

RESEARCH ARTICLE

Feelings of Insecurity: Review of Attachment and Eating Disorders

Henrik Daae Zachrisson^{1,2*} & Finn Skårderud^{1,3}

¹Regional Department for Eating Disorders, Oslo University Hospital, Ullevål, Oslo, Norway

²Norwegian Institute of Public Health, Division of Mental Health, Oslo, Norway

³Lillehammer University College, Lillehammer, Norway

Abstract

Objective: Attachment theory has received increasing attention from clinicians and researchers in the field of eating disorders. This paper is an updated review on theoretical approaches in the field, and of studies employing the Adult Attachment Interview.

Method: We searched the major databases such as PsycInfo and Science Direct for empirical and theoretical studies on attachment and eating disorders, and these are reviewed.

Results: Theoretical approaches on attachment and eating disorders highlight either retrospective, general risk or attachment theoretical statements. There is greater prevalence of insecure attachment in the eating disordered population than in non-clinical samples. However, there is no sufficient evidence to conclude about specific mechanisms for this connection.

Discussion: The theoretical approaches vary in their theoretical grounding, specificity and empirical support. AAI-based research on attachment and eating disorders is still at an early stage. More advanced studies are required for the field to move forward. Copyright © 2010 John Wiley & Sons, Ltd. and Eating Disorders Association.

Keywords

Adult Attachment Interview; anorexia nervosa; attachment; eating disorders; review

*Correspondence

Henrik Daae Zachrisson, Norwegian Institute of Public Health, Division of Mental Health, PO Box 4404 Nydalen, NO-0403 Oslo, Norway.

Tel: +47 23408273; Fax: +47 23408101.

Email: heza@fhi.no

Published online in Wiley InterScience (www.interscience.wiley.com) DOI: 10.1002/erv.999

Introduction

There is a basic assumption in clinical psychology and psychiatry that the quality of close relationships has a significant impact on mental health problems. Attachment theory, originating from John Bowlby's works (e.g. 1969; 1973; 1980) have received increasing attention from clinicians and researchers seeking a relational understanding of eating disorders. There are several reasons for this. Firstly, attachment theory today integrates empirically testable constructs and scienti-

fically solid measures with clinically meaningful constructs. Secondly, based on such research possibilities, today there is rather robust empirical evidence linking the quality of attachment to mental health problems (Dozier, Stovall-McClough, & Albus, 2008). Thirdly, attachment theory integrates ideas from different psychotherapeutic traditions, like psychoanalysis (e.g. Fonagy, 1998), cognitive therapy (e.g. Liotti & Pasquini, 2000) and family therapy (e.g. Kozłowska & Hanney, 2002). Finally, this multidisciplinary grounding of the theory provides a tool for understanding the interaction

of individual and family characteristics (Hill, Fonagy, Safier, & Sargent, 2003) that is so necessary for clinical work with anorexia nervosa.

A considerable number of papers addressing the topic of attachment and eating disorders have been published over the last two decades, including two reviews. The first of these (O'Kearney, 1996) covers theory and empirical findings until 1995, and includes 10 studies. The latter of these (Ward, Ramsay, & Treasure, 2000a) covers empirical findings only, published until 1999, and includes 25 studies. Ward et al. do not discuss theoretical developments in this period. We provide an update on theoretical and empirical contributions in the field, including a critical discussion of its current status.

Background

Introduction to attachment theory

Attachment theory can in its simplest form be summarised as a theory about the individual's organisation of self-protective strategies in an interpersonal context (Crittenden, 1999). The concept of *attachment* refers to a motivational behavioural system that is activated when the individual feels threatened. When the attachment system is activated, the individual seeks safety and comfort from specific persons who are stronger and wiser (Bowlby, 1969; Sroufe & Waters, 1977). During childhood this usually are the parents, during adolescence and early adulthood romantic partners and peers gradually take over some of this function (Bowlby, 1973).

Sroufe and Waters (1977) argued that attachment is an *organisational construct*. This means that the individual organises thoughts and behaviour in order to maintain a *feeling of security* from the attachment figure. They specified that the attachment system does not activate 'automatic' responses. Instead, the attachment system directs goal-corrected behaviour. The *function* of this behaviour is to maintain a feeling of security. Thus, it is not the behaviour in itself that is important, but the function of the behaviour. The same behaviour can have different functions depending on the contexts. This means that the attachment concept refers to strategies employed by the individual with the explicit function of eliciting safety and comfort in an interpersonal context. The organisational perspective is crucial in considering how the attachment system influences behavioural responses.

Attachment theory is based on the theoretical proposition that the individual has an 'internal working model' of the availability of the attachment figure (Bowlby, 1969). Main, Kaplan, and Cassidy (1985) defined these internal working models as 'a set of conscious and/or unconscious rules for the organisation of information relevant to attachment and for obtaining or limiting access to that information' (pp. 66–67). The individual forms' expectations of attachment experiences in the future, based on earlier experiences (Bowlby, 1969). As such, internal working models serve a protective function on two levels. Firstly, they organise behaviour from an expectation of the physical and psychological protection given by an attachment figure. Secondly, when the attachment figure does not offer adequate protection or comfort, they maintain a feeling that the individual is loved and protected, in contrast to reality.

A substantial amount of research has linked the quality of attachment to mental health problems (Dozier et al., 2008). Clinical groups are characterised by a greater prevalence of insecure attachment patterns than non-clinical samples. Insecure patterns are those developed to maintain a feeling of safety and comfort when attachment figures are experienced as unpredictable or inconsistent.

In relation to the topic of attachment in studies on eating disorders, the pertinent question to be addressed in the literature review is: In what way is attachment empirically and theoretically related to eating disorders?

Measurement of attachment in adolescents and adults

Attachment in adolescence and adulthood is measured with questionnaires and interviews (Crowell, Fraley, & Shaver, 2008). These two type of measures are in general in very low agreement (Roisman, Holland, Fortuna, Fraley, Clausell, & Clarke, 2007). We restrict this review to studies using the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1984; see Hesse, 2008, for review). The AAI is closely linked with the Bowlby tradition in attachment theory, is the best validated attachment measure for adolescents and adults (Hesse, 2008) and is considered as the 'gold standard' attachment measure (Stein, Jacobs, Ferguson, Allen, & Fonagy, 1998). The AAI is a narrative about childhood addressing both general representations of the attachment relationships, and specific episodes providing 'evidence' for the general statements. Interview protocols are transcribed

and classified according to a coding system addressing the coherence of the discourse (Main & Goldwyn, 1984). The categories into which the AAI may be coded are presented in Box 1. Even though the AAI explicitly addresses childhood memories, it is *not* a retrospective measure (e.g. van Ijzendoorn, 1995b). Because the focus of the coding systems is on discourse and not history, the AAI is intended to measure the speaker's *current state of mind with respect to attachment*, not the quality of past attachment relationships.

'eating disorders', 'anorexia nervosa' and 'bulimia nervosa' resulting in 262 works. These were manually sorted according to the following inclusion criteria: English language, published as journal article or book chapter, addressing functional or aetiological aspects of eating disorders (excluding e.g. articles on psychotherapeutic technique) and addressing attachment within the Bowlby tradition (excluding e.g. articles on object relations). This sorting resulted in 26 relevant articles, in addition to two literature reviews. In addition three

Box 1. Summary of the main attachment patterns classified in the AAI, with inferred working models and discourse qualities found in the interview.

Attachment pattern	Inferred working model (Main et al., 1985; Hesse, 2008)	Discourse characteristics in the AAI (Hesse, 2008)
F Secure/ Autonomous	Experiences of attachment figures as available and predictable	Coherent discourse. Balanced regarding positive and negative experiences, but valuing of the relationships
Ds Dismissing	Experiences of attachment figures as rejecting and unavailable. Compensates for this by idealisation and/or distancing and derogation	Brief and incoherent discourse. Dismissing with regard to attachment relationships and experiences. Favourable generalised descriptions of attachment figures, not substantiated by examples. Avoids emotional aspects of relationship, and talks about relationships in third person or by omitting 'I' from the sentence
E Preoccupied/ Entangled	Experiences of attachment figures as unavailable and unpredictable. Compensates for this by anger and coercion, or by complaint and passivity	Incoherent and involving discourse. Active negative emotional activation during interview, and colludes with the interviewer against the parent. The discourse has a passive quality, often long unstructured sentences with affectively laden content
U Unresolved/ Disorganised	Inability to organise strategically to maintain a feeling of security when describing particular traumatic experiences	Lapses in monitoring and reasoning in the discourse. These are often with regard to time and space, for instance dead people become alive, or infants actively causing impossible things to happen
CC Cannot rate	Combines qualities of the dismissing and preoccupied working models	Combines qualities of the dismissing and preoccupied discourses

A number of approaches for coding the AAI supplementary to the standard Main and Goldwyn (1984; see Hesse, 2008 for review) have been published. Comparisons of these approaches are currently lacking. In this review, we therefore include findings based on various approaches without making detailed inferences across methods.

Method

Search strategy

We searched the databases PsycInfo and Science Direct (primo October 2009), using combinations of the key words 'attachment', 'Adult Attachment Interview',

articles were tracked based on references in the reviewed articles.

These 29 articles are included in the theoretical literature review. Of these articles, nine were empirical articles employing the AAI. These papers are included in the theoretical review and in addition subjected to an empirical literature review.

Results

Theoretical literature review

We reviewed all articles for their main theoretical proposal on the association between attachment and eating disorders. These proposals could be organised

under three main headings, which we denote as *the retrospective approach*, *the general risk approach* and *the attachment theoretical approach*, respectively. In the following these will be addressed in turn, with primary attention to the attachment approach.

Retrospective approach

The core proposal of the retrospective approach can be summarised by a statement from Ramacciotti, Sorbello, Pazzagli, Vismara, Mancone, and Pallanti, (2001): 'It can (...) be supposed that the lack of self-confidence and insecurity which pervade the personality of anorexics and bulimics may depend on relationships experienced in childhood'. In other words, these authors suggest a general link between early disturbances in parent-child relationships and eating disorders in adulthood. Further, they assume that these early disturbances can be detected through measurements of adults with eating disorders. This category includes those papers that theoretically refer to psychoanalytical concepts and models. Our review found nine representatives of this retrospective approach (Barone & Guiducci, 2009; Chassler, 1997; Latzer, Hochdorf, Bachar, & Canetti, 2002; Pearlman, 2005; Ramacciotti et al., 2001; Salzman, 1997; Sharpe et al., 1998; Troisi, Di Lorenzo, Alcini, Nanni, Di Pasquale, & Siracusano, 2006; Troisi, Massaroni, & Cuzzolaro, 2005).

General risk approach

The general risk factor approach highlights the contemporaneous association between insecure attachment and eating disorders, as can be exemplified by Broberg, Hjalmer, and Nevenon (2001): 'Taken together, the available data suggest that insecure attachments are common in women with eating disorders'. In general, these studies do not specify in any detail mechanisms for this association, nor specificity with regard to particular types of attachment insecurity or eating disorder symptoms. Thus, these studies do not provide specific hypotheses about how or why attachment insecurity relates to eating disorders, but highlight the high prevalence of measured insecure attachment among people with eating problems and eating disorders. Our review found 12 representatives of this general risk factor approach (Armstrong & Roth, 1989; Broberg et al., 2001; Burge et al., 1997; Elgin & Pritcgard, 2006; Fonagy et al., 1996; Gutzwiller, Oliver, & Katz, 2003; Hochdorf, Latzer, Canetti, & Bachar, 2005; Kenny & Hart, 1992; Mallinckrodt, McCreary, &

Robertson, 1995; Miljkovitch, Pierrehumbert, Karmaniola, Bader, & Halfon, 2005; Tasca, Kowal, Blafour, Ritchie, Virley, & Bissada, 2006; Ward, Ramsay, Turnbull, Benedettini, & Treasure, 2000b).

Attachment theoretical approach

The attachment theoretical approach asserts a number of hypotheses relating specific aspects of attachment theory to eating disorders. As these relate specifically to attachment theory, they will be reviewed in some detail. Several authors consider eating disorder symptoms to be *direct expressions* of the psychological and emotional processes constituting these attachment patterns (Candelori & Ciocca, 1998; Cole-Detke & Kobak, 1996; Ringer & Crittenden, 2007; Zachrisson & Kulbåtten, 2006). For instance, restricting behaviour is conceived as an expression of distancing from the self, a core characteristic of the dismissing attachment pattern. In contrast, bulimic behaviour is proposed to be an expression of the unregulated affects characteristic of the preoccupied pattern. In Cole-Detke and Kobak's (1996) formulation, eating disorders are linked with the dismissing pattern, whereas depression is linked with the preoccupied pattern.

There are other attachment theoretical approaches. Orzolek-Kronner (2002) suggests eating disorders to be expressions of re-enacted proximity-seeking behaviour. Proximity seeking was initially described by Bowlby (1969) as one of the main types of attachment behaviour in children. Ward, Ramsay, Turnbull, Steele, Steele, and Treasure (2001) hypothesises that there is a 'transgenerational transmission' of attachment patterns from mother to daughter. In addition to hypothesising specific links between attachment patterns and eating disorder symptoms, Ringer and Crittenden (2007) suggest that hidden family conflicts in the parent's relationship and parents' histories of trauma cause the development of insecure attachment patterns and eating disorders.

Two recent articles suggest mediating models, addressing the mechanism through which attachment influences eating disorders. The first of these (Bamford & Halliwell, 2009) suggests that women with insecure attachment are more prone for comparing themselves with idealised others, making them more vulnerable for eating disorders. The second article (Tasca et al., 2009) suggests attachment to influence affect regulation strategies, which in turn influence eating disorders.

Empirical literature review

The nine studies included in the empirical literature review comprise a variety of approaches for analysing the AAI. Furthermore, the studies differ with regard to the diagnostic group included, the diagnostic tools used and reporting as well as type of comorbidity in the sample. The results are therefore not empirically comparable, but rather give an impression of the distribution of attachment patterns in eating disorders. An overview of these studies can be seen in Table 1.

These studies have a total n of 233. Of these, subtype of eating disorder or eating problem was not specified in 45 subjects (Cole-Detke & Kobak, 1996; Fonagy et al., 1996). The preoccupied classification was most common among those with unspecified eating disorder symptoms with comorbid depressive symptoms in Cole-Detke and Kobak's study (1996), and those in Fonagy et al.'s (1996) study. The dismissing classification was most common among those without comorbid depressive symptoms in Cole-Detke and Kobak's study (1996). Fourty-six subjects were reported to have bulimia nervosa (Candelori & Ciocca, 1998; Ringer & Crittenden, 2007). Among these, the preoccupied classification was by far the most common, except in the Barone and Guiducci (2009) study, where the dismissing and cannot classify categories were predominant. Further, 121 of the total population are specifically diagnosed with anorexia, differentiating between the diagnostic subgroups of restricting and bingeing anorexia. The distribution is relatively even across the insecure subgroups, including the 'other' group (see Table 1), yet with a tendency of the dismissing category being more prevalent in the restricting subgroup. In general, the prevalence of the secure classification is low across diagnostic subgroups.

Discussion

In this paper, we review theoretical and empirical studies of attachment and eating disorders. Of the 262 articles we identified as eligible to our broad search criteria, only 29 were specifically addressing functional or aetiological aspects of the topic. Only nine employed the AAI. We identified three main theoretical approaches linking attachment with eating disorders: the retrospective approach, the general risk approach and the attachment theoretical approach. The nine AAI-based studies comprise 233 subjects with eating disorder diagnoses or symptoms. Attachment insecure-

ity was very frequent in these studies. Attachment preoccupation was most prevalent among subjects with the diagnosis of, or symptoms of, bulimia nervosa. Attachment dismissal was somewhat more common than other classifications among subjects with the restricting subtype of anorexia nervosa. In other diagnostic subgroups, the attachment classifications were distributed evenly among the insecure ones.

In the following, we will first discuss strengths and limitations of, as well as the evidence for, each of the theoretical approaches identified. Secondly, we will discuss the current status quo of AAI studies on eating disorders.

The retrospective approach

The retrospective approach meets theoretical and empirical challenges. Firstly, the retrospective stance is hard to integrate with current attachment methodology. As was stated very clearly by van IJzendoorn (1995b), attachment measures cannot be expected to be retrospective measures. Retrospective hypothesising in general is faced with major methodological challenges. Secondly, the expectation of developmental stability attachment pattern from infancy to early adulthood is very doubtful. As reviewed out by Zachrisson (2005) and Fraley (2002), the evidence for such continuity is modest. It seems rather that instability in attachment patterns is the quite frequent due to developmental changes and that stability in general is moderate in at-risk populations and in some normal populations (Lewis, Feiring, & Rosenthal, 2000).

Hence, a longitudinal approach to understanding attachment and eating disorders seems warranted (O'Kearney, 1996). We consider the retrospective approach to be contaminated with limitations that makes it add little to our understanding of this topic.

General risk approach

The general risk approach is at one level the best empirically supported theoretical approach. The results reviewed in Table 1 support the notion that subjects with eating disorders are likely to be classified with insecure attachment. Yet, this provides little more than a general support to the clinical impression that there is something problematic in the close relationships of patients diagnosed with eating disorders. The general

Table 1 Distribution of attachment patterns derived from published studies using the Adult Attachment Interview, within diagnostic categories of eating disorders

Study	N	Diagnoses	Attachment pattern (%)							Coding system	Sample characteristics
			D	F	E	C/U	U	F	E		
(Fonagy et al., 1996)	14	ED	29	7	64	93*			Main and Goldwyn†	Part of British general psychiatric sample. Comorbidity not reported. Diagnostic interviews	
(Cole-Detke & Kobak, 1996)	12	ED	67	25	8				Kobak‡	US undergraduate students. Includes study of comorbidity.	
(Salzman, 1997)	19	ED + depr.	26	21	53					Questionnaire-based diagnoses	
(Candelori & Ciocca, 1998)	7	AN	100						Self-made	US college students. Diagnostic procedure unclear	
	12	AN-R	58	17	8	17			Main and Goldwyn†	Italian ED patients. Comorbidity and diagnostic procedure unknown.	
	12	AN-B	8	17	50	25				50% males	
	12	BN	8	17	67	8					
(Ramacciotti et al., 2001)	6	AN-R	33	17	50				Main and Goldwyn†	Italian ED outpatients. No comorbidity. Diagnostic interviews	
	5	AN-B	20	60	20						
	2	EDINOS	100								
(Ward et al., 2001)	6	AN-R	83		17	17*			Main and Goldwyn†	British inpatients. Comorbidity and diagnostic procedure unknown	
	14	AN-B	72	7	21	50					
(Ringer & Crittenden, 2007)	20	AN-R	15	0	35	50†			DMM‖	Mixed Australian clinical and community sample. Comorbidity and diagnostic procedure unknown	
	16	AN-B	26	0	37	37					
	26	BN	4		69	27					
(Zachrisson & Kulbåtten, 2006)	11	AN-R	45	0	18	37			DMM‖	Danish in- and outpatients. Comorbidity unknown, but psychiatric symptoms are reported. Diagnostic interviews	
	9	AN-B	22	0	45	33				Italian outpatients. Comorbidity unknown. Diagnoses by expert clinicians	
(Barone & Guiducci, 2009)	10	AN	30	30	40			40			
	10	BN		50				30			
	10	BED		70							

* The U category is used supplementary to the other categories.

† Crittenden's Dynamic Maturational Method classifies combinations of Type D and Type E patterns in a separate category, called Type A/C. This is in broad terms similar to the Cc category, but not overlapping. Ringer and Crittenden (2005) claim that many AAI classified as Type D or Type E according to the DMM would be classified as Cc according to the Main and Goldwyn method.

‡ (Main & Goldwyn, 1984)

§ (Kobak, 1993).

‖ (Crittenden, 2002).

risk approach does not specify how or why attachment is related to eating disorders, and therefore provides limited contribution to our understanding of this topic beyond what is already known.

Attachment theoretical approach

Within this category we identified five different subcategories of attachment theoretical hypotheses in the literature: (1) those conceiving eating disorder symptoms as direct expressions of attachment patterns; (2) eating disorders as proximity seeking; (3) the trans-generational transmission; (4) the hidden family processes and (5) meditational models. We will comment briefly on each of these.

According to hypothesis 1, the idea of eating disorder symptoms as direct expressions of attachment patterns is grounded in attachment theory. This is either by viewing symptoms of mental health problems as attachment behaviour (Crittenden, 1995; Greenberg, 1999), or by the idea that the strategies for handling stress-related cues in the AAI also may direct the mental processing of other stress-related cues (Kobak & Ferenzillies, 1995). It is to some extent empirically supported with respect to the two diagnostic categories bulimia and anorexia with particular reference to the restricting subtype. However, there is lack of support for this idea in the diagnostic group anorexia, bingeing subtype and the heterogeneous subgroups.

According to hypothesis 2, Orzolek-Kronner (2002) suggests that eating disorders serves a particular function, namely that they are expressions of re-enacted proximity-seeking behaviour. Although being grounded in a core construct of attachment theory, this hypothesis is unspecific and thereby difficult to test with current attachment methodology.

According to hypothesis 3 (Ward et al., 2001), there is a trans-generational transmission of attachment patterns from mother to daughter is based on research showing concordances between the mother's and infant's attachment pattern. Insecure attachment patterns in the anorexia populations should be explained from the attachment patterns of their mothers. There is evidence for stability across generations, in particular in low risk samples (van Ijzendoorn, 1995a). Although, as stated above, there is no necessary evidence for the stability in attachment patterns across the lifespan. The premises for Ward et al.'s (2001) hypothesis may therefore be questionable.

According to hypothesis 4, Ringer and Crittenden (2007) provide a family systems perspective on the role of attachment in eating disorders, suggesting that hidden family conflicts in the parent's relationship and parents' histories of trauma cause the development of insecure attachment patterns and eating disorders. To our knowledge, there is little validation work justifying a hypothesis of causality based on qualitative interpretations of a family systems approach to the AAI narrative. Although potentially enriching clinical material, this hypothesis is speculative.

According to hypothesis 5, the influence of attachment on eating disorders is indirect, operating through a third variable. Affect regulation is suggested by Tasca et al. (2009) to be one such mechanism, which is in accordance with general attachment theory (Sroufe, 1995). Bamford and Halliwell (2009) suggest attachment to influence on young women's propensity for troublesome comparisons with others. This is a potentially fruitful extension of attachment theory, but yet to be examined in studies employing the AAI.

Concluding remarks about theoretical approaches

There is currently no strong support for any of the theoretical models, beyond the unspecific general risk model. We will also remind of the ethical challenges in describing and interpreting the connections between attachment and psychopathology. This is due to the great risk of 'blaming the parents'. The attachment construct concerns the patient's experience and meaning-making of parental behaviour, not their parenting *per se*. In spite of this, the actual comprehension of the messages might be that parents and close persons feel accused of being responsible for the patient's development of the psychopathology. The history of different clinical traditions, like psychoanalytic practices and family therapy, is sad and ethically most problematic in the sense of guilt induction and causal accusations based on weak scientific basis. This has particularly meant blaming the mother.

Hence, working in this field means an extra awareness of such ethical issues. And particularly single pathways and isomorphic models are at risk of stimulating ideas of causal mechanisms based on scientific short cuts (e.g. Ringer & Crittenden, 2007). Our scepticism regards that such typologies, although possibly relevant for concrete clinical cases and for

therapeutic encounters, as causal models might operate on a too high level of specificity.

Concluding remarks about AAI-based studies

The studies reviewed here demonstrate the current status of AAI-based research on eating disorders. They provided a scattered empirical picture of attachment and eating disorders. These studies are challenging to conduct, because they combine time-consuming methods with a study population that is not easily accessible. In the study of anorexia nervosa, the low prevalence of the disorder also contributes to this.

Hence, we consider the current status of AAI-based research with reference to eating disorders to be in an early stage. In order to provide a database from which we can advance in our understanding of this topic, we need not only larger samples, but also more well-described samples, making comparisons and meta-analyses possible. Homogeneous use of method for coding the AAI would also contribute to this. The current status of AAI-based research is that there is documentation of connections between attachment insecurity and eating disorders, but we are still in a phase where there are more questions than answers about attachment and eating disorders.

References

- Armstrong, J. G., & Roth, D. M. (1989). Attachment and separation difficulties in eating disorders - A preliminary investigation. *International Journal of Eating Disorders*, *8*, 141–155. DOI: 10.1002/1098-108X(198903)8:2<141::AID-EAT2260080203>3.0.CO;2-E.
- Bamford, B., & Halliwell, E. (2009). Investigating the role of attachment in social comparison theories of eating disorders within a non-clinical female population. *European Eating Disorders Review*, *17*, 371–379. DOI: 10.1002/erv.951.
- Barone, L., & Guiducci, V. (2009). Mental representations of attachment in eating disorders: A pilot study using the Adult Attachment Interview. *Attachment & Human Development*, *11*, 405–417. DOI: 10.1090/14616730902814770.
- Bowlby, J. (1969). *Attachment and loss*, Vol. 1: Attachment. London: Pimlico.
- Bowlby, J. (1973). *Attachment and loss*, Vol. 2: Separation. Anger and anxiety. London: Pimlico.
- Bowlby, J. (1980). *Attachment and loss*, Vol. 3: Loss. Sadness and depression. London: Pimlico.
- Broberg, A. G., Hjalmer, I., & Nevoen, L. (2001). Eating disorders, attachment and interpersonal difficulties: A comparison between 18- to 24- year-old patients and normal controls. *European Eating Disorders Review*, *9*, 381–396. DOI: 10.1002/erv.421.
- Burge, D., Hammen, C., Davila, J., Daley, S. E., Paley, B., & Lindberg, N., et al. (1997). The relationship between attachment cognitions and psychological adjustment in late adolescent women. *Development and Psychopathology*, *9*, 151–167.
- Candelori, C., & Ciocca, A. (1998). Attachment and eating disorders. In P. Bria, A. Ciocca, & S. de Risio (Eds), *Psychotherapeutic issues on eating disorders* (pp. 139–153). Rome: Societa Editrice Universo.
- Chassler, L. (1997). Understanding anorexia nervosa and bulimia nervosa from an attachment perspective. *Clinical Social Work Journal*, *25*, 407–423.
- Cole-Detke, H., & Kobak, R. (1996). Attachment processes in eating disorder and depression. *Journal of Consulting and Clinical Psychology*, *64*, 282–290. DOI: 10.1037/0022-006X.64.2.282.
- Crittenden, P. M. (1995). Attachment and psychopathology. In S. Goldber, & R. Muir, & J. Kerr (Eds), *Attachment theory. Social, developmental, and clinical perspectives* (pp. 367–406). Hillsdale, NJ: Analytic Press.
- Crittenden, P. M. (1999). Danger and development: The organisation of self-protective strategies. *Monographs of the Society for Research in Child Development, Serial No.258*, *64*, 145–171.
- Crittenden, P. M. (2002). Patterns of attachment in adulthood: A dynamic-maturation approach to analyzing *The Adult Attachment Interview*. Unpublished manuscript.
- Crowell, J., Fraley, R. C., & Shaver, P. R. (2008). Measurement of individual differences in adolescent and adult attachment. In J. Cassidy, & P. R. Shaver (Eds), *Handbook of attachment. Theory, research, and clinical implications* (2nd ed.) (pp. 599–635). New York and London: The Guilford Press.
- Dozier, M., Stovall-McClough, C., & Albus, K. E. (2008). Attachment and psychopathology in adulthood. In J. Cassidy, & P. R. Shaver (Eds), *Handbook of attachment. Theory, research, and clinical implications* (2nd ed.) (pp. 718–744). New York and London: The Guilford Press.
- Elgin, J., & Pritcgard, J. (2006). Adult attachment and disordered eating in undergraduate men and women. *Journal of College Student Psychotherapy*, *21*, 25–40.
- Fonagy, P. (1998). An attachment approach to treatment of the difficult patient. *Bulletin of the Menninger Clinic*, *62*, 147–169.
- Fonagy, P., Leigh, T., Steele, M., Steele, H., Kennedy, R., & Mattoon, G., et al. (1996). The relation of attachment status, psychiatric classification, and response to

- psychotherapy. *Journal of Consulting and Clinical Psychology*, 64, 22–31. DOI: 10.1037/0022-006X.64.1.22.
- Fraley, R. C. (2002). Attachment stability from infancy to adulthood: Meta-analysis and dynamic modeling of developmental mechanisms. *Personality and Social Psychology Review*, 6, 123–151. DOI: 10.1207/S15327957PSPR0602_03.
- George, C., Kaplan, N., & Main, M. (1984). Adult Attachment Interview protocol. *Unpublished manuscript*.
- Greenberg, M. T. (1999). Attachment and psychopathology in childhood. In J. Cassidy, & P. R. Shaver (Eds.), *Handbook of attachment. Theory, research, and clinical applications* (pp. 469–496). New York: The Guilford Press.
- Gutzwiller, J., Oliver, J. M., & Katz, B. M. (2003). Eating dysfunction in college women: The roles of depression and attachment to fathers. *Journal of American College Health*, 52, 27–32.
- Hesse, E. (2008). The Adult Attachment Interview: Protocol, method of analysis, and empirical studies. In J. Cassidy, & P. R. Shaver (Eds.), *Handbook of attachment. Theory, research, and clinical implications* (2nd ed.) (pp. 552–598). New York and London: The Guilford Press.
- Hill, J., Fonagy, P., Safier, E., & Sargent, J. (2003). The ecology of attachment in the family. *Family Process*, 42, 205–221. DOI: 10.1111/j.1545-5300.2003.42202.x.
- Hochdorf, Z., Latzer, Y., Canetti, L., & Bachar, E. (2005). Attachment styles and attraction to death: Diversities among eating disorder patients. *American Journal of Family Therapy*, 33, 237–252.
- Kenny, M. E., & Hart, K. (1992). Relationship between parental attachment and eating disorders in an inpatient and a college sample. *Journal of Counseling Psychology*, 39, 521–526. DOI: 10.1037/0022-0167.39.4.521.
- Kobak, R. R. (1993). The attachment Q-sort. *Unpublished manuscript*.
- Kobak, R. R., & Ferenzgillies, R. (1995). Emotion regulation and depressive symptoms during adolescence - A functionalist perspective. *Development and Psychopathology*, 7, 183–192.
- Kozłowska, K., & Hanney, L. (2002). The network perspective: An integration of attachment and family systems theories. *Family Process*, 41, 285–312. DOI: 10.1177/1359104509104048.
- Latzer, Y., Hochdorf, Z., Bachar, E., & Canetti, L. (2002). Attachment style and family functioning as discriminating factors in eating disorders. *Contemporary Family Therapy*, 24, 581–600.
- Lewis, M., Feiring, C., & Rosenthal, S. (2000). Attachment over time. *Child Development*, 71, 707–720. DOI: 10.1037/1522-3736.4.1.
- Liotti, G., & Pasquini, P. (2000). Predictive factors for borderline personality disorder: Patients' early traumatic experiences and losses suffered by the attachment figure. The Italian Group for the Study of Dissociation. *Acta Psychiatrica Scandinavica*, 102, 282–289. DOI: 10.1034/j.1600-0447.2000.102004282.x.
- Main, M., & Goldwyn, R. (1984). Adult attachment scoring and classification system. *Unpublished manuscript*.
- Main, M., Kaplan, N., & Cassidy, J. (1985). Security in infancy, childhood, and adulthood: A move to the level of representation. *Monographs of the Society of Research in Child Development*, 50, 66–104.
- Mallinckrodt, B., McCreary, B. A., & Robertson, A. K. (1995). Cooccurrence of eating disorders and incest - The role of attachment, family environment, and social competences. *Journal of Counseling Psychology*, 42, 178–186. DOI: 10.1037/0022-0167.42.2.178.
- Miljkovitch, R., Pierrehumbert, B., Karmaniola, A., Bader, M., & Halfon, O. (2005). Assessing attachment cognitions and their associations with depression in youth with eating or drug misuse disorders. *Substance Use & Misuse*, 40, 605–623.
- O'Kearney, R. (1996). Attachment disruption in anorexia nervosa and bulimia nervosa: A review of theory and empirical research. *International Journal of Eating Disorders*, 20, 115–127.
- Orzolek-Kronner C. (2002). The effect of attachment theory in the development of eating disorders: Can symptoms be proximity-seeking. *Child and Adolescent Social Work Journal*, 19, 421–435.
- Pearlman, E. (2005). Terrors of desire: The etiology of eating disorders from an attachment theory perspective. *Psychoanalysis and the Psychoanalytic Review*, 92, 223–235.
- Ramacciotti, A., Sorbello, M., Pazzagli, A., Vismara, L., Mancone, A., & Pallanti, S. (2001). Attachment processes in eating disorders. *Eating and Weight Disorders*, 6, 166–170.
- Ringer, F., & Crittenden, P. M. (2007). Eating disorders and attachment: The effects of hidden family processes on eating disorders. *European Eating Disorders Review*, 15, 119–130. DOI: 10.1002/erv.761.
- Roisman, G. I., Holland, A., Fortuna, K., Fraley, R. C., Clausell, E., & Clarke, A. (2007). The adult attachment interview and self-reports of attachment style: An empirical rapprochement. *Journal of Personality and Social Psychology*, 92, 678–697. DOI: 10.1037/0022-3514.92.4.678.
- Salzman, J. P. (1997). Ambivalent attachment in female adolescents: Association with affective instability and eating disorders. *International Journal of Eating Disorders*, 21, 251–259. DOI: 10.1002/(SICI)1098-108X(199704)21:3<251::AID-EAT5>3.0.CO;2-J.
- Sharpe, T. M., Killen, J. D., Bryson, S. W., Shisslak, C. M., Estes, L. S., & Gray, N., et al. (1998). Attachment style and

- weight concerns in preadolescent and adolescent girls. *International Journal of Eating Disorders*, 23, 39–44. DOI: 10.1002/(SICI)1098-108X(199801)23:1<39::AID-EAT5>3.0.CO;2-2.
- Sroufe, L. A. (1995). *Emotional development. The organization of emotional life in the early years*. Cambridge: Cambridge University Press.
- Sroufe, L. A., & Waters, E. (1977). Attachment as an organizational construct. *Child Development*, 48, 1184–1199.
- Stein, H., Jacobs, N. J., Ferguson, K. S., Allen, J. G., & Fonagy, P. (1998). What do adult attachment scales measure? *Bulletin of the Menninger Clinic*, 62, 33–82.
- Tasca, G. A., Kowal, J., Blafour, L., Ritchie, K., Virley, B., & Bissada, H. (2006). An attachment insecurity model of negative affect among women seeking treatment for an eating disorder. *Eating Behaviors*, 7, 252–257. DOI: 10.1016/j.eatbeh.2005.09.004.
- Tasca, G. A., Szadkowski, L., Illing, V., Trinneer, A., Grenon, R., & Demidenko, N., et al. (2009). Adult attachment, depression, and eating disorder symptoms: The mediating role of affect regulation strategies. *Personality and Individual Differences*, 47, 662–667. DOI: 10.1016/j.paid.2009.06.006.
- Troisi, A., Di Lorenzo, G., Alcini, S., Nanni, R. C., Di Pasquale, C., & Siracusano, A. (2006). Body dissatisfaction in women with eating disorders: Relationship to early separation anxiety and insecure attachment. *Psychosomatic Medicine*, 68, 449–453. DOI:10.1097/01.psy.0000204923.09390.5b.
- Troisi, A., Massaroni, P., & Cuzzolaro, M. (2005). Early separation anxiety and adult attachment style in women with eating disorders. *British Journal of Clinical Psychology*, 44, 89–97. DOI: 10.1348/014466504X20053.
- van Ijzendoorn, M. H. (1995a). Adult Attachment Representations, Parental Responsiveness, and Infant Attachment: A Meta-Analysis on the Predictive Validity of the Adult Attachment Interview. *Psychological Bulletin*, 117, 387–403. DOI: 10.1037/0033-2909.117.3.387.
- van Ijzendoorn, M. H. (1995b). Of the way we are: On temperament, attachment, and the transmission gap: A rejoinder to Fox (1995). *Psychological Bulletin*, 117, 411–415. DOI: 10.1037/0033-2909.117.3.411.
- Ward, A., Ramsay, R., & Treasure, J. (2000a). Attachment research in eating disorders. *British Journal of Medical Psychology*, 73(Pt 1), 35–51.
- Ward, A., Ramsay, R., Turnbull, S., Benedettini, M., & Treasure, J. (2000b). Attachment patterns in eating disorders: Past in the present. *International Journal of Eating Disorders*, 28, 370–376. DOI: 10.1002/1098-108X(200012)28:4<370::AID.-EAT4>3.0.CO;2-P.
- Ward, A., Ramsay, R., Turnbull, S., Steele, M., Steele, H., & Treasure, J. (2001). Attachment in anorexia nervosa: A transgenerational perspective. *British Journal of Medical Psychology*, 74 Part 4, 497–505.
- Zachrisson, H. D. (2005). Stabilitet og forandring i tilknytningsmønster [Stability and change in attachment patterns]. *Nordisk Psykologi*, 57, 303–322.
- Zachrisson, H. D., & Kulbåtten, G. R. (2006). Attachment in Anorexia Nervosa: An exploration of associations with eating disorder psychopathology and psychiatric symptoms. *Eating and Weight Disorders*, 11, 163–170.