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Research report

Unsupportive social interactions influence emotional eating behaviors. The role of coping styles as mediators ☆

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ABSTRACT

Psychopathologies, such as depression, are frequently accompanied by poor coping strategies, including impaired social support resources. As well, unsupportive social interactions have been related to adverse health outcomes beyond any contribution of limited social support resources. There is reason to believe that increased eating associated with stressors represents a method of coping, albeit one that has negative consequences. The present investigation examined the relation between both unsupportive and supportive social interactions and emotional eating, and assessed whether this relationship was mediated by individual coping styles. Study 1 ($N = 221$) indicated that unsupportive social interactions were associated with emotional eating, and with emotion- and avoidant-focused coping. Furthermore, multiple mediation analyses indicated that emotion-focused coping mediated the relation between unsupportive social interactions and emotional eating. Study 2 ($N = 169$) replicated these findings, and also indicated that these effects were above and beyond those of social support and depressive symptomatology. Thus unsupportive social interactions may have implications for health outcomes and behaviors, beyond mood disorder symptomatology. The observed relations can be explained by theories of affect-regulation such as negative urgency and expectancy theory as well as on the basis of biological processes associated with eating and stress responses.

Introduction

When confronted with a stressor, some individuals reduce their eating, whereas others increase their eating (Oliver & Wardle, 1999; Rutters, Nieuwenhuizen, Lemmens, Born, & Westerterp-Plantegna, 2008), and individual difference factors such as emotional or restrained eating seem to predict these differences (Epel, Lapidus, McEwen, & Brownell, 2000; Lattimore & Caswell, 2004). It is important to examine such processes, as those individuals who engage in stressor-induced eating may be at risk for obesity or further eating pathology (Pinaquy, Chabrol, Simon, Louvet, & Barbe, 2003; Smith, Simmons, Flory, Annus, & Hill, 2007).

Stressors and eating pathology

Stressors and negative affect have been associated with eating disturbance symptomatology (Cooley, Toray, Valdez, & Tee, 2007; Groesz et al., 2012; Mazur, Dzielska, & Malkowska-Szkutnik, 2011), as well as the onset of binge episodes (Barker, Williams, & Galambos, 2006; Haedt-Matt & Keel, 2011; Steiger, Gauvin, Jabalpurwala, Séguin, & Stotland, 1999). There are multiple emotion-based theories of these relations, some positing that disordered eating behaviors are engaged to diminish or regulate negative affect (e.g., affect regulation model, expectancy theory; Combs, Pearson, & Smith, 2011; Deaver, Miltenberger, Smyth, Meidinger, & Crosby, 2003; Hohlstein, Smith, & Atlas, 1998), or in anticipation of the positive affect that eating is expected to bring (e.g., reward; Adam & Epel, 2007; Fay & Finlayson, 2011). As negative emotions are thought to provoke eating among emotional eaters (van Strien, Frijters, Bergers, & Defares, 1986), these models are useful in assessing emotional eating in the context of stress-processes.

Additionally, specific views have been expressed concerning the relation between stressful experiences and emotional eating in particular, including the view that emotional eaters mistake arousal for hunger (van Strien, Engels, van Leeuwe, & Snoek, 2005; van Strien & Ouewens, 2007), that distress results in disinhibition that leads to increased eating (in effect representing an escape theory; Heatherton & Baumeister, 1991), or that eating serves as a coping mechanism to alleviate the negative emotions evoked by stressful events (Kubiak, Vögle, Siering, Schiel, & Weber, 2008; Spoor, Bekker, van Strien, & van Heck, 2007).

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Social support and coping

As outlined in the Transactional Model of Stress and Coping, the coping mechanisms adopted in response to stressors have been linked to the development of psychological and behavioral disturbances (Lazarus & Folkman, 1984). Social support seeking, a common coping strategy, is typically thought to represent a fundamental buffer (coping resource) to limit the effects of stressful experiences, including mental and physical health outcomes (Coker et al., 2002; Major, Richards, Cooper, Cozzarelli, & Zubek, 1998; Matheson & Anisman, 2003; Uchino, Cacioppo, & Keicolt-Glaser, 1996). Social support can have multiple functions, such as providing emotional, tangible or informational requirements (Bertera, 1997; Weiss, 1976), and occurs in conjunction with other coping methods. Additionally, it might facilitate or impede other methods of coping, or decrease individuals' likelihood of avoiding or denying the presence of stressors. However, the beneficial effects of social support may depend on the quantity received, the quality of the support, and if the type of support offered matches the current needs of the individual (Cutrona, 2000; Cutrona & Russell, 1990; Weiss, 1976).

It has been suggested that eating disorder symptomatology may be related to impoverished levels social support (Aimé, Sabourin, & Ratté, 2006; Wonderlich-Tierney & Vander Wal, 2010). Studies have typically focused on women with, or at risk for, eating disorder symptomatology such as anorexia nervosa, binge eating, and bulimia nervosa (e.g., Ghaderi, 2003; Limpert, 2010), but the relation between social support and emotional eating is less clear. Among individuals attempting to lose weight either through surgery or diet, no association was observed between social support and emotional eating (Canetti, Berry, & Elizur, 2009), however, similar relations in the general population have yet to be examined.

Unsupportive social interactions

In addition to a lack of, or inappropriate, social support, negative or unsupportive social interactions seem to act as an independent negative influence on physical and mental health (Ingram, Betz, Mindes, Scmitt, & Smith, 2001). This may occur by undermining the potential positive effects of social support, and also by acting as a stressor in their own right. When considering implications for psychological well being, unsupportive social interactions have been associated with elevated levels of depressive symptoms and other negative mental health outcomes in a wide variety of sample populations (Figueiredo, Fries, & Ingram, 2004; Matheson, Jorden, & Anisman, 2008; Smith & Ingram, 2004; Song & Ingram, 2002).

Contrary to the association between social support and problem-focused or cognitive coping methods, encountering unsupportive social interactions may influence health outcomes by increasing reliance on ineffective coping methods, such as avoidant coping (Ingram, Jones, & Smith, 2001; Mindes, Ingram, Kliewer, & James, 2003). Indeed, in response to specific health-related events, unsupportive social interactions were associated with increased use of avoidant strategies cross-sectionally (Mindes et al., 2003; Song & Ingram, 2002), and prospectively (Manne, Ostroff, Winkel, Grana, & Fox, 2005). However, similar relations with emotion-focused coping efforts remain to be determined. Although evidence suggests a relation between avoidant and emotion-focused coping and emotional eating (Spoor et al., 2007), the associations between unsupportive social interactions, coping and emotional eating have yet to be examined simultaneously. This line of study might be important given the pronounced effects that unsupportive social interactions have already been demonstrated to have in relation to other pathological states. Furthermore, as depressive symptomatology has been related to social support, unsupportive social interactions, coping, as well as emotional eating (Konttinen, Mannisto, Sarlio-Lahteenkorva, Silventoinen, & Haukkala, 2010; Ouwens, van Strien, van Leeuwe, & van der Staak, 2009), it is important to ensure that it does not account for the proposed relationships between these factors.

The present investigation

Individuals often seek social support in an effort to cope with stressful situations, however when they are met with unsupportive social interactions, well-being might be further jeopardized. With respect to emotional eating, it is suspected that unsupportive social interactions might promote the use of coping methods that favor its development, especially if one considers that eating might actually be a way of coping with adverse events (e.g., disengagement strategy, self-medication). Thus, it was predicted in Study 1 that unsupportive social interactions would be positively associated with emotional eating, as well as the propensity to adopt coping styles that do not require reliance on others (emotional and avoidant coping). These coping methods were expected to mediate the relation between unsupportive social interactions and emotional eating. However, in order to reduce the possibility that such relations are accounted for by other forms of social support or negative affect, Study 2 also included measures of positive social support and depressive symptomatology. It was expected in Study 2 that the relations between unsupportive social interactions, coping, and emotional eating would again be evident, over and above any potential effects of social support or depressive symptomatology.

Methods

Participants

Study 1

Undergraduate females ($N = 221$, $M_{age} = 20.44$ yrs, $SD_{age} = 4.86$ yrs) were recruited from an online experimental study recruitment system. Participants were informed that the study would assess the relations between daily stressful events and how individuals coped with these stressors. Of the women who reported their ethnic background, 56% ($n = 117$) were Caucasian, 6.7% ($n = 14$) were East Asian, 11.9% ($n = 25$) were Black, 6.2% ($n = 13$) were Middle Eastern, 4.3% ($n = 9$) were Hispanic, 4.3% ($n = 9$) were Aboriginal, 9.5% ($n = 20$) were Asian, and 1.4% ($n = 3$) were Other.

Study 2

Undergraduate women ($N = 169$, $M_{age} = 20.45$ yrs, $SD_{age} = 4.36$ yrs) volunteers were obtained as described in Study 1. Women who reported their ethnic background were Caucasian ($n = 88$, 54.0%), Middle Eastern ($n = 21$, 12.9%), Black ($n = 20$, 12.3%), East Asian ($n = 17$, 10.4%), Asian ($n = 5$, 3.1%), Hispanic ($n = 5$, 3.1%), Aboriginal ($n = 2$, 1.2%), and Other ($n = 5$, 3.1%).

Procedure

Studies were approved by the Carleton University Ethics Committee for Psychological Research, and followed the Tri-Council Policy Statement for the Ethical Conduct for Research Involving Humans. Women were recruited via online study system that advertised studies examining, student responses to daily stressful events (Study 1), and student responses to an employment task (Study 2). Upon arriving at the laboratory women in both studies were told that the purpose of the session was to assess general perceptions of stress, coping styles, factors that may influence coping (e.g., social support), and eating behaviors that they engaged in. They were then presented with an Informed Consent form to read