Full Research Report

JSPR

Journal of Social and Personal Relationships
1–18

DOI: 10.1177/0265407521990432
journals.sagepub.com/home/spr
SAGE

Romantic attachment and support preferences in new mothers: The moderating role of stress

Saul McLeod
Katherine Berry
Peter Taylor
Alison Wearden
The University of Manchester, UK

Abstract

In the present research, we examined whether attachment anxiety and avoidance in support recipients were related to preferences for specific types of support. In addition, we examined whether stress moderated the relationship between attachment and support needs. Two-hundred and forty-five first-time mothers, currently involved in romantic relationships, participated in study 1, in which support needs and stress were appraised over the previous month using self-reports. High levels of attachment avoidance were related to needing less support, but attachment anxiety was not associated with support needs. There was no hyperactivation or deactivation of the attachment system in response to stress. It is possible that recall bias, associated with cross-sectional methods, may have confounded the results. In study 2, we sought to replicate these hypotheses using an ambulatory method to examine the association between attachment and momentary support needs in the daily life of mothers with babies ($N = 40$). Results revealed that attachment anxiety was associated with a preference for high levels of momentary support, but attachment avoidance was not related to any support needs. Stress experienced in the moment was found to moderate the relationships between attachment and support needs, with mothers high in anxiety and avoidance needing more support.

Corresponding author:
Saul Mcleod, Division of Psychology and Mental Health, The University of Manchester, 2nd Floor, Zochonis Building, Brunswick Street, Manchester M13 9PL, UK.
Email: saul.mcleod@manchester.ac.uk

Keywords
Attachment, experience sampling, romantic couples, social support, stress, transition to parenthood

Attachment theory posits that individuals possess an attachment behavioral system responsible for facilitating attachment-related behavior, which functions to establish feelings of felt-security in response to stressful and threatening events (Bowlby, 1982; Bretherton, 1985). Through interactions with attachment figures during childhood and adolescence individuals develop generalized beliefs regarding the likelihood that significant others will provide care and support in times of need, and regarding the extent to which one deems their self worthy of love and support. Cognitions relating to the self and others form part of a person's internal working model of attachment, which also comprise security-based strategies through which a person can use to explicitly regulate stress (Bowlby, 1973; Bretherton & Munholland, 1999). Working models of attachment not only provide optimal strategies for restoring felt-security, they also comprise both implicit and explicit expectations regarding the extent to which significant others can be depended on to provide care in times of need (Baldwin et al., 1993; Bowlby, 1973).

Adult attachment behavior derives from two principal dimensions; attachment anxiety measures the extent individuals worry about being rejected by their partner, while attachment avoidance is concerned with perceptions of responsiveness and reliability in others (Brennan et al., 1998). Individuals low in attachment anxiety and avoidance are labeled secure, and view themselves as being worthy of care from others, and they perceive attachment figures as being reliable and effective caregivers.

The attachment behavioral system is a pertinent feature of appraising support transactions, implicitly biasing preferences for the amount and type of support a person needs. Perceived threats to a person's emotional security can activate their attachment system and motivate a range of strategies by which an individual uses to restore their sense of felt-security. For example, individuals high in attachment avoidance display less support-seeking behavior and less effective support-seeking (Bailey et al., 2015; Don & Hammond, 2017). In addition, highly avoidant individuals hold an internal model that views others as unreliable, and dislike intrusive support which may impair their sense of autonomy (Collins & Allard, 1999). This internal model functions to guide the individual to reduce their dependency on others for help, and consequently any support-seeking attempts tend to be indirect (Collins & Feeney, 2000). Individuals high in the dimension of attachment anxiety do not appear to demonstrate a consistent pattern of support-seeking (Bailey et al., 2015; Collins & Feeney, 2000; Fraley & Shaver, 1998; Ognibene & Collins, 1998; Simpson et al., 1992). It is feasible that cognitions associated with attachment anxiety may be more dominant under certain circumstances, or even cancel each other out. For example, the high levels of dependency and neediness (relating to desiring support) may be attenuated by the belief that oneself is unworthy of love and care (related to not expecting support from others). Therefore, it is important to explore contextual factors which may moderate the relationship between attachment and support preferences.

Stress has been shown to activate attachment-related behavior (Simpson & Rholes, 2012). Hyper activating strategies, associated with attachment anxiety, keep the person focused on the search for love and security, and constantly on the alert for threats, separations, and betrayals (Mikulincer & Shaver, 2003). Deactivating strategies, associated with attachment avoidance, keep the attachment system in check, with serious consequences for cognitive and emotional openness (Sheinbaum et al., 2015). However, the activation of the attachment system in response to stress has primarily been studied under controlled conditions whereby individuals undertake (or believe they will undertake) a stressful task, such as a presentation or mock interview. For example, Simpson et al. (1992) found that secure women sought more support from their partners as their experience of anxiety increased, while avoidant women engaged in fewer acts of support-seeking in relation to increased anxiety. Individual experiences of stress-induced scenarios in a lab setting may not generalize to everyday situations, whereby individuals may experience a chronic state of stress, rather than acute activation. In addition, support-seeking may not always be demonstrated during a single observed interaction in the laboratory (Simpson et al., 2002). Brock and Lawrence (2014) found that chronic stress, experienced outside of the marital relationship, did not moderate the effect of attachment and perception of support overprovision during the first 5 years of marriage. However, this study did not make a distinction between specific types of support, such as emotional and informational, which can provide a nuanced explanation of adaptive responses to stress in couples (Pow et al., 2018). In addition, this study did not examine how stress moderated how much support a person needed from their partner.

The present research

Also, the present investigation addressed different research questions and hypotheses. We have chosen to study support preferences with a population of new mothers, who are experiencing periods of chronic stress during the first-year transition to parenthood (Abidin, 2012; Cowan & Cowan, 1992; Pistrang & Barker, 2005). As there was no previous research regarding attachment and support needs, we based our hypotheses on the structure of internal working models and support-seeking behavior. However, it is important to note that while support-seeking explicitly demonstrates a need for support an individual may decide not to seek help but could still have an implicit need for social support. As such, while there may be a relationship between support-seeking and needing support, these appear to be distinct constructs. Our study will be the first to examine if the attachment dimensions of anxiety and avoidance predict preferences for support. We predict attachment avoidance to be associated with preferring low levels of support, and attachment anxiety to be related to high support needs. We also tested if stress moderated the relationship between attachment and support preferences. We hypothesized that the experience of stress will amplify the relationship between attachment and preferences of emotional support, as stated in the first aim.

Study 1

In study 1, we examined whether perceived stress moderated the relationship between the attachment dimensions of anxiety and avoidance and preference for support during an extended period (1 month).

Method

Participants and procedure

The sample consisted of first-time mothers with a child 12 months or under ($N = 245$). For inclusion, the mothers had to be (a) married or cohabiting with their romantic partner; (b) over 18 years of age, and (c) English speaking. Participation was not restricted by ethnicity or sexuality. Participants were recruited using ads which appeared in their Facebook newsfeed, targeted by age (18 to 45 years), gender (female), location (UK), and language (English). The precision of ads to the target population was further refined by targeting the demographics "New Parents (0–12 months)," and "In a relationship, Married or Engaged." All data were collected using surveys hosted by the University of Manchester, accessed by a "call to action" button in the Facebook ad. In total 55,667 people viewed the ads in their Facebook feed (from 10/07/17 to 15/04/18) and 2,499 people clicked on the link to the study information page. Participants who had failed to complete all the survey measures were sent a polite reminder to request continued participation. On 16/04/2018, we downloaded the data for the purposes of data analysis. At that time, we had data on 379 participants, and 245 had completed all three measures. To reduced burden on participants we only requested demographic information regarding relationship length ($M = 7.9$ years, $SD = 4.32$ Years) and baby's age ($M = 4.70$ months, $SD = 4.00$ months).

Measures

Preferred support. The frequencies of preferred partner support were measured using the Support in Intimate Relationships Rating Scale-Revised (SIRRS-R; Barry et al., 2009). The SIRRS-R comprises four types of support: 8 items representing informational support (e.g., my partner gave me suggestions about how to handle a situation), 8 items for emotional support (e.g., my partner said it was OK to feel the way I was feeling), 4 items related to acts of physical support (e.g. my partner hugged me or cuddled with me), and 5 items of tangible support (e.g., my partner did something to help me indirectly). Participants were asked to think back to the interactions over the past month with their partner and rate how frequently they would have preferred a type of support when feeling upset, stressed, or hassled by some problem or difficult situation. The preferred frequency of partner support was rated on 5-point scales ranging from 0 (never) to 4 (almost always). To be theoretically consistent with much of the literature on the optimal match theory (Cutrona, 1990; Cutrona & Russel, 1990), two of the items of the SIRRS-R were removed because they were deemed to be somewhat inconsistent with theoretical perspectives underlying their respective support types (Lorenzo et al., 2018). Specifically, my partner "offered to do something with me to help me feel better" was removed from the tangible support subscale because this item appears to assess a form of emotion-focused coping

whereas tangible support is typically conceptualized as enabling problem-focused coping. My partner "Inferred how I was feeling about a situation" was removed from the informational support subscale because it appears to assess the partner's validation of the individual's feelings; whereas, informational support is typically conceptualized as providing advice or information needed to solve a problem. The SIRRS-R internal consistencies (αs) in this sample for the different types of desired support were .86 for emotional, .84 for tangible, .85 for informational, and .81 for physical.

Attachment orientation. Mothers' attachment orientations were measured using the Experiences in Close Relationships-Revised inventory (ECR-S; Wei et al., 2007). The ECR-S is a 12 item self-report scale designed to assess dimensional measures of attachment avoidance (six items) and anxiety (six items) in general experiences of romantic relationships. Examples of items include "I want to get close to my partner, but I keep pulling back" (attachment avoidance), and "I need a lot of reassurance that I am loved by my partner" (attachment anxiety). Participants rated the extent to which each item of the questionnaire was descriptive of their general experiences of romantic relationships, rather than experiences exclusive to their current relationship. Items were rated on a 7-point scale, ranging from not at all (1) to very much (7), and the items for avoidance and anxiety are individually summed. Higher scores indicate higher anxiety and avoidance. The ECR-S internal consistencies αs in this sample were .61 for anxiety and .72 for avoidance scores.

Perceived stress. A short item version of the Perceived Stress Scale (PSS-10; Cohen & Williamson, 1988) was used to measure the degree to which situations in one's life are appraised as unpredictable, uncontrollable, and overloaded by respondents during the previous month. This self-report scale consists of 10 items with a 5-point response scale from 0 (never) to 4 (very often). In each case, participants were asked how often they felt or thought a certain way, and questions were general in nature, rather than content specific to any subpopulation group. For example, "In the last month, how often have you felt that you were on top of things?" and "In the last month, how often have you been able to control irritations in your life?." The PSS-10 R internal consistencies (αs) in this sample was .88.

Data analysis

The distributions of variables were inspected and found to be approximately normal. SPSS (IBM Corp. Released 2017. IBM SPSS Statistics for Windows, Version 25.0. Armonk, NY: IBM Corp.) was used for statistical analysis. Pearson correlations were used to examine the relationships between attachment dimensions and preferred support. We also examined whether perceived stress moderated the effects of attachment on preferred support from a romantic partner, by conducting eight hierarchical regressions. After centering attachment dimensions and stress variables and computing the attachment-by-stress interaction terms (Aiken et al., 1991), the attachment and interaction terms were entered into regression models, with the interaction term included during the second step of each model. The dependent variable(s) in these moderation analyses were our measures of preferred support from a romantic partner broken down into: (a) emotional; (b) tangible;

Table 1. Associations between attachment dimensions and types of preferred support.

Measures	Emotional	Informational	Tangible	Physical
Attachment Avoidance (AV)	−.206**	−.143*	−.257**	−.210**
Attachment Anxiety (AN)	−.014	.024	−.024	−.013

Notes: *p < .05 ** p < .01.

Table 2. Partial correlations between attachment anxiety with types of preferred support (controlling for attachment avoidance) and with attachment avoidance (controlling for attachment anxiety).

Measures	Emotional	Informational	Tangible	Physical
Attachment Avoidance (AV)	−.203**	−.156*	−.255**	−.220**
Attachment Anxiety (AN)	.037	.067	.042	.050

Notes: *p < .05 ** p < .01.

(c) informational; and (d) physical support. This allowed us to establish if associations between attachment and preference for support occur more under conditions of high or low stress.

Results

Support preferences

First, we tested the hypothesis that attachment dimensions would predict preferences for specific types of support from a romantic partner. As shown in Table 1, our hypotheses were confirmed for avoidance but not for anxiety. Among mothers, there was an association between high levels of attachment avoidance and needing less emotional, information, tangible, and physical support. Contrary to our expectations, attachment anxiety was not significantly related to preferring a certain type of support from a romantic partner, and preferences for support were almost neutral. We then examined the partial correlations between attachment anxiety and types of preferred support while controlling for attachment avoidance. Likewise, we examined the partial correlations between attachment avoidance and types of preferred support while controlling for attachment anxiety (see Table 2). Attachment avoidance was again negatively correlated with all the four types of preferred support.

Did stress moderate the relationship between attachment dimensions and preferred support (emotional, tangible, informational, and physical) from a romantic partner?

Our next analysis tested the prediction that stress would moderate the relationship between attachment and preferred support (see Tables 3 and 4). Contrary to our expectations, regression analyses revealed that stress failed to moderate the relationship between attachment

Table 3. Results from a hierarchal regression analyses showing the moderation effect of perceived stress on the relationship between attachment anxiety and preferred support.

		Unstandardized Coefficient		Standardized Coefficient				
Steps	Measurement	B	SE	B	*P*	F	R^2	ΔR^2
Preferred Support (Emotional)								
1	—					.36	.01	
	AN	.01	.06	.01	.873			
	PS	−.04	.05	−.06	.412			
2	—					.28	.01	.00
	AN	−.04	.15	−.05	.782			
	PS	−.20	.16	−.14	.549			
	AN × PS	.01	.01	.13	.716			
Preferred support (Information)								
1	—					.07	.01	
	AN	.02	.06	.02	.778			
	PS	.01	.05	.01	.907			
2	—					.16	.01	.00
	AN	−.07	.16	−.08	.667			
	PS	−.09	.17	−.12	.606			
	AN × PS	.01	.01	.20	.562			
Preferred Support (Physical)								
1	—					.19	.01	
	AN	.001	.03	.01	.949			
	PS	−.02	.03	−.04	.559			
2	—					.23	.01	.00
	AN	.05	..09	.10	.586			
	PS	.033	.09	.08	.723			
	AN × PS	−.01	.01	−.19	.574			
Preferred Support (Tangible)								
1	—					.14	.01	
	AN	−.01	.03	−.01	.860			
	PS	−.01	.03	−.03	.705			
2	—					.58	.01	.00
	AN	−.10	.08	−.22	.240			
	PS	−.11	.09	−.29	.209			
	AN × PS	.01	.01	.41	.231			

dimensions (anxiety and avoidance) and all four types of preferred support (emotional, informational, tangible, and physical).

Discussion

Study 1 is the first to separately examine the dimensions of attachment anxiety and avoidance in relation to distinct types of preferred support, in a population of first-time mothers. There was a consistent relationship between attachment avoidance and low

Table 4. Results from a hierarchal regression analyses showing the moderation effect of perceived stress on the relationship between attachment avoidance and preferred support.

		Unstandardized Coefficients		Standardized Coefficients				
Steps	Measurement	B	SE	B	*P*	F	R^2	ΔR^2
Preferred Support (Emotional)								
1	—					5.20	.04	
	AV	−.20	.063	−.21	.002			
	PS	.01	.047	.01	.867			
2	—					3.75	.04	.00
	AV	−.04	.18	−.04	.819			
	PS	.11	.12	.15	.360			
	AV × PS	−.01	.01	−.25	.354			
Preferred support (Information)								
1	—					2.94	.03	
	AV	−.16	−.07	−.16	.017			
	PS	.05	.05	.07	.322			
2	—					2.01	.03	.00
	AV	−.23	−.19	−.24	.223			
	PS	.01	.12	.01	.972			
	AV × PS	.01	.01	.11	.689			
Preferred Support (Physical)								
1	—					5.48	.05	
	AV	−.12	.04	−.22	.001			
	PS	.01	.03	.03	.673			
2	—					3.88	.05	.00
	AV	−.04	.10	−.07	.715			
	PS	.06	.07	.15	.934			
	AV × PS	−.01	.01	−.30	.405			
Preferred Support (Tangible)								
1	—					8.69	.70	
	AV	−.14	.03	−.27	.001			
	PS	.02	.02	.05	.423			
2	—					5.51	.70	.00
	AV	−.19	.09	−.38	.042			
	PS	−.02	.06	−.04	.807			
	AV × PS	.01	.01	.17	.532			

preference of support needs, although attachment anxiety did not predict support preferences. However, the lack of correlation between attachment anxiety and support preferences might have been the result of not controlling for attachment avoidance, i.e. individuals who scored high on both insecurity dimensions might have been affecting this interpretation. For this reason, we examined the unique relationship between attachment anxiety and support preferences while partialling out the effect of attachment avoidance, and vice versa. The present study found that both attachment dimensions did not significantly differ in their correlation between different the types of preferred support.

One explanation for the lack of association between attachment anxiety and a preference for high levels of support may be due to the ambivalent attitudes regarding emotional closeness (Mikulincer et al., 2010). For example, the high levels of emotional dependency and neediness associated to desiring support must be appraised in relation to the fear of rejection should support needs be openly communicated. For individuals high in the dimension of attachment anxiety these conflicting drives can activate each other, whereby wanting to access support from others can trigger thoughts of abandonment (Mikulincer et al., 2010). Therefore, anxiously attached individuals may be disinclined to openly acknowledge a desire for support, both explicitly to others and privately to themselves because they fear they might be rejected by their partners if they did. Surprisingly, stress did not influence the relationship between attachment and support needs. This study could not accurately detect hyperactivation or deactivation of the attachment system in response to stress. It is possible that recall bias, associated with cross-sectional methods, may have confounded the results (Shiffman et al., 2008).

Study 2

In study 2 we used experience sampling to collect a range of data points for each participant, increasing the sensitivity of measurements to detect micro changes support needs. Momentary experiences of stress are valuable, as each event interpreted as a threat to a person's sense of felt security can activate the attachment system (Mikulincer & Shaver, 2003). Therefore, perceptions of perceived stress are more likely to be embedded in the unfolding nature of events, rather than an individual reporting what they believed to have experienced (when reflecting over the previous month), thus improving ecological validity (Csikszentmihalyi & Larson, 2014; Hektner et al., 2006). Also, as experience sampling is able to record repeated observations of within persons, it is able to fully capture the dynamic nature of chronic stress and support needs (Conner et al., 2009; Reis & Gable, 2000).

Method

Participants

Participants were 40 mothers of babies between 3 to 12 months of age, recruited by contacting administrators of mother and baby groups on Facebook. Potential participants were asked to contact the principal investigator (first author) who emailed a participant information sheet, and answered questions relating to study participation. Prospective participants were screened by phone or e-mail to determine whether they met the following inclusion criteria: (i) mother with a child between 3 - 12 months, (ii) married or living together with their romantic partner, (iii) at least 18 years of age, (iv) English speaking, and the mother required (v) the use of a mobile phone with internet access.

Premonitoring session

Prior to the experience sampling procedure, mothers were assigned an ID number, and questionnaires were posted to assess for attachment anxiety and avoidance using the Experiences in Close Relationships-Revised inventory (ECR-S; Wei et al., 2007). The

reliability of the scale was good with a Cronbach's alpha of .69 for anxiety and .76 for avoidance.

Experience sampling

The experience sampling procedure was implemented using a web-based application (surveysignal.com; Hofmann & Patel, 2015) which used short message service (SMS) messages as signals and reminders. The ESM items were accessed by mothers online via a website hosted by the University of Manchester, and access was restricted by ID number and password. Each SMS included the link to the website, and participants could only click on this link once, after which time it was deactivated to prevent participants from completing ESM items beyond the signal time limits. Mothers were asked to choose a "study week" that would be representative of their daily lives. They were explicitly asked to exclude weeks that included holidays, visits, or other special events.

Mothers were sent an email before their "study week" requesting them to login to the ESM website via their mobile phone, using their ID number and a predetermined password. The purpose of this procedure was to check if the internet browser on their mobile phone remembered the login details for subsequent attempts. Mothers were also asked to complete a pilot trial by answering the items on their phone to familiarize themselves with the ESM procedure.

During the "study week" participants were randomly signaled six times a day for seven consecutive days, between 9 a.m. and 9 p.m., with at least 1 hour between receiving SMS signals. Therefore, each participant could provide up to 42 records throughout the experience-sampling period. After an SMS was received each participant had up to 60 minutes to complete the ESM items, and an SMS reminder was sent after 30 minutes if a participant had not clicked on the study link in their original signal. After 60 minutes the website link within the SMS was deactivated.

Throughout the duration of the ESM procedure participants were encouraged to contact the researcher if they had any questions, or if they were not receiving SMS on their phone. After the ESM procedure participants were debriefed and mothers received a £40 shopping voucher in exchange for their voluntary participation.

ESM items

Preferred support. Three items were used to assess preferred support, adapted from the Support in Intimate Relationships Rating Scale-Revised (SIRRS-R; Barry et al., 2009). Participants were asked how much support they have needed since the last beep: emotional "needed someone to comfort me emotionally," informational support "needed someone to advise me on how to handle a situation," and tangible "needed someone to help me with the things I have needed to do." Items were rated on a 5-point Likert scale from not at all (1) to extremely (5).

ESM perceived stress. Perceived stress was assessed using a single item "SINCE THE LAST BEEP, I have felt stressed," rated on a 5-point Likert scale from not at all (1) to extremely (5).

Table 5. Descriptive information for predictor and outcome variables included within the multilevel model analyses.

Variable	No of observations	Min, Max	Mean (SD)
Surveys			
Attachment Avoidance	40	6, 42	12.30 (4.20)
Attachment Anxiety	40	6, 42	22.40 (5.77)
ESM			
Prefer Emotion	1252	1, 5	1.68 (1.12)
Prefer Info	1252	1, 5	1.64 (1.14)
Prefer Tangible	1254	1, 5	2.43 (1.50)
Stress	1252	1, 5	2.33 (1.35)

Data analysis

Experience sampling data share cross-sectional time-series characteristics containing a hierarchal structure, whereby measures are clustered in three levels: Beeps are nested in days which are nested within participants (Bolger et al., 2003). A total of 1254 out of possible 1674 recordings were obtained, resulting in an overall 75% response rate to the beep. These data indicated a high level of compliance with the protocol. The XTMIXED command in Stata (version 10, StataCorp., College Station, TX, USA) was used for all continuous outcome variables, with a random intercept for each participant and for each day within participant; betas, 95% CI, and p-values are reported for all associations between independent and dependent variables. Simple slopes were tested for all interactions that were significant at the $p < .05$ level using the margins command in Stata 10 (Dawson & Richter, 2006).

Results

Preliminary analysis

Descriptive statistics relating to the variables included within the multilevel model analyses presented below can be found in Table 5.

Attachment and momentary support preferences. Table 6 summarizes the results of the eight, multilevel linear regression models calculated to examine the extent to which attachment dimensions (of anxiety and avoidance) were associated with a preference for support. The results revealed that attachment anxiety was associated with a preference for more emotional and informational support at the momentary level (i.e. over the period between the current beep and previous beeps), but not tangible support. The regression coefficients indicate that a one-point increase in the dimension of attachment anxiety is associated with an 0.03 increase in both emotional and informational support which was measured on a 1-point scale. This relatively small effect size can also be seen in the standardized regression coefficients for emotional (0.18) and informational (0.18) support. Attachment avoidance was not related to any type of support preferences.

Table 6. The relationship between attachment dimensions and support preferences.

Support Perceptions	B	β	S.E.	*p*	95% (CI)
Attachment Anxiety					
Emotional	**.03**	**.18**	**.01**	**.001**	**.01 to .05**
Informational	**.03**	**.18**	**.01**	**.022**	**.00 to .05**
Tangible	.01	.05	.02	.689	−.03 to .05
Attachment Avoidance					
Emotional	.01	.05	.02	.939	−.02 to .04
Informational	.01	.04	.02	.952	−.04 to .04
Tangible	.03	.10	.03	.226	−.02 to .08

$p < .05$ is in boldface. CI = Confidence interval for B.

Table 7. Results from a hierarchal regression analyses showing the moderation effect of perceived stress on the relationship between attachment and preferred support.

Support Perceptions	B	β	S.E.	*p*	95% (CI)
Attachment Anxiety					
Emotional	.24	.49	.08	.002	.09 to .38
Informational	.39	.46	.08	.001	.23 to .55
Tangible	.66	.10	.10	.001	.46 to .87
Attachment Avoidance					
Emotional	.57	.48	.06	.001	.44 to .70
Informational	.32	.48	.07	.001	.18 to .45
Tangible	.45	.48	.09	.001	.27 to .63

CI = Confidence interval for B.

Does momentary stress moderate the association between attachment dimensions and momentary perceptions of desired support?. Experienced momentary stress had a moderating effect on the relationship between attachment and support preferences (see Table 7). Among mothers, there was an association between high levels of attachment anxiety and avoidance and needing more emotional, informational, and tangible support when currently perceiving stress.

Discussion

The primary aim of study 2 was to examine the relationship between attachment dimensions and support preferences in the context of the daily life of mothers, and to observe if perceived stress influenced this relationship. As predicted attachment anxiety was associated with a need for more emotional and informational support. Here, stress amplified the need for more emotional, informational, and tangible support. Among mothers, there was no association between high levels of attachment avoidance and support preferences, except that higher levels of avoidance were associated with greater preferences for emotional, informational, and tangible support when experiencing stress. These findings suggest that the experience of stress has activated the attachment system in individuals

high in attachment avoidance, and triggered hyperactivation of the attachment system for those with an anxious attachment.

General discussion

These studies are one of the first to establish the relationship between attachment dimensions in support recipients and their preference for support. Expanding on studies of support-seeking, this research provides several theoretical and practical contributions, and results suggest interesting and important directions for future study.

Attachment and support preferences

Our hypothesis that attachment dimensions would be related to support preferences was partially supported. We expected that higher levels of attachment anxiety would be associated with a preference for higher levels of support and higher levels of attachment avoidance would be associated with a preference for lower levels of support. Study 1 revealed that the dimension of attachment avoidance predicted a need for less support from a romantic partner, while the dimension of attachment anxiety was not associated with any form of support preference. This is consistent with findings that individuals high in avoidant attachment tend to prefer to cope with problems on their own, avoiding social interaction when feeling distressed (e.g., Collins & Feeney, 2000; Davila & Kashy, 2009). Study 2, using an ESM methodology, found no relationship between attachment avoidance and recent (i.e. the time between the current and previous beep) preferences for emotional, informational, or tangible support. On the other hand, attachment anxiety predicted a greater need for emotional and informational support at the momentary level of measurement. It is possible that support needs may differ when measured in the moment, rather than appraisals based on recalled instances, as individuals have less time to ruminate and reflect on instances of preferred support. This means the ambivalent cognitions of neediness and abandonment associated with attachment anxiety may not have enough time to trigger one another when experiences are measured in the moment. Therefore, individuals high in attachment anxiety experience a high need for momentary support, which is captured before this cognition can trigger thoughts of rejection, which may nullify support needs. Furthermore, unlike the self-report appraisals of support needs, the momentary experience of emotional, informational, and tangible support was each assessed using a single item. This is a limitation as there is a greater chance of a specific item being interpreted differently by each support recipient, compared with aggregating reports from several items.

We hypothesized that the experience of stress would amplify the relationship between insecure attachment and preference for support. We expected that higher levels of attachment anxiety would be associated with needing support, as the attachment system for such individuals displays hyperactivation during times of stress, whereby overdependence on others is increased (Mikulincer & Shaver, 2003). Our findings support this prediction, showing that momentary stress increased the need for more current emotional, informational, and tangible support. We expected that stress may deactivate attachment-related behavior of avoidant support recipients, thus reducing their dependency

on others for assistance. However, we found evidence for activating strategies in response to experiencing stress in the present moment, possibly indicating a need for greater proximity seeking.

Theoretical contributions

Theoretically, avoidant attachment involves a down-regulation of attachment feelings and behaviors, and this can be accomplished through rebuffing support attempts from others and disengaging in support-seeking (see Mikulincer & Shaver, 2003; Schachner & Shaver, 2002). This is supported by previous research which demonstrates that attachment avoidance is associated with fewer acts of help-seeking, compared with securely attached individuals (Simpson et al., 1992). However, although previous research shows avoidant individuals may explicitly demonstrate deactivating support-seeking strategies, our findings suggest that support needs and help-seeking may be distinct constructs, as perceived stress increased the support needs of individuals with an avoidant attachment. Therefore, under conditions of stress there is still an implicit need for support, which indicates an activation of the attachment system, rather than the expected deactivation. Possibly stress may limit the deactivation of their attachment system. For example, avoidant individuals dislike intrusive support which could undermine their need for self-reliance, however, the threshold for what is considered "intrusive" may strengthen under periods of stress. Mikulincer and Shaver (2003) suggest that anxious attachment involves hyperactivation of the attachment system during periods of stress, until an attachment figure is perceived to be available and provide safety and security. Such hyperactivation is adaptive regarding concerns of rejection and abandonment, as it encourages a person to excessively seek comfort, reassurance, and support from relationship partners.

Limitations and future directions

This study focused on a sample undergoing a major life transition, encompassing specific support needs which may not be generalizable to intimate relationships beyond mothers. For example, mothers with young children may require more tangible support compared with other populations, such as cancer patients, who may show a preference for emotional support. A further limitation concerns the small sample sizes of the second study, (40 mothers), although the repeated momentary measures obtained from each participant over 7 days increases the studies power.

The attachment system is activated by signs or threats, real or imagined, and although one would expect this to be accompanied with feelings of stress when the threat is appraised as uncontrollable, feeling threatened is a different emotion. Therefore, future studies need to explore sources of threat which are not captured by the experience of chronic stress, such as relational threat, low mood, or momentary feelings of attachment insecurity. Future studies would also benefit from implementing longitudinal designs to detect chronic stress and to also establish a baseline for preferred support.

Although it is clear that attachment dimensions shape support preferences, we have examined this relationship at the intrapersonal level (e.g., disposition effects of the support recipient). Future research should extend and advance the current literature on

adult attachment and social support by adopting an interpersonal approach to explore how the support needs of a recipient are influenced by the attachment dimensions of both members of a romantic dyad. For example, Collins et al. (2006) have suggested that it is important to examine how support behavior is shaped not only by one's own sense of security but also by that of the partner as well. Thus, the capacity of the support recipient to accept care and communicate their needs is not only influenced by their own attachment, but also their partners, as attachment dimensions also influence caregiving strategies, which may affect the recipient's expectations of support (Mikulincer & Shaver, 2007). Incorporating an interpersonal approach will be useful for identifying how couples with particular attachment pairings (e.g. more anxious recipient with a more avoidant partner) shape dyadic support efforts to manage and challenge health behaviors. Such research could be the stepping stone toward the development of attachment-focused interventions that take into account individual differences and can, therefore, be tailored for different types of couples.

Finally, although we recognize that the ECR-R has been criticized regarding its psychometric properties (Lafontaine et al., 2016) it is a widely used measure allowing comparison with other studies in the field.

Funding

The author(s) received no financial support for the research, authorship, and/or publication of this article.

Open research statement

As part of IARR's encouragement of open research practices, the author(s) have provided the following information: This research was not pre-registered. The data used in the research are available. The data can be obtained by emailing: saul.mcleod@manchester.ac.uk. The materials used in the research are/are not available. The materials can be obtained by emailing: saul.mcleod@manchester.ac.uk.

ORCID iD


Saul McLeod https://orcid.org/0000-0001-7886-910X

Transparency statement

The research datasets analysis during the current study are available from https://data.mendeley.com/datasets/zh4d8dk282/draft?a=ab2a6a53-46ff-410a-a59b-989a110c5ba8.

References

Abidin, R. R. (2012). *Parenting stress index* (3rd ed., p. 1). Odessa, FL: Psychological Assessment Resources, Inc.

Aiken, L. S., West, S. G., & Reno, R. R. (1991). *Multiple regression: Testing and interpreting interactions*. SAGE.

Bailey, K. M., Holmberg, D., McWilliams, L. A., & Hobson, K. (2015). Wanting and providing solicitous pain-related support: The roles of both relationship partners' attachment styles. *Canadian Journal of Behavioural Science/Revue canadienne des sciences du comportement*, *47*(4), 272.

Baldwin, M. W., Fehr, B., Keedian, E., Seidel, M., & Thomson, D. W. (1993). An exploration of the relational schemata underlying attachment styles: Self-report and lexical decision approaches. *Personality and Social Psychology Bulletin*, *19*(6), 746–754.

Barry, R. A., Bunde, M., Brock, R. L., & Lawrence, E. (2009). Validity and utility of a multidimensional model of received support in intimate relationships. *Journal of Family Psychology*, *23*(1), 48.

Bolger, N., Davis, A., & Rafaeli, E. (2003). Diary methods: Capturing life as it is lived. *Annual Review of Psychology*, *54*(1), 579–616.

Bowlby, J. (1973). *Attachment and loss*, *Vol.* 2: *Separation*. Basic Books.

Bowlby, J. (1982). Attachment and loss: Retrospect and prospect. *American Journal of Orthopsychiatry*, *52*(4), 664.

Brennan, K. A., Clark, C. L., & Shaver, P. R. (1998). Self-report measurement of adult romantic attachment: An integrative overview. In J. A. Simpson & W. S. Rholes (Eds.), *Attachment theory and close relationships* (pp. 46–76). Guilford Press.

Bretherton, I. (1985). Attachment theory: Retrospect and prospect. *Monographs of the Society for Research in Child Development*, *50*(1–2), 3–35.

Bretherton, I., & Munholland, K. A. (1999). Internal working models in attachment relationships: A construct revisited. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 89–111). The Guilford Press.

Brock, R. L., & Lawrence, E. (2014). Intrapersonal, interpersonal, and contextual risk factors for overprovision of partner support in marriage. *Journal of Family Psychology*, *28*(1), 54–64.

Cohen, S., & Williamson, G. (1988). Perceived stress in a probability sample of the US. In S. Spacapam & S. Oskamp (Eds.), *The social psychology of health: Claremont symposium on applied social psychology* (pp. 31–67). Books on Demand.

Collins, N. L., & Allard, L. M. (1999). *Working models of attachment and social construal processes in romantic relationships* [Manuscript submitted for publication].

Collins, N. L., & Feeney, B. C. (2000). A safe haven: An attachment theory perspective on support-seeking and caregiving in intimate relationships. *Journal of Personality and Social Psychology*, *78*(6), 1053.

Collins, N. L., Ford, M. B., Guichard, A. C., & Allard, L. M. (2006). Working models of attachment and attribution processes in intimate relationships. *Personality and Social Psychology Bulletin*, *32*(2), 201–219.

Conner, T. S., Tennen, H., Fleeson, W., & Barrett, L. F. (2009). Experience sampling methods: A modern idiographic approach to personality research. *Social and Personality Psychology Compass*, *3*, 292–313.

Cowan, C. P., & Cowan, P. A. (1992). *When partners become parents: The big life change for couples*. Basic Books.

Csikszentmihalyi, M., & Larson, R. (2014). Validity and reliability of the experience-sampling method. In M. Csikszentmihalyi (Ed.), *Flow and the foundations of positive psychology* (pp. 35–54). Springer.

Cutrona, C. E. (1990). Stress and social support-in search of optimal matching. *Journal of Social and Clinical Psychology*, *9*(1), 3–14.

Cutrona, C. E., & Russell, D. W. (1990). Type of social support and specific stress: Toward a theory of optimal matching. In B. R. Sarason, I. G. Sarason, & G. R. Pierce (Eds.), *Social support: An interactional view* (pp. 319–366). Wiley.

Davila, J., & Kashy, D. A. (2009). Secure base processes in couples: Daily associations between support experiences and attachment security. *Journal of Family Psychology*, *23*(1), 76.

Dawson, J. F., & Richter, A. W. (2006). Probing three-way interactions in moderated multiple regression: Development and application of a slope difference test. *Journal of Applied Psychology*, *91*(4), 917.

Don, B. P., & Hammond, M. D. (2017). Social support in intimate relationships: The role of relationship autonomy. *Personality and Social Psychology Bulletin*, *43*(8), 1112–1124.

Fraley, R. C., & Shaver, P. R. (1998). Airport separations: A naturalistic study of adult attachment dynamics in separating couples. *Journal of Personality and Social Psychology*, *75*(5), 1198.

Hektner, J. M., Schmidt, J. A., & Csikszentmihalyi, M. (2006). *Experience sampling method: Measuring the quality of everyday life*. SAGE.

Hofmann, W., & Patel, P. V. (2015). SurveySignal: A convenient solution for experience sampling research using participants' own smartphones. *Social Science Computer Review*, *33*(2), 235–253.

Lafontaine, M.-F., Brassard, A., Lussier, Y., Valois, P., Shaver, P. R., & Johnson, S. M. (2016). Selecting the best items for a short-form of the Experiences in Close Relationships Questionnaire. *European Journal of Psychological Assessment*, *32*(2), 140–154.

Lorenzo, J. M., Barry, R. A., & Khalifian, C. E. (2018). More or less: Newlyweds' preferred and received social support, affect, and relationship satisfaction. *Journal of Family Psychology*, *32*(7), 860–872.

Mikulincer, M., & Shaver, P. R. (2003). The attachment behavioral system in adulthood: Activation, psychodynamics, and interpersonal processes. *Advances in Experimental Social Psychology*, *35*, 56–152.

Mikulincer, M., & Shaver, P. R. (2007). *Attachment in adulthood: Structure, dynamics, and change*. Guilford Press.

Mikulincer, M., Shaver, P. R., Bar-On, N., & Ein-Dor, T. (2010). The pushes and pulls of close relationships: Attachment insecurities and relational ambivalence. *Journal of Personality and Social Psychology*, *98*(3), 450.

Ognibene, T. C., & Collins, N. L. (1998). Adult attachment styles, perceived social support and coping strategies. *Journal of Social and Personal Relationships*, *15*(3), 323–345.

Pistrang, N., & Barker, C. (2005). How partners talk in times of stress: A process analysis approach. In T. A. Revenson, K. Kayser, & G. Bodenmann (Eds.), *Couples coping with stress: Emerging perspectives on dynamic coping* (pp. 97–119), American Psychological Association.

Pow, J., Stephenson, E., Hagedoorn, M., & DeLongis, A. (2018). Spousal support for patients with rheumatoid arthritis: Getting the wrong kind is a pain. *Frontiers in Psychology*, *9*, 1760.

Reis, H. T., & Gable, S. L. (2000). Event sampling and other methods for studying daily experience. In H. T. Reis & C. M. Judd (Eds.), *Handbook of research methods in social and personality psychology* (pp. 190–222). Cambridge University Press.

Schachner, D. A., & Shaver, P. R. (2002). Attachment style and human mate poaching. *New Review of Social Psychology*, *1*, 122–129.

Sheinbaum, T., Kwapil, T. R., Ballespí, S., Mitjavila, M., Chun, C. A., Silvia, P. J., & Barrantes-Vidal, N. (2015). Attachment style predicts affect, cognitive appraisals, and social functioning in daily life. *Frontiers in Psychology*, *6*, 296.

Shiffman, S., Stone, A. A., & Hufford, M. R. (2008). Ecological momentary assessment. *Annual Review of Clinical Psychology*, *4*, 1–32.

Simpson, J. A., & Rholes, W. S. (2012). Adult attachment orientations, stress, and romantic relationships. In M. P. Zanna (Ed.), *Advances in experimental social psychology* (Vol. 45., pp. 279–328). Academic Press.

Simpson, J. A., Rholes, W. S., & Nelligan, J. S. (1992). Support-seeking and support giving within couples in an anxiety-provoking situation: The role of attachment styles. *Journal of Personality and Social Psychology*, *62*(3), 434.

Simpson, J. A., Rholes, W. S., Orina, M., & Grich, J. (2002). Working models of attachment, support giving, and support-seeking in a stressful situation. *Personality and Social Psychology Bulletin*, *28*(5), 598–608.

SPSS, I. (2018). *IBM Statistical Package for Social Services (Version 25)*. IBM.

StataCorp, L. P. (2013). Stata Statistical Software: Release 10 College Station.

Wei, M., Russell, D. W., Mallinckrodt, B., & Vogel, D. L. (2007). The experiences in close Relationship scale (ECR)-short form: Reliability, validity, and factor structure. *Journal of Personality Assessment*, *88*(2), 187–204.