



Reciprocal relationships between emotion regulation and motives for eating palatable foods in African American adolescents



Catheryn A. Orihuela^{*}, Sylvie Mrug, Mary M. Boggiano

University of Alabama at Birmingham, Department of Psychology, Campbell Hall 415, 1530 3rd Avenue South, Birmingham, AL 35294-3850, USA

ARTICLE INFO

Article history:

Received 2 February 2017

Received in revised form

8 June 2017

Accepted 10 July 2017

Available online 11 July 2017

Keywords:

Eating motives

Emotion regulation

Obesity

Emotional development

Adolescent health

ABSTRACT

This study examines possible bidirectional relationships between emotion regulation and motives related to consuming palatable foods during adolescence. Participants included 79 adolescents (96% African American) who took part in Waves 2 and 3 of the Coping with Violence Study. The youth were recruited from four public middle schools serving low income, urban communities in Birmingham, AL. Participants completed self-report measures of emotion regulation and indicated different motives for consuming tasty foods and drinks at both waves. Results demonstrate that poorer emotion regulation at Wave 2 predicted more frequent endorsement of eating motives related to coping and conforming at Wave 3. Eating motives at Wave 2 were not associated with changes in emotion regulation at Wave 3. The results suggest that emotion regulation problems in adolescence may contribute to obesity and related negative outcomes through greater consumption of unhealthy food for coping and social conformity reasons.

© 2017 Elsevier Ltd. All rights reserved.

Dietary intake during adolescence contributes to life-long eating habits and represents a risk or protective factor for negative health outcomes such as obesity, metabolic syndrome, and cancer in adulthood (Cutler, Flood, Hannan, & Neumark-Sztainer, 2009; te Velde et al., 2007; Tirosch et al., 2011). In adolescence, poor eating habits become more common, including skipping breakfast, increased fast food and soft drink consumption, and decreased intake of fruits and vegetables (Larson, Neumark-Sztainer, Hannan, & Story, 2007; Lytle, Seifert, Greenstein, & McGovern, 2000; Neumark-Sztainer, Story, Resnick, & Blum, 1998). Increased snacking also becomes more frequent, with half of all snacks consumed consisting of unhealthy salty and sweet foods (Grenard et al., 2013; Piernas & Popkin, 2010). Some unhealthy foods are consumed for reasons other than hunger, with some eating motives related to emotion regulation (Lu, Tao, Hou, Zhang, & Ren, 2016). However, the relationships between eating motives and emotion regulation have received little attention in adolescence. Thus, this study examines prospective, reciprocal relationships between eating motives and emotion regulation.

Eating for non-metabolic reasons, also called “hedonic eating”,

typically involves consumption (and overconsumption) of energy dense palatable foods rich in sugar and fat that can contribute to weight gain and obesity (Astrup & Brand-Miller, 2012). Palatable foods may be consumed in order to cope with stress, conform to social expectations, enhance rewarding feelings from the food itself, or increase enjoyment of social gatherings (Boggiano, Wenger, Burgess, et al., 2015; Tryon, DeCant, & Laugero, 2013). All of these motives involve emotional processes and may be specifically related to emotion regulation, defined as the ability to modulate emotional behaviors in the presence of an emotion-eliciting situation (Thompson, 1994). Eating motives may be more strongly related to emotion regulation during adolescence, when individuals experience more intense emotions, show increased physiological reactivity to environmental stressors, and are less likely to employ reappraisal strategies than children and adults (Garnefski, Legerstee, Kraaij, Van Den Kommer, & Teerds, 2002; Larson, Moneta, Richards, & Wilson, 2002; Stroud et al., 2009).

Most existing research on self-reported eating motives and emotion regulation has centered on coping motives. Using the term “emotional eating”, studies in adults have described the overconsumption of food as a result of negative emotions and characterized its stability over time (Ambwani, Roche, Minnick, & Pincus, 2015). Evidence also links emotional eating with emotional dysregulation, such as inability to differentiate between hunger and physiological manifestations of negative emotions (e.g., increased

^{*} Corresponding author.

E-mail addresses: catheryn@uab.edu (C.A. Orihuela), sylva@uab.edu (S. Mrug), boggiano@uab.edu (M.M. Boggiano).

arousal) (Michopoulos et al., 2015). Studies with children (Michels et al., 2012), adolescents (Cartwright et al., 2003; Nguyen-Michel, Unger, & Spruijt-Metz, 2007; de Lauzon et al., 2004) and adults (de Lauzon et al., 2004) show increased consumption of foods high in fat and sugar when coping with stressors, although these associations may not apply to all types of stress (Adriaanse, de Ridder, & Evers, 2011). Experimental studies in adults provide further support for the role of stress in consumption of palatable foods, demonstrating increased intake of foods higher in fat and sugar rather than salty or bland foods following acute stressor, particularly among individuals experiencing chronic stress (Oliver, Wardle, & Gibson, 2000; Tryon et al., 2013). Together, these studies suggest that difficulties with emotion regulation may contribute to consumption of palatable foods to cope with stress or negative affect in both youth and adults.

Similarly, individuals with less developed emotion regulation skills may be more likely to consume palatable foods to enhance their well-being through the positive feelings that accompany the consumption of these foods (Bongers, Jansen, Havermans, Roefs, & Nederkoorn, 2013). Previous studies suggest that the sensory properties of a food (e.g., appearance, taste) are a determining factor in how satisfying the food is perceived (Andersen & Hyldig, 2015). It is possible that the positive feelings associated with palatable foods may motivate individuals to consume these foods more frequently, and this effect may be more prominent in individuals with poorer emotion regulation skills (Mela, 2006).

Emotional regulation may also play a role in eating motives related to social conformity, particularly in adolescence when peer influences are highly salient (Albert, Chein, & Steinberg, 2013). Perceived social norms, informed by others' behavior and expectations, guide behavior in specific situations (Herman, Roth, & Polivy, 2003). In situations involving food, individuals are more likely to consume palatable food and consume greater quantities of food when in the presence of others (Hermans, Larsen, Herman, & Engels, 2009). Following social norms, such as what food to eat or how much to consume, enhances a sense of belonging with the social group, whereas behavior inconsistent with social norms induces negative affect (Baruth, Sharpe, Parra-Medina, & Wilcox, 2014). This suggests that individuals who experience difficulty with emotion regulation may be more likely to consume palatable foods to conform to social expectations to avoid negative affect associated with non-conformity. Indeed, adolescents with lower self-regulation have been shown to be more susceptible to peer influences on antisocial behavior (Gardner, Dishion, & Connell, 2008; Mrug & McCay, 2013; Mrug, Madan, & Windle, 2012), a relationship that may possibly extend to other behavioral domains, including consumption of palatable foods.

Finally, emotion regulation difficulties may contribute to greater consumption of palatable foods during social occasions, such as holidays and birthday parties. These occasions are closely associated with eating (Martijn, Pasch, & Roefs, 2016), typically including palatable and energy dense foods (Kittler & Sucher, 2008). In addition, the social aspects of these celebrations encourage long eating durations and provide many distractions that disrupt individuals' abilities to monitor their food intake (Wansink, 2004). Further, individuals may be more likely to stop eating because of external cues in the environment (e.g., end of party) rather than internal cues indicating satiety (Prinsen, de Ridder, & de Vet, 2013). Thus, individuals may be more likely to consume greater amounts of palatable foods when enjoying social occasions, and this behavior may be more pronounced for those with lower self-regulatory abilities.

In summary, emotion regulation deficits may contribute to greater consumption of palatable foods for reasons related to coping, reward enhancement, conformity, and enjoyment of social

occasions. However, greater consumption of palatable foods due to these motives may also compromise the development of emotion regulation. For instance, turning to palatable foods to alleviate negative affect or as an important source of reward may limit opportunities to develop more adaptive emotion regulation skills. Similarly, consuming palatable foods in order to conform to social norms may preclude the need to learn to regulate negative affect accompanying non-conforming behavior.

1. Current study

As discussed above, deficits in emotion regulation may contribute to the consumption of palatable foods for multiple reasons not related to hunger, and these eating motives may further weaken emotion regulation skills. These relationships may be particularly prominent in adolescence, when eating habits become established (Taut et al., 2015) and emotion regulation skills are still developing (Ahmed, Bittencourt-Hewitt, & Sebastian, 2015). However, no studies have evaluated the links between emotion regulation and multiple eating motives in adolescents and how they evolve over time. Thus, the main goal of this study is to evaluate possible bidirectional relationships between emotion regulation and motives related to consuming palatable foods during adolescence. We use a prospective design with two time points and focus on urban, mostly African American youth, who are at a greater risk for consumption of palatable foods (Iannotti & Wang, 2013), obesity (Taylor et al., 2010), and difficulties in emotion regulation (Bocknek, Brophy-Herb, Fitzgerald, Schiffman, & Vogel, 2014). We hypothesize that lower emotion regulation skills will predict greater coping, reward enhancement, conformity, and social enjoyment motives for palatable food consumption over time, and in turn, these motives will contribute to poorer emotion regulation.

2. Method

2.1. Participants

Participants included 79 adolescents (47% male; 96% African American, 3% Caucasian and 1% Hispanic) who took part in Waves 2 and 3 of the Coping with Violence Study (average ages 15 and 16, SD = 0.97 and 1.11, respectively). The youth were recruited from four public middle schools (grades 6–8 or 9) serving low income, urban communities in Birmingham, AL. From approximately 240 invited students, 129 (54%) provided their contact information and 84 of those (65%) completed a Wave 1 interview (W1). After the first 84 families were enrolled, recruitment was closed due to limited resources. The sample was representative of the sampled population in racial and gender composition and rates of household poverty. Reflecting the sampled population, the sample comprised primarily low-income families; average annual family income was \$20,000–\$25,000 (range <\$5000 to >\$70,000) and average parental education was some college but no degree.

Approximately 17 months later, 76 families (90%) returned for a Wave 2 interview, and another 16 months later, 75 families (89%) completed a Wave 3 interview. Retained families did not differ from those lost to follow up in child age, gender, ethnicity, SES, or parental education.

2.2. Procedure

Students in the sampled middle schools received an envelope containing a description of the study, contact information form, and informed consent and assent forms. Families interested in participating returned a completed contact information form to the school. These families were later contacted by project staff and

Download English Version:

<https://daneshyari.com/en/article/5044087>

Download Persian Version:

<https://daneshyari.com/article/5044087>

[Daneshyari.com](https://daneshyari.com)