KMAN PUBLISHING INSTITUTE
Journal Website

Article history:
Received 30 July 2026
Revised 07 November 2026
Accepted 15 November 2026
Initial Publication 17 November 2026
Final Publication 01 January 2027

KMAN Counseling & Psychology Nexus

Volume 5, pp 1-14

E-ISSN: 3041-9026

Prediction of Emotional and Behavioral Problems in Adolescents Based on Negative Meta-Emotion and Attachment Insecurity: The Mediating Role of Emotion Regulation

Yasaman. Nafar[1], Niloofar. Rismanchi[2], Marjan. Jowkar[2], Nahid. Yousefpour[3]*

[1] M.A. in Clinical Psychology, Department of Psychology, Shi.C., Islamic Azad University, Shiraz, Iran
[2] M.A. Student in Psychology, Department of Psychology, Shi.C., Islamic Azad University, Shiraz, Iran
[3] Assistant Professor, Department of Educational Sciences and Psychology, Payame Noor University, Tehran, Iran

*** Corresponding author email address**: nahidyousefpour97@yahoo.com

A r t i c l e I n f o

Article type:
Original Research

Section:
Clinical Psychology

How to cite this article:
Nafar, Y., Rismanchi, N., Jowkar, M., & Yousefpour, N. (2027). Prediction of Emotional and Behavioral Problems in Adolescents Based on Negative Meta-Emotion and Attachment Insecurity: The Mediating Role of Emotion Regulation. *KMAN Conseling and Psychology Nexus, 5*, 1-14.
http://doi.org/10.61838/kman.psynexus.6689

© 2027 the authors. Published by KMAN Publication Inc. (KMANPUB), Ontario, Canada. This is an open access article under the terms of the Creative Commons Attribution-NonCommercial 4.0 International (CC BY-NC 4.0) License.

A B S T R A C T

This study aimed to examine a structural model of emotional and behavioral problems in adolescents based on negative meta-emotion and attachment insecurity, with emotion-regulation difficulties as a mediating variable. This cross-sectional correlational study was conducted in Tehran, Iran, in 2026 among 420 adolescents aged 13–18 years selected through multistage cluster sampling. Negative meta-emotion, attachment insecurity, emotion-regulation difficulties, and internalizing and externalizing problems were assessed using validated self-report measures. Data were analyzed using SPSS version 22 and AMOS version 22. Confirmatory factor analysis and structural equation modeling were conducted, and indirect effects were examined using bootstrap analysis with 5,000 resamples. The structural model demonstrated acceptable fit ($\chi^2/df = 2.38$, CFI = .931, TLI = .923, RMSEA = .057, SRMR = .052). Negative meta-emotion ($\beta = .42$, $p < .001$) and attachment insecurity ($\beta = .36$, $p < .001$) were positively associated with emotion-regulation difficulties. Emotion-regulation difficulties predicted both internalizing ($\beta = .46$, $p < .001$) and externalizing problems ($\beta = .31$, $p < .001$). All four indirect pathways were significant. The model explained 43% of the variance in emotion-regulation difficulties, 52% in internalizing problems, and 34% in externalizing problems. Negative meta-emotion and attachment insecurity were associated with greater emotional and behavioral problems both directly and indirectly through emotion-regulation difficulties. Emotion regulation may represent an important psychological mechanism linking intrapersonal and relational vulnerabilities with adolescent adjustment.

Keywords: *negative meta-emotion; attachment insecurity; emotion regulation; internalizing problems; externalizing problems; adolescents.*

1. Introduction

Adolescence represents a particularly sensitive developmental period in which rapid biological maturation, cognitive restructuring, expanding social roles, increasing autonomy, and changing relationships with parents and peers converge to create substantial demands on psychological adaptation. Although these developmental transitions provide important opportunities for identity formation, emotional growth, and social competence, they can also increase vulnerability to emotional and behavioral problems. Internalizing difficulties such as anxiety, depressive symptoms, withdrawal, and somatic complaints, as well as externalizing manifestations such as aggression, impulsivity, oppositional behavior, and rule-breaking, frequently emerge or become more pronounced during adolescence. These difficulties can interfere with academic functioning, family relationships, peer adjustment, self-concept, and later psychological development. Contemporary perspectives therefore emphasize that adolescent psychopathology should not be explained through isolated symptoms or single risk factors but through the interaction of biological, psychological, relational, and sociocultural processes that shape emotional adaptation over time (Compas et al., 2017; Seyed Alitabar, 2025, 2026). Within this framework, identifying mechanisms that connect adolescents' internal emotional experiences and attachment relationships with emotional and behavioral outcomes is essential for developing more comprehensive explanatory and preventive models.

Emotion regulation is one of the central developmental processes through which adolescents manage increasingly complex affective experiences. Emotion regulation encompasses the processes by which individuals monitor, evaluate, modify, and express emotional states in accordance with personal goals and contextual demands. During adolescence, regulatory capacities remain under development while young people simultaneously encounter intensified academic demands, social evaluation, peer pressures, family renegotiation, and heightened emotional reactivity. Difficulties in identifying emotions, accepting emotional responses, controlling impulses, maintaining goal-directed behavior during distress, accessing adaptive strategies, or understanding emotional states can therefore place adolescents at greater risk for maladjustment. Extensive evidence indicates that maladaptive coping and emotion-regulation processes are associated with both internalizing and externalizing psychopathology in children and adolescents, whereas more flexible and adaptive regulation is associated with better psychological adjustment (Compas et al., 2017). From a biopsychosocial perspective, these regulatory capacities are not formed in isolation; rather, they develop through continuing interactions among individual characteristics, interpersonal experiences, family processes, and broader cultural expectations (Seyed Alitabar, 2025).

An increasingly important construct for understanding individual differences in emotion regulation is meta-emotion. Meta-emotion refers to emotional responses, evaluations, attitudes, and reactions directed toward one's own emotional experiences. Thus, an adolescent may not only experience sadness, anxiety, anger, or fear as a primary emotional state but may also experience shame about being anxious, anger about feeling sad, contempt toward personal vulnerability, or frustration about an inability to control distress. These secondary emotional responses can fundamentally alter how the initial emotion is experienced and managed. Negative meta-emotions are particularly important because they can transform a temporary emotional experience into a more complex cycle of distress, self-judgment, avoidance, suppression, and regulatory failure. Early conceptual and empirical work demonstrated that individuals who respond negatively to their own emotions tend to show greater experiential avoidance and less adaptive emotional functioning, whereas mindful awareness and acceptance are associated with healthier emotional regulation (Mitmansgruber et al., 2009).

Negative meta-emotion may be especially consequential during adolescence because emotional experiences during this period are often intense, socially meaningful, and closely connected to emerging self-evaluations. When adolescents interpret anxiety as weakness, anger as unacceptable, sadness as shameful, or emotional vulnerability as evidence of personal inadequacy, they may attempt to suppress, avoid, deny, or rigidly control emotional experiences. These efforts may provide temporary relief but can interfere with emotional processing and increase the persistence or intensity of distress. Consequently, negative meta-emotion can generate an additional layer of affective burden in which the adolescent struggles not only with the primary emotion but also with negative reactions to having that emotion. Such secondary evaluations may narrow regulatory flexibility, increase self-criticism, and encourage maladaptive responses such as rumination, suppression, withdrawal, or impulsive behavior (Kraft & Kizil, 2026; Mitmansgruber et al., 2009). The emerging concept of meta-

KMAN-CPN KMAN-Counseling & Psychology Nexus
E-ISSN: 3041-9026

emotion-regulation further proposes that beliefs, evaluations, and emotional responses concerning one's own emotions can influence which regulation strategies individuals select and how they implement those strategies (Kraft & Kizil, 2026).

Recent empirical findings provide additional support for the relevance of meta-emotional processes in adolescence. Research among adolescents has demonstrated meaningful relationships between meta-emotions and emotion-regulation capacities, indicating that negative reactions to one's own emotional states are associated with less effective emotional management (Jesline et al., 2025). This association is theoretically important because it suggests that negative meta-emotion may operate upstream of more observable regulatory difficulties. An adolescent who believes that unpleasant emotions are unacceptable, threatening, or humiliating may be more likely to suppress them, struggle against them, or engage in avoidant responses, thereby increasing regulatory difficulties. Conversely, resilience and adaptive emotional functioning may reduce the extent to which negative meta-emotional responses translate into dysregulation (Jesline et al., 2025). This emerging evidence suggests that meta-emotion should be considered not merely a descriptive feature of emotional experience but a potentially important mechanism in the development and maintenance of adolescent psychological problems.

The clinical relevance of these processes is further supported by intervention research targeting beliefs and reactions concerning emotions. Meta-emotion-focused therapeutic approaches have begun to examine whether modifying dysfunctional beliefs about emotional experiences can reduce psychological distress among adolescents. Evidence from adolescents with anxiety suggests that directly addressing maladaptive beliefs regarding emotions and encouraging more adaptive interpretations of emotional experiences may produce improvements in psychological functioning (Cain et al., 2024). Such findings are important because they indicate that adolescents' difficulties may not depend only on the intensity of their primary emotions but also on the meanings attributed to those emotions. If adolescents repeatedly respond to distress with shame, hostility, or rigid attempts at control, negative meta-emotion may contribute to the persistence of internalizing symptoms and may also increase the likelihood of dysregulated behavioral responses.

Alongside these intrapersonal processes, attachment relationships constitute a major interpersonal context for the development of emotional functioning. Attachment theory proposes that repeated interactions with caregivers contribute to internal working models concerning the availability of others, the acceptability of emotional needs, and the individual's own worthiness of care and support. Secure attachment relationships generally provide a context in which distress can be communicated, emotional needs can be recognized, and support can be accessed without excessive fear of rejection. In contrast, insecure attachment may be associated with uncertainty regarding caregiver availability, diminished trust, communication problems, alienation, heightened sensitivity to rejection, or avoidance of support. Meta-analytic evidence has demonstrated a significant association between insecure and disorganized attachment and internalizing symptoms in children, indicating that attachment insecurity represents an important developmental vulnerability for psychological distress (Groh et al., 2012).

The importance of attachment extends beyond direct associations with psychopathology because attachment experiences are also closely related to the development of emotion regulation. Early and continuing interactions with attachment figures provide opportunities for co-regulation, through which young people gradually learn to identify, tolerate, communicate, and modulate emotional experiences. Secure relationships may facilitate adaptive coping, cognitive regulation, emotional expression, and support seeking, whereas insecure relationships may encourage hyperactivation or deactivation of the attachment system, excessive reassurance seeking, emotional suppression, avoidance, or difficulties returning to emotional equilibrium after distress. Meta-analytic research has shown systematic associations between parent–child attachment quality and children's emotional experience and regulation, supporting the proposition that secure attachment contributes to more adaptive regulatory functioning (Cooke et al., 2019). Recent reviews similarly emphasize close conceptual links among attachment, mentalization, and emotion regulation during adolescence, suggesting that relational security may facilitate the capacity to understand and manage internal emotional states (Salavou et al., 2026).

Attachment insecurity may consequently contribute to both internalizing and externalizing problems through several pathways. Adolescents who perceive parental relationships as unreliable, rejecting, or emotionally unavailable may be more susceptible to anxiety, depressive symptoms, loneliness, and withdrawal because they experience greater interpersonal threat while perceiving

fewer dependable resources for emotional support. At the same time, distrust, alienation, poor communication, and frustration within close relationships may contribute to anger, oppositional behavior, aggression, or rule-breaking. Evidence obtained with adolescent attachment measures confirms that maternal, paternal, and peer attachment are meaningfully related to behavioral adjustment and that the assessment of trust, communication, and alienation provides clinically relevant information regarding adolescent functioning (Habibi Asgarabad et al., 2025). These findings support examining attachment insecurity not as a unitary relational deficit but as a multidimensional vulnerability involving reduced trust, impaired communication, and increased alienation in significant relationships.

Emotion regulation may represent a particularly important mechanism through which family and attachment experiences become translated into psychological symptoms. Family environments influence the ways young people learn to interpret, express, and regulate emotion, while attachment relationships provide repeated experiences of interpersonal regulation. A recent meta-analysis demonstrated that child emotion regulation significantly mediates associations between multiple family factors and internalizing symptoms in children and adolescents, supporting a developmental pathway in which relational experiences affect psychological adjustment partly through regulatory functioning (Lin et al., 2024). This perspective is consistent with attachment-based accounts suggesting that young people gradually internalize regulatory patterns initially experienced within relationships. When family interactions provide emotional responsiveness, validation, and support, adolescents may develop greater confidence in managing distress. When relationships are characterized by insecurity, emotional unavailability, conflict, or inconsistent support, regulatory difficulties may become more likely (Cooke et al., 2019; Lin et al., 2024).

The relationship between attachment and emotional functioning must also be understood within the broader family and cultural context. Beliefs about emotional expression, obedience, autonomy, interpersonal obligations, gender roles, parental authority, and family cohesion can shape both parent–adolescent interactions and adolescents' interpretations of their own emotions. Cultural belief systems may influence whether distress is openly discussed, whether negative emotions are viewed as acceptable, and whether seeking emotional assistance is encouraged or discouraged. Family well-being is therefore embedded in sociocultural frameworks that influence parenting practices, emotional communication, resilience, and psychological adjustment (Seyed Alitabar, 2023). This issue may be particularly relevant in contemporary Iranian society, where adolescent development occurs in the context of changing social expectations, educational pressures, family dynamics, and broader cultural transformations that can influence both emotional experience and pathways to mental health difficulties (Seyed Alitabar, 2026). Integrating intrapersonal, relational, and cultural levels is therefore important for understanding adolescent emotional and behavioral adjustment.

Negative meta-emotion and attachment insecurity can be conceptualized as distinct but potentially convergent vulnerabilities. Negative meta-emotion primarily concerns the adolescent's relationship with his or her own emotional experience, whereas attachment insecurity concerns expectations regarding safety, responsiveness, and support in close interpersonal relationships. Nevertheless, both may contribute to difficulties in emotion regulation. An adolescent who experiences shame or anger toward personal emotional reactions may suppress or avoid those reactions, while an adolescent who lacks secure attachment may have fewer opportunities or less confidence in seeking interpersonal assistance when distress becomes intense. These processes may ultimately converge on difficulties involving emotional acceptance, clarity, impulse control, goal-directed behavior, and access to effective regulatory strategies (Kraft & Kizil, 2026; Salavou et al., 2026). In this respect, emotion-regulation difficulties provide a theoretically coherent bridge connecting intrapersonal meta-emotional processes and interpersonal attachment vulnerabilities with broader forms of psychopathology.

This integrated perspective is also consistent with evidence that emotion dysregulation functions as a transdiagnostic process across multiple forms of child and adolescent psychopathology. Maladaptive regulation is not restricted to a single diagnostic category; rather, it is associated with anxiety, depression, withdrawal, aggression, behavioral dyscontrol, and other forms of psychological difficulty (Compas et al., 2017). Internalizing problems may emerge when adolescents repeatedly direct distress inward through rumination, avoidance, self-criticism, suppression, or helplessness, whereas externalizing problems may become more likely when emotional arousal is expressed through impulsivity, hostility, aggression, or behavioral disinhibition. Accordingly, a model that simultaneously examines internalizing and externalizing outcomes can clarify whether the same regulatory mechanism operates

KMAN-CPN KMAN-Counseling & Psychology Nexus
E-ISSN: 3041-9026

across different manifestations of adolescent maladjustment and whether the strength of these pathways differs across outcome domains.

Reliable assessment of these emotional and behavioral outcomes is particularly important when examining such structural relationships. The Youth Self-Report provides a broad adolescent self-report framework for assessing internalizing and externalizing symptom domains, and evidence from Iranian samples has supported the factorial structure, reliability, and validity of the instrument (Fadaie et al., 2009). The availability of psychometrically supported measures is especially important for research conducted in non-Western contexts, because structural relationships among psychological constructs can only be interpreted adequately when the assessment instruments demonstrate acceptable validity within the population under investigation. Similarly, recent validation of attachment measures among Iranian adolescents strengthens the methodological foundation for examining parental attachment insecurity in relation to emotional and behavioral outcomes (Habibi Asgarabad et al., 2025). Together, these psychometric developments facilitate more rigorous testing of integrated models of adolescent adjustment within the Iranian context.

Despite substantial evidence regarding attachment, emotion regulation, and adolescent psychopathology, important gaps remain in the literature. Many studies have investigated attachment insecurity and psychological symptoms, while others have focused on emotion dysregulation as a risk factor for psychopathology. Meta-emotion research in adolescence is comparatively recent, and studies directly integrating negative meta-emotion with relational vulnerabilities remain limited (Cain et al., 2024; Jesline et al., 2025). Moreover, conceptual developments concerning meta-emotion-regulation suggest that higher-order evaluations of emotions may influence regulation behavior in ways that cannot be reduced to conventional emotion-regulation strategies alone (Kraft & Kizil, 2026). At the same time, attachment research increasingly highlights emotion regulation as an important pathway between relational experiences and adolescent adjustment (Lin et al., 2024; Salavou et al., 2026). These parallel literatures have not yet been sufficiently integrated into structural models simultaneously considering negative meta-emotion, attachment insecurity, emotion-regulation difficulties, and both internalizing and externalizing problems.

Addressing this gap is theoretically and clinically important because the simultaneous examination of these variables can clarify whether intrapersonal and interpersonal vulnerabilities make independent contributions to adolescent problems and whether emotion regulation constitutes a shared intervening mechanism. Such an approach is compatible with biopsychosocial models that conceptualize psychological problems as products of interacting psychological, relational, and contextual systems rather than as consequences of isolated risk factors (Seyed Alitabar, 2025). It also has practical implications: if emotion-regulation difficulties statistically account for part of the association between negative meta-emotion, attachment insecurity, and psychological problems, interventions may need to combine emotion-regulation training with efforts to modify maladaptive beliefs and reactions toward emotion and strengthen emotionally supportive family relationships. Given the relevance of culturally embedded family processes to adolescent mental health, examining these pathways among Iranian adolescents may also contribute evidence from a sociocultural context that remains underrepresented in the international literature (Seyed Alitabar, 2023, 2026).

Accordingly, the aim of the present study was to examine a structural model predicting emotional and behavioral problems in adolescents based on negative meta-emotion and attachment insecurity, with emotion-regulation difficulties as a mediating variable.

2. Methods and Materials

2.1. Study Design and Participants

This cross-sectional correlational study was conducted in Tehran, Iran, in 2026. The study population consisted of adolescents aged 13–18 years enrolled in secondary schools in Tehran. A multistage cluster sampling method was used. Several educational districts representing different geographical areas of Tehran were selected, followed by the selection of boys' and girls' secondary schools and classes within each school. The final sample consisted of 420 adolescents.

Eligibility criteria included being 13–18 years of age, current enrollment in secondary school, ability to read and understand Persian, regular contact with both parents, and provision of adolescent assent and written parental consent. After obtaining the necessary institutional and educational permissions, selected schools were contacted and informed about the study objectives and procedures. Students received an age-appropriate explanation of the study, and participation was voluntary. Written informed consent was

KMAN-CPN KMAN-Counseling & Psychology Nexus E-ISSN: 3041-9026

obtained from parents or legal guardians, and adolescents provided assent before participation. Questionnaires were administered during regular school hours in a quiet classroom setting under the supervision of trained research personnel. Participants were instructed that their responses were confidential, would not affect their academic status, and could be discontinued at any time without consequence. The questionnaires were completed individually and required approximately 30–40 minutes. To reduce order effects, the questionnaires were administered using alternating questionnaire sequences across classes. Completed questionnaires were reviewed for missing responses before data entry. No identifying information was entered into the analytic dataset, and each participant was assigned a numerical study code.

2.2. Data Collection Tools

A demographic questionnaire was used to collect information on age, sex, school grade, family structure, parental education, and parental employment status.

Negative meta-emotion was assessed using the Meta-Emotion Scale (MES) developed by Mitmansgruber et al. (2009). The MES contains 28 items rated on a six-point Likert scale ranging from 1 (not at all true for me) to 6 (completely true for me). The instrument assesses six meta-emotional responses. Four dimensions—anger toward one's emotions, contempt/shame, tough control, and emotional suppression—represent negative meta-emotions, whereas compassionate care and interest represent positive meta-emotions. Only the four negative meta-emotion dimensions were used in the present study. Higher scores indicated stronger negative emotional reactions toward one's own emotions. The original study reported satisfactory internal consistency for the negative dimensions, with Cronbach's alpha coefficients ranging approximately from .76 to .88 (Mitmansgruber et al., 2009). The MES has also been used in recent adolescent research, with acceptable internal consistency reported for the negative meta-emotion construct. Because psychometric evidence for the Persian MES in Iranian adolescents remains comparatively limited, internal consistency and the measurement structure of the negative meta-emotion dimensions were re-examined in the present sample.

Attachment was assessed using the Persian version of the 45-item Inventory of Parent and Peer Attachment (IPPA-45). The instrument includes separate 15-item forms assessing attachment to the mother, father, and peers, with each form comprising the dimensions of trust, communication, and alienation. Responses are rated on a five-point scale ranging from 1 (almost never or never) to 5 (always or almost always). Because the present study focused on attachment insecurity within the parent–adolescent relationship, maternal and paternal attachment dimensions were used. Trust and communication scores were reverse-oriented so that higher values represented lower trust and poorer communication, while higher alienation scores directly represented greater insecurity. The maternal and paternal indicators were then used to represent parental attachment insecurity in the structural model. The Persian IPPA-45 has recently been evaluated in a large sample of 1,532 Iranian adolescents aged 14–17 years in Tehran. Confirmatory factor analysis supported the original trust, communication, and alienation structure for maternal, paternal, and peer attachment, and the instrument demonstrated satisfactory reliability and measurement equivalence across sex (Habibi Asgarabad et al., 2025).

Emotion regulation was assessed using the Persian 18-item Difficulties in Emotion Regulation Scale (DERS-18). The instrument evaluates difficulties across six domains: nonacceptance of emotional responses, difficulties engaging in goal-directed behavior, impulse-control difficulties, limited access to effective emotion-regulation strategies, lack of emotional awareness, and lack of emotional clarity. Items are rated on a five-point Likert scale, with higher scores reflecting greater difficulties in emotion regulation. The Persian DERS-18 has demonstrated satisfactory psychometric properties among Iranian adolescents. Nooripour et al. (2023) supported its reliability and validity and demonstrated its usefulness for assessing emotion-regulation difficulties in Iranian adolescent populations. In the present structural model, higher DERS-18 scores represented poorer emotion regulation.

Emotional and behavioral problems were assessed using the Persian Youth Self-Report (YSR), originally developed by Achenbach. The YSR is designed for adolescents aged 11–18 years and assesses a broad range of emotional and behavioral symptoms. Items are scored from 0 (not true) to 2 (very true or often true). The internalizing problems domain comprises anxious/depressed symptoms, withdrawn/depressed symptoms, and somatic complaints, whereas the externalizing problems domain comprises rule-breaking and aggressive behavior. Higher scores indicate greater emotional or behavioral difficulties. Internalizing and externalizing scores were treated as the principal outcome variables in the structural model. The Persian YSR

KMAN-CPN KMAN-Counseling & Psychology Nexus E-ISSN: 3041-9026

has demonstrated acceptable factorial validity and reliability in Iranian adolescents (Fadaie et al., 2009). More recent research in Iranian adolescents has also reported high internal consistency for the internalizing and externalizing scales, with coefficients of approximately .92 and .91, respectively.

2.3. Data Analysis

Data were analyzed using IBM SPSS Statistics version 22 and AMOS version 22. Means, standard deviations, frequencies, and percentages were calculated to describe participant characteristics and study variables. Internal consistency was examined using Cronbach's alpha. Distributional assumptions were evaluated using skewness and kurtosis, and multivariate outliers were examined using Mahalanobis distance. Pearson correlation coefficients were calculated to examine preliminary relationships among the main variables.

Structural equation modeling was conducted in two stages. First, confirmatory factor analysis was performed to evaluate the measurement model. Negative meta-emotion was represented by anger, contempt/shame, tough control, and suppression. Parental attachment insecurity was represented by the maternal and paternal trust, communication, and alienation indicators after appropriate score orientation. Emotion-regulation difficulty was represented by the six DERS-18 dimensions. Internalizing and externalizing problem scores from the YSR were included as the principal outcomes.

Model fit was evaluated using the chi-square to degrees-of-freedom ratio (χ^2/df), Comparative Fit Index (CFI), Tucker–Lewis Index (TLI), Root Mean Square Error of Approximation (RMSEA), and Standardized Root Mean Square Residual (SRMR). Values of χ^2/df below 3, CFI and TLI values of approximately .90 or higher, and RMSEA and SRMR values below .08 were considered indicative of acceptable model fit.

The structural model subsequently examined direct paths from negative meta-emotion and attachment insecurity to emotion-regulation difficulties and to emotional and behavioral problems. Emotion-regulation difficulties were also modeled as a predictor of internalizing and externalizing problems. The two exogenous predictors were allowed to correlate, as were the residuals of the internalizing and externalizing outcomes.

Indirect effects of negative meta-emotion and attachment insecurity on emotional and behavioral problems through emotion regulation were evaluated using bias-corrected bootstrap estimation with 5,000 resamples and 95% confidence intervals. An indirect effect was considered statistically significant when its bootstrap confidence interval did not include zero. Standardized path coefficients (β), direct and indirect effects, explained variance (R^2), and corresponding p values were reported. Statistical significance was set at $p < .05$.

3. Findings and Results

A total of 420 adolescents were included in the final analysis. Participants ranged in age from 13 to 18 years, with a mean age of 15.42 years (SD = 1.46). Of the participants, 221 (52.6%) were girls and 199 (47.4%) were boys. Most adolescents lived with both parents (82.1%), while the remaining participants lived in single-parent or other family arrangements.

No substantial missing data were observed in the final analytic dataset. Examination of skewness and kurtosis indicated that the distributions of the main study variables were within acceptable limits for structural equation modeling. No evidence of severe multicollinearity was observed, and the correlation coefficients among predictor variables remained below conventional thresholds for collinearity. Internal consistency was satisfactory for all principal measures. Cronbach's alpha was .91 for negative meta-emotion, .90 for parental attachment insecurity, .93 for emotion-regulation difficulties, .92 for internalizing problems, and .89 for externalizing problems.

Table 1

Descriptive Statistics and Correlations Among Study Variables

Variable	Mean	SD	1	2	3	4	5
1. Negative meta-emotion	67.84	14.72	—				
2. Attachment insecurity	84.16	18.35	.39***	—			
3. Emotion-regulation difficulties	52.63	12.91	.56***	.51***	—		
4. Internalizing problems	28.47	9.84	.51***	.46***	.61***	—	
5. Externalizing problems	21.36	8.17	.36***	.39***	.46***	.42***	—

KMAN-CPN KMAN-Counseling & Psychology Nexus
E-ISSN: 3041-9026

Table 1 presents the descriptive statistics and Pearson correlations among the main study variables. Negative meta-emotion was positively correlated with attachment insecurity ($r = .39$, $p < .001$), emotion-regulation difficulties ($r = .56$, $p < .001$), internalizing problems ($r = .51$, $p < .001$), and externalizing problems ($r = .36$, $p < .001$). Attachment insecurity was also positively associated with emotion-regulation difficulties ($r = .51$, $p < .001$), internalizing problems ($r = .46$, $p < .001$), and externalizing problems ($r = .39$, $p < .001$). Emotion-regulation difficulties showed the strongest correlation with internalizing problems ($r = .61$, $p < .001$) and were also significantly associated with externalizing problems ($r = .46$, $p < .001$).

Confirmatory factor analysis was conducted before testing the structural relationships. The measurement model demonstrated an acceptable fit to the data, $\chi^2/df = 2.31$, CFI = .934, TLI = .926, RMSEA = .056, and SRMR = .049. All standardized factor loadings were statistically significant ($p < .001$). Loadings for the negative meta-emotion indicators ranged from .68 to .82, attachment insecurity indicators from .64 to .81, and emotion-regulation difficulty indicators from .66 to .84. These findings provided support for proceeding with the structural model. The structural model also demonstrated acceptable fit, $\chi^2/df = 2.38$, CFI = .931, TLI = .923, RMSEA = .057, and SRMR = .052.

Table 2

Standardized Direct Effects in the Structural Model

Structural Path	β	p
Negative meta-emotion → Emotion-regulation difficulties	.42	< .001
Attachment insecurity → Emotion-regulation difficulties	.36	< .001
Emotion-regulation difficulties → Internalizing problems	.46	< .001
Emotion-regulation difficulties → Externalizing problems	.31	< .001
Negative meta-emotion → Internalizing problems	.24	< .001
Attachment insecurity → Internalizing problems	.19	< .001
Negative meta-emotion → Externalizing problems	.18	.002
Attachment insecurity → Externalizing problems	.22	< .001

Negative meta-emotion had a significant positive direct association with emotion-regulation difficulties ($\beta = .42$, $p < .001$). Attachment insecurity was also positively associated with emotion-regulation difficulties ($\beta = .36$, $p < .001$). Together, negative meta-emotion and attachment insecurity explained 43% of the variance in emotion-regulation difficulties. Emotion-regulation difficulties, in turn, showed a strong positive association with internalizing problems ($\beta = .46$, $p < .001$) and a moderate positive association with externalizing problems ($\beta = .31$, $p < .001$).

Negative meta-emotion retained a significant direct association with internalizing problems after emotion regulation was included in the model ($\beta = .24$, $p < .001$). Attachment insecurity was also directly associated with internalizing problems ($\beta = .19$, $p < .001$). For externalizing problems, negative meta-emotion showed a smaller but significant direct association ($\beta = .18$, $p = .002$), while attachment insecurity demonstrated a significant positive direct association ($\beta = .22$, $p < .001$). The model explained 52% of the variance in internalizing problems and 34% of the variance in externalizing problems.

Table 3

Bootstrap Estimates of Indirect Effects

Indirect Path	Standardized Indirect Effect	95% Bootstrap CI
Negative meta-emotion → Emotion regulation → Internalizing problems	.19	.14 to .25
Attachment insecurity → Emotion regulation → Internalizing problems	.17	.12 to .22
Negative meta-emotion → Emotion regulation → Externalizing problems	.13	.09 to .18
Attachment insecurity → Emotion regulation → Externalizing problems	.11	.07 to .16

Bootstrap analysis with 5,000 resamples was used to examine the indirect effects of negative meta-emotion and attachment insecurity through emotion-regulation difficulties. The indirect effect of negative meta-emotion on

KMAN-CPN KMAN-Counseling & Psychology Nexus
E-ISSN: 3041-9026

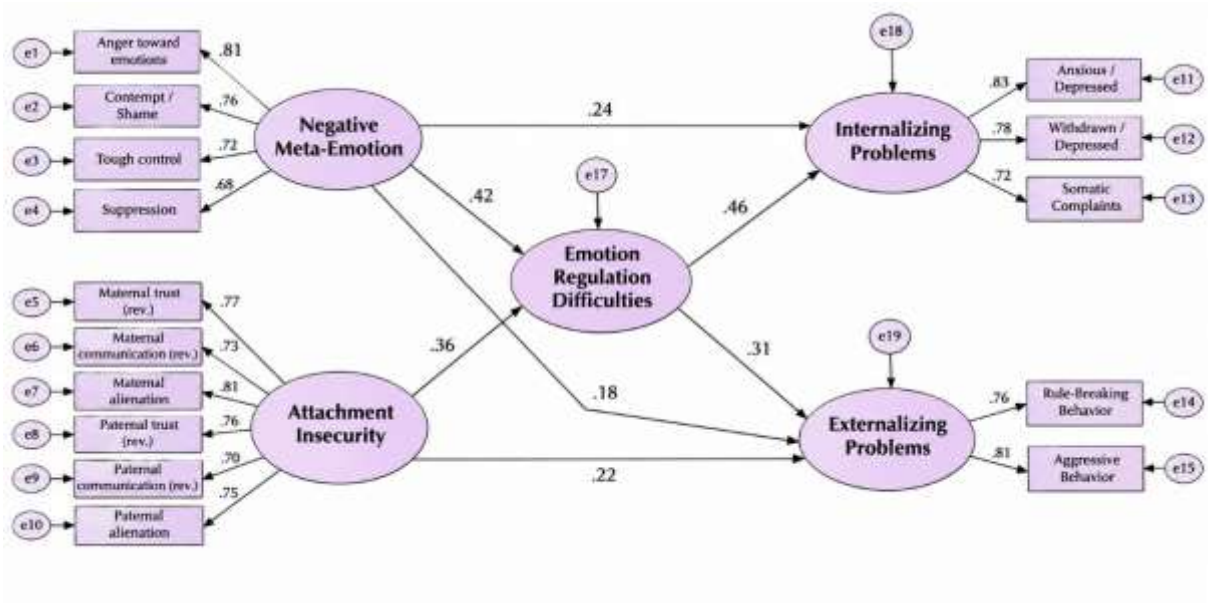
internalizing problems through emotion-regulation difficulties was statistically significant (β = .19, 95% CI [.14, .25]). The indirect effect of attachment insecurity on internalizing problems through emotion-regulation difficulties was also significant (β = .17, 95% CI [.12, .22]). Similarly, negative meta-emotion showed a significant indirect association with externalizing problems through emotion-regulation difficulties (β = .13, 95% CI [.09, .18]). The indirect effect of attachment insecurity on externalizing problems through emotion-regulation difficulties was significant as well (β = .11, 95% CI [.07, .16]). Because none of the bootstrap confidence intervals included zero, all four indirect effects were statistically significant.

The total standardized effect of negative meta-emotion on internalizing problems was .43, while the total effect of attachment insecurity on internalizing problems was .36. For externalizing problems, the corresponding total effects were .31 for negative meta-emotion and .33 for attachment insecurity. The persistence of significant direct effects after inclusion of emotion-regulation difficulties indicated partial rather than complete statistical mediation.

Overall, the structural model supported the hypothesized relationships. Higher negative meta-emotion and greater attachment insecurity were associated with greater difficulties in emotion regulation. Emotion-regulation difficulties were subsequently associated with both internalizing and externalizing problems. Emotion regulation significantly accounted for part of the relationship between both predictor variables and adolescents' emotional and behavioral problems. The indirect pathways were stronger for internalizing than externalizing problems, suggesting that emotion-regulation difficulties may play a particularly important role in explaining emotional symptoms such as anxiety, depression, and withdrawal. The final model explained 43% of the variance in emotion-regulation difficulties, 52% of the variance in internalizing problems, and 34% of the variance in externalizing problems.

Figure 1

Structural model of the study variables with standardized path coefficients



4. Discussion

The present study examined a structural model of emotional and behavioral problems among adolescents based on negative meta-emotion and attachment insecurity, with emotion-regulation difficulties as a mediating variable. The findings generally supported the proposed conceptual model. Negative meta-emotion and attachment insecurity were both significantly and positively associated with emotion-regulation difficulties, while emotion-regulation difficulties were significantly related to both internalizing and externalizing problems. Negative meta-emotion and attachment insecurity also maintained significant direct relationships with the two domains of emotional and behavioral problems after emotion-regulation difficulties were incorporated into the model. Furthermore, all four hypothesized indirect pathways were statistically

KMAN-CPN
KMAN-Counseling & Psychology Nexus
E-ISSN: 3041-9026

significant, indicating that emotion regulation partially mediated the relationships of negative meta-emotion and attachment insecurity with both internalizing and externalizing problems. The model explained 43% of the variance in emotion-regulation difficulties, 52% of the variance in internalizing problems, and 34% of the variance in externalizing problems. Taken together, these findings support an integrative interpretation in which adolescents' negative reactions toward their own emotional experiences and insecurity within important attachment relationships are associated with maladjustment partly through impaired capacity to regulate emotional states.

One of the most notable findings was the significant positive association between negative meta-emotion and emotion-regulation difficulties ($\beta = .42$, $p < .001$). This finding suggests that adolescents who experience greater anger toward their own emotions, shame or contempt regarding emotional experiences, rigid efforts to control affect, or suppression of emotion are more likely to experience difficulties in regulating emotional states. This result is consistent with the conceptualization of meta-emotion as a higher-order emotional response capable of influencing subsequent regulatory behavior. When adolescents experience a primary negative emotion and subsequently respond to that emotion with rejection, shame, anger, or excessive control, the secondary response can intensify the original distress and reduce the likelihood of flexible regulation. Mitmansgruber and colleagues demonstrated that negative meta-emotional responses are closely related to experiential avoidance and difficulties in adaptive emotion processing, suggesting that disliking or rejecting what one feels may itself become a source of regulatory impairment (Mitmansgruber et al., 2009). The current finding therefore supports the proposition that negative meta-emotion is not simply an accompanying emotional reaction but may represent a meaningful vulnerability associated with the way adolescents attempt to manage distress.

This interpretation is also supported by more recent evidence concerning meta-emotion and emotion regulation in adolescent populations. Jesline and colleagues found meaningful associations between meta-emotional experiences and emotional regulation and demonstrated that resilience can play an important role in the relationship between these constructs among vulnerable adolescents (Jesline et al., 2025). The present results extend this literature by showing that negative meta-emotion is associated not only with emotion-regulation difficulty but also indirectly with broader psychological problems through this regulatory pathway. From the perspective of the emerging meta-emotion-regulation framework, higher-order evaluations of emotional experiences can influence the selection, initiation, and maintenance of emotion-regulation behaviors (Kraft & Kizil, 2026). Thus, when an adolescent interprets sadness, fear, anxiety, or anger as unacceptable or threatening, the resulting secondary emotional response may prompt suppression, avoidance, rumination, or rigid control rather than flexible engagement with the emotional experience. Such processes may explain why negative meta-emotion was strongly associated with emotion-regulation difficulty in the present model.

Negative meta-emotion was also directly associated with internalizing problems ($\beta = .24$, $p < .001$) and externalizing problems ($\beta = .18$, $p = .002$). In addition, its indirect effects through emotion-regulation difficulties were significant for both internalizing problems ($\beta = .19$, 95% CI [.14, .25]) and externalizing problems ($\beta = .13$, 95% CI [.09, .18]). The stronger total association with internalizing difficulties is theoretically meaningful. Negative meta-emotions often involve shame, self-criticism, emotional rejection, and efforts to avoid or suppress unpleasant internal states. These processes may be particularly relevant to anxiety, depressive symptoms, social withdrawal, and somatic complaints because they focus attention inward and may intensify negative self-evaluation. Adolescents who become ashamed of being anxious or angry with themselves for being sad may experience prolonged distress through rumination and nonacceptance. At the same time, intense affect coupled with poor regulation may also manifest behaviorally through impulsivity, aggression, or rule-breaking. Meta-analytic evidence indicates that maladaptive emotion-regulation strategies are associated with both internalizing and externalizing psychopathology across childhood and adolescence (Compas et al., 2017). The current findings therefore suggest that negative meta-emotion may operate across both domains of adolescent maladjustment, although its impact appears particularly relevant to internalizing symptoms.

The clinical relevance of negative meta-emotion is further supported by research examining beliefs and reactions toward emotions as intervention targets. Cain and colleagues investigated meta-emotion therapy in adolescents experiencing anxiety and showed that targeting maladaptive beliefs concerning emotions may contribute to improved emotional functioning (Cain et al., 2024). This evidence is compatible with the present results because adolescents who

KMAN-CPN KMAN-Counseling & Psychology Nexus E-ISSN: 3041-9026

regard emotional experiences as dangerous, unacceptable, or indicative of weakness may enter cycles of emotional avoidance and failed regulation that contribute to psychological symptoms. The persistence of a significant direct association between negative meta-emotion and emotional and behavioral problems even after the mediator was included suggests that meta-emotional processes may affect psychopathology through mechanisms beyond general emotion-regulation difficulties. These mechanisms may include emotional shame, self-criticism, rigid beliefs about emotional control, heightened monitoring of internal states, or negative meanings attributed to emotional vulnerability. The findings therefore support growing conceptual arguments that meta-emotional evaluations have psychological consequences that are related to, but not fully reducible to, conventional emotion-regulation processes (Kraft & Kizil, 2026).

Another important finding was the significant positive association between attachment insecurity and emotion-regulation difficulties ($\beta = .36$, $p < .001$). This finding is consistent with attachment theory, which emphasizes that regulatory capacities develop partly through repeated experiences of interpersonal regulation within close relationships. Adolescents whose caregivers are perceived as available, responsive, and emotionally supportive are more likely to develop confidence that emotional distress can be expressed and effectively managed. Conversely, insecure attachment may involve reduced trust, impaired communication, greater alienation, fear of rejection, or reluctance to seek support. Such relational patterns may interfere with opportunities for co-regulation and contribute to less effective self-regulation. Cooke and colleagues, in their meta-analytic review, demonstrated that parent–child attachment quality is systematically associated with children's emotional experience and regulation, with secure attachment generally related to more adaptive regulatory functioning (Cooke et al., 2019). The present findings are therefore consistent with the view that attachment security provides an important developmental foundation for emotion regulation.

The association between attachment insecurity and emotion dysregulation is also compatible with recent literature emphasizing the links among attachment, mentalization, and emotion regulation during adolescence. Salavou and colleagues concluded that attachment quality is meaningfully intertwined with adolescents' capacities to understand mental states and regulate emotional experiences (Salavou et al., 2026). Adolescents with insecure attachment may use hyperactivating strategies, including excessive emotional amplification and reassurance seeking, or deactivating strategies, including suppression, avoidance, and emotional distancing. Either pattern may limit flexible regulatory responding. The present finding that attachment insecurity predicted greater emotion-regulation difficulty therefore suggests that adolescents' regulatory problems cannot be understood exclusively as intrapersonal deficits; rather, they may also reflect developmental patterns established and maintained within close relationships.

Attachment insecurity also showed significant direct associations with internalizing problems ($\beta = .19$, $p < .001$) and externalizing problems ($\beta = .22$, $p < .001$). These findings are consistent with previous evidence demonstrating that insecure and disorganized attachment is associated with greater psychological vulnerability. Groh and colleagues showed through meta-analysis that insecure attachment is significantly associated with internalizing symptoms in children, reinforcing the importance of attachment as a developmental risk factor for emotional difficulties (Groh et al., 2012). The current results additionally indicate that attachment insecurity is relevant to externalizing difficulties. Reduced trust, poor parent–adolescent communication, emotional alienation, and heightened interpersonal threat sensitivity may contribute to conflict, hostility, oppositional behavior, and aggression, while simultaneously reducing adolescents' willingness or capacity to seek support during distress. Recent psychometric and substantive research among adolescents has likewise demonstrated meaningful associations between maternal, paternal, and peer attachment and adolescent behavioral problems (Habibi Asgarabad et al., 2025). The present findings therefore reinforce the importance of examining attachment insecurity in relation to both emotional and behavioral dimensions of adolescent maladjustment.

The significant indirect effects of attachment insecurity through emotion-regulation difficulties are especially noteworthy. Attachment insecurity was indirectly associated with internalizing problems ($\beta = .17$, 95% CI [.12, .22]) and externalizing problems ($\beta = .11$, 95% CI [.07, .16]). These findings suggest that part of the association between insecure attachment and adolescent psychopathology can be statistically explained by poorer emotional regulation. This interpretation closely aligns with the meta-analysis conducted by Lin and colleagues, which demonstrated that child emotion regulation mediates associations between family-related factors and internalizing symptoms among

children and adolescents (Lin et al., 2024). Family relationships may therefore affect adolescent mental health not only through direct relational experiences but also through the regulatory capacities that develop within these relationships. Repeated experiences of emotional validation, co-regulation, responsiveness, and support may facilitate adaptive regulation, whereas inconsistent, rejecting, or emotionally unavailable relationships may contribute to regulatory difficulties that subsequently increase vulnerability to psychological symptoms.

The fact that emotion-regulation difficulties predicted both internalizing problems ($\beta = .46$, $p < .001$) and externalizing problems ($\beta = .31$, $p < .001$) further supports the transdiagnostic importance of regulation. The stronger pathway to internalizing difficulties may indicate that emotion dysregulation is particularly relevant to anxiety, depressive symptoms, withdrawal, and somatic complaints. Difficulties accepting emotional responses, accessing effective regulation strategies, maintaining goal-directed behavior during distress, or understanding emotional states may facilitate rumination, avoidance, helplessness, and prolonged negative affect. Nevertheless, emotion-regulation difficulty was also significantly related to externalizing problems, suggesting that failure to modulate emotional arousal can contribute to impulsive, aggressive, or rule-breaking behavior. This pattern is consistent with extensive evidence showing that both adaptive and maladaptive forms of emotion regulation are systematically associated with psychopathology in young people (Compas et al., 2017). Accordingly, emotion regulation appears to represent a common mechanism through which different vulnerabilities may become expressed as distinct forms of adolescent maladjustment.

The finding that the indirect pathways were stronger for internalizing than externalizing problems deserves particular consideration. The model explained 52% of the variance in internalizing problems compared with 34% of the variance in externalizing problems. This difference suggests that the combination of negative meta-emotion, attachment insecurity, and emotion-regulation difficulties may be especially relevant to symptoms involving internal emotional distress. Negative meta-emotion directly concerns the adolescent's evaluation of internal affective experiences, while attachment insecurity may heighten concerns about rejection, support, and interpersonal safety. These vulnerabilities can combine with regulatory difficulties to intensify anxiety, depression, withdrawal, and somatic distress. Externalizing problems, although influenced by emotion regulation and attachment, may depend more strongly on additional variables not represented in the current model, such as impulsivity, peer influences, parental monitoring, social norms, exposure to violence, or conduct-related cognitions. The present pattern is therefore consistent with evidence indicating that emotion regulation plays a particularly important mediating role in the relationship between family factors and internalizing symptoms (Lin et al., 2024).

The persistence of significant direct pathways after emotion-regulation difficulties were incorporated into the model indicates partial rather than complete mediation. This finding has important theoretical implications. Negative meta-emotion and attachment insecurity apparently influence adolescent adjustment through regulatory processes, but emotion dysregulation does not fully account for their relationships with psychological problems. Negative meta-emotion may also operate through emotional self-criticism, shame, negative self-evaluation, experiential avoidance, or rigid beliefs concerning emotional control (Kraft & Kizil, 2026; Mitmansgruber et al., 2009). Attachment insecurity may additionally operate through interpersonal mistrust, negative internal working models, rejection sensitivity, reduced perceived social support, and difficulties with mentalization (Groh et al., 2012; Salavou et al., 2026). Thus, the results support a multidimensional understanding in which regulatory processes constitute one important pathway among several psychological and relational mechanisms.

5. Conclusion

The findings are meaningful within the Iranian sociocultural context. Adolescents' emotional development occurs within family and cultural systems that shape expectations regarding emotional expression, autonomy, interpersonal obligations, parental authority, social roles, and help-seeking. Cultural beliefs can influence parenting practices, family relationships, resilience, and interpretations of psychological distress (Seyed Alitabar, 2023). From a broader biopsychosocial perspective, mental health outcomes emerge from interaction among psychological processes, interpersonal relationships, and contextual conditions rather than from a single isolated determinant (Seyed Alitabar, 2025). In contemporary Iran, adolescents may face a combination of academic pressures, family expectations, social transformations, and changing cultural norms that influence both emotional experiences

KMAN-CPN KMAN-Counseling & Psychology Nexus
E-ISSN: 3041-9026

and family relationships (Seyed Alitabar, 2026). Consequently, the associations identified in the present study should be interpreted within a context in which attachment relationships and beliefs about acceptable emotional expression may jointly shape emotion-regulation development. The use of validated adolescent assessment tools further strengthens interpretation of the findings. Emotional and behavioral problems were assessed through the Youth Self-Report framework, which distinguishes internalizing and externalizing symptom domains. Previous research has supported the factorial structure, reliability, and validity of the YSR in Iranian populations (Fadaie et al., 2009). Similarly, the recent validation of the Inventory of Parent and Peer Attachment among Iranian adolescents supports the relevance of trust, communication, and alienation as meaningful dimensions of attachment functioning within this population (Habibi Asgarabad et al., 2025). The convergence between the present structural findings and prior psychometric evidence increases confidence that the observed associations reflect theoretically meaningful relationships rather than simply measurement artifacts.

The present study nevertheless has several limitations. First, its cross-sectional correlational design prevents conclusions regarding temporal ordering and causality; consequently, the statistically significant indirect effects should not be interpreted as definitive causal mediation. Reverse or reciprocal relationships are possible, because adolescents with substantial emotional and behavioral problems may subsequently develop more negative reactions toward their own emotions or perceive attachment relationships as less secure. Second, the study relied predominantly on adolescent self-report measures for predictors, mediator, and outcomes, creating the possibility of shared-method variance, social desirability, and subjective reporting biases. Third, the sample was drawn from adolescents in Tehran, which limits generalization to rural populations, adolescents from other Iranian provinces, clinical samples, school dropouts, or young people from different cultural contexts. Fourth, several potentially influential variables, including socioeconomic status, family conflict, parental psychopathology, temperament, peer relationships, adverse life events, parenting practices, and academic stress, were not incorporated into the structural model. Finally, although the model explained substantial variance, particularly in internalizing problems, considerable unexplained variance remained, especially for externalizing difficulties.

Future research should employ longitudinal and prospective designs to establish the temporal ordering of negative meta-emotion, attachment insecurity, emotion-regulation difficulties, and adolescent psychological problems. Cross-lagged panel and longitudinal mediation models could determine whether negative meta-emotion and attachment insecurity prospectively predict changes in emotion regulation and subsequent symptom development or whether reciprocal effects better characterize these relationships. Future studies should also incorporate multiple informants, including parents, teachers, and peers, along with behavioral, observational, physiological, or ecological momentary assessments of emotional functioning. Replication in clinical samples, rural communities, different Iranian regions, and cross-cultural populations would clarify the generalizability of the model. Additional variables such as resilience, mentalization, self-compassion, parental emotion socialization, peer attachment, family conflict, adverse childhood experiences, temperament, and perceived social support could be examined as alternative mediators, moderators, or complementary explanatory mechanisms. Experimental and intervention studies would also be valuable for testing whether modifying meta-emotional responses, strengthening attachment-related functioning, or improving emotion-regulation skills produces measurable reductions in internalizing and externalizing symptoms.

In practice, the findings suggest that assessment and intervention programs for adolescents should simultaneously consider how young people evaluate their own emotions, how securely they experience important family relationships, and how effectively they regulate emotional distress. School counselors, psychologists, and mental health professionals may benefit from assessing emotional shame, anger toward emotions, suppression, rigid emotional control, parent–adolescent trust, communication difficulties, alienation, and specific deficits in emotion regulation rather than focusing exclusively on presenting symptoms. Preventive programs can teach emotional awareness, acceptance of unpleasant affect, impulse control, distress tolerance, cognitive reappraisal, and flexible selection of regulation strategies. Family-based components may focus on improving parent–adolescent communication, increasing emotional validation and responsiveness, reducing invalidating reactions to distress, and strengthening adolescents' confidence in seeking support. Because the findings indicate partial rather than complete mediation, interventions should not treat emotion regulation as the sole

KMAN-CPN KMAN-Counseling & Psychology Nexus
E-ISSN: 3041-9026

therapeutic target; instead, a combined approach addressing meta-emotional beliefs, attachment relationships, and practical regulation skills may provide a more comprehensive framework for preventing and reducing emotional and behavioral problems during adolescence.

Authors' Contributions

Authors equally contributed to this article.

Declaration

In order to correct and improve the academic writing of our paper, we have used the language model ChatGPT.

Transparency Statement

Data are available for research purposes upon reasonable request to the corresponding author.

Acknowledgments

We would like to express our gratitude to all individuals helped us to do the project.

Declaration of Interest

The authors report no conflict of interest.

Funding

According to the authors, this article has no financial support.

Ethical Considerations

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

References

Cain, L., Strodl, E., & Howard, G. (2024). Targeting beliefs about emotions via meta-emotion therapy for adolescents with anxiety: A case series study. *Journal of Contemporary Psychotherapy*, *54*, 133-142. https://doi.org/10.1007/s10879-023-09605-7

Compas, B. E., Jaser, S. S., Bettis, A. H., Watson, K. H., Gruhn, M. A., Dunbar, J. P., Williams, E., & Thigpen, J. C. (2017). Coping, emotion regulation, and psychopathology in childhood and adolescence: A meta-analysis and narrative review. *Psychological bulletin*, *143*(9), 939-991. https://doi.org/10.1037/bul0000110

Cooke, J. E., Kochendorfer, L. B., Stuart-Parrigon, K. L., Koehn, A. J., & Kerns, K. A. (2019). Parent–child attachment and children's experience and regulation of emotion: A meta-analytic review. *Emotion*, *19*(6), 1103-1126. https://doi.org/10.1037/emo0000504

Fadaie, Z., Najafi, M., Habibi Asgarabad, M., & Besharat, M. A. (2009). Confirmatory factorial structure, reliability and validity of the Achenbach Youth Self-Report Scale (YSR): Monozygotic and dizygotic twins. *Journal of Clinical Psychology*, *1*(1), 1-18. https://doi.org/10.22075/jcp.2017.1993

Groh, A. M., Roisman, G. I., van Ijzendoorn, M. H., Bakermans-Kranenburg, M. J., & Fearon, R. P. (2012). The significance of insecure and disorganized attachment for children's internalizing symptoms: A meta-analytic study. *Child development*, *83*(2), 591-610. https://doi.org/10.1111/j.1467-8624.2011.01711.x

Habibi Asgarabad, M., Salehi Yegaei, P., Seyed Yaghoubi Pour, N., Khodaie, E., Wilkinson, R. B., & Wiium, N. (2025). Maternal, paternal, and peer attachment and adolescent behavior problems: A validation study of the Inventory of Parent and Peer Attachment (IPPA-45). *BMC psychology*, *13*, 1334. https://doi.org/10.1186/s40359-025-03643-7

Jesline, J., Romate, J., Diya, E., & Rajkumar, E. (2025). Mediating role of resilience on the relationship between meta emotions and emotional regulation among neglected adolescents. *BMC psychology*, *13*, 622. https://doi.org/10.1186/s40359-025-02856-0

Kraft, L., & Kizil, J. (2026). Meta-emotion-regulation: A conceptual framework for influencing emotion regulation behaviour. *Cognition and Emotion*, *40*(6), 1300-1312. https://doi.org/10.1080/02699931.2025.2560687

Lin, S. C., Kehoe, C., Pozzi, E., Liontos, D., & Whittle, S. (2024). Research review: Child emotion regulation mediates the association between family factors and internalizing symptoms in children and adolescents—A meta-analysis. *Journal of Child Psychology and Psychiatry*, *65*(3), 260-274. https://doi.org/10.1111/jcpp.13894

Mitmansgruber, H., Beck, T. N., Höfer, S., & Schüßler, G. (2009). When you don't like what you feel: Experiential avoidance, mindfulness and meta-emotion in emotion regulation. *Personality and individual differences*, *46*(4), 448-453. https://doi.org/10.1016/j.paid.2008.11.013

Salavou, V., Papanikolaou, K., Pehlivanidis, A., & Giannakopoulos, G. (2026). Mentalization and emotion regulation in adolescent attachment: A scoping review. *Children*, *13*(3), 420. https://doi.org/10.3390/children13030420

Seyed Alitabar, S. H. (2023). Cultural beliefs and family well-being: A narrative review. *Journal of Psychosociological Research in Family and Culture*, *1*(2), 25-32. https://doi.org/10.61838/kman.jprfc.1.2.4

Seyed Alitabar, S. H. (2025). The biopsychosocial model in modern healthcare: Overcoming barriers to holistic patient care. *International Journal of Body, Mind and Culture*, *12*(2), 1-4. https://doi.org/10.61838/ijbmc.v12i2.950

Seyed Alitabar, S. H. (2026). Adolescent mental health in contemporary Iran: A body–mind–culture perspective. *International Journal of Body, Mind and Culture*, *13*(1), 1-3. https://doi.org/10.61838/ijbmc.v13i1.1346

KMAN-CPN KMAN-Counseling & Psychology Nexus
E-ISSN: 3041-9026