking access to the full text; and (4) review literature and theoretical literature.

After the initial screening, 201 articles remained. Subsequently, by reviewing titles and abstracts and excluding those not meeting the criteria, 36 articles were retained. The full texts of these 36 articles were then examined, resulting in the selection of 13 articles that met the study's requirements.

The literature selection process was conducted independently by the researcher and a student majoring in English language education for foreigners, with a Kappa value of 0.78, indicating a high level of consistency at the 0.01 level of significance.

4.3. Coding framework

The literature coding process, inspired by Benoit and Gabola (2021) [23], encompassed various coding types and approaches. The coding style for this research included:

(1) Basic Information: Author, Publication Year, Country

(2) Positive Psychology Intervention: Target Audience, Type of Intervention, Intervention outcomes and their implications for well-being

The coding method employed in this study involved discussions between two authors to resolve discrepancies and achieve consensus.

5. Results and Discussion

5.1. Descriptive Information of the Literature

Analyzing the statistics presented in Table 1, it is evident that research on Positive Psychology Interventions (PPI) and well-being has garnered attention from diverse countries and regions, featuring varied research subjects. A closer examination of Table 1 indicates that among the 13 papers meeting the inclusion criteria, four originated from the UK, and three were from Australia. This distribution highlights the prominence of the UK and Australia in PPI and well-being research. Additionally, scholars from countries such as Greece and Malaysia have also contributed to the body of research on PPI and well-being, showcasing a global recognition of the increasing importance of mental health issues.

Concerning the research subjects, seven out of the 13 papers focused on college students, three on high school students, two on primary school students, and one on teachers. This distribution implies that studies pertaining to PPI and well-being predominantly concentrate on college students, the body of research on the well-being of high school pupils, elementary school students, and teachers is limited. Consequently, this indicates a gap in the literature, with a limited number of studies examining the impact of PPI on adolescent well-being—a noteworthy aspect requiring further exploration in this research project. Additionally, for the second research question concerning at-risk adolescents, none of the 13 included studies had participants who at-risk adolescents were.

Table 1. Research objective and country

Author, year	Country	Research objective
(Yeh & Barrington, 2023) [24]	The United Kingdom	Teacher
(Kounenou et al., 2022) [25]	Greece	University student
(Gan et al., 2022) [26]	Malaysia	Year one university students
(Lambert et al., 2021) [27]	United Arab Emirates	university students
(Krifa et al., 2021) [28]	Tunisia	Healthcare university student
(Goldberg et al., 2021) [29]	Netherland	primary school student
(Chilver & Gatt, 2021) [30]	Australia	First year psychology students
(Perkins et al., 2021) [31]	The United Kingdom	Students aged 16–18 years
(Young et al., 2020) [32]	Australia	university student
(Amundsen et al., 2020) [33]	The United Kingdom	Children in Year 5, aged 9 to 10 years old
(Putwain et al., 2018) [34]	England	Year 12
(O'Connell et al., 2017) [35]	Ireland	university student
(Burckhardt et al., 2016) [36]	Australia	Year 10 and 11, aged 15 to 18

5.2. Types of Positive Psychology Interventions

The classification of PPIs into two categories—single-component interventions and multi-component interventions—is evident from the discussion above. An analysis of Table 2 reveals that, in studies focusing on PPI and well-being, the predominant type of PPI employed is multi-component interventions. Among the 13 papers meeting the inclusion criteria, 11 papers utilized multi-component interventions, while only 2 papers employed single-component interventions. This prevalence of multi-component interventions underscores the complexity of factors influencing well-being, making it challenging to address with single-component interventions alone. The inclination

towards multi-component interventions aligns with the multifaceted nature of well-being and the recognition that addressing various aspects concurrently may be more effective in promoting positive outcomes.

Table 2. Types of positive psychology interventions

multi-component interventions	(Yeh & Barrington, 2023); (Kounenou et al., 2022); (Gan et al., 2022); (Lambert et al., 2021); (Krifa et al., 2021); Goldberg et al., 2021); (Chilver & Gatt, 2021); (Perkins et al., 2021); (Young et al., 2020); (Putwain et al., 2018); (Burckhardt et al., 2016) [24-32] [34, 36]
single-component interventions	(Amundsen et al., 2020); (O'Connell et al., 2017) [33, 35]

5.3. Intervention outcomes and their implications for well-being

Through comprehensive analysis of 13 studies, it was found that interventions were primarily implemented through integrating positive psychology principles into curricula to intervene with students. Considering that the first research question of this study examines whether PPI can positively impact adolescent well-being, conclusions can be drawn by integrating findings from Table 1 and Table 3. The implementation of PPI mainly focuses on enhancing adolescents' life satisfaction by fostering positive emotions, resilience, and self-esteem, thereby improving their overall well-being. It indicates that PPI can effectively enhance adolescent well-being in the short term, with less pronounced effects in the long term. In addition, a research conducted by Young et al. (2020) indicates that the rise in happiness is more pronounced among college students who have a lower initial level of happiness or those who place a higher value on happiness [32]. In other words, positive psychological interventions may hold greater value for adolescents with lower baseline happiness levels or those who prioritize happiness.

Table 3. Intervention description and their implications for well-being

Author, year	**Intervention description and their implications for well-being**
(Yeh & Barrington, 2023) [24]	Designed staff meetings and self-interest groups based on the PERMA model to enhance teachers' well-being.
(Kounenou et al., 2022) [25]	Positive psychology (PP) group counselling intervention: Provided five psychological education lectures within 5 weeks, followed by group discussion activities after each session, such as gratitude letters, leveraging strengths, and life reflections. The intervention resulted in significant improvements in positive emotions, adaptability, and self-esteem among students in the PPI program.
(Gan et al., 2022) [26]	Integrated positive psychology lectures and workshops over a 24-week period. There were no significant changes observed in students' subjective well-being and life satisfaction.
(Lambert et al., 2021) [27]	A 6-week course integrating positive psychology concepts. The intervention facilitated the generation of positive emotions; however, no significant impacts were seen on negative emotions, life satisfaction, perceived stress, fear of happiness, locus of control, or physical complaints, nor on degrees of collectivism or individualism.
(Krifa et al., 2021) [28]	A 12-week collective intervention aimed at promoting well-being. It significantly increased social support, but no other statistically significant effects were observed. However, participants in the intervention group showed significant improvements in happiness, self-acceptance, optimism, self-esteem, and positive relationships with others.

(Goldberg et al., 2021) [29]	The Dutch Positive Education Program (promoting a shift in teachers' perspectives).
(Chilver & Gatt, 2021) [30]	A 6-week online multidimensional positive psychology intervention. It effectively enhances subjective well-being.
(Perkins et al., 2021) [31]	A 30-minute online self-management session. In the short term, self-compassion, self-esteem, and negative emotions receive positive feedback, but the long-term impact is limited.
(Young et al., 2020) [32]	Positive mental health intervention embedded in undergraduate psychology courses. Intervention outcomes indicate improvements in happiness, positive emotions, negative emotions, and clinical happiness. Compared to the positive control group, the intervention mitigated the impact of semester stress. Practice frequency has little impact on happiness, yet for students with lower baseline happiness and those prioritizing happiness, the increase is higher—suggesting greater value of positive educational interventions for certain students.
(Amundsen et al., 2020) [33]	Utilizing a series of validated self-report measures of happiness along with emotion regulation and mindfulness self-report measures. It enhances positive outlook and life satisfaction, thereby improving student well-being.
(Putwain et al., 2018) [34]	Offering six sessions integrating positive psychology into the school curriculum. The school program positively impacts school-related well-being; in the short term, student adaptability increases, with limited positive effects on academic buoyancy.
(O'Connell et al., 2017) [35]	A 2-week gratitude intervention (writing down social interactions or friendships/relationships you are grateful for). It increases positive emotions and life satisfaction (increase in gratitude, and increases in friendship and life satisfaction).
(Burckhardt et al., 2016) [36]	The programme in question is an educational initiative that integrates principles from positive psychology with acceptance and commitment therapy. Initial investigations indicate that the use of acceptance-based emotion management tools into early intervention programmes may help alleviate symptoms and improve happiness in high school students.

6. Conclusion

The objective of this investigation is to investigate the impact and effectiveness of PPI on adolescent well-being, utilizing a systematic literature review approach. The research findings suggest that PPI has positive impacts on adolescent well-being in the short term, such as enhancing resilience, promoting positive emotions, and effectively improving subjective happiness. However, there is limited literature available. Additionally, the use of only Web of Science as the electronic database during literature search resulted in a relatively small number of included studies, potentially leading to incomplete coverage of the literature. It is hoped that future research will focus more on the well-being of at-risk adolescents.

References

[1] Vos, T., & Mathers, C. D. (2000). The burden of mental disorders: A comparison of methods between the Australian burden of disease studies and the global burden of disease study. Bulletin of the World Health Organization, 28, 427–438.

[2] Mihalopoulos, C., Vos, T., Pirkis, J., & Carter, R. (2011). The Economic Analysis of Prevention in Mental Health Programs. Annual Review of Clinical Psychology, 7 (1), 169–201.

[3] Copeland, W., Shanahan, L., Costello, E. J., & Angold, A. (2011). Cumulative Prevalence of Psychiatric Disorders by Young Adulthood: A Prospective Cohort Analysis from the Great Smoky Mountains Study. Journal of the American Academy of Child & Adolescent Psychiatry, 50 (3), 252–261.

[4] Chakhssi, F., Kraiss, J. T., Sommers-Spijkerman, M., & Bohlmeijer, E. T. (2018). The effect of positive psychology interventions on well-being and distress in clinical samples with psychiatric or somatic disorders: a systematic review and meta-analysis. BMC Psychiatry, 18 (1), 1–17.

[5] Suldo, S. M., Savage, J. A., & Mercer, S. H. (2014). Increasing middle school. students' life satisfaction: efficacy of a positive psychology group intervention. Journal of Happiness Studies, 15 (1), 19–42.

[6] Schotanus-Dijkstra, M., Drossaert, C. H., Pieterse, M. E., Walburg, J. A., & Bohlmeijer, E. T. (2015). Efficacy of a multicomponent positive psychology self-help intervention: study protocol of a randomized controlled trial. JMIR Research Protocols, 4 (3), 1–16.

[7] Snyder, C. R., Lopez, S. J., Edwards, L. M., & Marques, S. C. (2016). Oxford handbook of positive psychology (Third ed.). Oxford University Press.

[8] Seligman, M. E. P., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. American Psychologist, 55 (1), 5–14.

[9] Park, N., Peterson, C., & Sun, J. K. (2013). La Psicología positiva: investigación y aplicaciones. Terapia Psicológica, 31 (1), 11–19.

[10] Wood, A. M., & Johnson, J. (2016). The Wiley handbook of positive clinical psychology. Wiley.

[11] Westerhof, G. J., & Keyes, C. L. M. (2010). Mental illness and mental health: the two continua model across the lifespan. Journal of Adult Development, 17 (2), 110–119.

[12] Sin, N. L., & Lyu mbomirsky, S. (2009). Enhancing well- being and alleviating depressive symptoms with positive psychology interventions: a practice friendly meta- analysis. Journal of Clinicl Psychology, 65 (5), 467- 487.

[13] Marques, S. C., Lopez, S. J., & Pais-Ribeiro, J. L. (2011). Building hope for the future": A program to foster strengths in middle- school students. Journal of Happiness Studies, 12 (1), 139–152.

[14] Seligman, M. (2018). PERMA and the building blocks of well-being. Journal of Positive Psychology, 13 (4), 333–335.

[15] Seligman, M.E.P. (2002). Authentic happiness: using the new positive psychology to realize your potential for lasting fulfillment. Free Press.

[16] Csikszentmihalyi, M. (1990). Flow: the psychology of optimal experience. Harper & Row Press.

[17] Butkovic, A., Brkovic, I., & Bratko, D. (2012). Predicting well-being from personality in adolescents and older adults. Journal of Happiness Studies, 13, 455-467.

[18] Diener, E., & Diener, M. (2009). Cross-cultural correlates of life satisfaction and self-esteem. Culture and Well-Being, 38, 71-91.

[19] Lykken, D., &T ellegen, A. (1996). Happiness is a stochastic phenomenon. Psychological Science, 7, 186-189.

[20] Lyubomirsky, S., Sheldon, K. M., &Schkade, D. (2005). Pursuing happiness: the architecture of sustainable change. Review of General Psychology, 9, 111-131.

[21] Hutchison, B. G. (1993). Critical appraisal of review articles. Canadian family physician, 39, 1097–1102.

[22] Green, B. N., Johnson, C. D., & Adams, A. (2006). Writing narrative literature reviews for peer-reviewed journals: secrets of the trade. Journal of Chiropractic Medicine, 5 (3), 101–117.

[23] Benoit, V., & Gabola, P. (2021). Effects of positive psychology interventions on the well-being of young children: a systematic literature review. International Journal of Environmental Research and Public Health, 18 (22), 12065-12083.

[24] Yeh, C. S.-H., & Barrington, R. (2023). Sustainable positive psychology interventions. enhance primary teachers' wellbeing and beyond – a qualitative case study in England. Teaching and Teacher Education, 125, 104072.

[25] Kounenou, K., Kalamatianos, A., Garipi, A., & Kourmousi, N. (2022). A positive psychology group intervention in Greek university students by the counseling center: effectiveness of implementation. Frontiers in Psychology, 13, 1-9.

[26] Gan, T. Y., Beevi, Z., Low, J., Lee, P. J., & Hall, D. A. (2022). Developing future-ready university graduates: nurturing wellbeing and life skills as well as academic talent. Frontiers in Psychology, 13, 1-11.

[27] Lambert, L., Warren, M. A., Schwam, A., & Warren, M. T. (2021). Positive psychology interventions in the United Arab Emirates: boosting wellbeing and changing culture? Current Psychology.

[28] Krifa, I., Hallez, Q., Zyl, L. E., Braham, A., Sahli, J., Ben Nasr, S., & Shankland, R. (2021). Effectiveness of an online positive psychology intervention among tunisian healthcare students on mental health and study engagement during the Covid-19 pandemic. Applied Psychology: Health and Well-Being, 14 (4), 1228-1254.

[29] Goldberg, J. M., Sommers-Spijkerman, M. P. J., Clarke, A. M., Schreurs, K. M. G., & Bohlmeijer, E. T. (2021). Positive education in daily teaching, the promotion of wellbeing, and engagement in a whole school approach: a clustered quasi-experimental trial. School Effectiveness and School Improvement, 33 (1), 1–20.

[30] Chilver, M. R., & Gatt, J. M. (2021). Six-week online multi-component positive psychology intervention improves subjective wellbeing in young adults. Journal of Happiness Studies, 23, 1267–1288.

[31] Perkins, A. M., Bowers, G., Cassidy, J., Meiser-Stedman, R., & Pass, L. (2021). An enhanced psychological mindset intervention to promote adolescent wellbeing within educational settings: a feasibility randomized controlled trial. Journal of Clinical Psychology, 77 (4), 946–967.

[32] Young, T., Macinnes, S., Jarden, A., & Colla, R. (2020). The impact of a wellbeing program I mbedded in university classes: the importance of valuing happiness, baseline wellbeing and practice frequency. Studies in Higher Education, 47 (4), 1–20.

[33] Amundsen, R., Riby, L. M., Hamilton, C., Hope, M., & McGann, D. (2020). Mindfulness in primary school children as a route to enhanced life satisfaction, positive outlook, and effective emotion regulation. BMC Psychology, 8 (71).

[34] Putwain, D. W., Gallard, D., & Beaumont, J. (2018). A multi-component wellbeing programme for upper secondary students: effects on wellbeing, buoyancy, and adaptability. School Psychology International, 40 (1), 49–65.

[35] O'Connell, B. H., O'Shea, D., & Gallagher, S. (2017). Examining psychosocial pathways underlying gratitude interventions: a randomized controlled trial. Journal of Happiness Studies, 19 (8), 2421–2444.

[36] Burckhardt, R., Manicavasagar, V., Batterham, P. J., & Hadzi-Pavlovic, D. (2016). A randomized controlled trial of strong minds: a school-based mental health program combining acceptance and commitment therapy and positive psychology. Journal of School Psychology, 57, 41–52.