Using Cognitive Dissonance to Promote Healthier Eating Attitudes Among Heavy Social Media Users: The Moderating Role of Learned Helplessness

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Abstract

Social media use has been identified as a significant risk factor for the development and maintenance of eating disorders, particularly among young adults. Despite the growing urgency of this public health issue, effective prevention strategies remain limited. This study investigated whether a cognitive dissonance-based intervention, specifically the induced hypocrisy paradigm, could promote healthier eating attitudes and reduce problematic social media use among university students, and whether learned helplessness moderates the intention to change. A total of 104 participants (M age = 19.4 years, SD = 1.52; 85.6% female) were randomly assigned to either a high-dissonance experimental condition or a low-dissonance control condition. Eating attitudes (EAT-26), social media addiction (BSMAS), and learned helplessness (LHS) were assessed before and after the intervention. Results showed no significant effect of cognitive dissonance on eating attitudes or social media use. Paradoxically, a significant improvement in social media attitudes was observed in the control group. However, learned helplessness was positively and significantly correlated with the absence of behavioral intention to change eating habits ($r = .30$, $p < .05$), and eating attitudes and social media use together predicted learned helplessness scores ($R^2 = .10$, $p < .05$). These findings suggest that cognitive dissonance interventions require refinement to be

effective in this domain, and that learned helplessness constitutes a meaningful barrier to behavior change in eating disorder prevention. Implications for designing more effective public health interventions are discussed.

Keywords: cognitive dissonance; induced hypocrisy; eating disorders; social media use; learned helplessness; prevention; young adults.

1. Introduction

Over the past decade, social media platforms have become deeply embedded in the daily lives of young people, transforming the landscape of social interaction, self-representation, and information consumption. The COVID-19 pandemic accelerated this trend markedly: in France, the proportion of 16-to-25-year-olds spending more than three hours per day on social media increased from 29% in 2019 to 45% in 2023 (Asselin, 2023; Espaze, 2020). This dramatic increase in exposure has coincided with a rise in eating disorder prevalence among university students. Tavolacci et al. (2022), reporting on five cross-sectional studies conducted across a twelve-year period (2009–2021) with 8,897 French students, documented a doubling of eating disorder rates: bulimic disorders rose from 12% to 26.3%, binge-eating disorders from 4.7% to 8.4%, and restrictive disorders from 3.7% to 5.7%.

A growing body of research has established positive correlations between social media use frequency and food preoccupations among adolescents and young adults (Livet et al., 2022; Lonergan et al., 2020; Melioli et al., 2018; Sidani et al., 2016). The mechanisms underlying this relationship involve exposure to idealized and digitally manipulated body images promoting standards of thinness (thinspiration) or fitness (fitspiration), which trigger upward social comparisons, body dissatisfaction, and ultimately eating-disordered cognitions and behaviors (Aparicio-Martinez et al., 2019; Cohen et al., 2019; Fardouly et al., 2017; Harrigera et al., 2022; Wick & Harriger, 2018). These dynamics have been formally recognized as a public health priority in France through the National Action Plan Against Eating Disorders 2019-2022 (Ministère des Solidarités et de la Santé, 2019), which explicitly calls for the development and evaluation of effective prevention strategies.

Despite the urgency of this issue, prevention programs targeting eating disorders among social media users remain insufficiently evaluated. Cognitive dissonance theory (Festinger, 1957) offers a promising but underexplored framework for this purpose. The induced hypocrisy paradigm, one of the most robust applications of dissonance theory in health promotion, has demonstrated efficacy in changing attitudes and behaviors in several public health domains, including substance use reduction among students (Boussat et al., 2023), physical activity promotion among overweight workers (Etienne & Farra, 2022), school bullying (Mauduy et al., 2023) and safer driving behaviors among young people (Gauld et al., 2021). However, whether this paradigm can be transposed to the domain of eating disorder prevention among heavy social media users has not yet been empirically tested.

A further theoretical gap concerns the role of learned helplessness (Seligman, 1972) as a potential moderator of intervention efficacy. Learned helplessness, defined as a generalized belief in one's inability to control life outcomes, acquired through repeated exposure to uncontrollable situations, has been associated with the maintenance of chronic conditions including eating disorders (Polivy & Herman, 1999), substance use disorders (Zhang et al., 2016), and reduced engagement in health-protective behaviors (Landry et al., 2018). If high levels of learned helplessness prevent individuals from forming behavioral intentions to change, then dissonance-based interventions may be systematically less effective for the subgroups most in need of intervention. To our knowledge, no study has examined learned helplessness as a moderating variable in cognitive dissonance-based eating disorder prevention programs.

The present study addresses these gaps by pursuing two complementary objectives. First, it tests whether a cognitive dissonance intervention based on the induced hypocrisy paradigm modifies eating attitudes and social media use intentions among young adults. Second, it explores

whether learned helplessness explains the absence of behavioral intention to change among participants who do not respond to the dissonance manipulation. Based on the existing literature, we formulated the following hypotheses.

Regarding the effects of cognitive dissonance (H1), we expected that participants exposed to high cognitive dissonance would show greater reductions in maladaptive eating attitudes than those in the control condition (H1a); that high-dissonance participants would show greater intentions to reduce social media use than control participants (H1b); and that the attitude change induced by dissonance would be stronger among participants with higher social media addiction scores (H1c).

Regarding the role of learned helplessness (H2), we hypothesized that participants who showed no behavioral intention to change their eating habits would present higher learned helplessness scores (H2a); that participants who showed no behavioral intention to change their social media use would also present higher learned helplessness scores (H2b); and that the interaction between eating-related attitudes and social media use attitudes would significantly predict learned helplessness levels (H2c).

2. Theoretical Background

2.1. Social Media Use and Eating Disorders

Eating disorders are multifactorial conditions whose etiology involves an interaction of psychological, genetic, and environmental risk factors (Fischer & Grange, 2007;Schvey et al., 2015). Among environmental factors, exposure to media content has emerged as a particularly significant predictor of disordered eating cognitions and behaviors (Sidani et al., 2016; Tual, 2021). Social media platforms provide a uniquely potent environment for the dissemination of idealized, digitally altered body images that promote unrealistic beauty standards. Content

glorifying thinness and fitness, promoted by influencers presenting heavily retouched bodies as achievable through diet and exercise products, systematically triggers upward social comparisons, body dissatisfaction, and disordered eating attitudes among adolescent and young adult users (Engeln et al., 2020; Fardouly et al., 2015; Revranche et al., 2022; Vandenbosch et al., 2022).

The DSM-5 recognizes three primary eating disorders: anorexia nervosa (characterized by energy intake restriction), bulimia nervosa (characterized by binge-eating episodes followed by compensatory behaviors), and binge-eating disorder (characterized by recurrent binge-eating without compensatory behaviors; American Psychiatric Association, 2013). These conditions predominantly emerge during adolescence or early adulthood (Attia & Walsh, 2007), precisely the developmental period of peak social media use. The convergence of developmental vulnerability with intensive social media exposure creates conditions particularly conducive to the development and maintenance of disordered eating attitudes.

2.2. Cognitive Dissonance as a Prevention Strategy

Cognitive dissonance theory posits that individuals experience psychological discomfort when they hold two or more inconsistent cognitions, and are motivated to reduce this discomfort through attitude or behavior change (Festinger, 1957). The induced hypocrisy paradigm operationalizes this mechanism by confronting individuals with the discrepancy between their positive attitudes toward a socially valued behavior and their own past failures to enact that behavior. This two-step process, consisting of making a public commitment to a norm followed by a recall of personal transgressions, reliably produces a dissonant state that motivates behavior change (Aronson et al., 1991).

In the domain of health promotion, the induced hypocrisy paradigm has demonstrated consistent efficacy across multiple behavioral targets. Freijy and Kothe (2013), in a systematic

review of cognitive dissonance interventions for health behavior change, reported significantly positive effects on attitudes, intentions, and behaviors, with the induced hypocrisy paradigm identified as the most consistently effective variant. More recently, Pansu et al. (2019) observed greater physical activity increases in diabetic patients exposed to a norm-based dissonance program compared to those receiving standard prevention. Gauld et al. (2021) found that university students who experienced induced hypocrisy were more likely to reduce smartphone use while driving. Boussat et al. (2023) observed reduced alcohol consumption among students who delivered prevention messages to others, compared to a control group. These results converge to suggest that cognitive dissonance interventions are effective in promoting health-related behavior change when the paradigm is properly implemented.

However, the efficacy of dissonance-based interventions is not universal. Research has shown that very high levels of dissonance may paradoxically increase resistance to change, as individuals deploy alternative dissonance reduction strategies (such as rationalization, denial, or distraction) rather than attitude change (McGrath, 2017; Vaidis & Bran, 2018). This suggests that intervention dosage, the intensity of dissonance induced, must be carefully calibrated to produce behavior change rather than reactance.

2.3. Learned Helplessness as a Barrier to Behavior Change

Learned helplessness, as conceptualized by Seligman (1972), refers to a psychological state in which repeated exposure to uncontrollable aversive events leads individuals to develop a generalized belief in their inability to influence outcomes, even in situations where control is objectively available. Originally demonstrated in animal conditioning research (Seligman & Beagley, 1975), learned helplessness has been extensively studied in human populations across a range of chronic conditions (Ric, 1996).

In the domain of eating disorders, Polivy and Herman (1999) documented a significant correlation between learned helplessness and the persistence of binge-eating behaviors, suggesting that the sense of powerlessness over food intake may consolidate disordered eating patterns. More broadly, high learned helplessness scores have been associated with reduced treatment adherence in chronic pain (Boo & Oh, 2017; Moyano et al., 2019), increased relapse rates in substance use disorders (Zhang et al., 2016), and poorer self-management outcomes in hemodialysis patients (Xie et al., 2023). Critically for the present study, individuals with high learned helplessness may be less responsive to prevention interventions because they are less likely to form behavioral intentions even when confronted with compelling evidence of the need for change (Landry et al., 2018).

3. Method

3.1. Participants

A total of 104 university students volunteered to participate in this study. Participants were aged between 18 and 25 years (M = 19.4, SD = 1.52), with 89 women (85.6%) and 15 men (14.4%). The sample was primarily composed of first-year psychology students (n = 64, 61.5%) and second-year education science students (n = 11, 10.6%), with the remaining 29 participants (27.9%) enrolled in law, political science, biology, sports science, engineering, and culinary arts programs. All participants were active social media users. The most frequently used platforms were TikTok (47.1%), Instagram (40.4%), and Snapchat (10.6%). Regarding daily usage, 26.9% of participants reported spending three to four hours per day on social media, and 21.2% reported more than four hours daily. Participants were randomly assigned to the experimental condition (n = 54) or the control condition (n = 50). The study received ethical approval in accordance with CNIL regulations (declaration n° 2024-RTR3-007), and all participants provided informed consent prior to participation.

3.2. Measures

Eating attitudes were assessed using the Eating Attitudes Test-26 (EAT-26; Gardner et al., 1982; French validation: Leichner et al., 1994). This widely used screening instrument comprises 26 items rated on a 6-point Likert scale (always to never). For the present study, the seven items of the oral control subscale were removed to reduce response burden, yielding a 19-item version covering two subscales: dietary restriction/dieting (13 items) and bulimia/food preoccupation (6 items). Scores range from 0 to 57; scores above 15 indicate clinically relevant eating concerns. Internal consistency in the present study was excellent ($\alpha = .92$), consistent with the original scale ($\alpha = .91$; Papini et al., 2022).

Social media addiction was measured with the Bergen Social Media Addiction Scale (BSMAS; Andreassen et al., 2012; French validation: Dufort-Rouleau et al., 2022). This 6-item scale assesses core addiction criteria (salience, tolerance, mood modification, relapse, withdrawal, conflict) rated on a 5-point scale (very rarely to very often). Scores range from 6 to 30; scores above 3 on at least four items indicate problematic use. Internal consistency in the present sample was good ($\alpha = .83$), consistent with published values ($\alpha = .88$; Zarate et al., 2023).

Learned helplessness was assessed with the Learned Helplessness Scale (LHS; Quinless & Nelson, 1988), a 20-item scale measuring perceived lack of control over life outcomes. Items are rated on a 4-point scale (strongly agree to strongly disagree). Total scores range from 20 to 80, with higher scores indicating greater learned helplessness. The original scale has demonstrated good internal consistency ($\alpha = .85$). A French translation of the items was prepared by the research team, as no validated French version exists. Internal consistency in the present sample was $\alpha = .84$.

3.3. Procedure

Data were collected in person using questionnaires administered via LimeSurvey. Participants accessed the questionnaire by scanning a QR code. After providing informed consent, all participants completed the EAT-26 and BSMAS (Time 1 assessment). Both groups then watched a one-minute video extract from the French television program Télématin (broadcast January 31, 2018) in which sociologist and food historian Eric Birlouez presented research evidence documenting a positive correlation between intensive social media use and the development of eating disorders.

Following the video, participants in the experimental condition (high dissonance) were presented with three additional items designed to heighten the dissonance experience by prompting reflection on their own behaviors: (1) 'As mentioned in the video, has social media ever influenced your eating habits?'; (2) 'As mentioned in the video, have you ever adopted a diet under the influence of social media content?'; (3) 'As mentioned in the video, have you ever experienced body dissatisfaction after viewing social media content, leading you to change your eating habits?' These items were presented on a 6-point frequency scale (always to never). Participants in the control condition (low dissonance) did not complete these additional items. This manipulation was designed to induce the induced hypocrisy effect by confronting experimental participants with their own past transgressions in relation to the normative information presented in the video.

All participants then completed the EAT-26 and BSMAS a second time (Time 2 assessment), with instructions to respond as they envisioned their behavior over the coming days. Finally, all participants completed the LHS and demographic questions. Total completion time was approximately 15 minutes.

3.4. Data Analysis

All analyses were conducted using Jamovi (version 2.5.3). Preliminary analyses included descriptive statistics, normality tests (Shapiro-Wilk), and bivariate correlations among study variables. Between-group comparisons at Time 1 used the Mann-Whitney U test (for non-normal distributions) or Student's t-test (for normally distributed variables) to verify initial group equivalence. Within-group changes between Time 1 and Time 2 were assessed using paired t-tests or Wilcoxon signed-rank tests as appropriate. Hypothesis 1 was tested using between-group comparisons of Time 2 scores. Hypothesis 1c was examined via a repeated-measures ANOVA testing the interaction between the dissonance condition and social media addiction level on eating attitude change. Hypotheses 2a and 2b were tested using Spearman partial correlations between helplessness scores and the absence of behavioral intention. Hypothesis 2c was tested using multiple linear regression, entering eating attitudes and social media attitudes as predictors of learned helplessness scores. Effect sizes are reported as Cohen's d for t-tests and η^2 for ANOVAs.

4. Results

4.1. Descriptive Statistics and Group Equivalence

Descriptive analyses indicated that 26% of participants obtained EAT-26 scores above the clinical threshold (M = 10.1, SD = 9.17), representing clinically relevant eating disorder risk. Of these, 26 were women and 1 was a man. The dieting subscale (M = 7.79, SD = 7.09) yielded higher scores than the bulimia/food preoccupation subscale (M = 2.30, SD = 2.75). Regarding social media addiction, 15.4% of participants obtained BSMAS scores indicating problematic use (M = 16.7, SD = 4.67). The LHS yielded a mean score of 46.0 (SD = 10.3), with individual scores ranging from 28 to 76.

Preliminary group comparisons at Time 1 confirmed that the experimental and control groups did not differ significantly on eating attitudes, $U = 1281$, $p > .05$ or social media addiction, $t(102) = 0.15$, $p > .05$, indicating successful randomization.

Correlation analyses revealed a significant positive association between EAT-26 scores at Time 1 and LHS scores, $r = .31$, $p < .001$, indicating that participants with more maladaptive eating attitudes also tended to report higher levels of learned helplessness.

4.2. Effects of Cognitive Dissonance on Eating Attitudes and Social Media Use

Within-group analyses revealed no significant change in eating attitudes between Time 1 and Time 2 in the experimental group, $t(53) = -0.08$, $p > .05$, although a slight non-significant increase in scores was observed (suggesting a marginal deterioration). In the control group, a slight non-significant decrease in median eating attitude scores was observed, $W = 430$, $p > .05$, suggesting a minor improvement following video exposure.

Regarding social media attitudes, no significant within-group change was observed in the experimental group, $t(53) = 1.61$, $p > .05$, though a slight (non-significant) decrease in scores was recorded. In the control group, a significant reduction in social media addiction scores between Time 1 and Time 2 was observed, $W = 435$, $p < .05$, indicating a meaningful improvement in social media attitudes following the video intervention in the low-dissonance condition. Notably, both groups showed a significant reduction in self-reported daily social media use between Time 1 and Time 2 (experimental: $W = 2.11$, $p < .05$; control: $W = 4.06$, $p < .05$).

Between-group comparisons at Time 2 confirmed no significant difference in eating attitude scores ($U = 1286$, $p > .05$, $d = .04$; H1a not supported) or social media addiction scores ($t(102) = 0.32$, $p > .05$; H1b not supported) between the experimental and control conditions. The repeated-measures ANOVA testing the interaction between dissonance condition and social media

addiction level on eating attitude change yielded a non-significant result, $F(1, 52) = 0.13$, $p > .05$, $\eta^2 = .002$; H1c not supported.

4.3. Learned Helplessness as a Moderator of Behavioral Intention

Spearman partial correlation analyses revealed a small but significant positive correlation between learned helplessness scores and the absence of behavioral intention to change eating habits, $r = .30$, $p < .05$, supporting H2a: participants who reported no intention to modify their eating attitudes tended to score higher on learned helplessness.

In contrast, no significant correlation was found between learned helplessness scores and the absence of behavioral intention to change social media use, $r = .05$, $p > .05$, leading to the rejection of H2b.

Multiple linear regression analysis testing H2c revealed that eating attitudes and social media use attitudes together significantly predicted learned helplessness scores, $R^2 = .10$, $F(2, 101) = 5.78$, $p < .05$. Standardized regression coefficients indicated that eating attitudes were a significant predictor of learned helplessness, $\beta = 0.68$, $p < .05$, whereas social media use attitudes did not independently contribute to the prediction, $\beta = -0.20$, $p > .05$). H2c was thus partially supported (see Table 1).

Table 1.

Summary of Key Results by Group and Time Point

Variable	Exp. T1	Exp. T2	Ctrl. T1	Ctrl. T2
EAT-26 (M, SD)	10.4 (9.3)	10.5 (9.4)	9.7 (9.1)	Mdn = 7
BSMAS (M, SD)	16.7 (4.8)	16.2 (4.6)	16.8 (4.6)	16.0 (4.5)*
LHS (M, SD)	46.2 (10.1)	-	45.8 (10.5)	-

Note. EAT-26 = Eating Attitudes Test; BSMAS = Bergen Social Media Addiction Scale; LHS = Learned Helplessness Scale; Exp. = Experimental group; Ctrl. = Control group; T1 = Time 1; T2 = Time 2. * p < .05 within-group change.

5. Discussion

The present study pursued two objectives: to evaluate the efficacy of a cognitive dissonance intervention for promoting healthier eating attitudes and social media use among young adults, and to explore the role of learned helplessness in explaining the absence of behavioral intention to change. The pattern of results was mixed and theoretically informative.

5.1. Effects of Cognitive Dissonance: A Null Result With Implications

None of the three cognitive dissonance hypotheses were supported. Participants in the high-dissonance experimental condition did not show greater reductions in maladaptive eating attitudes or social media addiction compared to control participants. Paradoxically, significant improvement in social media attitudes was observed only in the low-dissonance control group, and both groups equivalently reduced their self-reported daily social media use.

These null results are theoretically significant and warrant careful interpretation. Several converging explanations may account for the absence of expected effects. First, the intensity of the dissonance induction may have been counterproductive. Research on resistance to change has consistently shown that very strong dissonance can elicit psychological reactance (a motivational state in which individuals resist the perceived threat to their freedom) rather than attitude change (Vaidis & Bran, 2018). The three additional items presented to the experimental group after the video may have pushed the dissonance experience past the threshold of constructive tension into defensive resistance. The paradoxical improvement in the control group is consistent with this interpretation: a moderate level of dissonance, produced by the video alone without the added confrontation items, may have been more conducive to reflective attitude change.

Second, the exclusive focus on attitude change as an outcome measure represents a significant methodological limitation that constrains the interpretation of dissonance effects. Cognitive dissonance theory posits multiple reduction strategies, of which attitude change is only one. Individuals may reduce dissonance through rationalization, denial of responsibility, affirmation of alternative values, or simple distraction (McGrath, 2017). By measuring only attitude change, the study design inadvertently narrowed the observable consequences of dissonance induction and may have missed meaningful responses in other domains. Future research should incorporate measures of multiple dissonance reduction strategies to capture the full range of responses to dissonance induction.

Third, technical aspects of the measurement protocol may have introduced artifact. The identical wording of EAT-26 and BSMAS items at Time 1 and Time 2, combined with their present-tense framing, may have produced carryover effects that obscured genuine attitude change. Participants were instructed to respond from a prospective orientation ('how you envision your behavior over the coming days'), but present-tense item wording may have anchored responses in current rather than intended behavior.

The significant reduction in self-reported daily social media time in both groups suggests that the video intervention itself, independent of the dissonance manipulation, may have produced a form of informational persuasion. This finding underscores the potential public health value of brief, evidence-based psychoeducational interventions about the links between social media and eating disorders, even without the added complexity of a dissonance paradigm.

5.2. Learned Helplessness as a Barrier to Eating Attitude Change

The findings regarding learned helplessness were more consistent with expectations, though nuanced. Supporting H2a, participants who reported no intention to change their eating

habits presented significantly higher learned helplessness scores. This finding extends the existing literature on learned helplessness in eating disorders (Polivy & Herman, 1999) to a non-clinical sample of young social media users, and suggests that even subclinical levels of learned helplessness may constitute a meaningful barrier to the formation of health-protective behavioral intentions.

The absence of a significant relationship between learned helplessness and the lack of intention to change social media use (H2b) is theoretically informative. Unlike eating behavior, where the sense of loss of control is central to the phenomenology of disordered eating, social media use may be experienced as a domain in which individuals perceive greater volitional control. Young adults may feel that they can choose when to log on, what content to view, and with whom to interact, creating a subjective sense of agency that buffers against learned helplessness effects. This differential relationship suggests that learned helplessness operates domain-specifically rather than as a global, cross-domain moderator of behavioral intention.

The regression analysis confirmed that eating attitudes and social media use attitudes together accounted for 10% of the variance in learned helplessness scores (H2c partially supported), with eating attitudes emerging as the sole significant independent predictor. This finding suggests a bidirectional relationship: while learned helplessness moderates behavioral intention toward eating change, maladaptive eating attitudes may themselves reinforce the sense of powerlessness that characterizes the learned helplessness state. This cycle (maladaptive eating cognitions fueling helplessness, which in turn reduces motivation to change eating behavior) has significant clinical and prevention implications.

5.3. Implications for Prevention Practice

The present findings carry several practical implications for the design of eating disorder prevention programs targeting social media users. First, cognitive dissonance-based interventions hold theoretical promise but require methodological refinement to be effective in this domain. Future programs should adopt graduated dissonance induction protocols that produce sufficient discomfort to motivate reflection without triggering defensive resistance. Incorporating role-play, essay-writing, or other active engagement tasks, rather than simple Likert or frequency-scale items, may produce stronger, more durable attitude change (Croyle & Cooper, 1983). Measuring multiple dissonance reduction strategies, beyond attitude change alone, will provide a more complete picture of how young people respond to challenges.

Second, the role of learned helplessness in moderating attitude change suggests that effective prevention programs should include components specifically designed to address perceptions of control and self-efficacy in relation to eating behavior. Interventions that build agency-through goal-setting, behavioral activation, or self-monitoring techniques may be necessary preconditions for the effectiveness of dissonance-based or informational approaches among individuals with high helplessness profiles. Screening for learned helplessness may help identify individuals for whom standard prevention messages are unlikely to produce behavior change without additional support.

Third, the consistent reduction in self-reported social media use observed in both groups following the video intervention suggests that even brief, well-designed psychoeducational messages can meaningfully influence behavioral intentions. This finding supports the integration of social media literacy content, including information about the links between social media use

and eating disorders, into existing university health promotion curricula and student wellbeing services.

5.4. Limitations

Several limitations of the present study must be acknowledged. First, the sample was predominantly female (85.6%) and composed primarily of psychology and education students, which limits the generalizability of findings to other gender and disciplinary groups. Men are underrepresented in eating disorder research and may respond differently to both the dissonance manipulation and the learned helplessness construct. Second, the sample size (N = 104) provides sufficient power for detecting medium-to-large effects, but may be underpowered for detecting smaller, more subtle effects of the dissonance manipulation. Third, the absence of a validated French version of the LHS required the research team to conduct their own translation, which may introduce construct validity limitations despite the acceptable internal consistency obtained. Future studies should systematically validate the LHS in French populations.

Fourth, the use of identical measures at Time 1 and Time 2, combined with the relatively short time between assessments (within a single session), creates significant potential for carryover and response consistency effects that may obscure genuine attitude change. A temporal delay between assessments, even a few days, would substantially reduce this confound. Fifth, the intervention source (a television program excerpt from 2018) may have lacked the perceived credibility and recency to maximally engage participants. Research has shown that source expertise and perceived relevance are critical determinants of persuasive effectiveness (Vaidis & Bran, 2018); future interventions should employ more recent, peer-targeted, or scientific communication formats.

Finally, this study measured behavioral intention as a proxy for future behavior, without follow-up assessment of actual behavior change. Research consistently documents an intention-behavior gap, particularly in health domains (Sniehotta et al., 2014). Future studies should incorporate longitudinal follow-up assessments to evaluate whether observed intention changes translate into durable behavioral modification.

6. Conclusion

This study investigated whether a cognitive dissonance intervention based on the induced hypocrisy paradigm could promote healthier eating attitudes and reduce social media addiction among young adults, and whether learned helplessness moderated behavioral intention to change. The dissonance manipulation did not produce the anticipated effects on eating attitudes or social media use; indeed, paradoxically, the control group showed greater attitude improvement following a simple video intervention. These findings suggest that dissonance intensity may exceed optimal levels when supplementary confrontation items are added, triggering resistance rather than attitude change.

The learned helplessness analyses yielded more consistent results: high helplessness scores were significantly associated with the absence of behavioral intention to change eating habits, and maladaptive eating attitudes significantly predicted helplessness levels. These findings highlight the importance of addressing perceived control and self-efficacy in eating disorder prevention, particularly among individuals who may be most resistant to change.

Taken together, the present results suggest that cognitive dissonance remains a theoretically promising, but methodologically demanding-strategy for eating disorder prevention among social media users. The field would benefit from studies that adopt more graduated dissonance protocols, measure multiple dissonance reduction strategies, screen for learned

helplessness as a moderating variable, and include longitudinal behavioral outcomes. Integration of social media literacy and agency-building components into prevention programs may enhance their reach and effectiveness among the growing population of young adults whose wellbeing is shaped, in part, by the digital environments they inhabit.

Use of AI assistance

The authors used an AI language tool (Claude, Anthropic) to assist with proofreading the English-language version of this manuscript. This use was limited to checking grammatical accuracy and linguistic fluency, as English is not the authors' first language. All scientific content, interpretations, and conclusions are solely the authors' own, and the final manuscript was reviewed and approved by all authors.

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