Research report

Recurrent depression and the role of adult attachment: A prospective and a retrospective study

Henk Jan Conradi a,b,⁎, Peter de Jonge a,c,d

a Department of Psychiatry, University Medical Center Groningen, University of Groningen, The Netherlands
b Department of Clinical Psychology, University of Amsterdam, The Netherlands
c Department of Internal Medicine, University Medical Center Groningen, University of Groningen, The Netherlands
d Centre of Research on Psychology and Somatic disease, Department of Medical Psychology, Tilburg University, The Netherlands

ARTICLE INFO

Article history:
Received 5 August 2008
Received in revised form 29 October 2008
Accepted 29 October 2008
Available online 16 December 2008

Keywords:
Adult attachment
Vulnerability
Recurrent depression
Primary care patients

ABSTRACT

Background: Recurrent depression is associated with interpersonal dysfunctioning which is related to underlying insecure attachment. In this study we examined associations between adult attachment and the long-term course of depression in depressed primary care patients. Methods: Depressed primary care patients were 3-monthly assessed during a prospective 3-year follow-up regarding: (1) severity of depression (BDI); and proportions of: (2) depression-free time; (3) depressive symptom-free time; and (4) time on antidepressants (all CIDI interview). Attachment style was assessed by the Experiences in Close Relationships questionnaire at two points in time: (1) one year before the end of follow-up (1-year prospectively followed subsample; n = 68); and (2) at the end of the 3-year follow-up (3-year retrospective subsample; n = 145). Mixed model analyses and non-parametric tests were used to determine whether different attachment styles were associated with different courses of depression.

Results: Fearfully attached patients in the prospective sample reported a statistically significant worse depression course compared with securely attached patients (adjusted mean BDI 12.7 v. 6.8 respectively; F = 3.22; p = 0.029), which was confirmed in the retrospective sample (adjusted mean BDI 15.7 v. 8.8; F = 7.86; p < 0.001). They reported significantly more prior depressive episodes and residual symptoms, longer use of antidepressants, and worse social functioning as well.

Limitations: Size of the prospective sample was restricted.

Conclusion: Fearfully attached subjects constitute a particularly vulnerable category of depressed patients. Information on their attachment style may provide GPs with indications regarding intensity, goals and approach of treatment.

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1. Introduction

The long-term course of depression is characterized by high recurrence rates and substantial levels of residual symptoms (e.g. Ormel et al., 1990; Solomon et al., 2000). Although many risk factors for recurrence are identified, most of them are not useful from the perspective of treatment for two reasons. First, a subcategory of risk factors, like number of prior episodes, is not modifiable. Kraemer et al. (1997) label these risk factors ‘markers’, whereas extensive study of modifiable risk factors, referred to as ‘causal risk factors’, is needed. Second, not all risk factors are informative with regard to intensity, goals and approach of treatment. Neuroticism may illustrate this. Although a powerful predictor for recurrence, genetic studies on personality traits chiefly support a hereditary transmission interpretation (Noftle and Shaver, 2006), meaning neuroticism is not easy to modify. Moreover, neuroticism is not specific enough to offer information on direction, content and approach of treatment. In contrast, insecure attachment seems more promising. Genetic studies on attachment mainly support a shared...
environment explanation (Nofle and Shaver, 2006), implying it can be modified. Also, the patient’s specific attachment quality may guide therapeutic interventions, because it refers to mechanisms underlying interpersonal problems which may lead to recurrence of depression.

Insecure attachment cognitions can distort understanding and evaluation of social relations. This may result in difficulties in maintaining satisfying relationships, leading to an impaired social support system, which may contribute to the development of psychopathology (Anderson et al., 1999; Hammern, 1999). Especially in times of distress when comfort and support are needed, such as during depressive episodes, dysfunctional attachment may become problematic. Clear associations between insecure adult attachment and depression are found in several studies (e.g., Shaver et al., 2005).

In contrast to most studies, which are cross-sectional or restricted to associations between attachment and measurement of depression at 2 points in time, in this study we examined the relationship between partner attachment and the long-term course of depression assessed in two subsamples at 4 and 12 points in time. This was done in a sample of primary care patients with a history of depression, which is a highly relevant group since the majority of depressed patients are treated by their GP (ESEMed/MHEDEA 2000 consortium, 2004).

Partner attachment was measured by its two fundamental (bipolar) dimensions or working models (Brennan et al., 1998). These are: (1) anxiety about rejection and abandonment, referring to the expectation of being perceived by partners as unacceptable or unlovable (negative model of self); and (2) avoidance of intimacy, or the expectation of inaccessibility and unresponsiveness of partners to ones attachment needs like support and consolation (negative model of others). The combination of these two dimensions yields a fourfold typology, i.e. secure, preoccupied, dismissing and fearful attachment (Bartholomew and Horowitz, 1991).

On basis of this model and the mentioned former research, we hypothesized secure patients to report the most favorable depression course, because they can draw upon functional models of both self and others (low anxiety about rejection and low avoidance of intimacy). The reverse is the case for the fearfully attached. They are anxious about being rejected and at the same time they have difficulties in compensating this by means of generating support by partners, because they tend to avoid intimacy. We predicted the preoccupied and dismissing patients to report a less favorable depression course compared to the secure group, but better courses than dismissing patients to report a less favorable depression course, because they can draw upon functional models of both self and others (low anxiety about rejection and low avoidance of intimacy). The reverse is the case for the preoccupied and dismissing patients to report a less favorable depression course compared to the secure group, but better courses than dismissing patients to report a less favorable depression course, because they can draw upon functional models of both self and others (low anxiety about rejection and low avoidance of intimacy).

To shed some light on the extent of interpersonal problems associated with insecure attachment, experienced loneliness and marital functioning were examined. These are indications of social support which may protect against depression by buffering the effects of stress (Cohen and Wills, 1985).

2. Methods

2.1. Patients and procedure

Patients participated in a randomized clinical trial (Conradi et al., 2007) evaluating the effect of four treatment strategies for depression: (1) Usual Care (UC) by the GP; (2) the Psycho-Educational Prevention (PEP) program; (3) psychiatric consultation followed by PEP (psychiatric consultation plus PEP); and (4) brief cognitive behavioral therapy plus PEP (CBT-plus PEP). Patients were recruited by almost 50 GPs. We included patients who: had a (recent) diagnosis of depression, were between 18 and 70 years old, were not suffering from: a life threatening medical condition, psychotic disorder, bipolar disorder, dementia or a primary alcohol or drug dependency, and were not pregnant or receiving psychotherapy already.

From the 267 included primary care patients, two subsamples completed the attachment measurement: (1) 68 patients 1 year before the end of follow-up (1-year prospective sample); and (2) 145 patients at the end of follow-up (3-year retrospective sample). The fact that not all patients were enrolled in this secondary study was due to practical reasons. At the moment the main study started no reliable adult attachment questionnaire was available in the Netherlands. At the time it was constructed, tested and ready for use, some of the patients had already finished their follow-up and could not be approached for the present study.

2.2. Study measures

The Experiences in Close Relationships (ECR) questionnaire (Brennan et al., 1998; Conradi et al., 2006) measures adult attachment in romantic relationships in the past and the present. It contains two subscales: Anxiety about rejection and abandonment (Cronbach’s α = 0.86) and Avoidance of intimacy (α = 0.88). A 7-point Likert scale ranging from 1 (disagree strongly) to 7 (agree strongly) and a middle position 4 (neutral/mixed) was used to score the items. When combined, these subscales yield the four mentioned attachment qualities: Secure, Preoccupied, Dismissing and Fearful. The Dutch ECR was found to be a valid and reliable measure (Conradi et al., 2006). Questions were added in order to establish whether patients had ever been involved in a romantic relationship, and were currently engaged in a relationship.

The Beck Depression Inventory (BDI) was 3-monthly administered during the 3-year follow-up to determine the course of severity of depression. The Dutch BDI has demonstrated good reliability and validity (Luteijn and Bouman, 1988).

An extended version of the depression section of the Composite International Diagnostic Interview (CIDI), a structured psychiatric interview with good reliability and validity (Wittchen, 1994) was administered 3-monthly by telephone during the 3-year follow-up. With this we measured the presence of each of nine DSM-IV depressive symptoms per week in the past 3 months. From these per week assessments, we derived two outcomes, covering total follow-up, namely: (1) proportion depression diagnosis-free time (i.e. the time patients were not fulfilling the DSM-IV criteria for major depressive episode); and (2) proportion depressive symptom-free time (i.e. the time patients did not report any of the DSM-IV depressive symptoms). The interviews also contained questions
about medication use per week from which we were able to compute the proportion of time during follow-up patients were on antidepressants (AD). With the CIDI applied at baseline we determined the lifetime number of previous depressive episodes. Finally, we gathered by means of the CIDI information regarding age, sex, educational attainment and occupation.

In order to obtain more insight in the extent of the interpersonal problems of the attachment groups, we administered at the end of follow-up the Marital Functioning scale of the Maudsley Marital Questionnaire (MMQ) (Arrindell et al., 1983) measuring relational dysfunctioning, and the Loneliness scale (De Jong Gierveld and Kamphuis, 1985) measuring experienced loneliness.

### 2.3. Statistical analyses

The Avoidance and Anxiety scales (ECR) were used for the creation of the four clusters of attachment-related cognitions and behaviors. Therefore, we first replicated the statistical procedure (a two-step cluster analysis) described by Brennan et al. (1998) in a Dutch general population sample (Conradi et al., 2006). Subsequently, we computed Fischer’s linear discriminant functions for this population sample, and applied the obtained norms to the patients of this study in order to classify them into one of the four categories of attachment. In the analyses we included patients who at least once were engaged in a romantic relationship.

Since patients were participating in a treatment trial, we tested whether the attachment clusters were randomly distributed over the treatment groups in order to examine possible inequality in treatment exposure between attachment groups.

To test whether attachment clusters of the pro- and retrospective samples differed on the course of BDI severity of depression (measured at 4 and 12 points in time respectively), we applied mixed model analyses (Bryk and Raudenbush, 1987). This analysis allows to simultaneously evaluate the effects of the attachment groups, control for depressive symptoms, making optimal use of the available data at the repeated assessments, and taking into account the clustering of the BDI assessments within subjects. Analyses were done with and without CIDI depression severity, measured during the eight weeks preceding the attachment assessment, as covariate. We did this in order to adjust for possible confounding of attachment measurement by depression, which is a conservative way of testing, since insecure attachment is a priori expected to be associated with unfavorable depression scores.

However, in order to control even more rigorously for possible confounding we applied the described mixed model analysis in two different subgroups of patients. First, we selected from the pro- and retrospective samples the patients who did not report both core symptoms of depression, i.e. depressed mood and diminished interest, during the eight weeks preceding the attachment assessment, since these symptoms are the main sources for possible recall bias regarding the attachment self-report. Second, we selected from the larger retrospective subsample the patients reporting no depressive symptoms at all during the eight weeks preceding the attachment assessment.

The following analyses were restricted to the retrospective sample. Kruskal–Wallis and Mann–Whitney non-parametric tests were applied in order to detect possible differences
between attachment clusters on: proportions of depression-free time, depressive symptom-free time, and time on AD (all three during total follow-up), and number of previous depressive episodes at baseline. Finally, to evaluate whether attachment clusters differed significantly on Marital Functioning and Loneliness (measured at the same moment as attachment), ANOVAs were applied.

3. Results

3.1. Patients

Clustering of the primary care patients in one of the four attachment styles resulted in the prospective \((n=68)\) and retrospective samples \((n=145)\) respectively in: Securely
3.2. Depression outcomes

Results of the four mixed model analyses on the long-term course of BDI depressive symptom severity by attachment cluster were consistent (Table 2). Regardless of whether analyses were done in the pro- or retrospective samples and with or without adjustment for depression severity during the eight weeks preceding the attachment assessment, Fearful patients reported significantly higher means on the BDI (varying from 18.3 to 12.7) compared with Secure patients (varying from 8.8 to 5.6). The Preoccupied and Dismissing patients reported means on the BDI between those of the Fearful and Secure groups, although the differences were not always statistically significant. Figs. 1 and 2 show the unadjusted pro- and retrospective BDI depression courses.

In order to control even further for possible confounding of attachment by depression, we selected from the pro- and retrospective samples patients who did not report both core symptoms of depression during the eight weeks preceding the attachment assessment, i.e. depressed mood and diminished interest. Even within this group (62% of the prospective sample) the Fearful group still reported higher on the BDI compared to Secure patients (unadjusted mean BDI 10.0 vs. 4.4; p = 0.041, and adjusted 9.5 v. 4.3; p = 0.049). Within the retrospective sample, 68% did not suffer from the core symptoms during the eight weeks preceding the attachment assessment. In this group the Fearful group reported significantly higher on the BDI compared to Secure patients as well (unadjusted mean BDI 15.1 vs. 6.7; p < 0.001; adjusted 15.0 v. 6.9; p < 0.001).

Finally, from the large retrospective sample we selected patients scoring no CID depressive symptoms at all during the eight weeks preceding the attachment assessment (46% of the sample). In this group, the Fearfully attached still displayed a clearly more unfavorable 3-year course than the Secure cluster on the BDI (adjusted mean BDI 12.6 vs. 6.4; p = 0.005).

Table 3 displays the results of the retrospective sample on the CID-based variables. Significant differences were revealed on all measures but proportion depression-free time. Number of previous depressive episodes at baseline was significantly higher in Fearful than in Secure (Z = −2.14; p = 0.033) and Dismissing patients (Z = −2.56; p = 0.011). On proportion depressive symptom-free time Fearful and Dismissing patients reported significantly lower than Secure patients (Z = −2.17; p = 0.03, and Z = −2.65; p = 0.008 respectively). Fearful patients used AD significantly longer compared with Preoccupied (Z = −2.32; p = 0.021) and Secure patients (Z = −3.07; p = 0.002).

3.3. Social outcomes

Table 4 displays the results concerning Loneliness and Marital Functioning, both measured at the moment attachment

### Table 3
Depression(-related) scores during 3-year follow-up by attachment cluster of the retrospective sample.

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Median (IQR)</th>
<th>n</th>
<th>X²; df = 3; p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fearful</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preoccupied</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dismissing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secure</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of prior episodes</td>
<td>5.00 (2.00–30.00)*</td>
<td>19/23</td>
<td>0.033</td>
</tr>
<tr>
<td>Proportion depression-free time</td>
<td>3.00 (2.00–6.00)*</td>
<td>26/27</td>
<td>0.82</td>
</tr>
<tr>
<td>Proportion symptom-free time</td>
<td>0.07 (0.00–0.37)*</td>
<td>32/33</td>
<td>0.45</td>
</tr>
<tr>
<td>Proportion time on AD</td>
<td>0.84 (0.42–0.96)*</td>
<td>60/62</td>
<td>0.013</td>
</tr>
</tbody>
</table>
| 1 Numbers in analyses: first number concerns all variables except for number of prior episodes, second number concerns only analyses regarding number of episodes. 2 At baseline, other variables during entire follow-up. 3 Numbers in analyses: df = 8.91; Z = 2.65; p = 0.03, df = 1.00; Z = 2.32; p = 0.011. 4 First number concerns all variables except for number of prior episodes, second number concerns only analyses regarding number of episodes.

### Table 4
Marital functioning and loneliness at 36 months per attachment cluster in the retrospective sample.

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Mean (SD)</th>
<th>F; df = 3; p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fearful</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Preoccupied</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dismissing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital Functioning</td>
<td>31.35 (10.95)*</td>
<td>15/23</td>
</tr>
<tr>
<td>Loneliness</td>
<td>21.78 (7.51)*</td>
<td>18/27</td>
</tr>
</tbody>
</table>
| 1 First number is number in Marital Functioning analyses (only patients with a current relationship); second number is number in Loneliness analyses (all patients).
was assessed. As expected, Fearfully attached subjects scored significantly worse on both variables than the other groups. Preoccupied and Dismissing patients reported significantly less satisfaction with relationship functioning than the Secure group, and Dismissing patients experienced more loneliness than Secure patients.

4. Discussion

4.1. Clinical relevance and underlying mechanisms

Overall, the results reveal that the long-term course of depression of the fearfully attached primary care patients compared with the securely attached group is unfavorable both in the future and in the past. Striking are the mean differences on the BDI during the 1- and 3-year courses. The fearful group reported means which are considered to reflect mild depression during their past as well as their future courses, whereas the secure group reported means which are considered as non-depressed (Frank et al., 1991). In the prospective sample the standardized mean difference between the fearful and secure groups is 1.55, corresponding with circa 37.5% of explained variance of the course of depression severity. Further, compared with the secure patients, the fearful patients clearly reported more prior episodes of depression, which has been identified as a profound predictor of future relapses (Conradi et al., 2008a); and during the 3-year follow-up: 12.2 months less depressive symptom-free time and a prolongation of time on antidepressants with 19.4 months. This is in line with earlier findings regarding insecure attachment and depression (e.g. Bifulco et al., 2002).

These clinically relevant differences between the fearful and secure clusters are supposedly due to differences in the underlying dimensions. In short, the securely attached have a functional model of self, so they do not need reassurance quickly, but when they do need support, they are able to seek assistance and consolation because they are low avoidant of intimacy with partners. Conversely, the fearfully attached have to deal with an approach–avoidance dynamism (Bartholomew and Horowitz, 1991). They report high anxiety of rejection, which means they are inclined to feel unlovable by partners and worry whether they earn their attention. Although fearfully attached need support more badly than the securely attached, they display at the same time a tendency to distrust significant others. This means they prefer not to rely on them or open up to them, resulting in avoidance of intimacy with partners. Because of these dysfunctional coping strategies it is not surprising that the fearfully attached report high levels of loneliness, suffer from the most dissatisfactory relationships of all attachment groups and are significantly less involved in current romantic relationships. Together, this suggests an impaired stress buffering capacity (Cohen and Wills, 1985) which may generalize more broadly to friends and relatives. Their dilemma, the need to seek support, but the inclination not to do so, makes the fearful group vulnerable for poor outcome of depression.

4.2. Treatment implications: type, goals and alliance

Taking these results together we think that in particular the fearful group needs special attention in primary care. Because of their overall vulnerability and their unfavorable course of depression, they seem to be indicated for more intensive types of treatment than usual care by the GP alone. In case of patients with a history of multiple prior major depressive episodes (like the fearfully attached), cognitive behavioral therapy outperforms usual care (e.g. Teasdale et al., 2000; Conradi et al., 2008b). Therefore, psychotherapy (when needed combined with AD maintenance therapy) seems indicated for the fearfully attached patient in order to achieve the specific goals as implicated by their attachment style; i.e. the modification of underlying dysfunctional interpersonal coping in order to enhance social support resources in daily life. Earlier research (Conradi et al., 2006) made clear that anxiety of rejection and avoidance of intimacy are positively associated with destructive interaction strategies (actively harming the relationship, and/or passively allowing conditions to deteriorate), and that avoidance is negatively correlated with constructive interaction strategies (actively attempting to resolve interpersonal problems, and/or passively waiting for conditions to improve).

However, knowledge about the patient’s attachment style may have implications for the therapeutic alliance as well (e.g. Cicchino et al., 2006). Since dismissing patients have developed expectations that others are not available or responsive when they need support (distrust of others), they tend to deactivate their attachment needs (Kobak et al., 1993). This may manifest itself as an unwillingness to acknowledge and deal with important problems. Therapy with such patients may escalate into struggle. Therefore, it is important that therapists gently challenge their patient’s distrust by offering experiences incongruent to their expectations in order to gain their trust (Dozier and Bates, 2004).

Preoccupied patients on the other hand are as a consequence of their negative model of self eager to discuss problems with therapists; they tend to hyperactivate attachment behavior (Kobak et al., 1993). Therefore, it is important to develop a treatment alliance in which the patients’ vulnerability is respected without validating their excessive expectations with therapists; they tend to escalate into struggle. Therefore, it is important that therapists gently challenge their patient’s distrust by offering experiences incongruent to their expectations in order to gain their trust (Dozier and Bates, 2004).

The therapists’ attachment style may be an important factor in these processes. Research offers indications that opposing attachment strategies of therapists and patients are more productive than similar ones (Dozier et al., 1994). A therapist with a predominately deactivating style may offer a compensating, new and incongruent experience for a patient with a hyperactivating style, and vice versa.

In case of fearfully attached patients this is far more complicated as they alternate between strategies (approach–avoidance). Rapprochement may trigger deactivation of attachment behavior (avoidance), and distancing may elicit hyperactivating behavior (clinging), establishing a great challenge for therapists. Presumably only securely attached therapists are flexible enough to keep up, and are able to offer a solid secure base for their fearful patients without being hurt as a result of patients’ transference processes. Referral to specialty mental health settings for these patients seems to be inevitable.

4.3. Limitations and strengths

A limitation of this study is the restricted size of the prospective subsample. Nevertheless, the analyses in this
subsample do support our hypothesis of an unfavorable future depressive course in Fearful patients compared with Secure patients. Moreover, these results were confirmed in the retrospective subsample. Combined, the knowledge about past and future depressive courses of patients may strengthen a GP in making intrinsically uncertain decisions about treatment policy.

A further strength of this study is the frequently, detailed and prospectively assessed long-term course of depression. This has rarely been done in combination with an attachment measurement. Third, depression assessment was done by different methods, i.e. reliable structured interviews (CIDI) and self-report questionnaires (BDI). Importantly, results converged regardless of the measurement method applied. Fourth, attachment was measured by the ECR which is a reliable and widely accepted questionnaire in adult attachment research. Finally, we had a sample of primary care patients with a history of depression at our disposal. In the field of attachment research such a sample is rarely investigated, while its relevance is indisputable because the vast majority of depressed patients are treated exclusively by their GP. Especially in case of patients with multiple prior depressive episodes it may be of importance for GPs to be alert to fearful partner attachment, because of its implications regarding intensity, goals and approach of treatment.

Role of funding source
Funding for this study was provided by the Dutch Organization for Scientific Research (NWO), Medical Sciences Program and Chronic Diseases Program, Research Foundations of Health Insurance Company ‘Het Groene Land’, Regional Health Insurance Company (RZG), National Fund Mental Health (NFGV) and the University Medical Center Groningen. These funders had no further role in study design; in the collection, analysis and interpretation of data; in the writing of the report; and in the decision to submit the paper for publication.

Conflict of interest
Authors declare that they have no conflicts of interest.

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