



IMPACT OF EMOTIONAL AND ARTIFICIAL INTELLIGENCE AMONG ADOLESCENCE AND ADULTS

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Article DOI: <https://doi.org/10.36713/epra29240>

DOI No: 10.36713/epra29240

ABSTRACT

The present study aimed to examine differences in Artificial Intelligence (AI) and Emotional Intelligence (EI) between adolescents and adults, investigate gender differences, and explore the relationship between AI and EI. The study included 120 participants, comprising 60 adolescents and 60 adults. Data were analysed using the t-test and Pearson's product-moment correlation coefficient. The findings revealed no statistically significant differences between adolescents and adults in Artificial Intelligence ($t = 0.38$) or Emotional Intelligence ($t = 0.93$) at the 0.05 significance level. Similarly, no significant gender differences were observed in Emotional Intelligence ($t = 0.39$) or Artificial Intelligence ($t = 1.70$). Furthermore, the correlation analysis indicated a negligible negative relationship between Artificial Intelligence and Emotional Intelligence ($r = -0.056$, $p = 0.543$), which was statistically insignificant. These findings suggest that the studied groups exhibited broadly similar scores across the examined variables, with no significant association between AI and EI. The study highlights the importance of understanding the psychological implications of increasing AI use among different age groups and genders. Further research with larger and more diverse samples is recommended to explore the complex relationship between technological engagement and emotional functioning.

KEYWORDS: Artificial Intelligence, Emotional Intelligence, Adolescents, Adults, Gender Differences, Correlation.

INTRODUCTION

The present study aims to examine the influence of the increasing use of Artificial Intelligence (AI) on the psychological and cognitive functioning of adolescents and young adults. With the growing integration of AI-based tools into everyday activities, individuals are increasingly using these technologies for academic purposes, information seeking, problem-solving, decision-making, and other routine tasks. Although AI offers several advantages by improving accessibility, efficiency, and convenience, its increasing use also raises important questions regarding its potential influence on human cognitive and emotional functioning.

Artificial Intelligence

Artificial Intelligence (AI) has become an increasingly important part of everyday life, influencing how individuals learn, communicate, obtain information, solve problems, and make decisions. Adolescents and adults are among the major users of AI-based technologies, although their purposes and patterns of use may differ. Adolescents commonly use AI tools for academic support, information seeking, learning, and social activities, whereas adults may utilise them for higher education, professional responsibilities, decision-making, and managing everyday tasks. Although AI provides benefits such as convenience, rapid access to information, and improved efficiency, increasing dependence on these technologies may have implications for cognitive and psychological functioning. Easy access to externally available information may influence how individuals remember and process information independently (Sparrow et al., 2011)¹. This issue may be

particularly important during adolescence, a developmental period characterised by significant cognitive, emotional, and social changes. Emotional intelligence and psychological well-being are also important factors in understanding the psychological implications of AI use. Emotional intelligence contributes to recognising, understanding, and regulating emotions (Mayer et al., 2004)², while psychological well-being reflects positive psychological functioning (Ryff, 1989)³. Therefore, comparing adolescents and adults may provide valuable insights into differences in AI usage and its relationship with emotional intelligence and psychological well-being.

Emotional Intelligence

Emotional Intelligence (EI) refers to an individual's capacity to recognise, understand, regulate, and appropriately express emotions in oneself and others. It plays an important role in maintaining interpersonal relationships, making effective decisions, adjusting to social situations, and promoting psychological well-being (Mayer et al., 2004). With the rapid expansion of Artificial Intelligence (AI), digital technologies are increasingly influencing how individuals communicate, learn, solve problems, and manage everyday activities. AI-based applications provide several advantages, such as easy access to information, academic assistance, problem-solving support, and greater convenience. However, growing dependence on AI and technology-mediated communication may also influence emotional and social experiences. Face-to-face interactions provide opportunities to understand facial expressions, tone of voice, empathy,



emotional responses, and interpersonal feedback, which are important for developing emotional and social skills. Therefore, greater reliance on digital interactions may be associated with changes in how individuals understand, express, and respond to emotions. At the same time, AI may provide useful assistance by offering information, guidance, and support in managing everyday challenges. Thus, its relationship with emotional intelligence is likely to be complex and requires systematic investigation. Adolescence and young adulthood are particularly important developmental stages for examining these relationships. Adolescence is characterised by considerable cognitive, emotional, social, and identity-related changes, whereas young adulthood involves increasing independence, responsibility, higher education, career development, decision-making, and the formation of meaningful relationships. Individuals in both developmental groups are increasingly exposed to AI-based applications for educational, social, and personal purposes. Their patterns of AI use may therefore be associated with differences in emotional and psychological functioning. Examining adolescents and young adults comparatively can provide valuable insight into the relationship between AI usage, emotional intelligence, and psychological well-being and contribute to a better understanding of the psychological implications of AI in contemporary society.

REVIEW OF LITERATURE

Bischofs et al. (2026)⁴ reviewed the applications of Artificial Intelligence in adolescent mental healthcare. The study examined the effectiveness of AI-based tools in screening, diagnosis, and psychological intervention for adolescents. Findings suggested that Artificial Intelligence can improve access to mental health services, support early identification of psychological disorders, and assist clinicians in treatment planning. However, concerns regarding ethical issues, privacy protection, algorithmic bias, and human supervision were also highlighted. The authors concluded that AI should be used as a supportive tool rather than a replacement for professional mental health care.

Kundu and Bej (2025)⁵ conducted a systematic scoping review to investigate the psychological impact of Artificial Intelligence on school students. The review synthesized findings from numerous empirical studies focusing on AI-assisted learning, mental health, and cognitive development. Results showed that AI promotes personalized learning, academic engagement, and educational achievement. However, excessive dependence on AI may reduce critical thinking, creativity, and independent decision-making. The authors recommended the responsible integration of Artificial Intelligence into educational settings while maintaining human cognitive involvement.

Dwivedi (2025)⁶ explored the integration of Emotional Intelligence and Artificial Intelligence for improving leadership effectiveness and decision-making. The study emphasized that combining emotional understanding with AI-driven insights enhances employee engagement, adaptability, innovation, and organizational performance while highlighting ethical challenges in AI implementation.

Sangeetha et al. (2024)⁷ investigated multimodal affective computing approaches for enhancing emotional intelligence in Artificial Intelligence applications within healthcare. Using physiological signals such as electroencephalography (EEG), electrocardiography (ECG), and electromyography (EMG), the researchers evaluated various neural network models for emotion recognition. The findings demonstrated high classification accuracy, with the best model achieving an accuracy of 87.83%. The study concluded that AI-driven emotion recognition systems can significantly support personalized healthcare and mental health assessment.

Zhylin et al. (2024)⁸ analysed contemporary methods of integrating Emotional Intelligence into Artificial Intelligence systems and evaluated their advantages, disadvantages, and future prospects. The study highlighted applications in robotics, virtual assistants, healthcare, education, counselling, and customer services. It also addressed ethical concerns such as privacy, bias, transparency, and security. Findings suggested that integrating EI into AI improves human-machine interaction, empathy, decision-making, and service quality across various domains.

Vicci (2024)⁹ This study examined the role of Emotional Intelligence (EI) in Artificial Intelligence (AI) and its potential to improve human-machine interaction. The study explored how AI systems can recognize, interpret, and respond to human emotions through affective computing, emotion recognition, and empathetic decision-making. Existing literature highlighted the importance of integrating emotional intelligence into AI applications in mental health, education, healthcare, and customer services. The review also discussed ethical concerns, transparency, bias, privacy, and the limitations of current emotion-recognition technologies. Findings suggested that emotionally intelligent AI can enhance user engagement, trust, communication, and overall effectiveness in diverse real-world applications.

Wang et al. (2023)¹⁰ examined the emotional intelligence capabilities of Large Language Models and compared their performance with human participants. The study assessed emotional understanding, empathy, and emotional reasoning using standardized emotional intelligence tasks. Results indicated that advanced AI models performed remarkably well on emotion recognition and emotional reasoning tasks. Nevertheless, the researchers emphasized that AI lacks genuine emotional experience despite demonstrating high levels of emotional understanding. The study concluded that Artificial Intelligence can support emotional assessment but cannot replace authentic human emotional intelligence.

Schepman and Rodway (2023)¹¹ developed and validated the General Attitudes towards Artificial Intelligence Scale (GA AIS) to measure individuals' positive and negative attitudes toward Artificial Intelligence. The study included adult participants and employed psychometric analyses, including confirmatory factor analysis, to evaluate the reliability and validity of the instrument. Findings indicated that the GA AIS demonstrated satisfactory reliability and construct validity, effectively measuring public perceptions of AI. The study also found that attitudes toward AI were associated with trust in technology and personality characteristics. The authors



concluded that GAAIS is a reliable instrument for assessing attitudes toward Artificial Intelligence and is appropriate for psychological research.

Risko and Gilbert (2016)¹² explored the concept of cognitive offloading, referring to the use of external tools and technologies to reduce cognitive effort. The study reviewed existing psychological literature on memory, attention, and problem-solving. Findings suggested that individuals frequently rely on technological devices to store information and perform cognitive tasks, thereby reducing mental workload. However, excessive dependence on external technologies may weaken memory performance and independent thinking. The authors concluded that cognitive offloading has both adaptive and potentially negative consequences, depending on the extent of reliance on technology.

OBJECTIVE OF STUDY

1. To Compare Adolescence and Adults on Artificial Intelligence

RESULT AND ANALYSIS

TABLE-1: Comparison between adolescent and adult on Artificial Intelligence.

Group	N	Mean	SD	t-value
Adolescent	60	16.47	2.82	0.38
Adult	60	16.67	3.02	

***Not Significant at 0.05 level**

The significance of difference between the mean scores of the two groups was determined by applying the t-test. The obtained t-value was 0.38, which was not found to be statistically significant at the 0.05 level. This indicates the acceptance of the Null Hypothesis. It reveals that there is no

2. To Compare Adolescence and Adults on Emotional Intelligence
3. To Compare Males and females on Emotional Intelligence
4. To Compare Males and Females on Artificial Intelligence.
5. To find the correlation between Artificial Intelligence and Emotional Intelligence among adolescents and adults.

HYPOTHESES

1. There will be no significant difference in Artificial Intelligence between adolescents and adults.
2. There will be no significant difference in Emotional Intelligence between adolescents and adults.
3. There will be no significant difference in Emotional Intelligence between males and females.
4. There will be no significant difference in Artificial Intelligence between males and females.
5. There will be no significant relationship between Artificial Intelligence and Emotional Intelligence among adolescents and adults.

significance between adolescence and adults in their level of artificial intelligence. Hence, it may be concluded that the artificial intelligence levels of adolescents and adults are almost similar.

TABLE-2: Comparison between Adolescent and Adult on Emotional Intelligence

Group	N	Mean	SD	t-value
Adolescence	60	73.60	7.75	0.93
Adult	60	72.10	9.90	

***Not significant 0.05 level.**

The significance of the difference between the mean scores of the two groups was determined by applying the t-test. The obtained t-value was 0.93, which is not statistically significant at the 0.05 level of confidence. This indicates the acceptance of the Null Hypothesis. It reveals that there is no significant

difference between adolescent and adult in their level of emotional intelligence. Hence, it may be concluded that the emotional intelligence levels of adolescence and adult are almost similar.

TABLE-3 Comparison between Emotional Intelligence Male and Female

GROUP	SAMPLE	MEAN	SD	t-value
Male	60	16.67	2.85	0.39
Female	60	16.88	3.19	

***Not significant 0.05 level**

The mean score of males on emotional intelligence was 16.67 with standard deviation 2.85, whereas the mean score of females was 16.88 with standard deviation. The obtained t-value was 0.39 level. Therefore, the Null Hypothesis was accepted (or retained). This indicates that there was no

significant difference between males and females in their emotional intelligence scores. Although the mean score of males was slightly higher than that of females, the difference was not statistically significant.



TABLE-4 Comparison Between Artificial Intelligence Male and Female

GROUP	SAMPLE	MEAN	SD	t-value
Male	60	71.60	8.46	1.70
Female	60	74.37	9.37	

*Not significant 0.05 level

The mean score of males on artificial intelligence was 71.60 with standard deviation 8.46, whereas the mean score of females was 74.37 with standard deviation. The obtained t-value was 1.70, which was not significant at the 0.05 level.

Therefore, the Null Hypothesis was accepted. This indicates that there is no significant difference between males and females in their artificial intelligence scores.

TABLE-5 Pearson's Correlation between Artificial Intelligence and Emotional Intelligence

VARIABLES	SAMPLE	MEAN	SD	Pearson's r
Artificial Intelligence	120	72.85	9.03	-0.056
Emotional Intelligence	120	16.84	3.02	

*Negligible negative relationship

The mean score of artificial intelligence was 72.85 with standard deviation 9.03, whereas the mean score of emotional intelligence was 16.84 with standard deviation 3.02. Pearson's product-moment correlation coefficient indicated a negligible negative relationship between artificial and emotional intelligence. The obtained p-value .543 was greater than the 0.05 level of significance, indicating that the relationship was not statistically significant. Therefore, Null Hypothesis was accepted. This indicates that there is no statistically significant relationship between Artificial Intelligence and Emotional Intelligence among the participants in the present study.

CONCLUSIONS

1. There is no significant difference was found between adolescents and adults on Artificial Intelligence.
2. There is no significant difference was found between adolescents and adults on Emotional Intelligence.
3. There is no significant difference was found between Male and Female on Emotional Intelligence.
4. There is no significant difference was found between Male and Female on Artificial Intelligence.
5. Negligible negative Co-relation found between Artificial Intelligence and Emotional Intelligence.

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