



Early Maladaptive Schemas and Celebrity Worship: The Mediating Role of Sense of Coherence and Difficulty in Emotion Regulation

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Abstract

The rise of social media has led to increased interest among researchers in understanding the psychological mechanisms underlying the growing fascination with celebrities. Using structural equation modeling, the present study examined the relationship between early maladaptive schemas (EMSs) in the disconnection and rejection domain and celebrity worship, with difficulty in emotion regulation and sense of coherence serving as mediators. An online survey was administered to 837 students (77.8% female) from 11 Iranian universities. The survey included brief versions of the Young Schema Questionnaire, Sense of Coherence Questionnaire, Difficulty in Emotion Regulation Scale, and Celebrity Worship Scale. The results indicated a significant correlation between maladaptive schemas and celebrity worship. Using structural equation modeling, the direct relationship between EMSs related to disconnection and rejection and celebrity worship was not significant. However, the indirect path through difficulty in emotion regulation and sense of coherence was significant. These findings provide insight into the mechanisms underlying celebrity worship and highlight the importance of emotion regulation and sense of coherence in understanding this phenomenon.

Keywords Celebrity worship · Early maladaptive schemas · Sense of coherence · Emotion regulation

1. Introduction

The rapid growth of media and the advent of “celebrity culture” in the late 20th century prompted psychologists to explore the impact of celebrities on their followers (Brooks et al., 2021). Celebrities are public figures who attract extensive attention from the media and the public. Fans often express admiration and strong interest in celebrities, dedicating both time and financial resources to follow their every move. In some instances, this admiration can escalate into obsession (Xia et al., 2021). According to McCutcheon and Aruguete (2021), the prevalence of celebrity worship has grown significantly since 2001. Research indicates that extreme levels of celebrity worship are associated with various maladaptive psychological states and problematic behaviors,

including body image dissatisfaction and eating disorders (Lin et al., 2023), maladaptive daydreaming (Mándli et al., 2022), impulse buying (Chen et al., 2022), desire for cosmetic surgery (Cui & Fang, 2023), self-harming behaviors and suicide (Zsila et al., 2020), and gambling addiction (Lian et al., 2019).

Celebrity worship is marked by an obsessive and compulsive fascination with a famous individual, often leading to excessive admiration (Brown, 2015; McCutcheon et al., 2002). This intense admiration can form the basis of a parasocial relationship, which are one-sided emotional connections with media figures such as celebrities or influencers (Hoffner & Bond, 2022). McCutcheon et al. (2002) suggested that individuals with weak identity structures or limited meaningful relationships might turn to psychological absorption in a favorite celebrity to strengthen their identity and gain fulfillment. According to the absorption-addiction model, the motivations for celebrity worship resemble those for addiction, as fans may develop tolerance to initially gratifying behaviors and form addictive attachments. Consequently, worshippers may exhibit dissociative and delusional behaviors in an attempt to form deeper connections with their chosen celebrities (McCutcheon et al., 2002).

Media figures on television and social media are often the subject of celebrity worship. According to McCutcheon et al. (2002), celebrity worship can be understood across three distinct dimensions. The lowest level, referred to as the entertainment-social dimension, reflects a healthy interest in gathering and sharing information about a favorite celebrity. The second dimension, intense-personal (moderate level of celebrity worship), involves deep and compulsive emotional attachment to a celebrity. Lastly, the borderline-pathological dimension represents extreme and maladaptive behaviors, such as willingness to engage in illegal activities if asked to by their favorite celebrity (McCutcheon et al., 2004, 2016).

1.1 Celebrity worship and early maladaptive schemas

One factor that may play a role in celebrity worship—and whose examination may be important for understanding this phenomenon—is early maladaptive schemas (EMSs). These schemas significantly influence personality formation and contribute to the development and persistence of various psychological problems (McDonnell et al., 2018) including addictive behaviors (Vieira et al., 2023). EMSs are deeply ingrained patterns of memories, emotions, cognitions, and physical sensations related to oneself and interactions with others. They develop during childhood or adolescence due to early adverse experiences, unmet emotional needs, parenting styles, and temperament, and they tend to persist throughout life, remaining dysfunctional (Young et al., 2006; May et al., 2022). Once activated, schemas influence how individuals perceive and process life events and experiences, as well as how they respond to external stimuli (Blisset et al., 2006; Carr & Francis, 2010).

Young et al. (2003) identified 18 specific schemas, which are categorized into five broad domains. The ‘disconnection and rejection’ domain reflects unmet needs for safety, stability, empathy, acceptance, and respect. ‘Impaired autonomy and performance’ relate to a lack of independence and personal achievement. In the ‘impaired limits’ domain, there is a deficiency in internal limitations, boundaries, and responsibility towards others. The ‘other-directedness’ domain involves prioritizing others’ needs and reactions over one’s own, leading to neglect of personal needs. Lastly, ‘over vigilance and inhibition’ refers to the internalization of rigid rules and

suppression of emotions and desires. However, a more recent factor analysis conducted by Bach et al. (2018) suggested that a four-domain model of schemas might be more valid and empirically sound (i.e., ‘disconnection and rejection’, ‘impaired autonomy and performance’, ‘excessive responsibility and standards’, and ‘impaired limits’).

Studies have associated these schemas to a range of psychological disorders, including personality disorders (Dadomo et al., 2018), behavioral addictions (Vieira et al., 2023), anxiety and depression (Tariq et al., 2021; Davoodi et al., 2018), eating disorders (Maher et al., 2021), obsessive-compulsive disorder (Kizilagac et al., 2019), and substance use disorders (McDonnell et al., 2018). Other studies have shown that EMSs are related to interpersonal problems (Janovsky et al., 2020), risky behaviors (Marengo et al., 2019), reduced mindful attention and awareness (Flink et al., 2018), and increased interpersonal conflicts (Messman-Moore & Coates, 2007). Although similar concepts, such as attachment styles (McCutcheon et al., 2006; Roberts, 2007) and parental communication (Cheung & Yue, 2012), have been explored in relation to celebrity worship, as far as the present authors are aware, no previous studies have ever directly examined the relationship between EMSs and celebrity worship.

In the study of EMSs, the disconnection and rejection (D/R) domain is a critical dimension that pertains to difficulties in forming secure emotional connections with others. This domain includes schemas such as abandonment/instability, mistrust/abuse, emotional deprivation, defectiveness/shame, and social isolation/alienation. Individuals with schemas in this domain often believe that their fundamental needs for stability, security, nurturing, love, and belonging will remain unmet. This belief usually stems from a family environment marked by emotional coldness, rejection, restraint, explosiveness, and unpredictability, leading to significant emotional harm (Yang et al., 2003). The D/R domain is widely regarded as the most important schema domain because it has been consistently associated with various psychological problems (Bach et al., 2018; Ostovar et al., 2021; Roemmele & Messman-Moore, 2011). Additionally, research has demonstrated that, compared to other schema domains, the structure of the D/R domain tends to be more stable and reliable across studies (Kriston et al., 2012).

Also, according to the absorption-addiction model in the field of celebrity worship, which considers identity problems and the lack of meaningful relationships in life as the basis of the tendency towards famous people, it appears that the D/R schema that is associated with problems of secure attachment could play a major role in this phenomenon. To better understand the relationship between EMSs and celebrity worship, it is important to examine how these schemas influence the worship of famous people. One potential mechanism that could explain this relationship is difficulty in emotion regulation.

1.2 Difficulty in emotion regulation as mediator

Unmet emotional needs during childhood contribute to the formation of maladaptive schemas, which in turn can lead to difficulties in emotion regulation (Yang et al., 2003). Emotion regulation is a specific form of self-regulation where individuals consciously or unconsciously manage their emotions to appropriately respond to environmental demands (Bargh & Williams, 2007). Difficulty in emotion regulation refers to challenges in recognizing and responding to emotional experiences (McRae & Gross, 2020), which may include individuals not accepting their emotions,

difficulties in performing tasks or controlling impulses during distress, lack of emotional awareness, or limited emotion regulation strategies (Gratz & Roemer, 2004).

Studies show that difficulties in managing emotions contribute to various psychological problems and risky behaviors such as cyberbullying (Jiang et al. , 2020), gambling disorders (Rogier & Velotti, 2018), self-harm, high-risk sexual behaviors (Miller & Racine, 2022), substance abuse (Stellern et al., 2022), anxiety and depression (Young et al., 2019), and problematic smartphone use (Horwood & Anglim, 2021). A study by Yakin et al. (2019) reported a significant relationship between psychopathological symptoms and EMSs, with difficulty in emotion regulation acting as a mediator. Additionally, another study reported that the relationship between couples' marital problems and EMSs is mediated by difficulties in emotion regulation (Besharat et al., 2017). Fazelirad and Nouri Qasemabadi (2023) further suggested that individuals with poor emotion regulation are more likely to worship celebrities, highlighting the critical role of emotion regulation in celebrity worship. Therefore, emotional regulation problems may explain the relationship between EMSs and celebrity worship.

1.3. Sense of coherence as mediator

Sense of coherence (SOC) is another key variable that may serve as an underlying mechanism in the relationship between EMSs and celebrity worship. SOC is central to Antonovsky's (1987) salutogenic theory, which focuses on how individuals maintain well-being amid stressful circumstances. SOC comprises three dimensions: (i) comprehensibility (cognitive dimension) which refers to the extent to which individuals perceive internal and external stimuli as structured, predictable, and coherent; (ii) manageability (behavioral dimension) which refers to an individual's ability to manage and cope with stimuli-induced demands, relying on available resources; and (iii) meaningfulness (motivational dimension) which refers to the degree to which an individual finds emotional meaning in life and believes that challenges are worth facing and investing in (Antonovsky, 1987).

According to Antonovsky (1987), a strong sense of coherence helps individuals effectively deal with stressors, therefore promoting better health and well-being. Research supports this by associating higher SOC with lower PTSD symptoms (Schafer et al., 2019), improved mental and physical health (Behnke et al., 2019), and a reduced likelihood of engaging in risky behaviors such as alcohol, drug use, and cigarette smoking (Humphrey & McDowell, 2013). Similarly, higher SOC is associated with decreased risk of problematic behaviors like disordered gaming (Ustinavičienė et al., 2018). In contrast, a weak SOC has been associated with higher mortality risk (Super et al., 2014), along with anger, hostility, aggression (Pachi et al., 2022), anxiety, and depression (Kurowska & Ciesielska, 2013), psychological distress (Ruiz-Frutos et al., 2021), and internet addiction (Yang et al., 2021).

Karlen et al.'s (2020) three-year follow-up study reported that each unit increase in SOC among adolescents corresponds to a 4% decrease in psychiatric diagnoses related to mental health, emphasizing SOC's protective role in sustaining mental health. Based on McCutcheon et al.'s (2002) absorption-addiction model, which posits that individuals with weaker personality structures are drawn to celebrities to form their own identity and gain a sense of fulfillment, it is plausible that individuals with a low SOC may be more inclined to engage in celebrity worship. The inclination towards celebrities, who are idolized as successful and flawless individuals, can

be seen as a coping mechanism to compensate for a lack of personal integrity and find inner coherence and consistency as the famous person is perceived as a role model and the primary focus of an individual's life at moderate to extreme levels of worship. In connection with EMSs, recent research has shown that SOC can moderate the effects of maladaptive experiences. For example, a study by Kaya-Demir and Okan Cirakoglu (2022) demonstrated that SOC can buffer the impact of bereavement for individuals with EMSs. In line with these findings, it is expected that in the present study, EMSs would have an inverse relationship with SOC.

1.4 The present study

The association between EMSs and the development of various problematic and addictive behaviors has been explored in previous studies. Similarly, factors such as attachment styles (McCutcheon et al., 2006; Roberts, 2007) and parental communication (Cheung & Yue, 2012) have been studied in relation to celebrity worship. In spite of this, the role of EMSs, particularly in the domain of disconnection and rejection (D/R), in celebrity worship remains unexplored in the research literature. The present study focused on the D/R domain of EMSs as a potential underlying variable in the tendency toward celebrity worship. It also investigated the mediating roles of difficulty in emotion regulation and SOC. Based on this framework, six hypotheses were formulated. More specifically, it was hypothesized that (i) EMSs would have a positive and significant relationship with difficulty in emotion regulation and celebrity worship (H_1); (ii) EMSs (in the D/R domain) would have a negative and significant relationship with the sense of coherence (H_2); (iii) difficulty in emotion regulation would have a positive and significant relationship with celebrity worship (H_3), (iv) sense of coherence would have a negative and significant relationship with celebrity worship (H_4), (v) EMSs (in the D/R domain) would have an indirect and significant relationship with celebrity worship through difficulty in emotion regulation (H_5), and (vi) EMSs (in the D/R domain) would have an indirect and significant relationship with celebrity worship through the sense of coherence (H_6). Figure 1 presents the conceptual model of the present study.

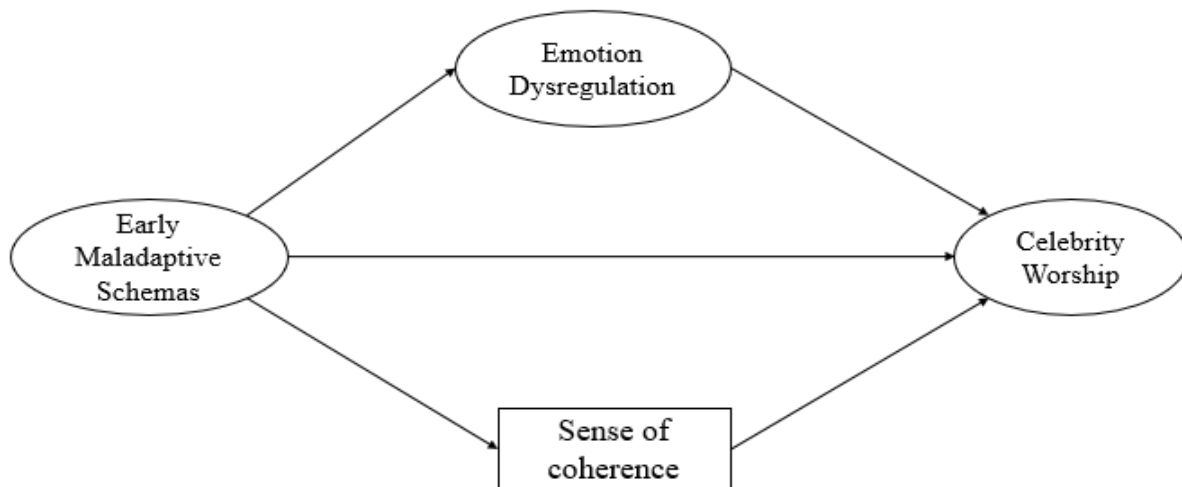


Figure 1. Hypothesized model: circles represent latent variables

2. Methods

2.1. Participants and procedure

The present study followed the ethical guidelines of the Declaration of Helsinki and received approval from the Ethics Committee of Kharazmi University (reference code: IR.KHU.REC.1403.044). The research targeted students from Iranian universities and were

recruited via *Telegram*, where they received a text message containing a link to the online survey. The survey included questions regarding demographic information, the Young Schema Questionnaire (Short Form), Difficulty in Emotion Regulation Scale (Short Form), Sense of Coherence Scale (Short Form), and the Celebrity Attitude Scale.

Students from eleven universities participated in the study (Tehran University, Shahid Beheshti University, Sharif University of Technology, Iran University of Medical Sciences, Isfahan University, Azad University of Tehran, Yazd University, Kharazmi University, Kashan University, Shiraz University, and Lorestan University). Participants were informed about the research's purpose and the confidentiality of their responses before completing the survey. Informed consent was obtained digitally, with participants indicating their agreement by selecting an option to participate. To be eligible, participants needed to be aged between 18 and 40 years and enrolled on a university course. Withdrawal from the study was allowed at any point if without any penalty.

The study employed a cross-sectional design using structural equation modeling (SEM). According to Tabachnick and Fidell (2013), determining an adequate sample size is critical in SEM studies, and the sample size should exceed 200 participants to ensure the stability of the model (Haenlein & Kaplan, 2004; Nasser & Wisenbaker, 2003). Because SEM relies on large sample sizes, the present study recruited a relatively large sample of 837 participants (651 females and 186 males) using convenience sampling through *Telegram* channels.

2.2. Measures

Young Schema Questionnaire Short Form (YSQ-SF)

The 75-item Young Schema Questionnaire (Young, 1998; Persian version: Sadouqi et al., 2018), assesses 15 types of EMS. Items (e.g., “*I worry that people I feel close to will leave me or abandon me*”) are rated on a 6-point Likert scale ranging from 1 (*Completely untrue of me*) to 6 (*Describes me perfectly*). Scores for each schema are calculated by summing the responses to five schema-specific items, resulting in a total score range of 5 to 30 for each schema. Higher scores indicate a stronger presence of the specific EMS. In the present study, the internal consistency for the whole Disconnection/Rejection domain was excellent (Cronbach's $\alpha = 0.92$), while the internal consistency of the five schemas within the Disconnection/Rejection domain was very good (ranging from 0.82 to 0.88).

Brief Version of the Difficulties in Emotion Regulation Scale (DERS-16)

The 16-item Difficulties in Emotion Regulation Scale (Bjureberg et al., 2016; Persian version: Shahabi et al., 2018) assesses emotion regulation difficulties across five subscales. Items (e.g., “*When I'm upset, I feel out of control*”) are rated on a 5-point Likert scale, ranging from 1 (*almost never*) to 5 (*almost always*). The five subscales assess (i) non-acceptance of negative emotions, (ii) difficulty engaging in goal-directed behavior when distressed, (iii) difficulty controlling impulsive behaviors, (iv) limited access to emotion regulation strategies, and (v) lack of emotional clarity. The total score on the DERS-16 ranges from 16 to 80, and higher scores indicate greater levels of emotion dysregulation. In the present study, the internal consistency of the entire scale was excellent (Cronbach's $\alpha = 0.93$), while the internal consistency of the subscales was very good (ranging from 0.81 to 0.87).

Short Form of Sense of Coherence Scale (SOC-13)

The 13-item Sense of Coherence Scale (Antonovsky, 1987; Persian version: Mohammadzadeh et al., 2009) assesses an individual's sense of coherence across three dimensions: (i) comprehensibility (understanding life events), (ii) manageability (belief in having resources to cope), and (iii) meaningfulness (perceiving life as having purpose). Items (e.g., "*Do you have very mixed-up feelings and ideas?*") are rated on a 7-point Likert scale from 1 (*very often*) to 7 (*very rarely*). The total score ranges from 13 to 91, with higher scores indicating a greater sense of coherence. Researchers can either treat the scale as a single dimension or analyze it through its three subscales. In the present study, the scale's total score was used, and the internal consistency was very good (Cronbach alpha = 0.83).

Celebrity Attitude Scale (CAS)

The 23-item Celebrity Attitude Scale (McCutcheon et al., 2002; Persian version: Shabahang et al., 2018), assesses an individual's level of celebrity worship. Items (e.g., "*I love to talk with others who admire my favorite celebrity*") are rated on a 5-point Likert scale from 1 (*strongly disagree*) to 5 (*strongly agree*). The CAS assesses three dimensions of celebrity worship: (i) entertainment-social (10 items), (ii) intense-personal (9 items), and (iii) borderline-pathological (4 items). The total score ranges from 23 to 115, with higher scores indicating a greater celebrity worship. In the present study, the internal consistency for the total scale was excellent (Cronbach's alpha = 0.94) while the internal consistency of the subscales was adequate to excellent (ranging from 0.64 to 0.91).

2.3. Data analysis

To conduct the statistical analysis for the present study, SPSS v.27 software was used for descriptive statistics, and Amos v.24 software was used for structural equation modeling (SEM). Before proceeding with the main analysis, the assumptions of SEM were carefully reviewed. The initial step involved checking the dataset's suitability for analysis. Given that participants could not submit the online survey unless all the questions were completed, there were no missing data. Outlier data were identified and removed using box plots and Mahalanobis distance analysis, which led to the exclusion of 80 participants from the final analysis. To assess the assumption of normality in the distribution of the variables, skewness and kurtosis indices were calculated, with the results meeting the required thresholds. Next, non-collinearity was examined through variance inflation factor (VIF) and tolerance index statistics. The results demonstrated no issues with multicollinearity, with tolerance index values ranging from 0.43 to 0.54, all above the acceptable threshold of 0.40, and the VIF values ranging from 1.84 to 2.29, all well below the critical value of 10.

Following this, the Pearson correlation coefficients between the study variables were calculated to understand the relationships between them. Additionally, confirmatory factor analysis (CFA) was conducted to test the validity and reliability of the constructs used in the study. Finally, the conceptual model was created using Amos software, integrating the main variables of the study. More specifically, the indicators for the research model were chosen as follows: (i) the five schemas from the disconnection/rejection domain (i.e., abandonment, mistrust, emotional deprivation, social isolation, and defectiveness); (ii) the five subscales from the difficulties in emotion regulation domain (i.e., lack of emotional clarity, inability to engage in goal-directed behaviors when distressed, difficulty controlling impulsive behaviors, restricted access to

strategies for managing emotions, and non-acceptance of negative emotions); and (iii) the three subscales of celebrity worship (i.e., entertainment-social, intense-personal, and borderline-pathological). Each of these variables was selected as an indicator, and their factor loadings were evaluated using CFA to ensure they adequately represented their underlying constructs. The sense of coherence variable was treated as an observable variable in the model. The model's fit and validity were then assessed, providing a comprehensive framework for the analysis.

3. Results

Table 1 displays the frequencies and percentages of the key demographic characteristics of the research participants. The sample comprised 837 participants (mean age = 24.25 years [SD $\pm$ 7.336]), of who 651 were females (77.8%) and 186 were males (22.2%). In terms of educational level, 596 had a bachelor's degree or lower (71.2%), 159 had a master's degree (19%), and 82 had a doctoral degree or higher (9.8%). Regarding marital status, 708 individuals were single (84.6%), 115 married (13.7%), and 14 were divorced (1.7%).

Table 1. Demographic characteristics of the participants (N = 837)

Variable	Group	Frequency	%
Gender	Male	186	22.2
	Female	651	77.8
Education	Bachelor's degree and less	596	71.2
	Master	159	19.0
	PhD	80	9.6
	Postdoc	2	0.2
Marital status	Single	708	84.6
	Married	115	13.7
	Divorced	14	1.7

3.2. Preliminary analysis

The preliminary analysis assessed the skewness and kurtosis indices to check the normality of variable distributions. Skewness values ranged from 0.112 to 0.621, while kurtosis values ranged from -0.095 to -0.625. These values indicate no significant deviation from a normal distribution, as suggested by Hu and Bentler (1999). In Table 2, the means, standard deviations (SDs), skewness, kurtosis, and the correlation matrix for the research variables are presented.

Table 2: Mean, standard deviation, skewness, kurtosis, and correlation matrix of the studied variables.

Variable	1	2	3	4	Mean	SD	Skewness	Kurtosis
1. Early maladaptive schemas	1				68.34	23.76	0.621	-0.095
2. Emotion dysregulation	0.579**	1			41.27	14.74	0.470	-0.625
3. Sense of coherence	-0.651**	-0.682**	1		48.59	12.48	0.112	-0.101
4. Celebrity Worship	0.237**	0.236**	-0.249**	1	54.31	18.61	0.486	-0.248

** $p < 0.01$

The results (Table 2) indicated that EMSs were significantly (i) positively related to difficulty in emotion dysregulation and celebrity worship, and (ii) negatively related to sense of coherence

(supporting H₁ and H₂). Moreover, celebrity worship was significantly (i) positively related to emotional regulation, and (ii) negatively related to sense of coherence (supporting H₃ and H₄).

CFA was carried out to confirm the study variables' validity, reliability, and goodness of fit. For the model's fit to be confirmed, at least three main indices must be within the acceptable range (Hair et al., 2013). According to the following cut-off values, an acceptable fit was provided for the measurement model: Comparative Fit Index (CFI) > 0.90, Goodness of Fit Index (GFI) > 0.90, Normed Fit Index (NFI) > 0.90, $\chi^2/df < 5$, Incremental Fit Index (IFI) > 0.90, and Root Mean Square Error of Approximation (RMSEA) < 0.08, standardized root mean square residual (SRMR) < 0.10 (Kline, 2005). The CFA found that $\chi^2 = 215.076$, $p < 0.001$, $df = 60$; $\chi^2/df = 3.585$, CFI = 0.974, NFI = 0.964, RMSEA = 0.056, GFI = 0.961, IFI = 0.974, SRMR = 0.047. Table 3 displays the selected research variable indicators' unstandardized coefficients, standard coefficients, and t -values. As Table 3 shows, all the standard coefficients of observed variables were higher than 0.4. Therefore, they were suitable indicators of their latent variable.

Table 3. Non-standardized coefficients, standardized coefficients, and t -values of the observable variables in the measurement model

Variables	Non-Standard coefficients	Standard coefficients	t
Early maladaptive schemas			
EMS1	1.000	0.861	-
EMS2	1.079	0.815	26.152
EMS3	0.817	0.674	21.071
EMS4	0.624	0.512	14.459
EMS5	0.846	0.601	18.236
Emotion Dysregulation			
ED1	1.000	0.531	-
ED2	2.326	0.802	15.710
ED3	2.226	0.752	15.196
ED4	4.349	0.941	16.695
ED5	2.301	0.777	15.481
Celebrity Worship			
CW1	1.000	0.838	-
CW2	0.731	0.909	31.028
CW3	0.274	0.849	29.257

Abbreviations: EMS1 to EMS5, the parcels of early maladaptive schemas; ED1 to ED5, the parcels of emotion dysregulation; CW1 to CW3, the parcels of celebrity worship.

3.3. Testing for direct associations

The structural model fit indices indicated the good fit of the model ($\chi^2 = 193.03$, $p < 0.001$, $df = 64$; $\chi^2/df = 3.017$, CFI = 0.97, NFI = 0.96, RMSEA = 0.05, GFI = 0.96, IFI = 0.97, SRMR = 0.043). All indicators were within the acceptance range of the model, so the structure of the hypothetical research model was confirmed. Figure 2 shows the standardized path coefficients, and Table 4 shows the direct effects of research variables.

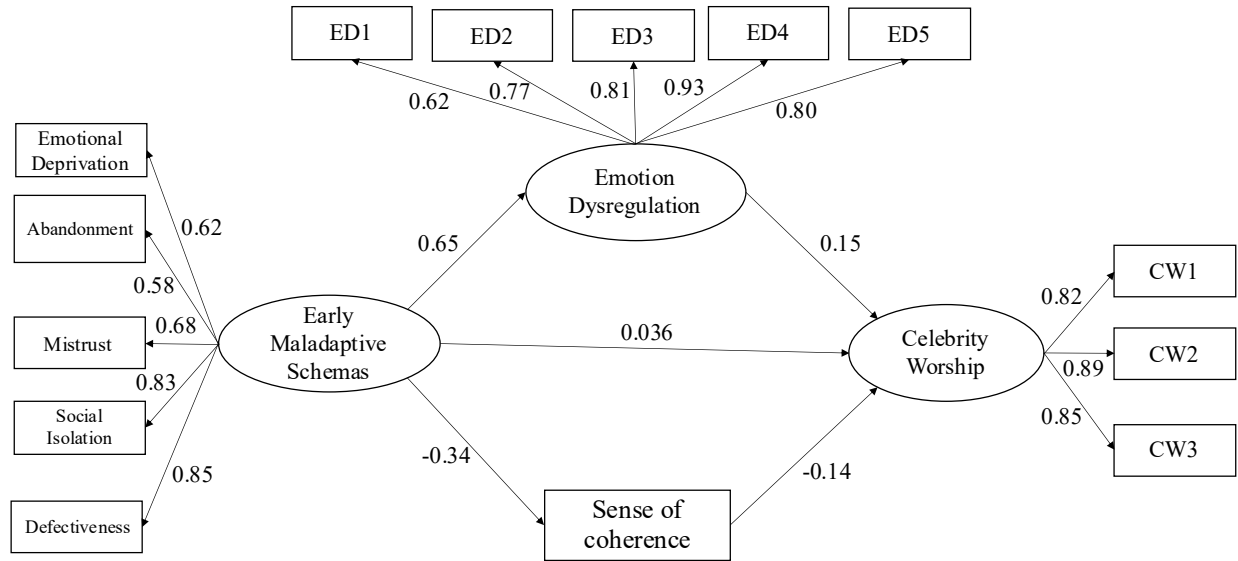


Fig. 2. Final results of the research model

Table 4: The structural direct effects

Independent variable	Dependent variable	Non-Standard coefficients	Standard coefficients	Standard error	<i>t</i>	<i>p</i>
Maladaptive schemas	Celebrity worship	0.069	0.036	0.120	0.578	0.563
Maladaptive schemas	Emotion Dysregulation	0.181	0.651	0.014	13.200	0.001
Maladaptive schemas	Sense of coherence	-0.997	-0.343	0.112	-8.868	0.019
Emotion Dysregulation	Celebrity worship	1.079	0.156	0.472	2.288	0.022
Sense of coherence	Celebrity worship	-0.094	-0.142	0.043	-2.183	0.029

Based on the results in Table 4, if the *t*-statistic exceeds the range (+1.96 and -1.96) or the significance level is lower than 0.05, it indicates a significant relationship between the two variables. As can be seen, there was no significant direct path between EMSs and celebrity worship ($\beta = 0.036$, $t = 0.578$, $p = 0.56$). However, the direct paths of EMSs with difficulty in emotion regulation ($\beta = 0.651$, $t = 13.20$, $p = 0.001$) and sense of coherence ($\beta = -0.343$, $t = 8.86$, $p = 0.019$) were significant. The direct path of difficulty in emotion regulation to celebrity worship was also significant ($\beta = 0.156$, $t = 2.28$, $p = 0.022$). Finally, the direct path between sense of coherence and celebrity worship was significant ($\beta = -0.142$, $t = -2.183$, $p = 0.029$).

3.4. Mediation analysis

The mediation analysis was performed using bootstrapping with 2500 iterations, and the results are presented in Table 5. The study assessed the mediating role of difficulties in emotion regulation and sense of coherence on the relationship between EMSs and celebrity worship. First, the research model was examined without including mediating variables to explore the direct path between EMSs and celebrity worship. The findings indicated a direct relationship ($b = 0.462$, $t = 6.999$, p

= 0.001). Next, the mediation analysis showed that both difficulties in emotion regulation ($b = 0.195, p = 0.025$) and sense of coherence ($b = 0.094, p = 0.026$) mediated the relationship between EMSs and celebrity worship, supporting both H₅ and H₆.

Table 5. Summary of the mediation analysis

Relationship	Unstandardized coefficient	Confidence interval		<i>p</i> -value
		Lower bound	Upper bound	
EMSs>DE>CW	0.195	0.027	0.383	0.025
EMSs>Soc>CW	0.094	0.012	0.195	0.026

4. Discussion

The present study examined the association between early maladaptive schemas (EMSs) and celebrity worship, and the mediating role of difficulty in emotion regulation and sense of coherence in the relationship among Iranian university students. All six hypotheses were confirmed. More specifically, as hypothesized, celebrity worship was significantly (i) positively related to EMSs and difficulty in emotion regulation and (ii) negatively related with sense of coherence. Also, the results from modeling with structural equations showed that EMSs indirectly affect celebrity worship through difficulty in emotion regulation and sense of coherence. While there was no significant direct relationship between early maladaptive schemas and celebrity worship in the SEM, this does not rule out the possibility of an indirect relationship through mediating variables (Hayes., 2009; Zhao et al., 2010). This brings the importance of the role of mediating variables in this relationship. These findings contribute to the understanding of the pathology of influencing factors in celebrity worship.

The study's findings suggested that EMSs related to dissociation/rejection alone may not lead to celebrity worship. However, when combined with psychological vulnerabilities like poor emotion regulation and a low sense of coherence, they appear to enable celebrity worship. The mediating role of difficulty in emotion regulation and its significant positive relationship with celebrity worship is consistent with the findings of Fazelirad and Nouri Ghasemabadi (2023), who reported difficulties in regulating emotion as a significant predictor of celebrity worship. Moreover, some scholars view the fascination with celebrities as an addictive behavior and an obsessive inclination based on McCutcheon's absorption and addiction model (2002). Both difficulties in emotion regulation and EMSs are associated with many different addictive and compulsive behaviors (Meyer & Segal., 2023; Vieira et al., 2023).

EMSs, along with high levels of difficulty in emotion regulation, were significant predictors of substance use in a study by McDonnell et al. (2018). In addition, the interaction between EMSs and difficulty in emotion regulation have been reported in various psychological problems such as psychopathological symptoms (Yakin et al., 2019), marital problems (Besharat et al., 2017), and alexithymia (Pilkington et al. al., 2023). Those with disconnection/rejection schemas feel their need for security, love, nurturing, and belonging will not be satisfied. Activating these schemas in adulthood is associated with increased emotional arousal (Edwards & Wupperman, 2019). When individuals do not have the ability to manage this arousal and negative emotions appropriately, and in response to the need for attachment and security that they did not receive in childhood, they

can be absorbed with celebrities to establish an alternative attachment and sense of belonging with that celebrity. For instance, Pirzade et al. (2024) found that the need to belong had a central role in celebrity worship.

Another significant finding of the present study was the mediating role of sense of coherence in the relationship between disconnection/rejection schemas and celebrity worship. This suggests that individuals with disconnection/rejection schemas may experience a diminished sense of coherence, which in turn increases their inclination toward celebrity worship. Based on the theory of Antonovsky (1987), who considers the sense of coherence as a factor for successfully dealing with life's stressful factors and feeling structured and meaningful in life, and based on the absorption-addiction model of McCutcheon et al. (2002), which states that individuals with defective personality structures are absorbed with celebrities in order to form their identity and feel complete, it seems that individuals who have a lower sense of coherence are unable to deal with the stressful conditions of life and perceive it in a structured and meaningful way and tend to be more inclined towards celebrities. Interest in celebrities and influencers (who are seen by fans as successful and perfect individuals) can be used as a coping mechanism to reduce stressful situations and compensate for individuals' deficiencies in their sense of integrity in order to achieve a greater sense of coherence and meaning in themselves and their lives.

The celebrities that individuals encounter through the media and social networks form a source for processing their own sense of who they are. Celebrity worship is basically about the self. It does not matter who the famous person is. What matters is that the chosen celebrity is considered a source for an individual to process their identity, values, and sense of self (Ward., 2019). The extreme outcome of such excessive engagement with a celebrity can be observed in the death of singer Michael Jackson's death, which resulted in multiple fan suicides after his death (Thompson, 2009).

Both EMSs and low sense of coherence have been associated with internet addiction and social network addiction (Vieira et al., 2023; Yang et al., 2021), and both internet addiction and social network addiction are associated with celebrity worship (Zsila et al., 2021). Social media platforms enable celebrities to engage with a large fan base, allowing fans to establish a parasocial and one-way relationship through the internet and social networks (Chung & Cho, 2017). This virtual interaction further deepens fans' attachment, as they increasingly turn to celebrities as sources of emotional and psychological fulfillment.

In conclusion, the sense of coherence appears to play a crucial role in mediating the effects of disconnection/rejection schemas on celebrity worship. Individuals who struggle with emotional regulation and coherence may turn to celebrities to fill gaps in their sense of identity and control, reinforcing the importance of addressing these underlying psychological vulnerabilities to prevent excessive celebrity worship.

4.1. Practical implications

The findings of the present study provide valuable insights into the underlying mechanisms underlying celebrity worship, particularly highlighting the roles of EMSs, emotional dysregulation, and a weak sense of coherence. These insights can inform therapeutic interventions and strategies to mitigate excessive celebrity worship. This could include the following:

Schema Therapy: Targeting EMSs, specifically in the domain of disconnection/rejection, using schema therapy techniques can help prevent an excessive fascination with celebrities. Because schemas involve emotional elements, the schema therapy model emphasizes working on emotion regulation and the use of emotion-focused techniques. This therapy assists in recognizing and dealing with unmet emotional needs, accepting and enduring negative emotions, and decreasing harmful reactions to negative emotions (Dadomo et al., 2016; Young et al., 2003).

Sense of Coherence: In order to enhance the sense of coherence among vulnerable celebrity worshippers, therapeutic interventions based on salutogenic theory (Langeland et al., 2022) could be utilized. The intervention consists of five components: (i) *general and specific resiliency resources:* focusing on individual strengths and resources; (ii) *whole person approach:* customizing interventions based on an individual's unique life story and current situation to ensure meaningful and effective engagement, (iii) *active adaptability:* encouraging individuals to be proactive in navigating their internal and external environments, leading to better coping strategies, (iv) *stress management:* helping individuals view stressors as part of normal life and potential growth opportunities, and (v) *learning process:* developing personal identity and social support to strengthen their ability to cope with challenges and prevent the development of harmful attachments, such as celebrity worship.

4.2. Limitations

Several limitations should be considered when interpreting the findings of the present study. First, the study utilized a cross-sectional design, limiting the ability to determine causal relationships between variables. Future studies should use longitudinal designs to better understand the direction of these relationships over time. Second, the study relied on self-report data, which may be subject to social desirability bias or memory recall bias. Future research could benefit from incorporating objective measures or external assessments to cross-validate self-reported data. Third, the sample comprised adult students from eleven Iranian universities, which limits the generalizability of the results to the broader population. Additionally, there was a gender imbalance in the sample, with a predominance of female participants, which restricted the ability to make gender-based comparisons regarding celebrity worship. Future research should aim for a gender-balanced sample to assess the role of gender in these relationships, as well as a more representative sample in general. Future studies should also consider using both quantitative and qualitative methods to gain a more nuanced understanding of celebrity worship. Qualitative insights could provide a deeper exploration of the psychological and emotional factors driving extreme cases of celebrity obsession, particularly among adults.

5. Conclusion

The growing fascination with celebrities and influencers has intensified with the advent of social media, creating a space where individuals form deep, sometimes unhealthy attachments to celebrities. The present study is one of the first to explore the relationship between EMSs and celebrity worship, offering valuable theoretical and practical contributions. The findings from the correlation analysis showed a positive relationship between EMSs in the disconnection/rejection domain and celebrity worship. Moreover, the results from structural equation modeling underscore the key roles of difficulty in emotion regulation and sense of coherence as mediators in this relationship. From a theoretical perspective, the findings advance the understanding of obsessive

behaviors toward celebrities and identifies potential risk factors. It highlights the seemingly important role of EMSs, specifically in the disconnection/rejection domain, in shaping how individuals may develop intense attachments to celebrities. Additionally, the study emphasizes that emotion regulation difficulties and a weak sense of coherence are significant underlying mechanisms that explain this relationship.

For therapists and researchers, these insights emphasize the importance of addressing maladaptive schemas, emotion regulation issues, and low sense of coherence among vulnerable individuals to mitigate the risk of developing problematic or extreme interest in celebrities. Therapists can focus on schema therapy and techniques that improve emotional management and strengthen sense of coherence, replacing unhealthy celebrity worship with a more balanced, healthy interest. The study's findings suggests avenues for preventive strategies and therapeutic interventions that can reduce the psychological risks associated with excessive celebrity attachment.

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