

The Role of Growth Mindset on Mental Health of Adolescents

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Abstract

A growth mindset is the belief that one's intelligence and abilities can be developed via effort, knowledge acquisition, and perseverance. Although numerous studies have examined the correlation between a growth mindset and children's academic performance, there is a dearth of research assessing the influence of a growth mindset on mental health. The World Health Organisation estimates that roughly 14% of individuals aged 10 to 19 worldwide are likely to develop mental health issues. Psychological illnesses, including depression, anxiety, and behavioural challenges, substantially contribute to the elevated prevalence of illness and impairment among adolescents. Therefore, it is essential to pursue additional research on adolescent mental health. The present study was performed to evaluate the impact of a growth mindset on the mental health of 403 adolescents. The current study assessed adolescents implementing the growth mindset scale and the mental health scale. The findings indicated that adolescents with a high growth mindset scored markedly high on mental health compared to those with a low growth mindset. An analysis of the study results is performed in conjunction with previous research, highlighting implications, limits, and recommendations for future investigations.

Keywords: growth mindset, mental health, adolescents

INTRODUCTION

A synthesis of feeling good and effective functioning defines mental health. It exists on a multifaceted spectrum that includes experiences from ideal well-being to profound mental distress (World Mental Health Report, 2022). When individuals attain optimal mental health, they can excel in their daily endeavours, fulfil their potential, and contribute significantly to their communities. This condition affects all facets of existence, including career pursuits, interpersonal relationships, physical health, and general life contentment (World Health Organisation, 2013). Poor mental health correlates with symptoms such as sorrow, anxiety, mood disorders, and psychotic illnesses, which considerably hinder an individual's capacity to function and achieve a fulfilling life (Kessler et al., 2005). Studies on adolescents reveal significant gender disparities in mental health trajectories. Boys are more prone to have pre-existing ADHD symptoms before adolescence, whereas girls' mental health problems generally escalate throughout this phase (Murray et al., 2022). Numerous research has consistently indicated that females exhibit greater prevalence rates of mental health issues than males across diverse contexts (Droogenbroeck et al., 2018; Campbell et al., 2021; Ervin et al., 2022; Kose, 2020). Adolescence is a pivotal developmental phase characterised by swift physical, emotional, and psychological transformations, rendering individuals especially susceptible to mental health challenges. It was found in the survey that approximately one in seven adolescents worldwide have mental health issues such as anxiety, depression, eating disorders and substance addiction. These mental health issues continuously affect their daily life activities and sometimes that becomes the cause of suicidal acts also, which is the fourth highest reason of death among adolescents aged 15-19 (Centres for Disease Control and Prevention, 2020; World Health Organisation, 2021). Dealing with these unfavourable aspects of adolescents' existence is quite crucial, early intervention, adequate family engagement, good counselling sessions at school levels, support of friends and relatives, professional counselling, and understanding and minimising of the stigma connected with mental health help for handling stressful situations (Patel et al., 2007; Kazdin and Weisz, 2010; Greenberg et al., 2003). A person's belief systems regarding their capabilities, definitions of success, and understanding of life significantly influence their mental health results. The growth mindset, a concept presented by Carol Dweck in 2006, believes that abilities and intelligence can be developed through persistent efforts, appropriate behaviour, and accepting challenges in life. People and different types of organisations can develop resilience, ongoing enhancement, and a tendency to learn in challenging circumstances by developing and enhancing a growth mindset (Dweck, 2006).

Studies indicated that developing a growth mindset creates success by directly affecting motivation, learning, and personal growth. Multiple researches indicated that possessing a growth mindset develops a tendency to bounce back in life and motivates people to see adversity as a challenge which develops insights into handling life adversities (Yeager and Dweck, 2012). Researchers presented that those students who had a growth mindset were more curious to learn from academic setbacks and perceived difficulties as a challenge and tried to enhance their learning and personal growth (Dweck, 2007). Molden and Dweck (2006) found in their study that people can improve their self-respect and confidence by developing the belief that they can develop their skills with time. In a broader context, developing an atmosphere in which individuals are appreciated for their effort and solution-oriented thinking develops creativity and resourcefulness in personality (Mueller and Dweck, 1998). Leaders with a growth mindset succeed in fostering an environment that motivates individuals to collaborate, cultivate resilience, and enhance opportunities for learning (Zingoni and Corey, 2017).

It was found that earlier it was focused on studying the effects of a growth mindset on academic success, later researchers got interested in investigating the effect of a growth mindset on different domains of life. It has been shown over and over again that growth mindset methods are good for mental health also. A study in which researchers examined the implementation of the growth mindset theory in school psychology, found that fostering a growth mindset enables children to see challenges as a source of new learning and get motivated to adjust to new situations, as a result, they are less likely to have mental health problems (Kapasi and Pei, 2020). In a study on growth mindset and resilience, it was found that persons possessing a growth mindset enhanced resilience, especially in the context of childhood maltreatment, including emotional neglect and abuse. This tendency of resilience helps to decrease the chances of having mental health issues (Boullion et al., 2021). In a longitudinal study, it was found that a growth mindset was statistically correlated with reduced levels of anxiety and depression (Lai et al., 2022). The results of Recent research on growth mindset therapies indicated the effectiveness of growth mindset therapies in minimising the symptoms of sadness and anxiety among various populations. This shows that developing a growth mindset is beneficial for the improvement of mental well-being (Burnette et al., 2023). A meta-analysis identified a negative link between growth mindsets and psychological distress, alongside a favourable correlation with active coping techniques.

The results of the study showed that growth mindset therapies play a very important role in minimising psychological issues such as anxiety and depression (Burnette et al., 2020). Studies on growth mindset and adolescent depression which were developed as a result of cyberbullying, showed that those adolescents who had a growth mindset got less disappointment and were more ready and hopeful in addressing the issues of cyberbullying (Niu et al., 2020). Some previous studies also indicated that a growth mindset is statistically associated not only with success in academic achievement but also with low stress levels in primary and secondary-level students (Dweck, 2000; Rattan et al., 2012; Dweck and Yeager, 2019).

Much data presents the positive effects of a growth mindset on academic performance; however, few studies have investigated the direct influence of growth mindsets on mental health outcomes therefore the present study aims to investigate the impact of a growth mindset on mental health among adolescents. The researchers hypothesised that a high-growth mindset will positively increase mental health as compared to a low-growth mindset.

Methods

Participants

In the current study, a total of 403 participants were included, with an age range of 14-18 years. Among them, 206 (51.1%) were males, and 197 (48.9%) were females. Data was collected using Convenience sampling.

Measures

The growth mindset in this study emphasises the conviction that abilities and intelligence can be improved via effort, commitment, and learning. Mental health encompasses a continuum ranging from languishing to flourishing, extending beyond the lack of illness. It comprises three elements: emotional well-being (happiness, life satisfaction), psychological well-being (self-acceptance, purpose, personal progress), and social well-being (social acceptance, contribution, integration).

The Growth Mindset Scale

The Growth Mindset Scale, created by Carol Dweck in 2006, is a six-item instrument designed to assess beliefs regarding the plasticity of intellect. The instrument is mainly suitable for individuals of more than 10 years. This scale is based on a 6-point Likert scale, the responses range from "strongly agree" to "strongly disagree,". There are three items that are reverse-coded. The scale exhibits a strong degree of internal consistency and reliability, indicated by a Cronbach's alpha of 0.81. This scale is frequently used for academic and clinical purposes.

Mental Health Scale

L.M. Keyes developed an effective scale in 2008, known as The Mental Health Continuum-Full Form. This scale fruitfully assesses all facets of mental health. MHC-FF have three dimensions of mental health; emotional well-being, psychological well-being and social well-being. The scale has excellent internal consistency, with a Cronbach's alpha exceeding 0.80

across its three dimensions, indicating strong reliability. There are a total of 40 items in this scale in which some items are reverse coded. This scale has a short version also. The scale is frequently used for research purposes as well as for clinical purposes.

Statistical Analysis

The researchers employed ANOVA to investigate the effect of low and high-growth mindsets on the mental health of adolescents and to see the effect of gender differences it was used unpaired t-test. All statistical analyses were performed utilising SPSS 26.

Results

The present study aimed to investigate the effect of growth mindset on the mental health of adolescents and developed the hypothesis that high-growth mindset will positively increase mental health as compared to low-growth mindset. The ANOVA (Table 1) indicates that a high level of growth mindset significantly improves the mental health of adolescents compared to a low level, as obtained by F value of 17.46 and a p -value (.001) demonstrating strong statistical significance. Adolescents with a high growth mindset have a higher mean score ($M=169.96$, $SD=31.49$) compared to those with low growth mindset ($M=157.57$, $SD=28.03$). The standard deviations indicate some variability within the groups, but the overall effect is clear cultivating a growth mindset is associated with enhanced mental health in adolescents. This underscores the importance of fostering a growth-oriented perspective for improving mental health.

Table 1: Difference between low and high growth mindset on mental health

	N	Mean	Std. Deviation	Std. Error	F	Sig.
Low GM	211	157.5735	28.03872	1.93026	17.468	.000
High GM	192	169.9688	31.49552	2.27299		
Total	403	163.4789	30.33833	1.51126		
Statistically significant differences between high and low growth mindset						

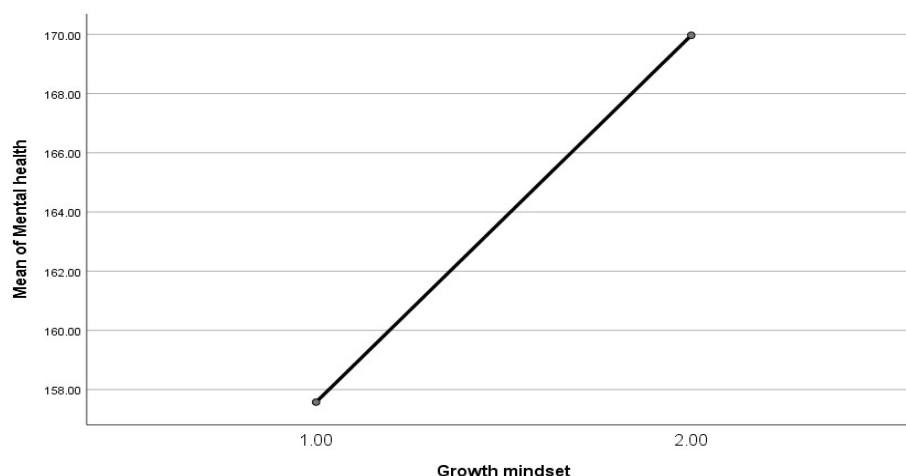


Figure 1: Mean level comparison between high and low levels of growth mindset on mental health (1=low level, 2=high level)

The results section indicated clearly that gender did not affect the mental health of adolescents. The table 2 compares genders on mental health scores. For males ($N = 206$), the mean score is 164.21 ($SD = 31.49$), while for females ($N = 197$), the mean score is 162.71 ($SD = 29.13$). The t-test result ($t = 0.497$) shows no significant difference between the two groups, with a p -value of 0.620 (greater than 0.05). This suggests that gender does not significantly affect the mental health scores in this sample.

Table 2: Differences in the Level of Gender

D.V.	Gender	N	Mean	SD	t- value	P value
MENTAL HEALTH	Male	206	164.21	31.49	.497	.629
	Female	197	162.71	29.13		

The overall results indicate a distinction between low and high-growth mindsets. High-growth mindset positively influences mental health compared to low-growth mindset. Additionally, gender does not appear to affect mental health outcomes.

Discussion

Findings of the results of the present study presented significant differences between low and high-growth mindsets. A high-growth mindset increases the mental health of adolescents than a low-growth mindset. This finding matches with the results of previous studies on mental health. A study in which researchers examined the implementation of the growth mindset theory in school psychology, found that fostering a growth mindset enables children to see challenges as a source of new learning and get motivated to adjust to new situations, as a result, they are less likely to have mental health problems (Kapasi and Pei, 2020). Individuals who have a growth mindset indicate a high level of resilience also, especially in the conditions when they are faced with emotional neglect and maltreatment. As a result, their chances of increasing mental health issues are reduced by this resilience (Boullion et al., 2021). In a longitudinal study also, it was found that a growth mindset was statistically correlated with diminished anxiety and depression (Lai et al., 2022). The results of Recent research on growth mindset therapies indicated the effectiveness of growth mindset therapies in minimising the symptoms of sadness and anxiety among various populations. This shows that developing a growth mindset is beneficial for the improvement of mental well-being (Burnette et al., 2023). Overall it can be concluded that there exists a significant difference in mental health outcomes between individuals with high and low-growth mindsets. Previous studies already presented that a growth mindset can increase resilience, allowing individuals to more effectively manage emotional difficulties and challenges, thereby reducing the chances of developing mental health issues. As well as interventions based on a growth mindset are effective in reducing the symptoms of anxiety and depression. Overall, it is not an exaggeration to accept that developing a growth mindset is very important for improving emotional adaptability and mental well-being.

In the context of gender difference, it was found that there is no significant difference in the mental health of male and female adolescents. Mental health levels were almost the same between the two. All adolescents in this study were students, and the research indicated that academic stress stemming from familial, peer, and educational system influences had the most significant effect on the mental health of adolescents (Hosseinkhani et al., 2020). However various other studies have demonstrated varying outcomes in the context of mental health and gender in different life stages and environments. Studies have demonstrated that females experience higher rates of mental health issues than their male counterparts. Adolescent females report higher levels of anxiety, depression, and psychological distress than their male counterparts, and this disparity has increased over time (Droogenbroeck et al., 2018; Campbell et al., 2021). The mental health of women is disproportionately influenced by economic and social factors, including income and unpaid labour (Kose, 2020; Ervin et al., 2022). In addition, older women are more likely to experience prevalent mental disorders, whereas older men have higher suicide rates (Kiely et al., 2019). The diversity of results regarding gender and mental health problems indicates that additional research is necessary to comprehend the scene of gender differences in mental health.

Current research does not indicate gender differences in the mental health of adolescents; however, there is clear evidence that a growth mindset positively influences their mental health. This finding calls for the attention of educators and mental health professionals to integrate techniques of improving growth mindset into stress management interventions specifically targeted at adolescents and students.

Conclusion

The prior studies primarily concentrated on examining the impact of a growth mindset on students' academic performance (Dweck, 2007; Blackwell et al., 2007). Gradually, researchers started to investigate the effect of a growth mindset on some other important domains of life. Current research investigated the impact of a growth mindset on mental health and found that a growth mindset positively affects the mental health of adolescents. This supports findings from other studies that have evidence that individuals with a growth mindset show better-coping strategies in stressful situations, along with enhanced motivation to learn and resilience in their character. This resilience allows for more effective stress management, anxiety reduction, and challenge confrontation, hence diminishing the chances of facing mental health disorders (Kapasi & Pei, 2020; Boullion et al., 2021; Burnette et al., 2023). Studies have shown the importance of growth mindset interventions in enhancing mental well-being by demonstrating their ability to reduce symptoms of depression and anxiety across different populations. It is concluded that interventions based on a growth mindset for adolescents would be beneficial not only for their academic performance but for managing their mental health issues.

Limitations

This study presents important results related to growth mindset and mental health but there are some limitations also that exist in the study. This study consists sample of the adolescent age group of 14 to 18 years only which can't be generalised whole range of adolescents. The sample size should be enhanced to get more reliable and accurate results. Future studies should be extended to different cultural and social domains which is also one limitation of the present study.

Future Directions

- Future research should look beyond 14-18 years to see if the benefits of a growth mindset apply to both younger and older persons. Examining these age groups can help evaluate whether cultivating a growth mindset has similar good effects on mental health, resilience, and coping skills at different developmental stages.
- Longitudinal studies can shed light on the long-term effects of developing a growth mindset during adolescence. Tracking these individuals over time will provide a better understanding of how a growth mindset affects mental health outcomes, adaptive coping mechanisms, and resilience at different periods of life. Such study can help to shape tailored interventions that improve teenagers' mental health and provide them with better tools for dealing with life's problems.

Conflicts of interest

The authors declare no conflict of interest.

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