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Adult attachment style. I: Its relationship to clinical depression

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Abstract *Background* Although there are an increasing number of studies showing an association of adult attachment style to depressive disorder, such studies have rarely utilised epidemiological approaches with large community-based series and have relied heavily on brief self-report measurement of both attachment style and symptoms. The result is a wide inconsistency in the type of insecure style shown to relate to disorder. The present study examined adult attachment style in a high-risk community sample of women in relation to clinical depression. It utilised an interview measure of adult attachment which allowed for an assessment of both type of attachment style and the degree of insecurity of attachment. A companion paper examines its relationship with other depressive-vulnerability (Bifulco et al. 2002). *Method* Two hundred and twenty-two high-risk and 80 comparison women were selected from questionnaire screenings of London GP patient lists and intensively interviewed. A global scale of attachment style based on supportive relationships (with partner and very close others) together with attitudes to support-seeking, derived the four styles paralleling those from self-report attachment assessments (Secure, Enmeshed, Fearful, Avoidant). In order to additionally reflect hostility in the scheme, the Avoidant category was subdivided into 'Angry-dismissive' and 'Withdrawn'. The degree to which attitudes and behaviour within such styles were dysfunctional ('non-standard') was also assessed. Attachment style was examined in relation to clinical depression in a 12-month period. For a third of the series this was examined prospectively to new onset of disorder. *Results* The presence of any insecure style was significantly related to 12-month depression. However, when controls were made for depressive symptomatology at interview, only the 'non-standard' levels of Enmeshed, Fearful or Angry-dismissive styles related to disorder. Withdrawn-avoidance was not significantly related to disorder. *Conclusion* The relationship of attachment style to clinical depression is increased by differentiating the degree of insecurity of style and differentiating hostile and non-hostile avoidance.

Key words attachment style – interview measurement – support – depression

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Introduction

Measurement of attachment style has polarised into investigation of attachment-related 'states of mind' involving discourse coherence and defensive processes, and those examining adult relationship styles (Stein et al. 1998). The latter construct is the focus of the current report. The study of relating-style attachment has recently broadened from a focus on individual differences to examining psychopathology (George and West 1999) with particular reference to depression (Hammen et al. 1995; Shapiro and Levendosky 1999; Gerlsma and Luteijn 2000). An association between insecure attachment style and depression is shown, both in terms of depressive symptomatology as assessed by checklist (Gerlsma and Luteijn 2000) and with clinical levels of disorder (Hammen et al. 1995; Mickelson et al. 1997). However, what remains puzzling about the studies available is that while there is consistency in linking any insecure attachment style with disorder, there is virtually no consistency in differentiating a more specific vulnerable style of attachment. Thus, some studies show the predicted links between depressive symptoms and the more Anxious/ambivalent styles such as 'Preoccupied/enmeshed' (Gerlsma and Luteijn 2000) and 'Fearful' (Murphy and Bates 1997), while others have highlighted 'Avoidant' styles (McCarthy 1999). Others have shown no

differentiation between any insecure style and depression (Mickelson et al. 1997).

Such inconsistencies have tended to be explained in methodological terms. Thus, studies have been criticised for being small in scale with little use of representative community-based samples. A number are conducted on student populations (Bartholomew and Horowitz 1991; Hammen et al. 1995), volunteers (Hazan and Shaver 1987) or small selected high-risk series (McCarthy 1999). Diagnostic interviews for disorder have been used infrequently, yet a study of high-school leavers showed that self-reported depression changes on the BDI were not predicted by attachment cognitions whereas SCID interview-based symptoms were so predicted (Hammen et al. 1995). There have been few prospective studies of attachment style with appropriate controls for the influence of symptoms on insecure style ratings.

Inconsistency of findings is also attributed to measurement. A diverse number of self-report measures exist. These use a variety of overall classification scales, making the styles difficult to compare (Stein et al. 1998; Crowell et al. 1999). Such differences have been compounded by dimensional vs categorical approaches to attachment style assessment. The most popular of the latter involves brief forced-choice profiles of either three or four styles based on two sentence descriptions (Hazan and Shaver 1987; Bartholomew and Horowitz 1991). These allow for a simple overall typing of attachment style but with little opportunity to assess how extreme an individual might be along a particular continuum, nor indeed whether a single style is always applicable (Stein et al. 2000).

Solutions to the problem of inconsistency have involved meta-analysis of the various self-report questionnaires to determine underlying constructs. Although these favour two-factor solutions, the interpretations are inconsistent. While Brennan and colleagues show a basic two factor solution encompassing Anxious and Avoidant styles (Brennan et al. 1998), Stein and colleagues conclude that only a secure-insecure dimension is stable across measurement systems (Stein et al. 2000). The latter is identified in terms of an individual's ability to relate to close others. The authors postulate that insecure styles are in fact best seen as strategies for dealing with interpersonal problems at the more extreme insecure level. If this conceptualisation of attachment style is correct then the lack of differentiation between insecure styles and psychopathology is to be expected. The extent to which such styles are dysfunctional then becomes a more critical element. As yet no measures exist which tackle the degree of insecurity involved in attachment styles.

Other inconsistencies are attributed to the variation in the type of relationship on which the measures are based. These involve ongoing romantic relationships (Hazan and Shaver 1987), ongoing and past romantic relationships and friendships (Bartholomew and Horowitz 1991) and childhood relationships with parents (Bartholomew and Horowitz 1991). It is possible that expression of attachment style might vary within such domains (Stein et al. 2000). Given the reliance on brief self-report measures of attachment it is difficult to explore the nature of attachment style in terms of whether specific styles might be influenced by the relationship context. This is particularly pertinent in series at high-risk for depressive disorder where experiences such as marital difficulties, deviant partner behaviour, single-parent status or social isolation are prevalent. Such investigation would benefit from the use of contextually-sensitive interview assessments of attachment styles.

A further issue concerns the degree of differentiation of insecure attachment categories. The original threefold Ainsworth classification (Secure, Anxious/ambivalent and Avoidant) based on infant's response to brief maternal separation (Ainsworth et al. 1978) has been elaborated into a fourfold classification with the differentiation of a Fearful style, which has features of both the Anxious and Avoidant categories (Bartholomew and Horowitz 1991). This has proved a useful category, showing high associations with disorder in some studies (Murphy and Bates 1997). As a style involving fear of rejection, loneliness and poor self-image, it is easily recognisable and readily distinguished from the typically detached and independent Avoidant style. In fact the latter is now argued by some to be the least vulnerable category (George and West 1999). While other styles are indicated in various measures (e. g. Compulsive-caregiving), hostile attachment characteristics are rarely reflected. One of the few exceptions includes a clinical self-report assessment which includes 'Angry-withdrawal' to denote individuals with high hostility to attachment figures perceived as unavailable or unsupportive (West et al. 1987).

Investigation of psychosocial vulnerability for depression shows that the presence of conflictful relationships with partners is as potent in leading to increased risk as the absence of support (Brown et al. 1990a). Linking such investigation of conflict in close relationships with attachment style has rarely been made. One study of depression has, however, examined attachment categories based on relationship attitudes in terms of dependence and hostility as well as behaviours in the marriage/cohabiting relationship and in close supportive relationships (Harris and Bifulco 1991). Bowlby-like attachment style categories (Anxious/ambivalent, Compulsive-caregiving and Compulsively self-reliant) were initially derived on the basis of matching interpersonal characteristics to the style prototypes. An additional Independent-hostile category was differentiated from within the self-reliant category and proved to be highly associated with depression. This study was instructive in highlighting the role for hostility in attachment style, and assessing attachment by interview rather than self-report in relation to ongoing attachment relationships. However, the findings need to be repeated with the benefit of prospective study and adapted measurement to

include the more commonly used Ainsworth-derived styles.

Most measurement of attachment style is through self-report questionnaires (Stein et al. 1998). There is only one interview assessment of attachment style based on ongoing relationships: the Peer Attachment Interview (Bartholomew and Horowitz 1991). This interview is designed for a late adolescent/young adult group with questions about attitudes to friendships and romantic relationships to derive four attachment profiles (Secure, Preoccupied, Fearful and Dismissive). Questions revolve around loneliness, shyness, trust in others, others' evaluation of self and hopes for change in social life. On the basis of these characteristics individuals are rated in terms of the attachment prototype to which they most closely correspond. High correlations were found between these assessments and peer ratings of the respondents' characteristics but associations with psychopathology have not been sought (Bartholomew and Horowitz 1991).

However, this interview is not ideally suited to examining attachment style in relation to psychopathology in high-risk, mid-life samples. First, because it is targeted on a young group with an emphasis on friendship and romantic attachment rather than marital partner and close support figures. Secondly, because it incorporates self-perception (e. g. low self-esteem) and states of mind characteristics (e. g. idealisation of relationships) together with relationship interaction characteristics in the overall classification. This means these cannot readily be examined as separate causal factors in relation to depression nor differentiated readily from depressive symptoms. Thirdly, the Peer Attachment Interview is not geared to assessing behaviour under stress in high-risk series, where issues of crisis support-seeking and coping with serious relationship difficulties arise.

Given the drawbacks of existing measurement the following need was identified: (i) for a relatively brief and reliable interview measure which can produce 'secure' and 'insecure' attachment styles according to usual typologies suitable for conducting in medium-sized epidemiological surveys; (ii) a measure based on attitudes and behaviour with current support figures encompassing partner, kin and close friends suitable for longitudinal work to encompass change; (iii) a measure which can assess the degree or severity of insecure attachment to test thresholds for psychopathology in terms of each of the styles identified; (iv) a measure which is not confounded with other psychosocial vulnerability factors for depression such as self-esteem and childhood adversity, so that these can be examined separately in modelling depression; (v) a measure which can encompass hostile relating styles in addition to anxious and avoidant ones.

The study reported here outlines a new interview scale which draws on existing interviews assessing support and cognitive styles, to derive attachment profiles in relation to depression. Although based largely on the widely recognised styles, additional assessment of anger in close relationships allowed for some elaboration in terms of a hostile-independent style. Attachment style is examined in relation to clinical depression in 302 community-based women, two-thirds of whom were selected as vulnerable to depression in terms of ongoing negative relationships, low self-esteem or childhood adversity. A companion paper seeks to examine attachment style in relation to vulnerability in terms of varieties of poor support, low self-esteem and childhood neglect or abuse and to locate attachment style in a developed psychosocial model of depression (Bifulco et al. 2002). A later report will examine the association of the attachment style interview with a self-report attachment instrument.

The following hypotheses were tested in the current study:

- Insecure attachment styles involving attitudes of Enmeshment, Fearfulness, Angry-dismissiveness and Withdrawn-avoidance are expected to be significantly higher in women selected for depressive-vulnerability than comparison women.
- Insecure attachment styles are expected to be associated with 12-month clinical depression. Higher associations are expected with 'marked' or 'moderate' levels of insecurity. Subdividing the Avoidant category is expected to clarify its association with disorder with Angry-dismissive style expected to relate to depression more highly than Withdrawn style.

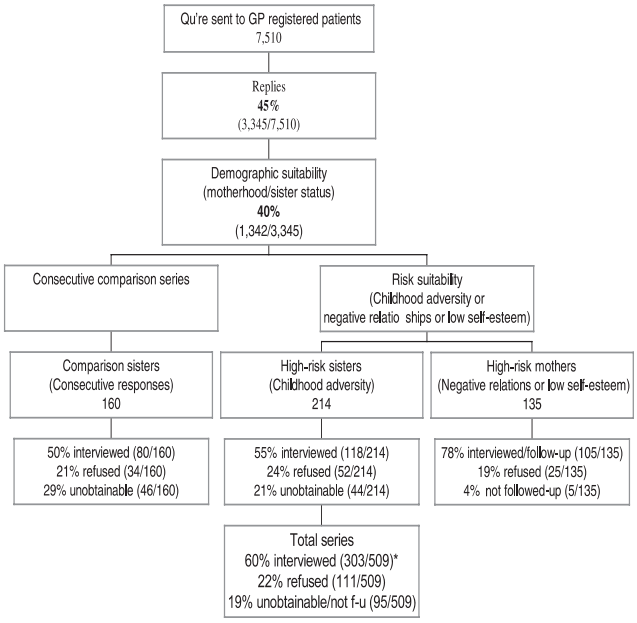
Subjects and methods

Sample

The sample was taken from a programme of research investigating vulnerability to depression in community women. The largely high-risk series was selected by extensive questionnaire screening of general practitioners' registers of patients in Islington, North London. Screening questionnaires were sent out to 7,500 women. The response rate of 45 % was similar to that found in other community-based series where a 70 % response rate emerged once those no longer living at the registered addresses were excluded (Brown et al. 1985). Three-quarters of the final series were selected for psycho-social vulnerability for depression, the remainder formed a comparison series. The sample incorporated two series investigating different elements of psychosocial vulnerability and selected on the basis of motherhood and sister roles:

- A series of 104 mothers with ongoing interpersonal problems (conflict with partner or child or lack of a close confidant) or low self-esteem, but free from clinical depression at first contact. These were seen twice prospectively over 12 months to gauge the impact of vulnerability on onset of disorder (Bifulco et al. 1998a)
- A series of sister-pairs, comprising a group selected for experiencing neglect or abuse in childhood (n=118) and a consecutive comparison series (n=80). Each had an available sister within 5 years of age, the sisters being brought up together in childhood. Each of the pair was interviewed independently about childhood to establish aspects of non-shared environment in relation to disorder (Bifulco et al. 1997).

The samples are described in detail elsewhere, but a summary of sample selection procedure and compliance rates are shown in Fig. 1. Overall 60 % of suitable responders agreed to the interview (with sisters where appropriate) and 23 % refused. A further 19 % were unobtainable (mainly sisters of original screened subject) or those moved away for follow-up.



Rates of unobtainable largely due to sister being out of touch or living abroad etc.
Refusal rate includes both in a sister-pair where one sister alone refused.
* 1 subject with incomplete information excluded from analysis.

Fig. 1 Sample selection through North London General Practice Surgeries.

Demographic characteristics of the final series showed 32 % were working-class, 61 % were married or cohabiting and 69 % had children. A fifth of the women were bringing up their children alone, and half the women were separated or divorced. The average age of the series was 34.6 years (S. D. 6.84) with a range of 19–50 years.

Measures

All women were contacted at home for intensive interview. These were tape-recorded and ratings were conducted after the visit. Ratings were made according to predetermined criteria, with consensus meetings to check consistency of ratings.

Attachment Style Interview (Bifulco et al. 1998b)

Scales were taken from the Self-Evaluation and Social Support measure (SESS) (O'Connor and Brown 1984) involving the quality of relationship with partner and up to two support figures named as very close, as well as attitudes denoting distance in relationships (e. g. attitudinal constraints on closeness, fear of intimacy) or dependence (e. g. lack of tolerance of separation) (Andrews and Brown 1988). Other scales required to complete the attachment prototypes were taken from the Cognitive Style Interview (Harris et al. 1990; Harris and Bifulco 1991) including 'Ability to relate to others', 'Anger/hostility' and 'Dependence/self-reliance'. While most scales were rated '1–4' in terms of 'marked', 'moderate', 'some', 'little/no' presence of the risk characteristic, the two scales assessing dependency ('desire for engagement with others' and 'self-reliance') measured both extremes of dependence with the mid-point ('2: moderate/average') denoting normal levels. These were differentiated from those '1: high' and those '3: low' in order to help differentiate Enmeshed and Avoidant styles.

Recombining the eight interview scales allowed for an assessment of overall attachment style in terms of profiles described in the literature. These were based solely on current attitudes and behaviour in attachment relationships (with partner and those identified as very close in terms of support) and did not include assessments of self-esteem or 'states of mind' scales involving coherence or idealisation. The scales utilised reflected Avoidance in making or maintaining relationships (e. g. mistrust; attitudinal constraints on closeness; self-reliance; anger) or Anxious/ambivalence (e. g. desire for engagement with others; intolerance of separation; fear of intimacy). The overall categories derived (Standard/Secure, Enmeshed and Fearful) were consistent with other measures (Bartholomew and Horowitz 1991), but the dismissive category was newly subdivided into 'Angry-dismissive' and 'Withdrawn-avoidant' on the basis of the degree of anger and conflict expressed in relationships. (See appendix 1 for examples.)

The degree to which attachment style was likely to be insecure was made on the basis of an interviewer's assessment of the individual's ability to make and maintain close supportive relationships. This was assessed on the basis of the quality of relationship with partner and support figures. Where either (i) problems were exhibited in relating over a range of relationships involving conflict and disruption and little reliable support or (ii) where individuals had no effective support figure, a judgement of 'poor' ability to make and maintain relationships was made (rated the lower 2 points on a 4-point scale). The degree to which attachment style was 'non-standard' ('marked' or 'moderately' insecure) vs 'standard' ('mildly' insecure or secure/'clearly' standard) was based on the individual's ability to make supportive relationships and on the intensity of the negative attitudinal material. For example, an individual whose fear of intimacy and rejection was associated with extreme levels of isolation would be rated more 'marked' than an individual with similar fears who had some degree of contact with close others although deriving little support from such contact (rated 'moderate'). In the 'mild' range an individual may have close supportive figures but nevertheless describe fears of rejection in relation to others. Where possible a single overall classification was made. However, provision was made for a double classification where an unclear picture emerged. This occurred, for example, when two styles seemed evident across relationships (with both fear of intimacy and anger expressed), or when a different style was evident in one set of relationships from others (for example 'Enmeshed' with partner but 'Fearful' of other relationships). The primary rating was given to the more pervasive style across relationships. For the main analysis the primary rating is used.

The Attachment Style Interview took between 30 and 40 min to administer and around double that time to rate and score. All ratings were agreed at consensus meetings by members blind to the presence of psychiatric symptoms. A manual of examples and rules for rating were developed to aid consistency (Bifulco et al. 1998b). Reliability was satisfactory with 0.80 (K^w) agreement on the overall attachment style scale for independent raters assessing 20 interviews. Reliability of the subscales averaged 0.75 (K^w).

Present State Examination (Wing et al. 1974)

Depression was assessed by the Present State Examination (PSE) over a 12-month period and judgements of clinical case involved the presence of depressed mood plus four or more key symptoms (Finlay-Jones et al. 1980). This threshold has been shown in practice to be virtually identical to major depressive disorder in terms of the DSM-III-R checklist (APA 1987) when both classifications are used (Bifulco et al. 1998a). All symptom levels and caseness judgements were checked by a psychiatrist experienced in the PSE (Professor T. K. J. Craig) and blind to other risk factors. Depression was assessed retrospectively over the prior 12 months in the Childhood Risk and Comparison series. In the Adult Risk series, where clinical depression was absent at first contact, onset of symptoms was determined prospectively at two interview contacts over the following 12 months.

Data analysis

The SPSS–9 programme was used for the statistical analysis, with corrected chi-squares used to examine the relationship of attachment to depression and logistic regression for examining the influence of different styles on disorder. In order to examine the impact of both *type of style* and *severity* of insecurity, the overall attachment scale was subdivided into dichotomised derived variables. These included first, the type of style (Enmeshed, Fearful, Angry-dismissive, Withdrawn and Clearly Standard/secure), second, the degree of insecure attachment ('marked', 'moderate', vs 'mild' and 'none') and third 'non-stan-

dard styles' (those only at 'marked' or 'moderate' level) and grouped by type (e. g. Enmeshed, Fearful, etc). Controls were made for the influence of (a) symptomatology on the reporting of attachment and (b) any confounding family influence through the inclusion of sisters in the analysis. This was achieved by repeating the final model excluding first those with depression at point at which attachment was measured and second family members (i. e. one of each sister-pair).

Results

Prevalence of attachment styles

Table 1 shows the prevalence of the different attachment styles in the combined high-risk and comparison series. The rating of secure or 'clearly standard' attachment style was twice as prevalent in the comparison group (49 %) as in the combined high-risk group (24 %) ($p < 0.001$, see Table 1A, row 6). The type of insecure style which most highly differentiated between high-risk and comparison series was Angry-dismissive (18 % high-risk and 6 % comparison). Enmeshed styles were also somewhat differentiated at 15 % and 9 %, respectively (see Table 1A). Fearful and Withdrawn styles had similar prevalences in both series. Fearful style proved to be the most prevalent insecure style. 'Double' classifications of attachment occurred for 5 % (16/302) of the series. This was no more common in the high-risk series (5 % vs 4 % of comparison) but had a raised rate in the group selected for childhood adversity (8 % vs 4 % of remainder).

When the degree of non-standard attachment was examined there were significant differences in rates between the two series for those rated 'marked or moderate' insecure style (54 % of high-risk and 19 % of comparison) (see Table 1B). There was little differentiation for those rated 'mild', but significantly more secure/clearly standard in the comparison series (49 % compared with 24 % in the high-risk).

Table 1 Prevalence of attachment styles in high-risk and comparison community women

A. Type of insecure attachment style

Any degree of attachment style (marked or moderate or mild)	High-risk series (N=222) % (n) with style	Comparison (N=80) % (n) with style
Enmeshed	15 (34)	9 (7)
Fearful	25 (55)	24 (19)
Angry-dismissive	18 (40)	6 (5)
Withdrawn	17 (39)	13 (10)
Clearly standard	24 (54)	49 (39)

$X^2=19.68$, $p < 0.001$, 4 df

B. Degree of insecure attachment

Degree of insecure style	High-risk series (N=222) % (n) insecure	Comparison series (N=80) % (n) insecure
Marked	10 (22)	1 (1)
Moderate	45 (99) **54**	18 (14) **19**
Mild	21 (47)	33 (26)
None (clearly standard)	24 (54) **45**	49 (39) **81**

$X^2=31.84$, $p < 0.0001$, 3 df

Attachment style and depression

Rates of depression in a 12-month period were similar in both the prospective Adult Risk series (38 %) and the retrospectively assessed Childhood Risk series (31 %), significantly higher than the 18 % in the comparison series ($p < 0.01$, 1 df). The latter rate is similar to that found in representative series of women in the same area (Brown et al. 1990b). Type of attachment style was significantly related to 12-month depression in the series as a whole (see Table 3, col 2). There was, however, little differentiation between styles (39 % Enmeshed, 41 % Fearful and 38 % Angry-dismissive were depressed) although Withdrawn was somewhat lower (27 %). The latter was, however, substantially higher than the 'clearly standard' group (14 %, $p < 0.001$).

In order to control for the possible contamination of attachment ratings by concurrent depressive symptoms, the results were re-examined excluding those with depression at point of interview at either clinical or subclinical level. The results were confirmed, but again with little clear differentiation between all four insecure categories (Table 2 B). Finally, the association of attachment style and onset of depression was examined in the prospective Adult Risk group alone. This group had been selected on the basis of concurrent vulnerability, so any association of attachment style with depression would imply an additional contribution to these other factors. However, although a trend in relating was found, particularly with increased rates of Fearful and Angry-dismissive styles, this did not reach statistical significance (see Table 2 C).

Attachment was then re-examined in relation to depression in terms of the degree of insecurity (see Table 3). A highly significant relationship with depression was found with a gradient showing 'marked' insecurity hav-

Table 2 Attachment style and case depression in 12 months

Any degree of attachment style (marked, moderate or mild)	A Total series N=302 % (n) depressed	B Excluding depressed at interview* N=245 % (n) depressed	C Adult Risk prospective series only N=104 % (n) onset depression
Enmeshed (n=40)	39 (16/41)	31 (10/32)	39 (7/18)
Fearful (n=74)	41 (30/74)	25 (13/53)	46 (11/24)
Angry-dismissive (n=45)	38 (17/45)	32 (12/37)	50 (11/22)
Withdrawn (n=49)	27 (13/49)	21 (9/43)	26 (5/19)
Clearly standard (n=93)	14 (13/93)	11 (9/80)	24 (5/21)
P <	$X^2=18.60$ $P < 0.001$, 4 df	$X^2=9.65$ $P < 0.04$, 4 df	$X^2=4.88$, 4 df NS

*Excludes both clinical case (n=43) and subclinical (n=14)

Table 3 Degree of insecure attachment and case depression in 12 months

Degree insecure attachment style (N)	A Total N=302 % (n) depressed	B Excluding depression at interview* N=245 % (n) depressed	C Adult Risk prospective series only N=104 % (n) onset depression
Marked (23)	61 (14/23)	47 (8/17)	86 (6/7)
Moderate (113)	41 (46/113)	32 (28/87)	42 (23/55)
Mild (73)	22 (16/73)	13 (8/61)	24 (5/21)
Clearly standard (93)	14 (13/93)	11 (9/80)	24 (5/21)
P <	X^2=30.51 P < 0.0001, 3 df	X^2=19.89 P < 0.0001, 3 df	X^2=10.73 P < 0.013, 3 df

ing highest rates and 'secure/clearly standard' the lowest (Table 3 A). When controls for depression at point of interview were made the relationship held with 'marked' or 'moderate' styles related to disorder, but 'mildly' insecure styles undifferentiated from those 'secure/clearly standard' (Table 3 B). When the prospective Adult Risk series was examined in relation to new onset of disorder, again a significant relationship held, but only for 'marked/moderate' levels of insecure attachment (Table 3, col 4). Mild levels of insecure styles were unrelated to onset. When 'double' classifications of attachment were examined, no increased risk was found when compared to 'single' non-standard classifications (31 % or 5/16 vs 46 % or 55/120). Both were around double the rate of non-standard ratings (18 % or 29/166).

Finally, logistic regression was undertaken on the total series to examine 'non-standard' (marked or moderate) levels of each attachment style in relation to depression. Those with depression at case or subclinical level at interview were excluded. The analysis showed that Enmeshed, Fearful and Angry-dismissive styles at non-standard levels of insecurity were required to model depression (see Table 4). Withdrawn style did not contribute to the model. When the analysis was repeated excluding the related subjects (half of the sister-pairs) the same results held (figures available on request).

Table 4 Type of non-standard attachment style and case depression in 12 months (excluding case or subclinical depression at point of interview n=245)

Variable	Odds-ratio	Wald	P <
Non-standard Enmeshed	5.83	10.65	0.001
Non-standard Fearful	3.64	8.72	0.003
Non-standard Angry-dismissive	5.01	11.80	0.0006
Non-standard Withdrawn	2.02	1.54	NS

In terms of goodness of fit, 78.3 % of subjects correctly classified. Best model is provided by non-standard (marked or moderate) Enmeshed, Fearful or Angry-dismissive styles

Discussion

A new assessment of attachment style was utilised in an intensively studied series of vulnerable and comparison community women in relation to clinical depression. The measure was based on an individual's ability to relate to close others, and access and utilise support in crises, together with attitudes denoting degree of Enmeshment, Fearfulness, Angry-dismissiveness or Withdrawn-avoidance. Prevalence of secure (or 'clearly standard') styles among the comparison series proved similar to those reported elsewhere using self-report assessments (Mickelson et al. 1997). In the high-risk groups studied (selected for childhood neglect/abuse or conflictful or unsupportive adult relationships) significantly higher rates of insecure styles were shown, with Enmeshed and Angry-dismissive styles most clearly over-represented. This suggests an association between attachment style and other vulnerability for depression which will be examined in a companion paper (Bifulco et al. 2002).

Insecure attachment was significantly related to clinical depression but with little discrimination between types of insecure attachment. However, 'non-standard' ('markedly' or 'moderately' insecure) attachment related most highly to disorder. In addition, differentiating Angry-dismissive from Withdrawn categories proved instructive in differentiating risk. The Withdrawn style was closest to the 'avoidant' described in the attachment literature as involving deactivation of the attachment system and carried low risk. Other investigators have noted that avoidance per se contributes little to vulnerability and disorder (George and West 1999). It also confirms prior findings of independent styles showing lower depressive risk when free from hostility (Harris and Bifulco 1991).

Angry-dismissive style, however, was highly related to depression. When attachment orientation is examined in relation to conflict resolution, anger is argued to underpin helplessness and guilt in close relationships (Rholes et al. 1998). Such anger is thought to spring from resentment towards childhood attachment figures that resurfaces in close adult relationships. Bowlby describes two types of anger in this context: 'functional' anger expressed to maintain the bond when the close other has been neglectful or inattentive, and 'dysfunctional' anger, the principle aim of which is malice or revenge. This latter becomes so intense and persistent that it alienates the close other (Bowlby 1973). Dysfunctional anger may well characterise that found in Angry-dismissive styles. Attachment theory would, therefore, hypothesise an association of Angry-dismissive styles with childhood adversity. This will be explored in the companion paper (Bifulco et al. 2002).

An issue surrounding lack of specificity of insecure style and disorder involves the overlap of styles. Just as the recently identified Fearful style has elements of both anxious and avoidant styles, the Angry-dismissive style appears to have similar overlapping components. The

anger exhibited has characteristics of ambivalence redolent of the 'protesting' styles exhibited in childhood separation, but co-exists with attitudes of high self-reliance. This overlap of style characteristics may be one reason why individual styles lack greater specificity in relation to depressive disorder. The analysis showed a small proportion (5%) of subjects to express a mixed or 'double' non-standard style with elements of more than one style evident. This was not related to higher rates of disorder, and its low prevalence meant it was not possible to determine whether in this analysis this was due to the style being 'unclassifiable' or whether it related to the concept of 'disorganised' style (George and West 1999).

There are various limitations of the present study. First, the analysis is undertaken on a highly selected community series designed to examine other questions concerning depressive-vulnerability. Only a relatively small comparison group was utilised. Therefore, in order to confirm the generalisability of the results, the analysis ideally needs to be repeated on more representative series. Although the high-risk nature of the sample enhances an investigation of disorder on relatively modest numbers due to higher prevalence of depression, this may mask some effect of more mildly insecure styles with depression. Compliance rates were only moderate, reflecting the complex nature of the sample design (e. g. paired subjects in a subseries and frequent follow-up of another subseries) and due to its high-risk character, and may have implications for generalisability. In addition, the sample would have benefited from a fuller prospective orientation to confirm the time order of attachment style and onset of disorder.

Whether the interpersonal styles described in this analysis actually denote disorders of attachment style rather than more general interpersonal dysfunction is questionable. The choice of the former framework was due to a number of relevant features: (i) the focus on dimensions of closeness/distance in attachment relationships. Other dimensions of relating such as 'upper/lower' (Birtchnell 1993) involving controlling or helpless behaviour were not included; (ii) the focus on threats to the 'secure-base', an attachment-construct operationalised in terms of failures in crisis support-seeking; (iii) the adoption of a classification common to most attachment instruments. However, the relatively low evidence for differentiation between styles does call into question whether an attachment interpretation is the most parsimonious.

One issue to be resolved is what determines whether styles are expressed as 'markedly' or 'moderately' insecure rather than at 'mild' levels. In the ASI these are determined by the extent of interpersonal difficulty in both the poor quality (or absence) of close relationships and the intensity of the attitudinal scales denoting mistrust, fear of intimacy, anger, etc. Whether this greater level of dysfunction is attributed to early life experience (such as that resulting from childhood adversity) or greater biological vulnerability, or whether it reflects less stable strategies for coping with the current social environment is not known. One plausible interpretation is that higher levels of insecurity may actually be activated by interpersonal stressors, similar to Beck's cognitive schema model (Beck 1967). Thus, a woman exhibiting 'mildly' insecure characteristics may develop more 'markedly' Enmeshed or Fearful style when a close relationship is threatened, such as if her partner leaves her. The series reported here had particularly high rates of interpersonal difficulties. These took the form of high rates of recent life events and difficulties (Bifulco et al. 1998a) and of lifetime stressors (Bifulco et al. 2000). Thus, expression of attachment style may involve a more dynamic relationship to an adverse social environment than is generally acknowledged or documented. This will be the subject of a companion paper further investigating the series reported here.

Just as attachment style may reflect adverse social situations, so it might be confounded by chronic symptoms of affective disorder. In this analysis any relationship between 'mild' levels of insecure attachment and depression disappeared once controls were made for symptoms concurrent with the assessment of attachment style and for prospective examination of new onset. Given that this analysis has not examined attachment style in relation to anxiety disorder, the influence of anxiety symptoms on attachment ratings will need to be examined in future studies. This may serve to find a specific role for different insecure styles in the aetiology of psychopathology, particularly given high rates of comorbidity of depression with other disorders (Dozier et al. 1999). Such investigation may help to illuminate the role of attachment style in increasing risk for a variety of psychological disorders as well as exploring further the mechanisms by which such styles can influence onset or course of disorder.

The new interview measure of adult attachment style reported here fills a gap in contextually-based measurement suitable for epidemiological work. Despite the inherent disadvantages of interview measures in terms of cost (being labour-intensive and requiring administration by trained researchers), their advantages over self-report measures include being able to assess the social context of attachment in terms of individuals' ongoing relationship interactions and difficulties and the use of investigator-based judgements to avoid potentially contaminated self-report ratings at levels for assessing dysfunction. The ASI instrument simultaneously assesses support and a variety of interpersonal cognitive subscales (such as mistrust, anger and fear of intimacy) which can also be examined individually in relation to disorder. This provides a potentially useful tool for clinicians in their assessment of depressive risk with implications for the type of treatment advocated (based on the individual's capacity for engagement with others) and drop-out potential (through mistrust and barriers to help-seeking) as well as focus of psychotherapeutic treatment in terms of addressing specific cognitive biases and constraints in relating to others. The instrument, thus, provides a useful clinical and research tool in

investigating the effects of adult attachment style in relation to psychiatric disorder.

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Appendix 1: Attachment style profiles

(Subscale ratings are dichotomised as *high* for '1: marked' or '2: moderate' and *low* for '3: some' or '4: little/none' on most of the 4-point scales. The only excep-

tions are for 'self-reliance' and 'desire for engagement' both of which have '2: moderate/average' scores in contrast to '1: high' and '3: low' ratings)

Enmeshed style

These individuals exhibit high dependency needs in close relationships. This shows itself as high need for contact with others (*1*: *high desire for engagement*), need for others' help and advice in coping (*3*: *low self-reliance*) and distress at being separated even for brief periods (*high intolerance of separation*). Individuals with Enmeshed style are generally trusting (*low mistrust*) and have few constraints about confiding and becoming close (*low attitudinal constraints on closeness*). Behaviourally, they may identify a number of close relationships with high degree of contact, but at 'marked' or 'moderate' insecure levels these do not involve high crisis confiding or support and are typically of short duration or frequent disruption.

The following quotes were given in an interview with a 'moderately enmeshed' woman: "I'd like to have more control over my life than I have in a lot of ways. I'd like to think I can be independent, but without P. (partner) or somebody else I'd be hopeless. In making decisions I'd say a lot of the time I refer to P. (*low self-reliance*). I'm not good on my own. I can't bear being alone. The thought of being on my own in a flat and being single again is petrifying" (*high desire for engagement)*. She continuously worries about her partner and son when they are away from her for even brief periods. She will not let her son (age 9) stay overnight at friends because it makes her so anxious to be separated. She also panics if her partner is home late: "I just give him an hour and then I'm in pieces. He went away for two days last week. I was hopeless. When he was away I couldn't sleep, I was pacing. When he was away last year I had him ringing me both day and night. Toward the end I was getting ok, but then I knew he was coming home. But no, I'm not good on my own" (*high intolerance of separation*). Objectively, she receives little support from her partner and does not confide in him. She claims not to be in love with him but stays with him because she has nowhere else to go and cannot bear being alone. She names a number of friends but no one she feels close enough to confide in (*poor/low ability to make and maintain relationships*).

Fearful style

Individuals with Fearful style avoid close relationships (*high attitudinal constraints on closeness*) because of fear of rejection (*high fear of intimacy)*. Their mistrust levels are high due to such fear (*high mistrust*). Behaviourally, these individuals are socially isolated but report a desire for greater engagement (*2: moderate desire for engagement*).

The following quotes are from a woman in the series rated as 'markedly fearful': "I don't trust others. I don't know if it's more of a mistrust of myself, the confidence in myself that they may actually not like me that much. I feel that once they know me they'll go off me *(high mistrust).* I'm afraid of being let down. I get anxious about people I've known only a short time in case they reject me (*high fear of intimacy*). It's hard to get close to others because I don't feel as good as them. I don't know how much to trust. I think 'why should they want to be friends with me?' I'm not a loner by choice, it would be nice to have others around. But although I like seeing people I like to get away *(2: moderate desire for engagement).* I get anxious when others are away. I worry if they are back late" (*high intolerance separation*). She lives alone with no partner and has no close confiding relationships (*poor/low ability to make and maintain relationships*).

Angry-dismissive style

Individuals with Angry-dismissive style are mistrustful and suspicious of others' motives (*high mistrust*) and exhibit conflict and anger in close relationships (*high anger)*. Such individuals are very independent (*1: high self-reliance*) and have little desire for contact or companionship of others (*3: low desire for engagement*). Behaviourally, these individuals have few very close contacts, although they are rarely isolated. Their relationships are, however, unsupportive and characterised by conflict.

The following quotes are from an interview with a woman rated 'moderately dismissive': "I'm very disillusioned about people. I don't trust them – they're out for themselves. Once someone hurts me I cut them dead. I was let down recently. It was a shock that someone could be so devious and two-faced (*high mistrust*). I can be a loner. I like to think I've got control over my life most of the time, but circumstances come and hit you between the eyes and you've just got to deal with it (1: *high self-reliance*). I'm happy to be on my own, I don't necessarily like to see other people" (3: *low desire for engagement*). She has a volatile relationship with her partner: "I do scream and shout at him. I'm a bit of a screamer to be honest. I feel at times that I hate him. At times I hate everyone" (*high anger*). She has poor support from her partner and high conflict in the relationship. She has no close confidant and a conflictful relationship with her family of origin (*poor/low ability to make and maintain relationships)*.

Withdrawn style

Individuals with Withdrawn style distance themselves from others (3: *low desire for engagement*) and are highly independent (*1: high self-reliance*). Unlike the Fearful style they report little fear of intimacy and un-

like the Angry-dismissive report no anger. Unlike the Enmeshed style they have no intolerance of separation. Behaviourally, such individuals are socially isolated.

The following quote is from a woman rated 'moderately withdrawn': "I'm a bit of a loner. Privacy is important to me. I feel I want to live alone now and cope by myself (*1: high self-reliance*). I think real closeness and intimacy is something that I experience with very few people, but I do experience it with some people. I don't actually want to get close to a lot of the people I know. I sometimes worry that people want to be closer to me than I do to them. I think that's alright though (*high attitudinal constraints closeness*). I don't trust people implicitly with everything. I have a sense of the boundaries within which I can trust them. So I tend not to tell people things that would be bad if they broke the trust (*low mistrust*). It's not important to see people often. Sometimes I think I'd quite like to have some company, but I'd rather be on my own than have people around for the sake of it (*3: low desire for engagement*). I usually like saying goodbye to people. I think the people I have been with find it more difficult than me" *(low intolerance of separation)*. She has no partner currently and could identify no close confidants. She generally has little social contact (*poor/low ability to make and maintain relationships*).

Clearly standard (secure)

Individuals rated 'clearly standard' have a range of supportive relationships (at least two who are close and confidants) and these include individuals from different relationship groups (partner, friends, kin). The relationships tend to be of a relatively long duration (*high ability to make and maintain relationships*). In terms of dependence they score in the mid-range (*2: moderate desire for engagement with others and 2: moderate self-reliance*). They report little fear of intimacy, anger or constraints on closeness.

The following quotes are from a woman interviewed in the series rated as 'clearly standard': "I trust most people. I choose people, people I want to be close to and want to be close to me. It's not something that happens quickly with someone I meet (*low mistrust*). Friends are very important to me. I have a small group who are close and they know me well. I'm not a loner, I'm a 'people's person' (*2*: *moderate desire for engagement*). I need to have some control over my life – but I don't have everything planned out. I need to be able to make my own decisions, but I will ask other people's advice (*2: moderate self-reliance*). I like to see people often, but I also love being on my own, I need my own company. I feel alright when people leave, but when my partner was away for 3 months I really missed him. I do like going off on my own without him sometimes, though" (*low intolerance of separation*). She has a close confiding relationship with her partner and has two close confidants, her sister and a friend she has known for a number of years (*good/high ability to make and maintain relationships*).

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