The contributions of interpersonal attachment and friendship group identification to depressive symptoms in a nonclinical sample

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Abstract

Drawing on previous literature from the separate areas of adult attachment and group processes, we explored attachment and group identification as predictors for depressive symptoms in a non-clinical sample. We found that attachment anxiety and friendship group identification predicted scores on the Beck Depression Inventory (BDI), such that higher attachment anxiety resulted in higher depressive symptoms, and greater friendship group identification resulted in lower depressive symptoms. Mediational analysis suggested that group identification partially mediated the effect of attachment avoidance on depressive symptoms, but did not mediate the effect of attachment anxiety on depressive symptoms.

Keywords: attachment, friendship, group identification, psychological health, depression
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Social and emotional support networks have often been linked with psychological health and ill health: perceived social isolation is strongly associated with depression (Hawthorne, 2008), but supportive relationships can buffer the effects of stress and increase emotional and psychological well-being (Dehle, Larsen, & Landers, 2001). Whilst a generation of work has shown that social support is generally associated with better psychological functioning, research has more recently begun to explore the specific mechanisms that might explain these links, with the understanding that social support can come from a number of different relationship sources, including intimate close relationships, friendships, and wider social groups.

Theoretical models from social psychology have proved useful in thinking about pathways to health and well-being. Social and developmental psychological theories about patterns of relating in interpersonal relationships have provided one framework to investigate psychological health. Attachment theory (Bowlby, 1969/1982) suggests that the loss of attachment security during infancy, childhood, or adolescence can contribute to the development of later depression. Studies have shown that attachment insecurity in adult romantic relationships, where individuals are high on the dimensions of attachment anxiety and/or attachment avoidance, is associated with depression. In particular, attachment anxiety, which is characterized by preoccupation with relationships and concerns about rejection (Brennan, Clark, & Shaver, 1998), is strongly associated with elevated levels of depression and anxiety (see Mikulincer & Shaver, 2007a, for a review). The dimension of attachment avoidance, characterized by self-reliance, rejection of relationships, and denial of attachment related needs, is less strongly associated with depression than attachment anxiety,
but studies still show links between attachment avoidance and particular depressive symptoms (e.g., Davila, 2001; see Mikulincer & Shaver, 2007a, for a review). In addition, other research (e.g., Mikulincer & Shaver, 2007b) has suggested that priming attachment security by activating a secure base schema can boost mental health. For example, security priming has been shown to reduce post-traumatic stress disorder symptoms in non-clinical samples (Mikulincer, Shaver, & Horesh, 2006), and dysfunctional cognitions in samples of women diagnosed with eating disorders (Admoni, 2006, cited in Gillath, Selcuk, & Shaver, 2008).

Whilst attachment theory seeks to explain the contribution of interpersonal attachment orientations to psychological health, social psychologists have also attempted to use other theoretical models situated in the group dynamics literature to enhance understanding of mental health problems. Haslam, Jetten, Postmes, and Haslam (2009) have recently used the framework of social identity theory (Tajfel & Turner, 1979) to examine social identity as central to health and well-being. Social identity theory proposes that group membership contributes to our sense of self because it has emotional value and significance to us, and Haslam et al. (2009) suggested that groups can provide a sense of meaning, purpose, and belonging, which has positive psychological consequences. In support of this position, there is an increasing body of work suggesting that social support is more likely to be offered, received, and used, if those providing and receiving the support share a social identity (see Haslam et al., 2009, for a review), and that continuity in identity is important for positive mental health (Bonanno, Papa, & O’Neil, 2001; Haslam et al., 2009). Research also suggests that social identity predicts specific clinical outcomes. For example, Sani, Magrin, Scrignaro, and McCollum (2010) found the well-being and mental health of prison guards to be associated with higher identification with their group membership. Also, Bizumic, Reynolds, Turner, Bromhead, and Subasic (2009) found that identification as a member of a school
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significantly predicted anxiety and depression for pupils and teachers alike, so that higher school identification predicted lower anxiety and depression.

The literature we have presented so far suggests that both personal factors (attachment orientation) and group based factors (group identification) can predict depressive symptoms. We therefore expected that attachment insecurity (particularly attachment anxiety) and group identification (identification with friendship group) would predict depressive symptoms in our sample. This contention was based on previous research that has established that other types of group identification can predict mental health (Bizumic, et al., 2009), and that attachment anxiety (in particular – but also attachment avoidance) can predict depression (Mikulincer & Shaver, 2007a). To our knowledge, there are no extant studies investigating the contributions of both interpersonal attachment processes and group identification processes in depressive symptomatology.

In considering the relationships between these associated variables (attachment security; friendship group identification; depressive symptomatology), we considered the possible mediating role of friendship group identification in the prediction of depressive symptoms for attachment anxiety and attachment avoidance separately. Previous group-level research has found that attachment anxiety to groups is associated with reduced friendship (fraternity / sorority) group identification (Smith, Murphy, & Coates, 1999), but more recent research has only found a reduction in friendship group identification for those high in anxiety when under conditions of interpersonal relationship threat (Crisp et al., 2009; Rosenthal et al., 2012). Thus, we suggest that because the relationship between attachment anxiety and friendship group identification appears to be weak under non-threat conditions, and the evidence is strong for attachment anxiety and friendship group identification to predict depressive symptoms, we will not find that friendship group identification mediates the relationship between attachment anxiety and depressive symptoms in the current sample.
Whilst there is strong evidence for attachment anxiety and lower group identification to be direct predictors of depressive symptomatology, there is weaker evidence for the direct effect of avoidance on depressive symptoms. One reason may lie in the relationship between attachment avoidance and other predictors of depressive symptoms. It is possible that attachment avoidance does not directly predict depressive symptoms, but instead indirectly predicts depressive symptomatology through other variables, such as reduced friendship group identification. Indeed, previous research looking at attachment avoidance suggests that friendship group identification may be a mechanism in the relationship between attachment avoidance and depressive symptoms. At a group level, Smith, Murphy, and Coats (1999) found that higher levels of attachment avoidance are associated with lower levels of friendship group identification, and research by Rom and Mikulincer (2003) suggests that high levels of avoidance are associated with negative appraisals of group members, and the dismissal of the potential benefits of group interactions. Thus, attachment avoidance may predict lower levels of group identification, which then, in turn, predict depressive symptomatology.

We therefore examined: (1) the associations of interpersonal attachment and group identification with depressive symptoms to establish whether depressive symptomatology was associated with lower friendship group identification, higher attachment anxiety, and higher attachment avoidance; (2) friendship group identification as a possible mediator between attachment insecurity and depressive symptoms.

Method

Participants

One-hundred and five participants (35 male; 69 female; 1 undisclosed) took part in the study. These included members of the public ($N = 39$), who were approached in two
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cities (returned questionnaires via post) and postgraduates \((N = 66)\). The modal age bracket \((N = 70)\) was 20-30 years old.

**Procedure**

All participants received a questionnaire pack, with measures presented in the following order:

**Romantic attachment.** The partner subscale of the Relationship Structures Questionnaire (ECR-RS; Fraley, Niedenthal, Marks, Brumbaugh, & Vicary, 2006; based on the Experiences in Close Relationships-Revised questionnaire; Fraley, Waller & Brennan, 2000) was utilised to measure attachment to partner. Participants read:

*Please answer the following 10 questions about your dating or marital partner. Note: If you are not currently in a dating or marital relationship with someone, answer these questions with respect to a former partner or a relationship that you would like to have with someone.*

Following the instructions, participants rated their agreement with ten items using a 7-point scale ranging from *strongly disagree* (coded 1) to *strongly agree* (coded 7). Six statements related to attachment avoidance (e.g., *It helps to turn to this person in times of need*) and four statements related to attachment anxiety (e.g., *I often worry that this person doesn’t really care for me*). In line with recent research assessing the ECR-RS, only three of the four anxiety items were included in the attachment anxiety subscale (Fraley, Heffernan, Vicary, & Brumbaugh, 2011). Higher scores indicated higher anxiety / avoidance. Internal consistency for the avoidance \(\alpha = .852\) and anxiety \(\alpha = .898\) subscales was high.

**Group identification.** We measured friendship group identification using a measure developed by Tarrant, North, and Hargreaves (2004; see also Rosenthal et al., 2012). Participants were instructed to answer questions about their *closest group of friends* rating 13 statements (e.g., *I think this group is important*) on an 11-item scale ranging from *completely*
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Disagree (coded 1) to completely agree (coded 11), with high scores indicating high identification with friendship group ($\alpha = .733$).

**Depressive symptoms.** The *Beck Depression Inventory* (BDI; Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) was used to assess depressive symptoms. Participants rated 21 symptoms and attitudes towards depression on a scale of 0 (e.g., I don’t feel sad) to 3 (e.g., I am so sad or unhappy I can’t stand it). Items were summed to give a BDI score ($\alpha = .786$). Participants’ scores ranged from 0 to 23. Seventy-six participants could be categorized as having no or minimal depression (scores ranging from 0-9); 26 participants could be categorized as having mild to moderate depression (10-18); 3 participants could be categorized as having moderate to severe depression (19-29), and 0 participants could be categorized as having severe depression (30 to 63; see Beck, Steer, & Garbin, 1988, for a review on cut-off points and applicability to non-clinical samples).

**Results**

Four participants did not complete all relevant sections of the questionnaire (i.e., ECR-RS, identification, or BDI) resulting in their exclusion from the following analyses (final $N = 101$).

**Descriptives and Correlations**

Zero order correlations are shown in Table 1. All variables were intercorrelated, with depressive symptoms ($M = 6.74; SD = 5.12$) negatively correlated with friendship group identification ($M = 9.23; SD = 1.79$), and positively correlated with attachment anxiety ($M = 2.66; SD = 1.63$) and attachment avoidance ($M = 2.17; SD = 1.12$). This suggests that depressive symptomatology was associated with lower friendship group identification, higher attachment anxiety, and higher attachment avoidance, in line with our predictions. Friendship group identification was negatively correlated with all other variables, suggesting that higher identification was associated with lower attachment anxiety, and lower attachment
avoidance. Finally, attachment anxiety and attachment avoidance were positively correlated, suggesting that those high in attachment anxiety also tended to be high in attachment avoidance.

Friendship Group Identification as a Mediator

We examined identification as a mediator between (1) attachment anxiety and depressive symptoms and (2) attachment avoidance and depressive symptoms.

Attachment anxiety. We examined friendship group identification as a mediator between attachment anxiety and depressive symptoms. Attachment anxiety significantly predicted depressive symptoms, $\beta = .519, p < .001$, but only marginally significantly predicted group identification (mediator), $\beta = -.195, p = .051$. Retaining attachment anxiety as a predictor, group identification predicted depressive symptoms, $\beta = -.254, p = .003$. The association between attachment anxiety and depressive symptoms was reduced when friendship group identification was included in the model, $\beta = .469, p < .001$. Bias corrected bootstrapping calculated the indirect effect of attachment anxiety on depressive symptoms through friendship group identification. The indirect effect was calculated as .156, with 5,000 bootstrap samples estimating a true indirect effect of between -.002 and .479, with 95% confidence. Therefore, as zero falls within the confidence interval, the indirect effect is non-significant, suggesting that attachment anxiety does not have a significant indirect effect on depressive symptoms, through friendship group identification. Rather than a mediating relationship, attachment anxiety and friendship group identification appear to be independent predictors of depressive symptoms, in line with our predictions.

Attachment avoidance. In line with the mediation requirements of Baron and Kenny (1986), attachment avoidance significantly predicted depressive symptoms, $\beta = .299, p = .002$. Attachment avoidance also significantly predicted group identification (mediator), $\beta = -.226, p = .023$. In turn, group identification significantly predicted depressive symptoms.
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(retaining attachment avoidance as a predictor), $\beta = -.293, p = .003$. Importantly, the introduction of the friendship group identification variable reduced the effect of avoidance on depressive symptoms, $\beta = .233, p = .015$. This suggests that friendship group identification partially mediates the effect of attachment avoidance on depressive symptomatology. To assess whether this partial mediation was significant, bias corrected bootstrapping (Preacher & Hayes, 2004) determined the indirect effect of attachment avoidance on depressive symptoms through group identification. The indirect effect was calculated as .304, with 5,000 bootstrap samples estimating a true indirect effect of between .059 and .795, with 95% confidence. Therefore, as zero does not fall within the confidence interval, the indirect effect was significant ($p < .05$), with attachment avoidance having a significant indirect effect on depressive symptoms, through friendship group identification.

Our findings suggest that attachment avoidance is associated with friendship group identification (those higher in attachment avoidance identified less with their friendship group), and group identification is associated with depressive symptoms (lower friendship group identification predicts more depressive symptoms), so that friendship group identification partially mediates the effect of attachment avoidance on depressive symptomatology, with a significant indirect effect. This is in line with our predictions.

**Discussion**

We aimed to examine whether the two distinct areas of interpersonal attachment and group identification processes both contributed to depressive symptoms. In line with our predictions, depressive symptomatology was negatively correlated with friendship group identification, and positively correlated with attachment anxiety and attachment avoidance. That is, depressive symptoms were linked with lower friendship group identification, higher attachment anxiety, and higher attachment avoidance.
The finding that depressive symptoms were associated with lower friendship group identification is in line with previous findings (Bizumic, et al., 2009), and with the theorising of Haslam et al. (2009) who suggest that identification with groups is important for continued mental health. Our findings also offer further support for research which has started to explore social identity and psychological health, suggesting that identification with groups may offer an important avenue for exploring well-being. It would be useful here to examine the role of social support, because previous findings have suggested that social support mediates the relationship between group identification and well-being measured by stress, job satisfaction, and life satisfaction (Haslam, O’Brien, Jetten, Vormedal, & Penna, 2005).

In addition to friendship group identification, our finding that attachment anxiety was strongly associated with depressive symptoms in this non-clinical sample supports much research in this field. Those high in attachment anxiety are suggested to have a negative view of self, and a more positive view of others (Bartholomew, 1990, 1997), and some have posited that it is the self-criticism component of attachment anxiety which leads to a strong depressive vulnerability (Murphy & Bates, 1997).

In line with our predictions, we found attachment avoidance to be a significant predictor of symptoms of depression, partially mediated by friendship group identification: a finding somewhat supported by past studies. Research linking attachment avoidance and depression is less consistent than research linking attachment anxiety and depression, and although some studies have reported positive associations, others have not found clear links between attachment avoidance and reports of depression (e.g., Shaver, Schachner, & Mikulincer, 2005).

Our finding of a partial mediation, supported by an indirect effect of attachment avoidance on depressive symptoms through friendship group identification, may suggest that previous studies have failed to find support for a direct link between attachment avoidance
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and depressive symptoms because part of the effect is indirect, and other variables are part of the mechanism. We did not find a similar effect for attachment anxiety; group identification did not mediate the relationship between attachment anxiety and depressive symptoms.

There has been much debate in the literature concerning an apparent lack of congruence between attachment ‘styles’ (i.e., secure; preoccupied; dismissing; fearful) and specific ‘disorders’ (e.g., depression), but scholars have suggested that particular style to disorder specificity is less important than understanding mechanisms of insecurity to vulnerability more generally, because formal diagnoses change over time (Bifulco et al., 2006; Mikulincer & Shaver, 2007a). Looking at underlying attachment dimensions (anxiety / avoidance), as the present study has done, helps to identify which components of a particular attachment style might increase an individual’s vulnerability, and from our findings, it appears that attachment anxiety, attachment avoidance, and low friendship group identification increase vulnerability to self-reported symptoms of depression, especially within a non-clinical sample. Our findings suggest that the mechanisms linking these variables might be different for different attachment styles. Of course, low levels of distress may have different antecedents to more severe diagnoses of depression, and the importance of interpersonal and wider support seeking processes at different levels of symptom severity may be a fruitful area of further research.

As our sample was non-clinical and cross-sectional, we remain cautious in the interpretation of our findings, and particularly, we cannot infer causal mechanisms. Further research may employ longitudinal or experimental methods to begin to address causal inferences in the pathways we have identified. Similarly, further research may look more particularly at specific attachment relationships. Although well used (Fraley et al., 2006, 2011), the measure employed in the current study gave a number of options for relationship
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status. Future research should examine our findings in different relationship states: thinking about an existing partner, a previous partner, or an imagined partner.

Despite these limitations, the clinical implications of our findings are that both attachment anxiety and friendship group identification appear to have strong, direct associations with reported symptoms of depression. This would suggest that in intervention or support, both of these factors may be addressed as important in their own right, rather than assuming that support and change in one domain will necessitate changes in the other. For attachment avoidance, friendship group identification appears to partially mediate the link with depressive symptoms, which suggests that addressing group identification might indirectly help those high in attachment avoidance. Importantly, by showing that attachment and group identification predict depressive symptoms in a non-clinical sample, the study highlights the need to address both interpersonal processes (like attachment) and group processes (like group identification) in the reduction and treatment of depressive symptomatology.
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Table 1

*Zero Order Correlations*

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<td>1. Depressive Symptoms</td>
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<td>-.345***</td>
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<tr>
<td>2. Identification</td>
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<td>-.195*</td>
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<td>3. Attachment Anxiety</td>
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<td>4. Attachment Avoidance</td>
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*Note.*** p < .001; ** p < .01; *p < .05*