

11.0 Exploring the relationship between span of attention and mental well-being among adolescents

- **Priyanka Gupta**, Research Scholar, Faculty of Education (k), Banaras Hindu University, Varanasi
E-Mail: priyankagupta@bhu.ac.in
- **Dr. Sunita Singh**, Professor, Faculty of Education (k), Banaras Hindu University, Varanasi.
E-Mail: sunita.singh@bhu.ac.in

Abstract

Adolescence is a crucial developmental stage characterized by rapid emotional and cognitive changes. Mental Well-being is a critical determinant of cognitive functions including concentration, attention and learning potential. As defined by the World Health Organization (2018), Well-being represents a dynamic state in which individuals cultivate their skills, fostering productivity and meaningful community engagement by using their potential. Consequently, the enhancement of mental well-being serves as a basic prerequisite for long-term functional success. Attention is a vital cognitive mechanism facilitates the focus on specific stimuli while filtering the irrelevant information. The present study examines the correlation between span of attention and mental wellbeing within an adolescent. For this purpose, a survey method was employed on a sample of 120 adolescents (67 boys and 53 girls) enrolled in various middle stage schools within the Varanasi district were selected purposely. Data collection was executed by administering self-developed attention span test along with standardized scale of mental wellbeing developed by Singh. S.,(2025). Coefficient of Correlation “r” was used to analyze the data. The results of the study showed a significant correlation between span of attention and mental wellbeing among adolescents for the total sample and a significant relationship between span of attention and mental wellbeing for sex and levels of mental wellbeing subsamples indicated higher and constructive mental well-being is associated with a longer and more stable span of attention showed better mental health and psychological well-being tends to exhibit greater concentration and attention level among adolescents.

Keywords: Mental Health, Span of Attention, Adolescents, Mental Wellbeing

Introduction

Recently, adolescent stage is a critical developmental period characterized by rapid physical, emotional, and cognitive changes that significantly influence an individual's overall mental health and behavior. During this stage, a student's mental health is a fundamental driver of their emotional balance, adaptive skills, and success in the classroom. Mental well-being, encompassing aspects such as self-esteem, ability to regulate emotion, personal resilience, and life satisfaction, determines the effective way chooses by the teenager to navigate their setbacks and stay committed on long-term goals. Recently, concerns regarding stress and anxiety with digital distraction have prompted the psychologists and educators to identify the cause of mental health that impacts core cognitive abilities, especially the

attention. Attention is the engine that stimulates critical thinking and effective learning. Attention is defined as the mental stamina required to stay focused on a specific task for a limited duration of time. Moreover, today's youngsters face a unique challenge to focus on one task which is fractured by heavy multitasking, social media and intense academic pressure creates an unbalanced cyclic relationship that breaks down the focus and damages adolescence emotional and cognitive stability as well as their decision making capability. Recognizing this deep connection between a span of attention and mental well-being is very crucial than ever for modern educators.

Well-Being

The third of the seventeen Sustainable Development Goals emphasizes obligation to "ensure healthy lives and promote well-being for all at all ages." The concepts of well-being and health are interrelated that collectively define an individual's overall quality of life. According to the Oxford Dictionary, well-being refers to "a state of being comfortable, healthy, or happy." In recent years, there has been a growing concern of the importance of nurturing mental health among healthy peoples so that they can lead happy life and make productive contributions to society. Some of the studies investigated the dimensions and assessment of mental or psychological well-being. Ryff's work on psychological well-being and conducted a thorough study on research and interventions, and highlighting the elements of optimal human functioning such as purposeful engagement in life, realization of one's potential, and self-awareness. Similarly, Ruini et al. conducted an experimental investigation using Ryff's Psychological Well-Being (PWB) scale to examine its association with psychological distress and personality characteristics (Karmarkar et al., 2020).

Span of attention

Attention and Span of Attention looks closely related terms. The duration for which a person can focus on a particular task before losing concentration referred as span of attention (Jaise et al., 2022). However, some monotonous activities like boring lecture in classroom or external diversion can reduce anyone's attention for temporarily due to which some of the individual experiences difficulty in maintaining the focus even on simple tasks. A limited focus can have a substantial impact on a student's ability and their academic achievement to handle daily responsibilities. According to Karmarkar et al. (2020), adolescents frequently switch between various crucial stimuli because of short attention gaps resulted in the loss of important knowledge. A balanced mental wellbeing may improve attention control by reducing intrusive thoughts and emotional disturbances, while poor mental well-being can disrupt attention, resulting in cognitive weariness and disengagement. Despite the increasing recognition of this interdependence, there is still little empirical research on its relationship among adolescents, especially in the context of the digital age.

Therefore, the goal of the present study is to investigate the complex connection between adolescent span of attention and mental well-being. By examining this connection, the study hopes to contribute to the expanding body of information about mental health of adolescent and cognitive functioning by providing the insights that can be used to enhance educational practices, psychological interventions, and policy measures targeted at fostering holistic development.

Need of the study

Today's, adolescents faces a growing number of numerous environmental and psychological obstacles that directly affect their mental and cognitive development. During this crucial stage of development, tension, stress, anxiety, depression and emotional instability are frequently caused by academic competitiveness, peer pressure, exposure to digital media and shifting family dynamics. These elements can significantly influence an adolescent's mental well-being which can affect their ability to concentrate, process information, and performance in academic and social settings. Since both are the crucial markers of an adolescent's general psychological functioning and learning efficiency. As a result, it becomes important to investigate the relationship between span of attention and mental well-being. The accumulating evidence arise the present need of the study that adolescent poor mental health and short attention spans are becoming important problems. Understanding this relationship will provide a better understanding between cognitive control and emotional stability that work together to promote healthy teenage development. The significance of this study stems inside the ability to overcome the gap between mental ability and psychological well-being and discover the link between them, and contribute to the development of preventive interventions targeted at enhancing both emotional balance and academic attention. To ensure future generations' welfare and productivity, our study eventually aspires to foster a holistic understanding of adolescent development, that prioritize not only intellectual growth but also emotional and psychological stability to ensuring the wellbeing and productivity of future generations.

Objectives of the study

- To study the levels of mental well-being among adolescents.
- To study the levels of mental well-being among adolescents on gender basis.
- To study the levels of span of attention among adolescents.
- To study the levels of span of attention among adolescents on gender basis.
- To find out the correlation between span of attention and mental well-being among adolescents for the total sample.

Hypothesis of the study

- **Ho¹**- There is no significant correlation between span of attention and mental well-being among adolescents for the total sample.

Methodology of the study

For this study, the correlational survey method was used. The study included a sample of 120 adolescents (67 boys and 53 girls) studied in class VIII of different middle stage schools of Varanasi district. Schools were selected randomly while data were collected from the students through purposive sampling technique. Data were collected by using Well-Being Scale (WBS) developed by Singh. S comprised of 27 statements related to different dimensions of Wellbeing such as physical, emotional, occupational, social, spiritual, intellectual, environmental and financial to study the level of wellbeing. Responses based on 5-point Likert scale (Never, rarely, sometimes, often and always). Scoring was 1 (never) to 5

(always) for positive item and 1 (always) to 5 (never) for negative items. All the adolescents were categorized into poor (below P^{25}), average (P^{25} - P^{75}) and good (P^{75} and above) mental wellbeing. The Span of Attention test was constructed and standardized by the researcher itself comprises 200 items related to different dimensions of attention span such as visual attention, spatial ability, speed and accuracy, selective attention, vigilance, digit spanning. The items were arranged in 8 sections with a fixed set of timing i.e about 8 minute. Scoring consist of 1 mark for each correct response while 0.25 was deducted for every wrong attempt in the test. For the analysis of data Karl Pearson's coefficient of correlation was used.

Results and finding

To analyze the data with respect to the objectives, the percentage calculation was found suitable, and further calculations were performed. The objective-wise findings of this study are given below:

Objective -1: To study the Levels of Mental Wellbeing among Adolescents

The Mental Wellbeing is based on the concept of how good an individual's mental health and how well that individual is working. To study the levels of mental wellbeing, the raw scores of adolescents were converted into established norms. Levels of Mental Wellbeing among adolescents are presented in Table. 1

Table No. 1: Level of Mental Well-being among Adolescents

Level of Mental Wellbeing	Total No. of Adolescents	Total No. of Adolescents (%)
Good	18	15
Average	74	61.67
Poor	28	23.33
Total	120	100.00

Interpretation- Table no. 1 demonstrates that out of 120 adolescents, 28 (23.33%) adolescents including both male and female falls under poor category of mental wellbeing while 18 (15%) adolescents lie under good category of mental wellbeing and remaining 74 (61.67%) adolescents falling under the average category of mental wellbeing.

Objective-2: To study the Levels of Mental Wellbeing among Adolescents on Gender basis.

To study the levels of mental wellbeing among adolescents based on gender, following table are given below:

Table No- 2: Level of Mental Wellbeing among Adolescents based on Gender

S. No.	Gender	Total No. of Students	Level of Mental Wellbeing in percentage (%)		
			Good	Average	Poor
1	Male	67	11.33	59.70	24.52
2	Female	53	17.92	64.15	22.38
3	Total	120	29.25	123.85	46.90

Interpretation- As reported on Table 2, the majority of female adolescents fall into the average category, with smaller percentage at good category. In contrast, male adolescents showed a higher percentage in the poor category as compared to percentage of good category. Hence, this finding indicates that females are more vulnerable to mental wellbeing challenges.

Objective -3: To study the Levels of Span of Attention among Adolescents

Span of attention is a concept of how good an individual's attention in a set duration of time and how well that individual is reacting. The scoring depends on quartile basis which convert the participants raw scores into given established norms. Levels of span of attention among adolescents are presented in Table. 3.

Table No. 3: Level of Span of Attention among adolescents

Level of Span of Attention	Total No. of Adolescents	Total No. of Adolescents (%)
Higher	30	25
Average	60	50
Lower	30	25
Total	120	100.00

Interpretation - Table no. 3 indicates that out of 120 adolescents, 30 adolescents including both male and female fall into the lower category of span of attention while 30 adolescents lie under higher category of span of attention and remaining 60 adolescents falls into average category of span of attention. Scores based on percentage in table.3 indicate that 1/4th portion of the sample of adolescents lie under the lower category of span of attention while 25% of adolescents have higher level of span of attention and the remaining of adolescents lie under the average level of span of attention.

Objective-4: To study the Level of Span of Attention among Adolescents on gender basis

To study the level of span of attention among adolescents based on gender, following table are given below:

Table no 4. Level of Span of Attention among Adolescents based on Gender

S. No	Gender	Total No. of Students	Level of Span of Attention in percentage (%)		
			Higher	Average	Lower
1	Male	67	19.40	53.74	26.86
2	Female	53	32.07	45.28	22.65
3	Total	120	51.47	99.02	49.51

Interpretation

On the basis of table-4, the responses were classified among three categories: higher, average and lower level of span of attention. Based on the gender, percentage of male adolescents fall into the average category (53.74%) of span of attention is more as compared to female adolescents (45.28%). Furthermore, the percentage of female adolescents are more in higher category (32.07%) of span of attention which outweighs male adolescents (19.40%) but in the last category, the condition gets reverse, the ratio of female adolescents in lower category of span of attention (22.65%) is lesser than male adolescents (26.86%) as shown in Table 4. Hence, the finding of the study indicates that females adolescents are more attentive than males.

Objective-5: To find out the relationship between Span of Attention and Mental Well-being among Adolescents for the total sample

Ho1: There is no significant relationship between span of attention and mental wellbeing among adolescents for the total sample

The findings of the study pertaining to relationship between Span of attention and Mental wellbeing for total sample is presented in Table 5.

Table No. 5: Relationship between Span of Attention and Mental Wellbeing among adolescents for total sample (N=120)

Variables	df	R	P-value	P	Level of Significance
Mental Wellbeing and Span of Attention	118	0.979	0.0037	$p < 0.001$	p-value is significant at 0.01 level

Interpretation- Table-5 indicates that obtained 'r' value for the correlation between Span of attention and Mental Wellbeing for the total Sample is 0.979, which is significant at 0.01 level showed a very strong positive correlation exist between span of attention and mental wellbeing indicated higher mental well-being is associated with a longer and more stable attention span among adolescents. The data determines that as mental well-being increases, attention span also increases among adolescents. The p- value indicates that the significant correlation between span of attention and mental wellbeing for the whole sample is substantial and marked.

Discussion of the result

From the above data, out of 120 adolescents, 15% adolescents indicate good mental wellbeing, 61.67% average and 23.33% showed poor mental wellbeing. Gender analysis reveals that 24.52 % of male adolescents come under poor category as compared to 22.38%

of female adolescents while 17.92% of female adolescents lie in the good category outweighs 11.33% of male adolescents. This gender gap reveals that female adolescents are more vulnerable at managing stress and emotions, which could lead to better mental wellbeing outcomes (Nolen-Hoeksema, 2012). However, Kern et al., (2016); Thoits et al., (2011) investigates that female teenagers with high mental well-being show better engagement, focus, and persistence learning tasks attributed to **emotional and social support** which enhances their coping mechanisms.

In contrast, the data of attention span shows that, out of 120 adolescents 25% lie in lower category of span of attention means they experienced easily breakup and trouble focusing on task for a certain length of time (Deborah S.; Carstens.et.al 2018). Gender analysis reveals that 32.04% female adolescents lie under higher category of attention span as compared to 19.40% of male adolescents and 26.86% of male adolescents label on lower category of attention span in opposite of 22.65% of female adolescents demonstrated that female tend to internalize and process emotions more effectively than males (Tamres et al., 2002). Auley, 2006, indicated that females perform better in attention tasks likely due to differences in emotional regulation and coping strategies,

In addition to correlation, the results revealed a strong positive correlation between Span of Attention and Mental Wellbeing. This suggests that individuals who exhibit better attention control experience positive levels of mental wellbeing. Posner and Rothbart (2007) argued that effective attention regulation facilitates better self-regulation, which is necessary for organizing overall psychological wellbeing and emotional balance. Jansch et al. (2013), identified that individuals with greater attentional control are less prone to experiencing anxiety and depression, as they can manage distracting thoughts more effectively.

Conclusion

The current study found that both gender and level of mental wellbeing had an impact on adolescents' span of attention and mental wellbeing. In both factors, a sufficient number of teenagers fell into an average category. On the other hand, a sufficient number of adolescents lie in poor mental wellbeing and a shorter attention span than those with good mental health point to the vulnerable state of the adolescents. Female adolescents become more effective and optimistic about both the variables, and they do better on learning exercises to control their emotions and stress, which improves their mental wellbeing and span of attention. However, compared to female adolescents, male adolescents reported worse mental wellbeing and a shorter attention span. They also displayed more erotic behavior and a decreased propensity to control their emotional regulation as well as bad mental wellness. The results of this study were consistent with other research that emphasized gender variations in coping strategies and emotional control. According to the current research, teenagers experience a great deal of stress and anxiety in their lives as a result of hormonal changes in their bodies, peer pressure, social circumstances, academic pressure, and many other things that impact their attention span.

EDUCATIONAL IMPLICATIONS

- Schools can promote mental health awareness and stress management programs.

- Teachers can incorporate mindfulness and relaxation techniques to improve student attention.
- Counselors can design the better guiding systems for adolescence faces emotional or concentration issues.

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