

The Predictive Role of Parents' Integrative Mindfulness and Self-Knowledge in Adolescents' Emotion Regulation Patterns

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Abstract

Background: One of the main challenges for parents during puberty is to tackle emotional problems in their teenagers, which may threaten their current and future health and affect the quality of parent-child relationships. Integrated parental self-awareness was assessed on the emotional regulation patterns of adolescents aged 13 to 15 years. This study was conducted to investigate the predictive role of parental awareness and self-awareness in emotion regulation patterns of 13 to 15 year olds.

Methods: The research design was descriptive-correlational. The statistical population was 13 to 15-year-old adolescents of Parsian city and their mothers, 140 of whom were selected using appropriate random sampling method in years 2019-2020. The data were collected utilizing the Emotional Regulation Questionnaire (ERQ), the Mind/Conscious Mind Scale (MMS) and the Integrated Self-Knowledge Scale (ISK). Pearson correlation coefficient and stepwise regression were employed to analyze the data. **Results:** The obtained results revealed a significant inverse relationship between integrated self-cognition and cognitive repression ($P < 0.002$, $r = -0.46$) and mindfulness with cognitive repression ($P \leq 0.004$, $r = -0.32$). There was a direct and significant relationship between knowledge with cognitive reassessment ($P \leq 0.001$, $r = 0.45$) and integrated self-knowledge with cognitive reassessment ($P \leq 0.004$, $r = 0.37$) at a confidence level of 0.95. Moreover, the results of linear regression to predict emotion regulation patterns in adolescents showed that the coherent variable of self-awareness with a coefficient of explanation of 0.43 and the variable of consciousness with a coefficient of explanation of 0.35 could predict cognitive emotion.

Conclusions: Parents, family, and child counselors could make use of parental awareness and self-knowledge education and increase the mental health components of mothers as a way to prevent and reduce adolescents' emotional problems.

Keywords: Emotion regulation, Mindfulness, Integrative self-knowledge

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1. Introduction

Adolescence is a period in which mental, social, and biological areas undergo fundamental changes. Moreover, it is a critical period for the development of neurobiological processes considered as the base of excellent cognitive functions, social, and emotional behavior. The physical and psychosocial changes associated with this period are often accompanied by intense emotions (1) with a significant effect on adolescent performance (2). In this sensitive period, adolescents usually face physiological changes, the need for independence, academic pressures, and fluctuations in social relationships, on top of increased emotional reactions and stress (3). Using effective emotion regulation strategies could be helpful for adolescents, as they always face a range of emotional problems during this period. Since emotion regulation is a significant part of every individual's life, it is not surprising that disturbances in emotion regulation might lead to sadness and even psychological damage

(1). In new circumstances and changes, like adolescence and puberty, people face a range of challenges and emotions that affect how they adapt (4). Applying effective strategies for emotion regulation is required since adolescents face a range of emotional problems in this period (1). In fact, emotion regulation refers to a set of activities that allow a person to monitor, evaluate, and change the nature and direction of their emotional responses to pursue their goals and respond appropriately to the environmental needs (5). In other words, cognitive emotion regulation enables humans to adapt better, particularly after negative emotional experiences (4). In early definitions, emotion regulation has been described as the ability to modify emotions through self-regulation strategies and interpersonal processes (6).

Emotional regulation comprises several stages: 1) emotion mindfulness and acceptance, 2) the capacity to pursue purposeful behaviors when disturbed, 3) the flexible use of emotion regulation strategies to respond

to difficult emotions instead of avoiding them, and 4) the tendency to experience difficult emotions (7). Besides the individual, environmental and educational factors, being effective in cognitive regulation, which can be referred to the parent-child relationship, a part of the adaptive behaviors of the individual, depends on observing the healthy behavior of parents and how they react to emotions and various issues of life. Additionally, establishing a good relationship between parents and adolescents can be effective in increasing emotion regulation skills in adolescents and reduce severe moods and emotional problems. Additionally, establishing a good relationship between parents and adolescents could be effective on increasing emotion regulation skills in adolescents and reduce severe mood and emotional problems (8). Establishing a good relationship depends on parents' self-knowledge and great mindfulness of their thoughts and emotions.

Mindfulness and parents' integrative self-knowledge, specifically mothers, can lead to the formation of secure attachment and mental health of the child from the first years of life. Mindfulness has been commonly defined as "paying attention in a particular way: on purpose, in the present moment, and non-judgmentally" and involves directing attention and awareness to internal and external cues with non-judgmental acceptance (9).

Having a constant regular mindfulness and attention to the present moment helps caregivers to function effectively towards their children (10). Safe children receive optimal and coherent responses from the primary caregiver and learn to express emotions in a balanced way; it has positive consequences. Accordingly, maternal sensitivity and response, as well as the mother's mindfulness, provide the necessary facilities to regulate emotions, feelings, and cognitions through the formation and establishment of a secure attachment style in the child. All these possibilities help to organize the individual's experiences, feelings, and cognitions and self-regulatory processes in general (11). Furthermore, mindfulness breaks the cycle of repetitive and negative thoughts, allowing parents to interact with the child more than their inner thoughts. Moreover, mindfulness techniques may help parents use open and non-judgmental attention as an alternative to biased attention to the child's negative symptoms or negative interpretation of his behavior (12). Studies have shown that dispositional mindfulness and self-compassion are associated with a greater ability to regulate emotions, which in turn has been associated with lower levels of psychological distress (9). Guendelman and colleagues found that mindfulness training increases positive

mood, improves negative mood, and reduces stress, anxiety, and anxiety-related depression (13). The results of Leyland and colleagues indicated that mindfulness training has positive effects and increases emotion regulation and improves attention in individuals (14). In fact, mindfulness helps a person understand that negative emotions may occur, but they are not a fixed part of the personality. It allows the individual to respond to the events thoughtfully rather than involuntarily; parents could experience healthier relationships with their child if they reach this level of mindfulness. Mindful parenting affects the consequences of parenting through changes in the psychological state of the parents; mindful parents would be able to know how they respond to the environment and their children. Additionally, high self-knowledge in mothers shows more desire and power of parents to tolerate their strong inner emotions through decentralization. Knowing that emotions are just emotions, they will experience a more complete relationship with their children in the present moment (15). According to the majority of psychological approaches, the base of each individual's identity is formed in their relationship with parents and the family, and individuals could reach a cohesive self in the shadow of this warm and sincere emotional environment (16). Thus, another component that affects mothers' mental health is believed to be integrative self-knowledge. As a kind of self-knowledge, integrative self-knowledge accelerates the process of self-regulation in difficult situations (for instance, the parent-adolescent relationship during puberty). Therefore, individuals understand their abilities and can organize their thoughts and feelings constructively and reach the desired result. In other words, integrative self-knowledge enables parents, mothers specifically, to have a higher capacity to deal with their adolescent stressors during puberty, and through self-regulation and returning balance to parents, effectively cope with stressors and reduce perceived stress (17). Parents' integrative self-knowledge and self-control, especially mothers, result into better performance in difficult situations and help enhance the parent-child relationship, marital satisfaction, and accelerate the process of adolescent self-regulation in adolescence among individuals and predicts people's response to stress (16, 18). Adolescents with fewer emotional problems have parents with more effective parenting behaviors, including mindfulness and integrative self-knowledge. Using mindfulness and integrative self-knowledge techniques by parents, especially mothers, to raise parents' mindfulness and to have a more receptive attitude towards their adolescents' emotional problems could improve parents' mental health and the quality

of parent-child interaction, and reduce adolescence injuries and emotional problems. Hence, one can state that once mothers have mental health components, they could provide a rich and healthy environment for their children and help their development accordingly (19).

As mothers have the most important role in rearing a child and children spend most of their time with their mother, the components of their mental health and the level of mindfulness of emotions and moment-to-moment mindfulness of their thoughts and feelings could affect parent-child interaction (3). In addition, weakness in the field of regulation and control of adolescent emotions would lead to poor performance in various fields - education, social, interpersonal relationships. Thus, given the great importance of maternal mental health and the parent-child relationship and the effective role of parents in educating and caring for children, particularly in the challenging period of adolescence and the effects of parental behaviors on the expression and regulation of adolescents' emotions, the study tries to answer the question of whether parental mindfulness and integrative self-knowledge can predict adolescent emotion regulation patterns.

2. Methods

2.1. Study Design

This study was a correlational study since the researchers tried to investigate the relationship between the variables and determine their correlation and the share of each predictor variable in the standard variable. Following the approval of the Ethics Committee of Sistan and Baluchestan University (ethical code: 1812326 in 2020) from the population of all the adolescents in the age range of 13 to 15 years old and their mothers in Parsian city (Hormozgan-Iran) in 2019-2020, which is the statistical population of this study, a sample of 140 adolescents aged 13 to 15 and their mothers in Parsian were selected using available random sampling method.

2.2. Participants

Our participants included 70 adolescents and 70 maternal subjects, a total of 140 people who were selected with random sampling in Parsian (Hormozgan-Iran) in 2019-2020. After the initial guidance on how to complete the questionnaires, all the participants volunteered to participate in the research. In this study, the subjects were selected based on our inclusion and

exclusion criteria. Inclusion criteria: age range of 13 to 15 years, no mental disorders or particular problems, and satisfaction of adolescents and their parents. Exclusion criteria: dissatisfaction with filling out the questionnaire and participating in the research, lack of parental literacy, and inability to fill out the questionnaire.

2.3. Research Tools

2.3.1. Emotional Regulation Questionnaire (ERQ)

Gross and John prepared the 10-item version of this questionnaire in 2003 (20). This 10-item scale is used to evaluate people's desire to regulate emotions and has two subscales: cognitive reappraisal and repression with six items related to reappraisal and four items evaluate the repression strategy. Scoring the responses is on a 7-point Likert scale (from strongly disagree scored 1 to strongly agree scored 7). Gross and John considered the validity and reliability of the above questionnaire desirable, reporting 0.73 for internal consistency coefficient and 0.69 for test retesting for both subscales (20). In the standardization of this questionnaire by Lotfi and co-workers, the calculated Cronbach's alpha for the whole questionnaire was 0.81 and for the two factors of reappraisal and suppression were 0.79 and 0.68, respectively. Cronbach's alpha in this study was 0.77 (21).

2.3.2. Mindful Attention Mindfulness Scale (MAAS)

This scale was developed by Brown and Ryan (2003) and is used to measure mindfulness. The mindfulness scale has 15 items; people express their response to each item using the 6-point Likert scale, rated from 1 (almost always) to 6 (almost never). The lowest score is 15 and the highest 90. This scale is of good reliability, as it has been administered to seven sample groups with Cronbach's alpha reported from 82% to 87% (22). The validity of the scale has been reported to be high and has shown a very high correlation with certain mental health variables. The scale has been utilized in the Iranian society, with its alpha as 82% on average (23). Test-retest reliability and internal consistency of the questionnaire have been appropriate for the study (24). Manavipour and colleagues reported Cronbach alpha for mindfulness scale as 0.76. This rate was 0.75 in the present study (25).

2.3.3. Integrative Self-Knowledge Scale (ISK)

This scale was made by Ghorbani and co-workers (2008), with 12 items designed from mostly incorrect

to mostly correct in the 5-point Likert scale, where mostly incorrect gets 1, somehow incorrect 2, not correct or incorrect 3, somehow incorrect 4, and mostly correct 5. The validity and reliability of the scale have been confirmed by several studies (the average alpha coefficients of the scale in the mentioned studies was 0.80) (23). The high score on this scale is attributed to the evaluation of self-reported behavioral characteristics in metamorphisms in both cultures (26). Cronbach's alpha coefficient was 0.76 in the present study.

2.4. Data Analysis

Pearson correlation coefficient and regression analysis were utilized to analyze the data at the descriptive level (frequency and percentage) and Pearson correlation and regression analysis to examine the research question at the inferential level.

3. Results

The results of demographic characteristics of 70 subjects (adolescents) implied that:

In terms of age, 29 people were 13 years old (41.4%), 1 person was 13.5 years old (1.4%), 23 people were 14 (32.9%), and 17 were 15 (24.3%). Regarding gender, 39 were females (55.7%) and 31 were males (44.3%).

Moreover, the percentage and frequency of the 70 subjects (mothers) showed that in terms of degree, 17 had sub-diploma (24.3%), 13 had high school diploma (18.6%), 29 had bachelor's (41.4%), 5 held master's (7.1%), and 6 doctorates (8.6%). Concerning mothers' job, 12 subjects had hospital jobs (17.1%), 19 were teachers (27.1%), 36 were self-employed (51.4%), and 3 were employees (4.3%).

The results of the tables are as follows:

Table 1 represents the mean and standard deviation of research variables; the results in this regard revealed that among the variables, the highest mean belonged to mindfulness (67.33±8.30). Table 2 depicts Correlation matrix results between the dimensions of cognitive emotion regulation and Integrative self-knowledge and mindfulness; the results showed an inverse and significant relationship between integrative self-knowledge and cognitive repression ($P \leq 0.002$, $r = 0.46$) and mindfulness with cognitive repression ($P \leq 0.004$, $r = -0.32$). There was a direct and significant relationship between mindfulness with cognitive reappraisal evaluation ($P \leq 0.001$, $r = 0.45$) and integrative self-knowledge with cognitive reappraisal ($P \leq 0.004$, $r = 0.37$) at the level of 0.95% confidence. Table 3 demonstrates Linear regression results for predicting emotion regulation dimensions with integrative self-knowledge

Table 1: Mean and standard deviation of the variables

Variable	Mean	SD
Cognitive reappraisal	27.98	6.17
Cognitive repression	12.97	4.76
Mindfulness	67.33	8.30
Integrative self-knowledge	34.95	7.35

Table 2: The results of correlation matrix between the dimensions of cognitive emotion regulation and Integrative self-knowledge and mindfulness

Variable	Integrative self-knowledge		Mindfulness	
	R	Sig	R	Sig
Cognitive reappraisal	0.45	0.001	0.37	0.002
Cognitive repression	-0.46	0.002	0.32	0.004

Table 3: Linear regression results for predicting emotion regulation dimensions with integrative self-knowledge and mindfulness

Step	Criterion variable	Predictor variable	R	R2	Adjusted R Square	Beta	T	F (df)	Durbin-Watson	Sig
One	Emotion regulation	Integrative self-knowledge	0.36	0.21	0.10	0.43	14.13	26.64 (69.1)	2.66	0.001
		Mindfulness	0.35	0.36	0.09	0.35	4.19	5.42 (1.69)	2.22	0.001
		Integrative self-knowledge								

and mindfulness; the findings indicated that integrative self-knowledge entered the equation and in the very first step, could explain the variance of cognitive regulation of emotion ($P \geq 0.01$ and $\text{Beta} = -0.36$) and then mindfulness and self-knowledge entered the equation. The obtained results implied that predictor variables could predict 36% of cognitive emotion regulation in adolescents. Accordingly, integrative self-knowledge with a coefficient of explanation of 0.43 and mindfulness with a coefficient of explanation of 0.35 could predict the power of cognitive regulation.

4. Discussion

The current study examined the predictive role of parental mindfulness and integrative self-knowledge on adolescents' emotional regulation patterns to reach the purpose. Thus, given the great importance of maternal mental health and the parent-child relationship and the effective role of parents in educating and caring for children, particularly in the challenging period of adolescence and the effects of parental behaviors on the expression and regulation of adolescents' emotions, the study tries to answer the question of whether parental mindfulness and integrative self-knowledge can predict adolescent emotion regulation patterns. According to the results, we observed a significant positive relationship between adolescent emotion regulation and parental mindfulness, meaning that the more mindfulness mothers have, the more adolescent emotion regulation would be. The results are in line with the study conducted by Song and colleagues (27), showing that each of the psychological and neurobiological mechanisms of mindfulness have a significant role in emotion regulation processes. Thus, emotion regulation and mindfulness in a serial and reciprocal way help increase each other.

Moreover, the results of the present study were in line with the study done by Memar and colleagues (28), indicating the effect of mindfulness-based intervention techniques that could be effective as a key element on improving parental interactions, mental health, and marital satisfaction. Additionally, parents' mindfulness, specifically mothers, is of great importance in understanding the specific behaviors of adolescents. The results of Cheng's study (29) illustrated that mindfulness training in child caregivers might lead to a better relationship quality. In fact, mindfulness training for parents significantly reduces the potential risks of adolescents in the critical period of puberty and leads to better understanding of their capabilities. Furthermore, our results were in line with the studies of Karaer and Akdemir (8), indicating that parental mindfulness and

appropriate parenting styles could help adolescents accept and understand emotional problems.

Therefore, one can state that the adolescents receiving perceived parental support and used emotion regulation strategies could control their emotions more effectively and reduce the symptoms of emotional disorders and trauma. Parental mindfulness reduces the behavioral and emotional problems of adolescence, which is owing to certain factors, for instance, improving the quality of the parent-child relationship, increasing the mental health of parents, and so forth (15).

Furthermore, we observed a positive and significant relationship between adolescent emotion regulation and parents' integrative self-knowledge. Thus, emotion regulation may have a predictive role in mothers' integrative self-knowledge and points to the effect of these two variables. This result is consistent with the study of Sadri and colleagues (16), indicating that considering that the foundation of each individual's identity is formed based on parents and family, and individuals could be friendly in the shadow of this emotional environment and realize sincere coherence.

Parents' integrative self-knowledge could help increase self-knowledge and reduce the stressful events of adolescence to some extent and enhance the quality of the parent-child relationship. Additionally, the results of the study conducted by Moradi and co-workers (17) indicated that as a kind of self-knowledge, integrative self-knowledge accelerates the process of self-regulation in difficult situations; accordingly one understands their abilities, constructs thoughts, organizes emotions, and reaches the desired results.

In general, given that adolescents undergo fundamental changes during the critical period of puberty, which greatly affects their performance, it can be said that the higher the level of mindfulness and integrative self-knowledge of parents, the more excitement will be towards issues around puberty. Also, the higher awareness of the tensions of this period will be better as they can study issues with more knowledge as well as take steps to create a sincere, emotional and stress-free environment and also help to recognize and regulate the emotions of their adolescent children. In other words, if parents are aware of their own and their children's emotions through teaching of mindfulness and integrative self-knowledge skills, they will rethink their emotions and teach them how to use the emotions; therefore, giving their children a sense of humor. They will experience more happiness in life so that this issue

can cause more mental health in children and through this they will equip their children with the necessary tools to recognize the emotions and feelings of the critical period of puberty and emotional mindfulness and self-knowledge.

5. Conclusion

In general, given that the adolescents undergo fundamental changes during the critical period of puberty, which greatly affects their performance, it can be said that the higher the level of mindfulness and integrative self-knowledge of parents, the more excitement will be towards issues around puberty. Also, the higher awareness of the tensions of this period will be, the better they can study issues with more knowledge as well as take steps to create a sincere, emotional and stress-free environment and help to recognize and regulate the emotions of their adolescent children. In other words, if parents are aware of their own and their children's emotions through teaching of mindfulness and integrative self-knowledge skills, they will rethink their emotions and teach them how to use the emotions; therefore, by giving their children a sense of humor. They will experience more happiness in life so that this issue can cause more mental health in children and through this they will equip their children with the necessary tools to recognize the emotions and feelings of the critical period of puberty and emotional mindfulness and self-knowledge.

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Ethical Approval

The present study has been approved by the ethics committee of Sistan and Baluchestan University with the ethical code of 1812326 in 2020.

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