

The experience of emotional eating in individuals with insecure attachment style: An Interpretative Phenomenological Analysis (IPA) approach

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Abstract

Numerous studies demonstrate a link between eating disorders and Insecure Attachment Styles (IAS). The attachment theory concerns the bond between the caregiver and the infant. The bond developed is considered to encompass interpersonal relationships thought-out lifespan, the view of self and the view of others. Emotional Eating (EE) is argued to underlie the existence of a maladaptive coping mechanism. IAS are suggested to inhibit support-seeking behaviors, encompass distorted perceptions regarding the bodily self and induce alterations in the dopaminergic circuits. The aim of the present study is to investigate the lived experience of EE in individuals with IAS. Thus, an Interpretative Phenomenological Analysis (IPA) approach is employed. Firstly, the completion the questionnaires regarding attachment style and EE was facilitated. Subsequently, semi-structured interviews were conducted. Six participants were selected for the interview process. One theme was chosen to be analyzed: "Coping with emotions". Participants convey their experience regarding EE and associate their eating behavior with their difficulty or unwillingness to communicate with their significant others in times of distress. The different meanings attributed to EE as solution-focused, emotional-focused and avoidant coping as well as the feelings and thoughts attached to EE are discussed. The meaning attributed to food and to EE behaviors as systems of reward and punishment is conveyed. Creating interventions for EE appears imperative due to the guilts experienced after overeating, the dissociative experience regarding the bodily self in EU as well as the willingness to seek support but the inability to do so when experiencing negative emotions.

Keywords

Insecure Attachment Style, Emotional Eating behaviors, Coping, Support-seeking, Punishment, Reward.

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Introduction

Emotional eating (EE) is described as “the tendency to change one’s eating behavior in response to negative emotions” [1], reflecting both emotional overeating (EO) and emotional under-eating (EU) behaviors [2,3]. EE may constitute a learned behavior [4]. Common factors are suggested to underlie EO and EU such as parental style, emotional regulation and perceived stress intensity [1], which indicate the role of the attachment style. Numerous studies demonstrate a link between Eating Disorders (ED) and Insecure Attachment Styles (IAS, e.g.[5]), but research demonstrating a link between EE and IAS is rather limited [6].

The attachment theory concerns the bond between the caregiver and the infant. The bond developed is considered to encompass interpersonal relationships thought-out lifespan, the view of self and the view of others. The inconsistent responsiveness or unresponsiveness towards the infant’s needs is proposed to encompass the development of an IAS [7,8]. The Integrative Model of the Activation and Dynamics of the Attachment System (IMADAS, [9]) suggests that the attachment system is activated due to threat and encompasses the employment of coping strategies based on three levels of process: seeking for proximity with the attachment figure, availability of attachment figure and viability of the attachment figure as a mean to cope. In IAS where others are negatively viewed [10] e.g. Fearful Attachment Style (FAS), the individual may employ deactivating strategies, which entail distancing from the source of the negative emotion and attachment-related cues. In IAS where others are positively viewed e.g. Preoccupied Attachment Style (PAS), the individual may employ hyperactivating strategies and strive for closeness with attachment figures. Yet, this model is limited in the conceptualization of coping in response to threat. IAS are suggested to inhibit support-seeking behaviors [11] and underlie the inability of using existent external help when present [12]. IAS and ED may be associated with difficulty in emotional expression [13,14]. Difficulty in emotional expression may underlie the use of other means to communicate e.g. self-harm [15], which may have implications for Anorexia Nervosa (AN) and EU. The inhibition of support-seeking behaviors and the difficulty in emotional expression can be explained as the anticipation that others will not provide support, which is a notion encompasses by attachment-related experiences. Over-eating episodes as observed in Binge Eating disorder (BED) and Bulimia Nervosa (BN) are suggested to constitute the activation of a hyperactive strategy [16]. For example, the use of comfort food constitutes an attachment-related cue, since it symbolizes the comfort provided by the attachment figure

[17,18]. Considering the escape theory, overeating may be an escape from negative self-awareness due to the failure to meet the high standards set by the self [19,20]. From a Freudian perspective, negative self-awareness and high standards are conceptualized as drives of the superego [21]. From the same perspective, overeating poses an oral regression [22], due to the unmet need of being fed in childhood, with the aim of achieving security [23]. Undereating may be associated with an inner psycho-somatic battle [24], which is rooted in adverse attachment-related experiences [25] that encompass distorted perceptions regarding the body.

An IAS is argued to not only influence cognition and behavior, but also induce alterations in the dopaminergic circuits and the HPA axis which are, among others, the center of pleasure and the center responsible for responding to stress respectively [26,27]. Early life experiences can influence the neural development [28]. The inconsistent responsiveness or unresponsiveness towards the child’s needs may encompass the attention provided to intrapersonal processes [26]. Also, the dopaminergic system is interlinked with needs such as eating [29], which in IAS may be inconsistently met. Hence, the role of the IAS in neural development can be explained, as well as the view of food as a source of pleasure. In a study, EE is conceptualized as a stress-related response encompassed by the intensity of the stress experienced; it is suggested that less acute stress contributes to overeating whereas more acute stress contributes to undereating [30] Yet, this view may be limited and not consider differences among individuals [31], which may include differences regarding coping styles. The Coping Circumplex Model (CCM, [32]), proposes a sphere-like dimension consisting of four bipolar axis that include engagement in solution-focused coping (or not), engagement in emotion-focused/avoidant coping (or not) and their interactions. In this model avoidant and emotion-focused coping are conceptualized as one. EE is argued to underlie the existence of a maladaptive coping mechanism, which entails emotion-focused and avoidant coping [33], with research suggesting that there is not an association between solution-focused coping and EE [34]. Yet, both studies fail to acknowledge context-based and stressor-based variables regarding coping [35] and only consider general coping styles.

Numerous studies have been conducted to address eating behaviors. However, existing literature appears disproportionate since there is a focus on EO, overlooking EU. Some studies even define EE as overeating [36]. Simultaneously, most studies regarding EE appear to be reviews or quantitative studies (e.g. [1]). Other studies address eating behavior via the scope of clinical population (e.g. [34]). Finally, there is limited research addressing EE from an attachment style perspective, with

the existent quantitative research focusing specific negative emotions that underlie EE [6]. Therefore, it appears that there is a need for addressing both EO and EU considering IAS, employing a qualitative method in a nonclinical sample and this is where the novelty of the present study lies. The aim of the present study is to investigate the lived experience of EE in individuals with IAS. Thus, an IPA approach is employed. The objectives of the study consist of conveying:

- a. the relationship shared with food,
- b. the experiences and perceptions regarding interpersonal relationships,
- c. the meaning attributed to support-seeking behaviors,
- d. the sense making and the meaning attributed to EE.

Methodology

Data collection

The study was conducted in two parts, via online platforms due to physical distancing [37]. Firstly, the completion the questionnaires regarding attachment style and EE was facilitated. Six participants that met the study's criteria were selected for the interview process using random number generator (randomizer.org). Subsequently, semi-structured interviews were conducted regarding the experience and sense making of EE and close interpersonal relationships.

Semi-structured interviews are proposed to promote greater expression regarding experiences, since they consist of open-ended questions which provide flexibility [38]. Thus, they allow an in-depth investigation by producing rich data regarding a phenomenon [39], but simultaneously ensure on-topic responses since an agenda of questions is employed. Semi-structured interviews constitute an appropriate mean for the investigation of lived experience [40] and thus EE in IAS.

The language in which the interviews were conducted was the participants' native language (Greek), since communicating in the native language allows more accurate conveyance of thoughts [41]. Moreover, the conveyance of an experience in another language may lead to emotional distancing [42]. Since, the emotions attached to the experience are vital to be conveyed, the facilitation of the interviews in Greek appears imperative.

Participants

Six participants were selected for the interview process (two UE, two OE and two engaging/ having engaged in both behaviors -Mixed Type/MT-), since a sample size of 3-6 participants is suggested to be adequate for an undergraduate qualitative

research project [43]. The sample consists of three females and three males (M= 22.7 years old, Std.= 3.8, see Appendices, section E). The sampling technique was purposive, as the individuals needed to engage in EE and have an IAS to convey their experience for the research purposes. The inclusion criteria consisted of IAS and engagement in EE. The exclusion criteria consisted of insufficient knowledge of English regarding the questionnaire completion and a diagnosis of ED or of any mental health issues. Fifteen participants completed the questionnaires and three were excluded, since they reported having a diagnosis of ED.

Analytic approach

The analysis of the data was encompassed by the principles of Interpretative Phenomenological Analysis (IPA). In the IPA approach, the understanding and interpretation of the interviewee's interpretations, meaning attribution and sense making regarding the lived experience is of essence. Hence, the process of analysis is encompassed by double hermeneutics. Also, the language used to convey the lived experience is of great importance and thus encompasses the part of the analysis. Phenomenological epistemology underpins IPA. Phenomenology is associated with the investigation of phenomena focusing on experience, as lived and conveyed by one. Hence, it is characterized by an idiographic approach to phenomena. For the interview analysis six steps were followed in accordance with IPA principles. Firstly, the interviews were read numerous times, while performing initial noting. Subsequently, the emergent topics were integrated into themes. Afterwards, reassessment of the emergent themes and identification of connections across them was performed, regarding each interview individually and collectively. Lastly, reassessment of the emergent themes was conducted ([43], see also Appendices, section A).

Materials

Two questionnaires were employed: The Relationship Questionnaire (RQ) and the Adult Eating Behavior Questionnaire (AEBQ). The RQ (Cronbach's $\alpha > 0.8$, [10]) addresses adult attachment styles and consists of four items that state the way that an individual relates to others. Each relationship statement represents an attachment style: A- Secure, B- Dismissing, C-Pre-occupied and D- Fearful. After the relationship style statement that is the most representative is selected, it is required to state how descriptive or not the relationship statements are, using a Likert scale ranging from 1 (Disagree strongly) to 7 (Agree Strongly). Regarding the

AEBQ, two subscales were used: the EO and the EU subscales (Cronbach's $\alpha > 0.8$, [44]). Both subscales consist of 5 statements each (e.g. I eat more/less when I am worried) and address EE behaviors using a 5-point Likert scale ranging from Strongly Disagree to Strongly Agree. High scores in these scales demonstrate EE [45]. Furthermore, a cell phone was used to record the interviews as well as a password protected computer, in which the recordings were saved for the research process. Finally, an agenda of questions was employed (see Appendices, section J). The interview schedule consisted of 14 questions, with the questions corresponding to the objectives set e.g. "How do you make sense of your experience with EE?" and "What does EE offer to you, if anything?" to convey the sense making and meaning attributed of EE.

Procedure

E-mails were sent to inform individuals about the study and ask for their participation. A meeting, via internet platforms, was arranged with those willing to participate [37]. The choice of the internet platform (e.g. Skype) depended on the participants' preference. In the meeting, the participants were informed about their rights and the researcher's code of practice through the briefing form. The consent form was provided and completed. Afterwards, a Word document including the RQ scale and EE subscales of the AEBQ were distributed and completed. Then, participants were sent the debrief form, asked if they had further questions regarding the study and were thanked for their participation.

After the processing of the questionnaires and the random selection of six participants, e-mails were sent to request one-on-one meetings, via internet platforms, for the conduction of the interviews. Before the interview started participants were asked to choose a pseudonym and were informed about their right to stop the interview process at any point. Afterwards, the participants were asked if they consented to the recording of the interview and the interview was facilitated. The duration of the interviews ranged between 30 to 45 minutes. After the interview process, participants were sent again the debrief form, were asked if they had further questions regarding the study and thanked for their participation.

Ethics

The research was conducted following the BPS Guidelines of practice in research. The participants included were adults and did not belong in a vulnerable group. In addition, they were thoroughly informed about the nature of the study and their rights before its conduction. They could withdraw at any point between completing the questionnaire and the inter-

view, but only within 14 days after completing the interview. In the case they were not selected for the interview, they had 14 days to withdraw their data after completing the questionnaires. Confidentiality and anonymity were ensured at every point of this research, by using unique codes in the first part of the study and pseudonyms in the second part. The overall data obtained were only used by the researcher for the dissertation's purposes; they were saved and processed in a password-protected computer where only the researcher had access. Lastly, participants who asked for advice were told to contact services; whose contact information were in the debriefing form.

Reflexivity

I engage in emotional under-eating behaviors when I feel anxious and the attachment style that best describes the way I relate to others is considered as insecure. Yet, I believe that by following the steps of

IPA and by understanding the epistemological approach that underpins it, I was able to understand and interpret the interviewees' interpretations, meaning attribution and sense making regarding their lived experience and not mine.

Analysis

Through the process of Analysis seven themes emerged (See Appendices C7, D). One theme was chosen to be analyzed: "Coping with emotions" that includes the subthemes of "Coping alone vs communicating", "The underlying coping mechanisms of emotional eating" and "The systems of reward and punishment".

Coping with emotions

It appears that EE behaviors are made sense as means of emotional coping. The meaning attributed to EE as an outcome of choosing to cope alone and not communicating with significant others, the sense making of EE as a mechanism of coping with negative emotions, the experience of EE and food as a reward and punishment system in response to perceived achievement and failure, as well as the feelings and thoughts attached to the lived experience are conveyed.

Coping alone vs communicating

Participants convey their experience regarding EE and associate their eating behavior with their difficulty or unwillingness to communicate with their significant others in times of distress. The meaning attributed to significant others as means of coping and the role of self-identity in the difficulty or unwillingness experienced regarding the communication of negative emotions are discussed.

«I believe that if I weren't like this and in case I had a problem, I wanted to immediately talk to my friends about it, I wouldn't have this issue with food. Because I would do something else, I would talk to my friends and they would help me with anything I deal with, anger, sadness. If I were the type to talk, to talk about the things I feel and express my emotions, I certainly wouldn't have turned to food. I mean I try when I struggle with something to not withdraw and talk about it as much as I can, so I don't cope with this unhealthy way.» (Elsa, EO, PAS, Lines: 172-178)

The context of friends is made sense as an unconditionally providing safe basis, that would help her with “anything” and simultaneously is made sense as a coping system. Hence, others are viewed positively, as sufficient/reliable figures. Yet, Elsa does not use interpersonal relationships as a soothing mechanism even though others are perceived as such, which in combination with her PAS creates a cloaked cognitive dissonance; her need to be emotionally close to others but simultaneously not communicating her negative emotions and socially isolating when experiencing them. The meaning attributed to not communicating her negative emotions is her “type” and her difficulty to “express emotions”, by which a personality trait is implied. The interaction between this trait and the experience of negative emotions is made sense as leading to social withdrawal and simultaneously using EO as a coping mechanism. EO is made sense as an “issue”, an “unhealthy way” of coping and a substitute coping mechanism to that of interpersonal communication. Though the comparison between the two coping mechanisms, it is conveyed that communicating with others is a superior coping mechanism to EO. The use of the second conditional to talk about the alternative self, who would communicate with significant others so to cope with negative emotions and the attempt to adopt this coping mechanism but with a limited power (“as much as I can”) suggests an identity crisis between the present self and the alternative/ideal self. The identity crisis experienced is associated with the positive view of others, the core need to be emotionally close to them and the simultaneous difficulty to seek for support when ex-

periencing negative emotions. The experience of adverse situations activates the attachment system [7], as a system that regulates emotion [46]. The coping style employed is argued to be a marker of a personality trait or a predisposition, that through habitual behavior is either reinforced or silenced [47]. Simultaneously, EE appears to be an acquired behavior [48] associated with adverse parenting styles [49] and alexithymia [14]. Support seeking, among others, is suggested to underlie active coping styles that in contrast to passive coping styles produce higher emotional regulation [50]. EE is argued to underlie the existence of a maladaptive coping mechanism, which entails emotion-focused and avoidant coping [33]. IAS are suggested to have two main implications regarding support-seeking behaviors: a) inhibition of such oriented coping behaviors [11] or b) inability of using existent external help [12], contributing to less support-seeking behaviors [51] especially when negative emotions are being experienced [52]. The inconsistent responsiveness by attachment figures during childhood may shape the need to cope alone. As the attachment system encompasses interpersonal processes throughout lifespan [53], the anticipated unresponsiveness of others may lead to social withdrawal when experiencing negative emotions and difficulties in emotional expression [51]. Considering inner working models in PAS, significant others are suggested to be positively viewed [10]. The meaning of viability attributed to support-seeking, as a coping mechanism, could imply that Elsa employs hyperactive strategies to cope with her feelings [9]. More specifically, it is suggested that in PAS emotional reactivity is associated with hyperactive coping strategies [54] and BED. It is theorized that as hyperactivating strategies intensify emotional reactivity, binge eating may pose a system of instant emotional regulation [55]. From the same perspective, EO may pose such a system. Hence, relationships with attachment figures, as an environmental factor, may encompass habitual behavior considering the coping system, may silence support-seeking behaviors, contribute to a difficulty in expressing emotions and lead to the need of developing self-reliant coping mechanisms such as EO. Ultimately, EO can be viewed as the activation of an insecure attachment system and an alternative way of coping and regulating emotion to support-seeking.

«Because I am a bit of a lone ranger, I think I lash out at myself. Otherwise I would go crazy. Even in the times that I talk about something, I don't not suddenly feel better. Some people say, “I said it and I got the weight off of me, I feel relieved”. I am not like that at all. I have it in the back of my mind, when a friend is trying to console me for something that she cannot understand me. Ultimately, the problem is my own. Nobody is in the place to feel

it the way I feel it and let me say that I don't believe they care for the matter like I care or like they would care for something of their own.» (Natalia, MT, FAS, Lines: 50-56)

Natalia, through the identification of the self as a “*lone ranger*” conveys loneliness as a trait of hers, which includes remaining distant from others and having a more intrapersonal approach when dealing with a negative emotion. EO is made sense as “*lashing out at self*”, due to her difficulty to communicate her negative emotions so to cope. Simultaneously, EO is made sense as a mean to soothe the negative emotions. Through the phrase “*Otherwise I would go crazy*” the importance of EO regarding self-regulation is conveyed as well as the meaning attributed to EO as a substitute coping strategy to support-seeking. Communicating with significant others in times of distress is experienced as a nonfunctioning coping strategy, which is conveyed by the social comparison between herself and others that attribute a positive meaning to support-seeking. This partially conveys the experience of Dimitris, who at times experiences communicating his negative emotions as a behavior that worsens his emotional state (Lines: 224-228). The meaning attributed to significant others by Natalia, is that of a non-understanding and uncaring basis, which appears to be a recurrent thought when others try to comfort her (“*I have it in the back of my mind*”). The latter could also be interpreted as being too preoccupied with the thought of others as nonunderstanding and uncaring, to be comforted by them. The self is portrayed as the one that needs to cope with the negative emotions (“*ultimately, the problem is my own*”), which implies that the self is the only one she can rely on. Hence, the adoption of EO as an intrapersonal approach of coping with negative emotions. The negative working model of others in FAS [10], can be explained as the inconsistent responsiveness or unresponsiveness of attachment figures to her needs during childhood. Others are perceived as an unreliable source of comfort due to the expectations that attachment figures have shaped regarding the responsiveness of others [51]. The inability of using existent external help even when it is present, is associated with IAS [12]. The existence of a negative working model of others may entail mistrust regarding others [56] and the need for self-reliance [57]. Considering the process suggested in IMADAS, using significant others as a mean to cope is portrayed as a non-viable mean of coping, which leads to avoidance of the negative emotion’s source and attachment-related cues [9]. Simultaneously, EO entails emotion-focused and avoidant coping [33,34]. Additionally, the feeling of loneliness is associated with FAS [58] as well as ED [59,60]. The relationships between loneliness and ED is argued to be partially attributed to the “individuals’ skewed

perceptions” ([59]p. 243), reflecting an IAS. From the same perspective, loneliness and such perceptions that are encompassed by the attachment style [53] could also underlie EO. Hence, EO may pose a self-reliant system of coping with negative emotions and an avoidant coping, which might underlie emotional loneliness and the inability to use existent external support to cope.

«Now, using common sense and the way I think about it, I think that there is a connection. When anything negative happens to me, because I have this mechanism or defense and I want to deal with it alone and essentially I will try to deal with it alone, I automatically obtain a burden that I think is essentially transferred to food. So yes, looking at the bigger picture and thinking about it now, I believe that there is a connection.» (Melina, UE, FAS, Lines: 136-142)

The meaning attributed to the difficulty experienced regarding the communication of negative emotions and the choice to cope alone is that of an underlying “*mechanism or defense*”. These words are used to convey an inner resistance to support-seeking behaviors. The resistance regarding support-seeking, as a mean to cope with emotions, creates a “*burden*”, which is the meaning attributed to negative emotions, but also the meaning attributed to not seeking for support.

Two main implications of her “*defense*” are conveyed: a) if the resistance in seeking for support was not there, the “*burden*” experienced would be alleviated through interactions with significant others and b) EU is a result of coping with negative emotions alone. Hence, EU is made sense as the outcome of coping alone due to her difficulty to use interpersonal relationships to cope with negative emotions. Simultaneously, EU is made sense as the transference of the emotional “*burden*” to the eating behavior, which implies the somatization of the negative affect due to the self-deprivation of food. FAS is suggested to be one of the most predominant attachment styles in ED and especially in cases of AN [61,62]. Yet, an adequate explanation is not provided for this pattern of behavior [63]. Locher and colleagues [64] conceptualize EU as a multifactorial product, that entails among others societal and psychological factors. The perceived social support, the support provided by attachment figures as well as the psychological distress appear to be underlying factors of EU behaviors. Since in FAS others are suggested to be viewed with mistrust [56], due to the negative working model of others [10], the need for self-reliance may be developed [57]. Considering the Maslow’s theory [65], the need for food is in the bottom of the pyramid among other basic physiological needs. Above are placed the needs of safety and belonging. It can be argued that since IAS styles are associated with loneliness [58], the needs of safety

and belonging corresponding to interpersonal relationships might be somewhat unfulfilled. Hence, there may be a regression to the bottom of the pyramid and more specifically food. The self-deprivation of such a vital human need may also be considered as a self-harming behavior regardless of it being conscious or unconscious.

Research yields that there is an association between alexithymia and self-harming behaviors as well as somatization [15]. This association is explained as the use of the body to communicate the negative affect due to the difficulty of expressing emotions. Thus, EU might be explained as the transference of the negative emotions to the body due to the difficulty posed regarding support-seeking. Self-deprivation of food for the purpose of communicating the negative effects may have implications for EU.

The underlying mechanisms of emotional eating

The sense-making of EE as a coping mechanism is conveyed. The different meanings attributed to EE as solution-focused, emotional-focused and avoidant coping as well as the feelings and thoughts attached to EE are discussed.

«It offers me a pleasure of 5 minutes because I eat very fast. So, in the time that I'm eating, food offers me pleasure. The moment I go to make something to eat, the moment I'm making something to eat I forget about any problem, even if I was crying before. For me it is a process like what others say, "I do yoga and I space out, I meditate, and I zone out from my problems". I feel just like that. Like a process that makes me very happy, very very happy.» (Elsa, EO, PAS, Lines: 234-239)

EO is made sense as a behavior that produces "pleasure", which lasts briefly. An instant alleviation of the negative effect produced by EO is conveyed, not matter the prior emotional and mental state ("even if I was crying before"). This conveys the efficacy of EO as mean to regulate emotion. Yet, it appears that her experience of EO moves past emotional regulation and induces a state of happiness. Through the comparison between yoga/ meditation and EO, the meaning attributed to EO as a mean of avoidant coping that induces calmness is conveyed ("I zone out from my problems"), which is similar to the experience of Dave (Lines: 41-43). The alleviation of the negative feelings is not limited to the period EO but is experienced from the moment that she starts preparing her meal. Hence, it seems that for Elsa EO is a ritualistic process that starts with the preparation of food, finishes with the consumption of

it and induces a brief state of happiness. The employment of maladaptive coping strategies may be associated with proneness towards deviant eating behaviors [66]. Coping strategies associated with disordered eating e.g. BED may consist of avoidant [67] and/ or emotion-focused coping [68]. Yet, it is argued that avoidant coping is not associated with ED when emotion-focused coping is controlled [68]. Thus, an issue regarding the conceptualization of coping strategies appears to exist. According to the CCM [32], emotion-focused coping can underlie avoidance of the issue or engaging with it. If ED are not associated with avoidant-coping, then the coping employed would be "Efficiency" (p.7), which is portrayed as a superior coping style and hence there would not be an association between maladaptive coping and ED [33]. The relationship shared between emotion-focused/avoidant coping and BED may be explained through the escape theory as an escape from the stress that the negative self-awareness produces [19]. Overeating may temporarily alleviate stress and produce a state of calmness [69,70] since it may lead to the reduction of negative view of self [19]. Yet, this view is rather limited since it focuses on stress. Dopamine has a motivational function regarding eating since it is pleasure-related [29]. Adverse attachment-related experiences are suggested to underlie alterations in the dopaminergic system, leading individuals to become more vulnerable toward behaviors that include reward [27]. In cases of BED and BN, alterations in dopaminergic circuits may induce a state of overeating as a mean to upregulate dopamine levels (for review [71]). As the dopaminergic system attributes incentive to cues attached to behaviors that lead to its activation and as cues are mentally associated with behaviors through conditioning (e.g. [72]), the process of food preparation may be understood as cues mentally associated with overeating that lead to dopamine release through conditioning. Tice and colleagues [73] support that the experience of distress is associated with prioritizing the regulation of the negative emotion and thus engaging in EE. Although, this argument is rather limited, since it proposes that EE can only be an emotion-focused strategy, the notion of prioritizing can have implications for EE behaviors. Considering the CCM [32] and that EO includes disengagement from the source of the negative affect and induces pleasure, it could be argued that EO falls under the term of "hedonic disengagement" (low solution-focused, high emotion-focused/avoidant, p.7). Hence, EO may constitute the (conscious or unconscious) prioritization of emotional regulation by avoiding the source of the negative affect. The time-limited positive effect of EO might be a product of non-engagement in solution-focused coping and the return to the state of negative self-awareness. The implications of attachment-related experiences in the

dopaminergic system, as well as the role of dopaminergic system in eating behaviors may also have implications for EO.

«The thing I understand about the way I choose to eat is that if I am stressed for something mostly academic or work-related I will stop eating, because I feel that this way I will pressure me in order for something good to come out and I eat almost nothing because I have work to do. I am stressed and I work now, I don't eat». (Peter, MT, PAS, Lines: 8-11)

EU is made sense as a behavior mainly driven by stress related to the settings of the university and workplace. The meaning attributed to EU is to “pressure” the self to be productive, which conveys his struggle regarding self-regulation, so to attain his goals. Hence, EU and productivity appear to be interlinked for Peter, which is also conveyed by Melina (Lines:229-224) and Natalia (Lines:63-68). Also, EU is experienced as a compulsory response to perceived stress by Peter, which may imply that the non-engagement in EU is experienced as inability to be productive. Hence, stress may be experienced as disarming regarding solution-focused coping, that necessitates EU to be tackled. IAS may influence the responsiveness towards stress [74] and may be associated with distorted interoceptive abilities, due to the caregiver’s unresponsiveness towards the child’s needs [26]. More specifically, PAS is associated with an increased daily release of cortisol [75]. High levels of stress share an inversely proportional relationship with performance, whereas optimal levels of stress appear to heighten performance levels [76]. Although high levels of stress may not always hinder performance [77], in Peter’s case it appears that it does. Stress leads to the activation of the Sympathetic Nervous System (SNS, [78]), which encompasses the fight or flight response and provokes a state of arousal [79]. Caloric restriction can lead to reduction of the SNS’ activity, demonstrating a similar effect to beta blockers [80], which are prescribed in cases of anxiety disorders [81]. Although it is argued that EE does not underlie solution-focused coping [34], the scale employed [82] concludes in a general coping style, not considering coping as context-based and stressor-based [35]. As Tice and colleagues [73] stated, coping may be a matter of priorities, in the sense of choosing to cope with the problem. According to CCM [32], the type of being preoccupied with the problem corresponds to high solution-focused coping and low emotion-focused coping. As high levels of stress, which may be encompassed by IAS, affect performance, EU might be employed as a mean to downregulate stress levels to perform and as a context-specific solution-focused strategy. Alternatively, EU can underlie the preoccupation with a task and the neglect of self, which may be explained by the negative

working model of self and the high dependency on others to maintain a positive self-image [10]. As workplace and academia constitute external means of validation regarding self-worth and the self is viewed with a negative connotation, it might be argued that EU is the manifestation of the negative model of self (not being worthy), while anticipating from an external source (work/academia) to provide a sense of worthiness.

«When I eat less or when I don't eat at all I feel more lost in something else, not necessarily negatively lost, so I am indifferent about eating. I don't care, I am indifferent about eating. I feel lost and deeply focused in something else. To make an ultimate statement, I'd like a significant other to provide me food while I am being lost(?). I don't know how this sounds.» (Peter, MT, PAS, Lines: 328-333).

EU is made sense as the outcome of being “lost in something else”. The word “lost” conveys both the power that the task has regarding Peter’s attention and the inattention/neglect towards his need to eat. Yet, being “lost” is not experienced as negative, which could imply that the task may be associated with positive feelings. Furthermore, Peter tries to make sense of his needs, when being preoccupied with a task and conveys the need of being provided food. Since food symbolizes attachment-related processes that include caring, comfort and safety [18], the conveyance of such a need may be interpreted as a need for safety and comfort. The feeling of indifference (“I don't care”) is attached to eating in that period. The indifference towards such a vital need, might underlie an existential indifference as well, whereas the preoccupation with food may indicate an opposite drive. Immature defenses or intrapsychic assimilative defenses [83] mediate the relationships between PAS, FAS and psychological distress [84]. This is explained as an association between the negative working model of self in PAS and FAS [10] and the employment of immature defenses to resolve the distress that the negative working model of self-elicits [84]. Hence, it might be argued that assimilative defenses such as regression [85] are activated due to negative emotions. EU might be a regression to the period that attachment figures provided food and subsequently the sense of safety. In the same sense, EO may constitute an oral regression [22], due to the unmet need of being fed in childhood, with the aim of achieving security [23]. Hence, two implications arise: a) EU may constitute the reenactment of the occasions when the need of being fed remained unfulfilled and EO may constitute the reenactment of the occasions when the need of being fed was fulfilled or b) EU may constitute the belief that the need of being fed will be met by a significant other and EO may constitute the belief that the need of being fed will not be met, so the need for self-reliance in achieving security

rises. The deprivation of food may lead to food hoarding and overeating behaviors (Crow & Eckert, 2000 in [86]), which may imply the need for safety regarding the fulfilment of the need. Yet, this view is limited to interpreting EO. Freud [87] theorized that Eros (life-drive) and Thanatos (death-drive) encompass behavior and can be expressed by the fulfilment/unfulfillment of needs such as food. Combining this view with the increased mortality in AN [88], EU may constitute a Thanatos-related drive, whereas EO may constitute an Eros-related drive.

The systems of reward and punishment

The meaning attributed to food and to emotional eating behaviors as systems of reward and punishment is conveyed. The feelings and the thoughts attached to the experiences are discussed.

«I firstly had to study and then eat for example. Like food was a reward for my hard work regarding studying and not a physiological need that needs to be fulfilled. Or because I generally tend to procrastinate, I would leave everything to be done at the last moment and I said to myself “the way you did things you won’t eat, so you can learn a lesson and the next time you’ll do them at the right time” like a punishment. I think that sounded very bad, but that’s what I did.» (Natalia, MT, FAS, Lines: 64-68).

EU is made sense as a system of reward and punishment. Food is made sense as a reward, provided to self for goal attainment. This may convey the conditional self-worthiness regarding the fulfilment of such a vital human need, portraying adverse attachment-related experiences and might be interpreted as the conditional worthiness of the self to live. The meaning attributed to emotional undereating is self-induced punishment, due to the failure of achieving self-imposed standards. The body and the psyche appear not to be experienced as one, but as different, which conveys dissociation from the bodily self. Hence, self-deprivation of food may be the attempt of the psyche to dominate the body and the expression of a psychological battle. Furthermore, EO is partially made sense as system of punishment, due to the guilts experienced after overeating (Natalia, Lines: 73-81). As the superego consists of normative internalized ideals [21], the attainment of studies may be a behavior driven by the superego, whereas the id strives for fulfilment of basic drives such as food. Self-harm is associated with an overly criticizing, perfectionism-driven and guilt-inducing “distorted” superego ([89], p. 15). Hence, EU as a self-harming behavior may be a product of a “distorted” super-

ego that punishes the id. Theorizing upon AN, Sacksteder [24] suggested a sadomasochistic relationship between the soma and the psyche, expressed by a battle between the two, with the soma attempting to obliterate the psyche and the psyche trying to control the soma. This can be explained as the view of the body and psyche as separate and not as a whole, with the view deriving from attachment-related experiences [90], since attachment figures are responsible for fulfilling the need for food and encompass perceptions regarding the bodily self [25]. The inconsistent responsiveness may also underlie the difficulty to express feelings and the simultaneous use of the body to communicate [91]. Hence, EU might be the somatization of an inner battle between the psyche and the body that share a sadomasochistic relationship, for the purpose of communicating the individuals’ emotional state, deriving from a dissociative perspective regarding the bodily self that is rooted in attachment-related experiences. Moreover, in FAS and PAS there is a negative self-image due to adverse attachment-related experiences that encompass the view of self as unworthy of love [10]. According to the escape theory, binge eating constitutes an escape from “self-awareness”, as the behavior may manifest due to the individuals’ failure to achieve the high standards they have set for themselves ([19], p.86). Since, a negative inner model encompasses perceptions of self and binge eating may be an escape from the negative self-awareness, it could be argued that the negative inner model of self, that is induced by adverse attachment-related experiences, encompasses a state of negative self-awareness, that may result in EO as a mean to escape. The negative self-awareness, the high standards set for the self [19] as well as the guilts experienced after the overeating episode [92] can be explained as thoughts and emotions driven by the superego [89]. EO may be conceptualized as a shift of the attention from intrapersonal processes (the criticizing self) to the behavior of overeating, in the sense of escaping the thoughts and emotions produced by the superego. Thus, the ending of the meal may signal the return to the prior state, with the overeating episode constituting another source of self-criticism, leading to the experience of guilts.

«When I am very happy I will eat. When I have achieved something, let’s say even the most extreme, when I am dieting and I lose a kilo I will reward myself with food, with something unhealthy like junk food.» (Elsa, EO, PAS, Lines: 29-32)

The experience of food as a system of reward is conveyed and it partially conveys the experience of Natalia (Lines: 73-81). For Elsa, the experience of happiness is followed by food consumption. In addition, the sense of achievement appears to be

experienced as interlinked with the consumption of food. The use of the phrase “*even the most extreme*”, when she refers to the consumption of unhealthy food as her reward for achieving to lose a kilo, during the dieting process, conveys her attempt to make sense of her experience that is characterized by cognitive dissonance. As her goal is to lose kilos, the reward of self with junk-food may undermine her efforts regarding dieting. Simultaneously, the excess use of comfort food in the process of reward is emphasized (Elsa, 59-61). Hence, the underlying meaning attributed to junk food and comfort food, as a system of reward, might be the experience of such food as an amplifier of happiness. BED is associated with the consumption of food that is high in fats as well as carbohydrates. The view of such food as rewards [93] may be encompassed by conditioning [72], due to the role of dopamine in the eating behavior [94]. In more detail, certain cues may trigger food-related urges, that are encompassed by the dopaminergic system, due to the meaning that has been attributed to food as a source of pleasure. It is argued that in BED and BN there are alterations in the functioning of the dopaminergic system (e.g. [71]), which may be related to IAS [27], suggesting the epigenetic role of adverse attachment-experiences on the dopaminergic system. Moreover, comfort food is associated with attachment figures [18], as a recurrent symbolic association between the food and the caregiver [17]. The results of a study yield that EO occurs also when a positive emotional state is induced. Yet, these results are not explained by a theoretical framework regarding the underlying factors that cause the behavior to manifest [95]. Considering IMADAS [9], the activation of an insecure attachment system in response to threats may lead to the employment of hyperactivating or deactivating coping strategies. Comfort food may be conceptualized as a hyperactivating strategy, as it constitutes an attachment related cue. In a subsequent review Shaver and Mikulincer [53], portrayed a connection between attachment insecurity and loneliness to further elaborate on their model. The feeling of loneliness may not only exist in threat-related situations but can also exist (attenuated) when positive emotions are present [96]. Even though IMADAS conceptualizes the employment of hyperactivating strategies as a response to threat, it could be argued that this view is rather limited and there is a need to expand the model in order to account for behaviors outside the threat context. Hence, eating comfort food in response to achievement and happiness, as a system of reward, may constitute a hyperactivating strategy and the need to be closer at attachment figures, with the attachment-related closeness being both the missing piece in the experience of happiness and an amplifier of happiness.

Discussion

The present study aimed to convey the lived experience of individuals with IAS that engage in EE by employing IPA. From the seven themes yielded by the process of analysis, the theme of “Coping with emotions” including three subthemes “Coping alone vs communicating”, “The underlying coping mechanisms of emotional eating” and “The systems of reward and punishment” were chosen for further analysis. Almost all participants made sense of EE as a coping strategy that derives from coping alone and not communicating negative emotions. Studies suggest that EE underlies maladaptive coping styles [33,66] with EE being an acquired behavior [48]. The difficulty experienced regarding support-seeking is attributed to either the difficulty of the self to convey emotions as a personality trait, to the nonunderstanding context of others or to the need for self-reliance. Yet, attachment-related experiences as an environmental factor, may resilience innate traits regarding coping styles [47] such as support-seeking. The difficulty in exhibiting support-seeking behaviors is conveyed by all participants, which may derive from attachment-related experiences and the inconsistent responsiveness of attachment figures that shape schemas/expectations regarding interpersonal relationships [8,11,12]. Some participants convey an appraisal of significant others as a mean of coping, whereas others attribute little value to support-seeking behaviors as a coping strategy, which can be explained by the inner working models of others [10]. The underlying pattern of the experience appears to be the internal and external locus of faultiness i.e. the attribution of inhibited support-seeking and emotional expression to a personality trait and the attribution of the experience to the nonunderstanding context of others. Nevertheless, the experience is encompassed by inhibition towards support-seeking behaviors and difficulty regarding emotional expression, which appears to be associated with IAS [13]. Although participants do not directly convey the employment of EU as a mean of communicating negative effect, studies suggest that difficulty regarding emotional expression is associated with self-harming behaviors for the purpose of communicating the emotional state and AN [15,91]. The experience of EO is associated with pleasure and some participants experience happiness. EO is made sense as a mean for alleviating negative emotions, while inducing a positive emotional state. As it is conveyed that EO underlies the avoidance of the source of the negative emotion and simultaneously induces positive emotions, EO is experienced as “hedonic disengagement” ([32] p.7). The present findings are in line with previous studies that suggest emotion-focused and avoidant coping in BED and BN [68]. The association between EO and “hedonic disengagement” may be explained

as the escape from negative self-awareness encompassed by the negative inner working model of self [10,19]. Yet, the role of dopamine in the behavior should not be overlooked, since it induces the feelings of pleasure and happiness [29]. Research indicates the role of adverse attachment-related experiences in the dopaminergic circuits and associates BED with such alterations [27,71]. Therefore, EO may be an attempt to upregulate dopamine levels. On the other hand, EU is made sense as a stress-driven behavior that is induced by stressors in academic or work-related contexts. The meaning attributed to EU is that of self-pressure, with the purposes of increasing productivity and attaining goals. The feelings attached to food in the period of EU consist of indifference. Research appears contradictory to the present finding of EU as a solution focused strategy [34], yet this may be attributed to the conveyance of context-specific coping strategies [35] in the present study. It is suggested that IAS may cause alterations in the HPA-axis and hence the experience of stress [26]. Since caloric restriction may reduce anxiety [80], EU might be a mean to downregulate stress in order to attain goals, as high levels of stress may undermine performance [76]. The neglect of such a vital need, while striving for goal attainment may convey the negative model of self (not being worthy), while anticipating from an external source (work/academia) to provide a sense of worthiness [10]. Simultaneously, the conveyed indifference towards food may be interpreted as an existential indifference and a death-drive [87]. Hence, being overly preoccupied with eating might be a life-drive. From the psychodynamic perspective, overeating constitutes an oral regression due to the unmet need of being fed in childhood (for review [22]), which may imply that EU constitutes a reenactment of the times that feeding needs remained unmet. Ultimately, the notion of prioritizing [73] may have implications for EE as coping strategies, with EU prioritizing the solution of a task and EO prioritizing the emotional state by escaping the source of negative affect.

The meaning attributed to EU is that of self-punishment, whereas EO is made sense as both reward and punishment. More specifically, in EU a dissociative experience regarding the bodily self is conveyed resulting in self-punishment. Literature suggests that the dissociative perspective of the body that can exist in AN [24] may have its roots in adverse-attachment related experience that encompass the sense of the bodily self [25,90]. The conveyance of EO as interlinked with punishment may be interpreted as a superego-drive [89] that induces guilts after the overeating episode [92]. The sense making of EO as a system of reward and the meaning attributed to comfort food as reward may indicate the experience of closeness with attachment figures as reward, since comfort food constitutes an attachment-related cue [18].

The present study addresses an existent gap in research regarding EE and IAS and yields the presence of the MT, a third EE behavior. The rich data produced in the analysis can have implications regarding interventions for EE. Yet, the project was facilitated via internet platforms. Although this may be negligible in quantitative research [37], in qualitative research it may pose a barrier regarding communication. The present quarantine experience might have also contributed to the conveyance of heightened EE experiences. Furthermore, the qualitative nature of the study does not allow generalization of findings such as the experience of EU as a solution focused strategy. Hence, future quantitative studies could investigate the above finding considering context-based and stressor-based variables. Research is also needed to investigate the MT phenomenon, considering the factors that lead to the employment of both EU and EO as responses to different emotions. Finally, future research could explore the predictive power of IAS regarding EE and investigate whether specific IAS result in specific EE behaviors, in order to enhance understanding regarding the implications of IAS in EE.

Conclusion

In conclusion, EE is made sense as the outcome of coping alone. EO is experienced as an avoidant and emotion-focused coping strategy, whereas EU is experienced as a solution-focused strategy. Both EE behaviors are made sense as reward and punishment. Creating interventions for EE appears imperative due to the guilts experienced after overeating, the dissociative experience regarding the bodily self in EU as well as the willingness to seek support but the inability to do so when experiencing negative emotions.

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