Which Factors Better Predict Wisdom? Individual, Family, or Social Characteristics

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ABSTRACT

Objective: The present study aims to predict wisdom based on individual variables (executive function, attachment style, and personality traits), family characteristics (family executive function and family relationships), and social characteristics (peer relationships and social media presence).

Methods and Materials: In this descriptive-correlation study, the statistical population comprised all students of the University of Wasit. The sample consisted of three hundred students selected based on inclusion and exclusion criteria through convenience sampling. The research instruments included the Ardelt Wisdom Scale (2004), Executive Function (Golkar & Yousefi, 2020), Family Relationships (Barnes & Olson, 1982), Family Executive Function (Javanbakht & Yousefi, 2022), Personality (Costa & McCrae, 1992), Attachment (Armsden & Greenberg, 2000), Peer Relationships (Hudson, 1997), and hours spent on social media. The collected data were analyzed using stepwise regression.

Findings: The results showed that all predictor variables had a positive and significant relationship with wisdom except for extraversion. Among the mentioned variables, neuroticism, insecure attachment with mother and father, and more hours spent on social media had a negative and significant relationship with wisdom, while the remaining variables had a positive and significant relationship. Stepwise regression results indicated that among the variables examined, individual executive function, family executive function, and secure attachment with mother could predict wisdom.

Conclusion: Based on these results, it can be stated that changes in family executive function, individual executive function, and secure attachment with mother are associated with changes in students' wisdom.

Keywords: *wisdom, executive function, attachment style, personality, family executive function, family relationships, social characteristics, peer relationships, social media presence.*

1. Introduction

Students are considered the future thinkers and the current intellectual force of any society. Their enthusiasm for learning, critical thinking skills, decision-making abilities, cognitive skills utilization, emotional management, and problem-solving for social, family, and individual issues, alongside their consideration for public welfare, are among the factors that can shape the future of society. Among various psychological constructs, wisdom appears to encompass all these mentioned features. Therefore, improving the wisdom of students during and after their academic period is a significant concern for social policymakers. Students themselves hope to experience a notable and positive change in their wisdom after their education (Alnuaimi et al., 2024; Kavianfar et al., 2022).

According to Ardelt, wisdom is a quality of personality found in wise individuals. Ardelt emphasizes an ideal type of wise person rather than an ideal type of knowledge related to wisdom. She believes that until individuals transform knowledge related to wisdom into wisdom through reflection on personal experiences, this concept remains theoretical and holds little meaning, even if such knowledge exists at high levels in ancient cultural works. Ardelt's three-dimensional view aligns with Eastern philosophical and religious traditions, which consider wisdom as the integration of mind and virtue at a personal level. Thus, wisdom is an ideal state that may rarely exist in reality (Ardelt, 2000, 2004; Ardelt & Bruya, 2021; Ardelt et al., 2019). Over the years, the role of upstream characteristics, known as individual variables, has attracted researchers' attention. The power of the brain's executive function, as an important index in managing daily affairs, exploiting opportunities, and resolving life obstacles, is significant. From a neuropsychological perspective, these functions are connected with a broad network of the prefrontal cortex and involve numerous metacognitive and cognitive processes such as behavioral self-regulation and the development of cognitive and social skills, which form during childhood (Alnuaimi et al., 2024; Javanbakht & Yousefi, 2022). Ultimately, these functions help a person pay attention to important aspects of a task and plan for its completion. Executive functions are considered a specific domain of abilities that include spatial organization, selective inhibition, response preparation, goal orientation, planning, and flexibility. Research shows that impairment in executive functions leads to cognitive dysfunction, which subsequently results in self-regulatory behavior disorders,

social skills issues, poor judgment, lack of anger control, and inhibition. Therefore, it appears that the power of gray cells plays a significant role in forming wisdom (Alnuaimi et al., 2024).

On the other hand, individuals' attachment styles, which develop in the early years of life and determine feelings of security or anxiety in relationships, may also significantly impact changes in wisdom. Initially, psychologists believed that attachment to the mother resulted from her being the source of food, one of the child's basic needs, but some facts did not align with this theory. Bowlby proposed the attachment theory in 1969. According to him, social relationships arise in response to the biological and psychological needs of the mother and child. Human infants exhibit behaviors that ensure care and proximity from their surroundings. According to Thomson, as cited by Ainsworth, attachment behaviors include crying, smiling, vocalizing, eye orientation, crying when separated from the attachment figure, following, imitating, hiding the face in the caregiver's embrace, clinging, raising arms during greetings, and waving hands while moving towards the mother (Maalouf et al., 2022). Nonetheless, the power of individual personality should not be overlooked. Personality is a relatively stable and unique pattern of thinking, feeling, and behaving. Personality differs from character, which pertains to professional ethics, moral principles, values, honesty, and reliability. Given the broad concept of personality, various explanatory theories exist, with the most popular classification based on the Big Five personality traits. Personality is one of the predictors of behavior and one of the factors causing individual differences among people. While there is no single definition of personality, it can be defined as a stable pattern of traits, tendencies, and characteristics leading to consistent behavior in an individual. Rogers considers personality as the organized, permanent self that is the center of all experiences (Eysenck, 2012). Personality significantly impacts various aspects, including student life, learning attitudes, and life experiences, and thus its role in shaping changes in wisdom cannot be ignored (Ribeiro et al., 2018).

Moreover, individuals achieve physical and psychological growth within the family, highlighting the family's unique role in signaling features like wisdom. People are nurtured within the family, learn to cope with life's challenges, organize their lives, and understand ways to participate with others. Given that most of a person's life is spent within the family or in close connection with it, any sense of happiness or misery can be reflected in the

processes occurring within the family. The place of human relationships within the family starts with the relationship between husband and wife. Establishing and maintaining a healthy human relationship with the spouse and family members is the most critical factor in maintaining family health and vitality. Thus, it is essential to try to adhere to principles of human relationships, such as mutual respect for each other's opinions, showing and maintaining honesty, keeping emotions consistent, maintaining loyalty, showing affection, and adhering to confidentiality and supporting each other's interests to create a calm environment. These conditions create a suitable atmosphere for nurturing the family's spirit (Duffey, 2021).

One of the essential family constructs in this context is family executive function, which shows how the family organizes daily tasks and manages daily challenges. Family executive functions are exchanged through family relationships. Appropriate and satisfying family relationships can enhance learning opportunities for children; thus, the power of the family in this context cannot be overlooked (Liu et al., 2019). From adolescence onwards, the role of peers becomes significant in life. Their tendencies, attitudes, beliefs, and values impact young people. In Eastern cultures, including Iraq, the role of friends in signaling current life is emphasized. A peer is someone of the same age or status, playing a significant role in educational and occupational environments. The term "peer" comes from the Latin word "par," meaning equal. When individuals are equal to someone, they are considered peers. Besides close friends, peers include known same-age individuals like classmates, mosque members, sports team members, or community members. Peers influence each other through their dress, behavior, involvement in activities, and displayed attitudes. Peer relationships are interpersonal relations developed and maintained through social interactions with peers, providing social support. Peers can be same-age friends with similar interests and experiences. They can also be other children of similar age participating in similar activities or part of a community or group to which individuals belong. Not all peers are friends, but they can influence an individual. Peer pressure can be positive or negative. Positive peer pressure encourages moral and social growth, while negative peer pressure makes individuals feel compelled to change to fit in with the group or peer, often acting against their values or beliefs. This might include specific dressing styles, infringing rights, ignoring social activities, forced substance use, participation

in sexual activities, bullying, and inappropriate social behaviors (Yang, 2020).

Additionally, social forces such as social media expose youth to various information daily, potentially causing cognitive confusion and dissonance, weakening or even strengthening wisdom given critical thinking skills. The virtual world is a vast global network connecting numerous computer networks and personal computers using various hardware, software, and communication protocols. Virtual social networks, a recent phenomenon, facilitate virtual communications and information acquisition (Khodayari et al., 2014). The diverse individuals with different orientations within these groups live and interact together. As the virtual world influences human existence and orientations alongside the real world, the term "cyberspace" is used. The virtual world imports and integrates copies of the real world. Virtualization, transcending real-world boundaries, has become a driving force for changing human lifestyles and beyond that, changing human thought and behavior styles. According to McLuhan, communication technology has turned the world into a global village. Nowadays, the virtual world has created numerous global villages with virtual communities, unrestricted by time and place (Khodayari et al., 2014). Thus, the role of this factor in changes in wisdom cannot be ignored (Guney et al., 2010).

Many studies have shown the relationship between various individual and family factors and wisdom. For example, the study by Ghorbani et al. (2022) showed that agreeableness, conscientiousness, neuroticism, and successful intelligence could indirectly predict wisdom through mediation (patience and coping self-efficacy), explaining 45% of the variance in wisdom (Ghorbani et al., 2022). Also, in a study by Kavianfar et al. (2022), the correlation coefficients indicated that academic experiences could directly and significantly predict wisdom. The significance of indirect effects also indicated that cognitive flexibility plays a mediating role, with its mediation being complete (Kavianfar et al., 2022). Ardelt and Bruya (2021) studied the relationship between the three dimensions of wisdom and stress among students, showing that increased wisdom reduced perceived stress among students (Ardelt & Bruya, 2021). Widodo et al. (2020) conducted a qualitative study on the relationship between wisdom and resilience, demonstrating that increased wisdom is associated with increased resilience (Widodo et al., 2020). Ardelt et al. (2019) showed that well-being and prosperity could not predict wisdom in life, but wisdom, in the long run, creates a sense of well-being by fostering gratitude, purposefulness,

and a sense of mastery (Ardelt et al., 2019). Therefore, considering the mentioned points and the conducted studies, this research aimed to investigate the correlation of these variables with wisdom among students and determine which factors better predict wisdom.

2. Methods and Materials

2.1. Study Design and Participants

The present study aimed to predict students' wisdom based on individual variables (executive function, attachment style, and personality traits), family characteristics (family executive function and family relationships), and social characteristics (peer relationships and social media presence). Thus, this research falls under the category of correlational studies. The statistical population of this study comprised all students at the University of Wasit. According to Tabachnick and Fidell (2013), for determining the sample size, ten individuals per variable and sub-variable were selected (total wisdom score + 9 scores for executive function + 9 scores for family executive function, five scores for personality, two scores for attachment, one score for family relationships, one score for peer relationships, and one score for social media presence), resulting in a requirement of 270 individuals, increased to 350 due to potential dropouts. The sample was selected using convenience sampling from various faculties at the University of Wasit. Inclusion criteria were a minimum age of 18 years, no severe physical disability, and having a family (due to the evaluation of family constructs). Exclusion criteria were no current mental health issues, assessed by an initial questionnaire item ("Do you currently suffer from a mental health problem?"), extremely low scores (outliers identified using SPSS data cleaning options), and no substance abuse, assessed by an initial yes/no question ("Do you use any specific substance?").

2.2. Measures

2.2.1. Wisdom

Developed by Ardelt (2003), this questionnaire consists of 34 items across three subscales: cognitive (14 items), reflective (12 items), and affective (13 items), used to assess wisdom. It is scored on a 5-point Likert scale ranging from "strongly disagree" to "strongly agree" or "completely true about me" to "completely false about me." Higher scores indicate the presence of cognitive, reflective, and affective dimensions of wisdom, with the average score of the three

dimensions representing the overall wisdom score. Ardelt's study reported Cronbach's alpha coefficients of 0.71 for cognitive, 0.75 for reflective, and 0.66 for affective dimensions among students, and 0.78, 0.75, and 0.74, respectively, among the elderly. The total Cronbach's alpha for all three dimensions was 0.72 among students and 0.66 among the elderly (Ardelt, 2004). In Iran, Rejali and Yousefi (2021) reported suitable psychometric properties (Rejali & Yousefi, 2021). In this study, internal consistency was re-examined, achieving over 0.70 in the Iraqi student population.

2.2.2. Executive Function

The BRIEF Executive Function Questionnaire, adapted for adults by Golkar and Yousefi (2020), originally designed for children and adolescents aged 5-18, assesses various executive functions of the prefrontal cortex. It contains 86 items rated on a 5-point Likert scale, evaluating eight major executive functions: inhibition, signal direction, emotional control, task initiation, working memory, planning, organization, and monitoring. Reliability coefficients for each subscale ranged from 0.71 to 0.91 (Alnuaimi et al., 2024; Javanbakht & Yousefi, 2022). In this study, internal consistency was again calculated, with coefficients above 0.75 for all subscales and the total score. The reliability and validity of the adult version were confirmed through exploratory factor analysis and divergent validity with marital satisfaction and family relationships.

2.2.3. Personality

NEO Five-Factor Personality Inventory (NEO-FFI), a 60-item self-report questionnaire measuring five major personality traits, was developed by Costa and McCrae (1999) based on the five-factor model of personality. Items are rated on a 5-point Likert scale from "strongly disagree" to "strongly agree." The traits measured include neuroticism, extraversion, openness to experience, agreeableness, and conscientiousness. Cronbach's alpha coefficients for the Iranian version were 0.74, 0.55, 0.27, 0.38, and 0.77, respectively (Alnuaimi et al., 2024). In this study, the Cronbach's alpha coefficients for each dimension were 0.82, 0.76, 0.69, 0.73, and 0.79, respectively. The 60-item questionnaire was shortened to 35 items for this study, with questions selected based on the supervisor's experience and cultural relevance.

2.2.4. Attachment Styles

Developed by Armsden and Greenberg (1987), this 67-item self-report questionnaire measures attachment styles on a 5-point Likert scale from "strongly disagree" to "strongly agree." Items 1, 2, 4, 5, 7, 12, 13, 15, 16, 19, 20, 21, 22, 24, and 25 relate to secure attachment, while items 3, 6, 8, 9, 10, 11, 14, 17, 18, and 23 relate to insecure attachment. The average reliability was 0.78 (Armsden & Greenberg, 1987; Armsden & Greenberg, 1989). Kamari and Sheikh Eslami (2015) reported suitable psychometric properties for the Persian version, with Cronbach's alpha coefficients of 0.82 and 0.72 for parental and peer attachment, respectively (Kamari & Shekhaleslami, 2016). In this study, internal consistency coefficients were 0.87 for father attachment and 0.77 for mother attachment.

2.2.5. Family Relationships

This 10-item questionnaire, developed by Olson and Barnes (1982), assesses family relationships on a 5-point Likert scale from "strongly disagree" to "strongly agree." Cronbach's alpha coefficient was 0.95, with test-retest reliability of 0.86. Yousefi and Karimnejad (2018) reported a Cronbach's alpha of 0.92 for the Persian version (Rejali & Yousefi, 2021). In this study, internal consistency was recalculated, achieving a Cronbach's alpha of 0.93.

2.2.6. Family Executive Function

Based on the individual executive function questionnaire, this 83-item tool measures family executive function on a 5-point Likert scale. Content and face validity were confirmed by seven family therapists, with a Cronbach's alpha coefficient of 0.80. Construct validity was verified by

correlating it with individual executive function, showing a significant positive relationship. Eight main factors were confirmed through exploratory factor analysis (Javanbakht & Yousefi, 2022). In this study, internal consistency for subscales and the total scale was above 0.75.

2.2.7. Peer Relationships

Developed by Hudson (1997), this 25-item tool measures the intensity and extent of peer relationship problems on a 7-point Likert scale, with two clinical cut-off points (30 ± 5 indicating no clinical problem and 70 indicating clinical aggression issues). Cronbach's alpha coefficient was 0.94. Kimiaei, Raftar, and Soltanifar (2011) reported a Cronbach's alpha of 0.86 for the Persian version (Pourmohseni-Koluri, 2016).

2.2.8. Social Media Presence

This variable was measured by asking participants to report their average daily hours spent on social media.

2.3. Data analysis

This study was conducted among participating students who completed the questionnaires in one session. After collecting the completed questionnaires, data were analyzed using descriptive statistics (mean and standard deviation) and inferential statistics (Pearson correlation and stepwise regression).

3. Findings and Results

Descriptive statistics such as the mean and standard deviation of the research variables among the participants are presented in Table 1.

Table 1

Means and Standard Deviations of Research Variables (N = 347)

Variables	Mean	SD
Wisdom	90.55	4.09
Executive Function	306.26	37.78
Neuroticism	34.42	10.03
Extraversion	45.02	9.96
Openness to Experience	43.45	11.40
Agreeableness	44.23	11.37
Conscientiousness	39.09	10.94
Insecure Attachment to Father	29.33	10.65
Secure Attachment to Father	63.57	8.63
Insecure Attachment to Mother	26.82	10.52
Secure Attachment to Mother	49.77	22.11
Family Executive Function	301.24	37.78
Family Relationships	49.77	22.11
Peer Relationships	126.88	36.18
Social Media Presence	3.53	2.54

To examine the hypothesis, Pearson correlation analysis was used. The results of this analysis are presented in Table 2.

Table 2

Correlation Coefficients Between Wisdom and Individual Variables (Executive Function, Attachment Styles, Personality), Family Variables (Family Executive Function), and Social Variables (Peer Relationships and Social Media Presence)

Predictor Variables	Wisdom	Significance
Wisdom	1	0.000
Executive Function	0.848	0.000
Neuroticism	-0.423	0.000
Extraversion	0.076	0.513
Openness to Experience	0.259	0.000
Agreeableness	0.220	0.000
Conscientiousness	0.203	0.000
Insecure Attachment to Father	-0.529	0.000
Secure Attachment to Father	0.505	0.000
Insecure Attachment to Mother	-0.560	0.000
Secure Attachment to Mother	0.645	0.000
Family Executive Function	0.701	0.000
Family Relationships	0.645	0.000
Peer Relationships	0.581	0.000
Social Media Presence	-0.725	0.000

The findings in Table 2 show that all predictor variables have a positive and significant relationship with wisdom except for extraversion. Among the mentioned variables, neuroticism, insecure attachment to mother and father, and increased hours spent on social media have a negative and significant relationship with wisdom, while the remaining variables have a positive and significant relationship.

Stepwise regression analysis was used to identify the most significant predictor of wisdom among the mentioned variables. Table 3 presents the results of the stepwise regression analysis for predicting wisdom based on the predictor variables.

Table 3

Stepwise Regression Analysis for Predicting Wisdom Based on Individual Variables (Executive Function, Attachment Styles, Personality), Family Variables (Family Executive Function), and Social Variables (Peer Relationships and Social Media Presence)

Step	Variables Entered into the Equation	Regression Coefficient	R^2	ΔR^2	F	df1	df2	Significance
1	Individual Executive Function	0.848	0.719	0.719	883.48	1	345	0.000
2	Family Executive Function	0.867	0.752	0.033	45.57	1	344	0.000
3	Secure Attachment to Mother	0.872	0.761	0.009	12.71	1	343	0.001

As observed in Table 3, among the examined variables, individual executive function entered the regression equation in the first step with a regression coefficient of 0.719, predicting 71.9% of the variance in wisdom (p < 0.000). In the second step, family executive function entered the regression equation with a regression coefficient of 0.752, predicting 75.2% of the variance in wisdom, and independently explaining 3.3% of the variance in wisdom (p < 0.000). In the third step, secure attachment to mother entered the regression equation with a regression coefficient of 0.761, predicting 76.1% of the variance in wisdom, and independently explaining 0.9% of the variance in wisdom (p < 0.001).

Table 4

One-Way ANOVA for Evaluating the Significance of Individual and Family Executive Function, and Secure Attachment to Mother in Predicting Wisdom

Variable	N	Sum of Squares	df	Mean Square	F	Significance
Individual Executive Function	Regression	4165.16	1	4165.16	883.48	0.000
	Residual	1626.49	345	4.17		
	Total	5791.65	346			
Family Executive Function	Regression	4355.44	2	2177.77	521.60	0.000
	Residual	1436.20	344	4.17		
	Total	5791.65	346			
Secure Attachment to Mother	Regression	4406.79	3	1468.93	363.82	0.000
	Residual	1384.86	343	4.04		
	Total	5791.65	346			

As seen in Table 4, the predicted shares at each stage are statistically significant and reliable (p < 0.000).

Table 5

Raw and Standardized Regression Coefficients for Predicting Wisdom Based on Individual and Family Executive Function and Secure Attachment to Mother

Variable	Raw Coefficient (B)	Standard Error	Beta Coefficient	T	Significance
Constant	60.63	1.15	-	51.93	0.000
Individual Executive Function	0.074	0.004	0.635	16.64	0.000
Family Executive Function	0.022	0.004	0.200	5.33	0.000
Secure Attachment to Mother	0.024	0.007	0.127	3.56	0.000

As shown in Table 5, the raw and standardized coefficients for predicting wisdom based on individual and family executive function and secure attachment to mother are provided and all are statistically significant. According to Tables 4 and 5, the prediction equation for wisdom based on individual executive function, family executive function, and secure attachment to mother is as follows:

Wisdom = 60.63 + (0.074 * Individual Executive Function) + (0.022 * Family Executive Function) + (0.024 * Secure Attachment to Mother).

4. Discussion and Conclusion

Stepwise regression results showed that among the examined variables, individual executive function, family executive function, and secure attachment to mother were significant predictors of wisdom. No prior research has specifically predicted wisdom based on these variables, though various studies have shown that positive psychological constructs correlate positively and significantly with wisdom, while negative constructs correlate negatively and significantly with wisdom. This study aligns with other findings in this regard. For instance, Ghorbani et al. (2022) found that agreeableness, conscientiousness, neuroticism, and successful intelligence indirectly predict wisdom through mediation (patience and coping self-efficacy), explaining 45% of the variance in wisdom (Ghorbani et al., 2022). Kavianfar et al. (2022) indicated that academic experiences directly and significantly predict wisdom, with cognitive flexibility fully mediating between variables (Kavianfar et al., 2022). Ardelt and Bruya (2021) studied the relationship between the three dimensions of wisdom and stress among students, showing that increased wisdom reduces perceived stress (Ardelt & Bruya, 2021). Widodo et al. (2020) demonstrated that increased wisdom is associated with increased resilience (Widodo et al., 2020). Ardelt et al. (2019) found that well-being and prosperity do not predict wisdom in life, but wisdom fosters a sense of well-being through gratitude, purposefulness, and mastery over time (Ardelt et al., 2019).

In explaining the positive and significant relationship between executive function and wisdom, it can be said that executive function refers to cognitive processes used to manage goal-directed behavior, including self-regulation,

self-initiation, planning, working memory, organization, perception and understanding of time, future prediction, and problem-solving. These functions help individuals use mental processing to consciously control their thinking. Executive functions regulate behavioral outputs and typically include inhibition and control of stimuli, working memory, cognitive flexibility, planning, and organization. Analysis of these functions reveals four factors: response inhibition, working memory, self-regulation, and interference control. Generally, researchers agree that executive functions are self-regulatory processes, showcasing individuals' ability to inhibit, self-modify, plan, organize, use working memory, solve problems, and set goals for tasks (Alnuaimi et al., 2024). Thus, an individual with higher executive function is expected to naturally possess greater wisdom.

In explaining the negative and significant relationship between neuroticism and wisdom, it can be said that neurotic individuals suffer from high sadness, irritability, worry, fear, future anxiety, inability to solve problems, rumination, cognitive weakness, feelings of shame and guilt, vulnerability to stress, and inability to make sound decisions (Costa & McCrae, 2005). Thus, it is expected that individuals with such personality traits are unable to signal higher-order traits like wisdom, which require the ability to understand life and its meanings. Furthermore, due to negative inner experiences, these individuals cannot establish effective relationships with others and thus fail to show positive emotions like compassion and empathy towards others. Therefore, high neuroticism is expected to correlate with lower wisdom.

In explaining the positive and significant relationship between openness to experience and wisdom, it can be said that openness to experience denotes a willingness to explore existence and the world, with such individuals seeking to understand the world better, acquiring more general knowledge about life, having broader interests, enjoying the deep and aesthetic perception of life, and possessing the ability to think deeply. Therefore, it is expected that these individuals can potentially increase their wisdom through everyday experiences, especially if they can harmonize collected information and use it correctly to enhance their well-being and that of others. In the social structure, wisdom allows individuals to listen to others, evaluate what they say, and offer wise suggestions. Thus, an individual with openness to experience can increase their wisdom if they develop these abilities.

In explaining the positive and significant relationship between agreeableness and wisdom, it can be said that agreeableness encompasses traits that indicate the ability to trust others, authenticity, lack of a convoluted personality, absence of superiority over others, understanding others, and possessing compassion and empathy. Therefore, if these traits are not excessive, such individuals are expected to possess higher wisdom, as, according to Ardelt (2000), wise individuals can consider the common good (Ardelt, 2000).

In explaining the positive and significant relationship between conscientiousness and wisdom, it can be said that wise individuals possess the ability to signal and organize their lives, experience little unfinished business, have the ability to complete tasks they start, believe in their abilities, feel capable in their actions, exhibit perseverance, and continue tasks until completion. They are responsible and do not avoid their duties, thus possessing a suitable place in cognitive, emotional, and behavioral wisdom indices.

In explaining the positive and significant relationship between wisdom and secure attachment to mother and father, it can be said that secure attachment to the mother indicates that the student has an appropriate relationship with the mother, feels close to her without anxiety, enjoys life with her, perceives trust and companionship in the relationship, feels supported by her, and feels secure in her presence. This sense of security generally reduces relational anxiety, fostering cognitive, reflective, and emotional growth, thereby contributing to wisdom development.

Finally, in explaining the negative relationship between insecure attachment to mother and father and wisdom, it can be said that in this attachment style, the individual experiences anxiety in their most important relationship, cannot trust the closest people in their life, lacks hope for support from them, and fears harm from them. Therefore, such individuals are expected to experience persistent anxieties and worries due to insecurity in relationships, hindering the growth of cognitive, reflective, and emotional dimensions of wisdom.

5.   Limitations & Suggestions

This study has several limitations that should be considered. First, the sample was limited to students from a single university, which may not represent the broader student population or other demographic groups. Second, the cross-sectional design of the study prevents us from making causal inferences about the relationships between the variables. Third, the reliance on self-reported measures may

introduce biases such as social desirability and recall bias. Finally, cultural factors specific to Iraq may limit the generalizability of the findings to other cultural contexts.

Future research should consider including a more diverse sample from multiple universities and different demographic backgrounds to enhance the generalizability of the findings. Longitudinal studies are recommended to establish causal relationships and examine changes in wisdom over time. Additionally, incorporating objective measures of executive function and other psychological constructs can mitigate the biases associated with self-reported data. Cross-cultural studies are also suggested to explore the role of cultural factors in the development and expression of wisdom.

The findings of this study have several practical implications. Educational institutions should focus on enhancing executive function skills, fostering secure attachment relationships, and promoting positive personality traits to cultivate wisdom among students. Programs that encourage reflective practices and emotional regulation can be integrated into the curriculum to support students' psychological development. Additionally, family-based interventions that improve family executive function and relationships could be beneficial. By addressing these factors, institutions can contribute to the overall well-being and success of their students.

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Declaration of Interest

The authors of this article declared no conflict of interest.

Ethical Considerations

The study protocol adhered to the principles outlined in the Helsinki Declaration, which provides guidelines for ethical research involving human participants.

Transparency of Data

In accordance with the principles of transparency and open research, we declare that all data and materials used in this study are available upon request.

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Authors' Contributions

All authors equally contributed in this article.

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