The childhood experience of care and abuse questionnaire (CECA.Q): Validation in a community series

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Background. Childhood neglect and abuse, as measured by retrospective interview, is highly predictive of psychiatric disorder in adult life and has an important role in aetiological models. However, such measures are labour-intensive, costly, and thus restricted to relatively modest sample sizes. A compact self-report assessment of childhood experience is invaluable for research screening purposes and large-scale survey investigation.

Method. A self-report questionnaire (CECA.Q) was developed to mirror an existing validated interview measure: the childhood experience of care and abuse (CECA). The questionnaire assessed lack of parental care (neglect and antipathy), parental physical abuse, and sexual abuse from any adult before age 17. A high-risk series of 179 London women were interviewed using the CECA together with the PSE psychiatric assessment, and completed the CECA.Q at later follow-up. Repeat CECA.Qs were returned for 111 women and 99 women additionally completed the parental bonding instrument (PBI; Parker, Tupling, & Brown, 1979).

Results. Satisfactory internal scale consistency was achieved on the CECA.Q for antipathy ($\alpha = .81$) and neglect ($\alpha = .80$) scales. There was satisfactory test–retest for both care and abuse scales. Significant associations were found between CECA.Q scales and the parallel interview scales with cut-offs determined for high sensitivity and specificity. CECA.Q neglect and antipathy scales were also significantly related to PBI parental care. CECA.Q scales were significantly related to lifetime history of depression. Optimal cut-off scores revealed significant odds ratios (average of 2) for individual scales and depression. When indices were compiled to reflect peak severity of each type of adversity across perpetrator, odds-ratios increased (average 3). A dose–response effect was evident with the number of types of neglect/abuse and rate of lifetime depression.

Conclusion. The CECA.Q shows satisfactory reliability and validity as a self-report measure for adverse childhood experience. The merits of having parallel questionnaire and interview instruments for both research and clinical work are discussed.

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There is now a wealth of evidence to show that adverse childhood experiences increase risk of major depression in adulthood. Studies of parental care and control (Mackinnon, Henderson, & Andrews, 1993; Parker et al., 1979), parental loss (Harris, Brown, & Bifulco, 1990) and family discord (Cummings & Davies, 2002) have been supplemented by those examining more extreme experiences of neglect, physical, and sexual abuse (Andrews & Brown, 1988; Bifulco, Brown, & Adler, 1991; Bifulco, Harris, & Brown, 1992; Mullen, Martin, Anderson, & Romans, 1993). Although a range of such factors relate to major depression outcomes, it is also apparent that they are highly interrelated. When indices combining childhood adverse experiences are developed, these maximize the association with depression. Thus, a composite index of at least one type of severe neglect, physical, or sexual abuse is shown to be a highly potent risk index for predicting disorder in community samples, with increased risk accruing with higher ‘doses’ of such childhood adversity (Bifulco, Brown, & Harris, 1994; Bifulco, Moran, Baines, Bunn, & Stanford, 2002).

The merits of utilizing interviews in collecting narrative accounts of childhood experiences retrospectively have been identified (Brewin, Andrews, & Gotlib, 1993; Bifulco, Brown, Lillie, & Jarvis, 1997). These include not only the capacity to capture relevant context, but also the capacity to encompass breadth and timing of experience. In addition, investigator-based interview ratings, which focus on factual aspects of behaviours and utilize interview aids to trigger memory of events retrospectively, also seek to overcome respondent biases in reporting. The CECA is one of the few such interview instruments available, and the one most inclusive of experiences before age 17. Reliability and validity of this interview are satisfactory (Bifulco et al., 1994, 1997), and the association of the scales to depression now replicated over several community samples (Bifulco & Moran, 1998).

However, interviews are not appropriate for all research purposes as they are unsuitable as screening tools and for large-scale sample coverage. Therefore, there is demand for standardized self-report questionnaires assessing childhood adversity. Although a number of self-report measures are in existence, these typically focus on specific forms of neglect or abuse and therefore need to be used in combination for broader screening purposes. Such instruments have different purposes. For example, while one of the most widely used self-report assessments of parental care and control, the parental bonding instrument (Parker et al., 1979), is designed to reflect the respondents’ perceptions of childhood experience, self-report assessments of physical abuse (such as the Conflict tactics scale; Straus, 1979) or sexual abuse (Mullen et al., 1993) are designed as objective assessments of childhood. It is also rare for childhood self-report measures to be validated against standardized interview measures, mainly because of the scarcity of the latter.

Most self-report assessments of lack of care and abuse have been shown to be associated with adult psychiatric disorder, specifically major depression. However, most focus on single forms of care or abuse (although the PBI has recently been extended to include items of physical and verbal abuse; Parker et al., 1997) and are measured on different types of scales, which makes combinations of instruments cumbersome and largely invalidated. This makes it impracticable to devise indices of abuse and neglect in relation to outcome disorders to examine dose-response effects.

The current report describes a new retrospective childhood questionnaire for adults (CECA.Q) that mirrors the main features of the existing interview (CECA) to serve as a research-screening instrument and for use in large community surveys. A companion
paper has undertaken a similar exercise in a clinical setting with a depressed patient series (Smith, Lam, Bifulco, & Checkley, 2002).

**Method**

**Sample**
The sample of 179 women in the present analysis constituted a subseries of 303 women originally studied between 1990 and 1995 as part of a prospective family study of depression (see Fig. 1). All women were originally selected from the registers of General Practices in Islington, North London, by screening questionnaire to participate in an interview study of lifetime risks for recurrent major depression. The screening included demographic items, childhood adverse experience, ongoing lack of support, and low self-esteem (Moran, Bifulco, Ball, & Campbell, 2001). Positive responses on these items, substantiated with telephone screening, ascertained whether risk factors were present. Of these, around one third were selected on the basis of reporting adverse childhood experience (see Fig. 1, Group 1), one third were a comparison group of consecutive questionnaire responders (Group 2) and one third were selected for ongoing problematic relationships (low support and negative interaction) or low self-esteem (Group 3). Because of the nature of the original family study, Groups 1 and 2 also included a sister within 5 years of age for each respondent, who was brought up in the same household during childhood (Fig. 1, Groups 1b and 2b). Full details of the initial sample, screening, and compliance rates are given elsewhere (Bifulco et al., 1997; Bifulco, Brown, Moran, Ball, & Campbell, 1998; Bifulco et al., 2002). In summary, a large-scale screening of 7,510 women and a reply rate of 45%, 62% of suitable women agreed to be interviewed, 21% refused, and 18% proved unobtainable (the latter relating mainly to sisters). All 303 women in the original series were sent CECA.Q postal questionnaires at follow-up between 1995 and 1999 with 59% returned completed. Given the 5-year period since initial contact, a number were returned because participants no longer lived at the same address. Once these latter were excluded, a response rate of 66% was achieved.

![Figure 1](image-url). Sample of questionnaire responders as a follow-up of interview-based study of depression risk.
This analysis is based on the women’s interview of childhood adversity using the CECA, together with lifetime psychiatric assessment at first interview contact (1990-5) and the CECA.Q completed at follow-up approximately 5 years later (from 1995 until 1999). This delay was a consequence of the ongoing prospective interview study waves but had the advantage of ensuring sufficient passage of time to reduce likely recall of prior responses and to ease measurement burden at first contact. Further questionnaires were returned by a 111 women after 2 years for retest purposes.

Ethical permission was obtained from Bloomsbury Health Authority, with informed, signed consent obtained from all respondents.

Aims

The aim was to develop a self-report questionnaire of childhood neglect and abuse, and to establish its reliability and validity. The CECA interview criterion, taken to be the ‘gold standard’ for the present analysis, was used to determine associations with the CECA.Q scales with cut-off scores determined for optimum sensitivity and specificity. Reliability was assessed in terms of scale internal consistency and instrument test–retest properties. Criterion validity was assessed in terms of correspondence with an existing self-report instrument of parental care (PBI) and in terms of its association with a diagnostic interview for lifetime depression. Optimal cut-off scores for disorder outcomes were also examined.

Measures

**Present state examination (PSE; Wing, Cooper, & Sartorius, 1974)**

Clinical depression was measured by means of the 9th version of the PSE both for the 12 months before interview and for lifetime disorder, with all previous episodes of depression assessed in accordance with the schedule for clinical assessment in neuropsychiatry (SCAN; Wing et al., 1990). Clinical case level of depression was determined by the presence of depressed mood plus four out of eleven key symptoms (Finlay-Jones & Murphy, 1979). This threshold has been shown to be virtually identical to that of the major depressions of the DSM with almost total overlap of cases when DSM-III-R criteria are simultaneously applied (Bifulco et al., 1998). The same criterion was used to assess adult lifetime experience of depression. An independent psychiatrist trained in the PSE and SCAN (T. K. J. Craig) and blind to other case information checked all ratings of case depression. Respondents were asked about the date of onset and offset of episodes and the crises that provoked them. Chronic (12 months or more) or recurrent (2 months or more) lifetime episodes of depression from age 17 until interview were used in the analysis.

**The childhood experience of care and abuse interview (CECA; Bifulco et al., 1994)**

The CECA interview is a semi-structured, retrospective interview used to determine a number of adverse experiences encompassing neglect, antipathy, physical abuse, and sexual abuse among others. It has satisfactory reliability and validity, and is an investigator-based measure requiring interviewer training and reference to benchmarked examples for rating reliability (Bifulco et al., 1997). The interview takes between 40 and 120 minutes to administer (depending on the complexity of the childhood experience) and around three times that length to score and transcribe.
the required justifications. A brief account of the key scales is given below but fuller definitions are given elsewhere (see Bifulco & Moran, 1998).

(a) Neglect is defined in terms of parent’s disinterest in material care (feeding and clothing), health, schoolwork, and friendships. This is assessed for each natural parent and parent surrogate with whom the child lived for at least 12 months prior to age 17. Neglect is assessed on four-point scale (‘marked’, ‘moderate’, ‘some/mild’ and ‘little/none’) with at least two or more indicators of neglect required for rating of severe neglect (‘marked’ or ‘moderate’).

(b) Antipathy is defined as hostility, coldness, or rejection shown to the child by parents or surrogate parents, including ‘scapegoating’ behaviour. Parental behaviour has to be sufficiently intense and pervasive for a rating of severe antipathy (‘marked’ or ‘moderate’ on a four-point scale) and assessed for mother and father figures.

(c) Physical abuse is defined in terms of hitting by parents or other older household members. A range of attacks are reflected but those rated severe (‘marked’ or ‘moderate’ on a four-point scale of severity) are usually repeated attacks where implements such as belts or sticks are used, or punching or kicking occurs with the possibility of causing harm. Ratings for mother and father are made separately.

(d) Sexual abuse involves physical contact or approach of a sexual nature by any adult to the child, but excludes willing sexual contact with peers. Severe sexual abuse (‘marked’ or ‘moderate’ severity) includes all repeated sexual contact with an adult or single incidents of a serious nature such as rape or sexual contact with a family member.

The Childhood Experience of Care and Abuse Questionnaire (CECA.Q)

The questionnaire items were taken directly from the interview schedule. After a period of piloting, during which time the phrasing of the questions was tested and improved, a final version was developed. This included incorporating sections on parental loss, parental care, physical abuse, sexual abuse, and support. This report deals with parental care (neglect and antipathy) physical and sexual abuse (the full questionnaire is available from the first author on request).

CECA.Q parental care

There were 16 items presented in terms of a Likert scale and assessed a mix of antipathy (8 items) and neglect (8 items) from mother (or surrogate mother where appropriate) and then from father (or surrogate father where appropriate). The items were rated on a five-point scale from (1) ‘yes definitely’ to (5) ‘no, not at all’. The mid point, (3), was labelled as ‘unsure’. The scale was introduced in terms of, ‘How you remember your mother/father in your first 17 years?’. Where there was more than one parental figure in childhood, respondents were asked to choose the parent figure with whom they lived the longest, or the one they perceived as the most difficult to live with. They were asked to identify the relation to the caregiver selected, ‘Which parent figure are you describing below? in terms of natural parent, stepparent/parent’s live-in partner, other relative, other non-relative, or other caregiver. Scoring involved summing items once certain ones were reversed as appropriate (see Appendices A and B).

CECA.Q physical abuse

Physical abuse items were introduced as ‘physical punishment by parent figure or other household member’ and a general screening question asked, ‘When you were a child or
teenager were you ever hit repeatedly with an implement (such as belt or stick), or punched, kicked or burnt by someone in the household?' (yes or no). If ‘yes’ then this was followed by four further questions to determine characteristics of the physical punishment by mother figure and then father figure. These assessed (a) age at first physical punishment, (b) whether hit on more than one occasion (yes/no), (c) how the child was hit (1. belt/stick, 2. punched/kicked, 3. hit with hand, or 4. other), (d) whether injury was inflicted, involving bruises, black eyes, or broken limbs (yes/no) and (e) whether perpetrator was out of control (yes/no). Scoring involved summing items (b–e), apart from age (see Appendices A and B).

**CECA.Q sexual abuse**

Sexual abuse was introduced in terms of ‘unwanted sexual experiences before age 17’. Because of the well-documented problems in sexual abuse recognition and reporting (Finkelhor et al., 1986), three separate screening questions were used: ‘When you were a child or teenager did you have any unwanted sexual experiences?’ (yes/no/unsure), ‘Did anyone force you or persuade you to have sexual intercourse against your wishes before age 17?’ (yes/no/unsure), and, ‘Can you think of any upsetting sexual experiences before age 17 with a related adult or someone in authority e.g. teacher?’ (yes/no/unsure). Both ‘yes’ and ‘unsure’ were taken as positive responses for completing the remaining items and for scoring purposes. The respondents were asked to complete a further eight questions about the first experience and these were repeated for one further experience of sexual abuse. The questions sought to identify characteristics of the experience to determine likely severity. They included (a) ‘age when it began’, (b) ‘Was the other person someone you knew?’ (yes/no), (c) ‘Was the other person a relative?’ (yes/no), (d) ‘Did the other person live in your household?’ (yes/no), (e) ‘Did this person do it to you on more than one occasion?’ (yes/no), (f) ‘Did it involve touching private parts of your body?’ (yes/no) or (g) ‘Did it involve touching private parts of the other person’s body?’ (yes/no) and (h) ‘Did it involve sexual intercourse?’ (yes/no). Scoring was based on first summing the screening items and secondly summing the severity items (b–h, excluding age), for each abuse separately (see Appendices A and B).

**Parental bonding instrument (Parker et al., 1979)**

The PBI was administered at first contact (between 1990 and 1995) immediately following the CECA interview for 93 women in Groups 1 and 2. In addition to the standard items, respondents were asked to identify the parent figure reflected (‘Which parent figure are you describing below?’) in terms of natural parent, stepparent/parent’s live-in partner, other relative, other non-relative, or other caregiver) to aid comparison with the CECA.Q. In practice, most were completed for biological mother and father, with only four surrogate mothers and six surrogate fathers being rated. Given that the PBI was completed some years before the CECA.Q, this lessened the likely contamination between the two self-report measures and served to reduce respondent burden of questionnaire completion.

**Analysis**

The SPSS-9 programme was used to derive correlation coefficients (Pearson’s $r$) to examine associations of CECA.Q at retest, and between CECA.Q and CECA interview,
and PBI scores. Chi-squared tests, with Yates' correction, were used to examine the relationship of the dichotomized questionnaire scores to depression. Analyses were repeated excluding related subjects (i.e. sisters) to control for possible familial similarities in responding.

**Results**

**Characteristics of sample**
The average age of the sample at interview was 34.5 years (range 18–51) with 72% of the women middle class, 62% married or cohabiting, and 21% single mothers. Because of the high-risk nature of the series due to selection procedure, half the series had at least one childhood experience of severe neglect, physical, or sexual abuse as determined by CECA interview at first contact. Just over one third of women (38% or 68) reported a lifetime recurrent (2 months or more) or chronic (12 months continuous or more) episode of clinical depression.

**Reliability of CECA.Q**

Alpha scores were assessed for the two CECA.Q dimensions of antipathy and neglect and found to be .80 and .81, respectively, suggesting high internal consistency. Test–retest on 111 women showed high levels of agreement for the summed scores: neglect ($r = .84$ neglect mother, .53 neglect father), antipathy ($r = .74$ antipathy from mother and .71 father), physical abuse (.52 mother physical abuse and .51 father and .61 for the screen item) and sexual abuse ($r = .70$ for screening items and .61 for severity of first abuse) all at $p < .0001$ significance levels.

**Questionnaire and interview comparison**

**CECA.Q**
The summed scores for all questionnaire scales were correlated with the parallel interview measures (utilizing full four-point scales). Correlations were all significant and ranged from $r = .48$–.66 (see Table 1A). In order to determine whether such association might be inflated by the experience of depression, the analysis was repeated excluding individuals with recurrent or chronic disorder. The associations were largely unchanged (range of .40–.72).

**PBI and CECA.Q**
PBI care scales were highly correlated CECA.Q scales with correlations between −.61 and −.78 (see Table 1B). Associations with antipathy items were somewhat higher than those for neglect as assessed by the CECA interview. Again, when those with lifetime depression were excluded the associations remained largely unchanged (range of −.70 to −.78).

**Dichotomized questionnaire scores**
The CECA.Q scales were dichotomized to achieve cut-off points comparable to ‘severe’ (i.e. ‘marked’ or ‘moderate’) instances of lack of care or abuse as rated by CECA interview. Table 2 shows the optimum cut-off points to maximize sensitivity or true positive rate (average 73%), with specificity or true negative rate at a similar level (average 78%) and overall accuracy 77%.
Questionnaire scores and depression
The association between CECA.Q scores and lifetime chronic or recurrent clinical depression was undertaken in three stages. First, the various summed CECA.Q scales were correlated with dichotomous disorder outcomes. Second, optimal cut-off scores on CECA.Q scales were examined in relation to depression outcomes, consistent with procedures used for previous screening instruments (e.g. Moran et al., 2001). Third, questionnaire indices were compiled taking ‘peak’ severities across perpetrators and types of abuse and examined in relation to disorder outcome.

Correlating full scales
Significant associations were found for most scales and depression, with the exception of CECA.Q physical abuse from mother or father, and PBI care from father (see Table 3, columns 2 and 3).
Table 3. CECA.Q and PBI scales and lifetime clinical depression

A. Individual CECA.Q scales, chronic/recurrent clinical depression

<table>
<thead>
<tr>
<th>Questionnaire scales</th>
<th>Pearson’s r</th>
<th>p</th>
<th>Cut-offa</th>
<th>Odds-ratio</th>
<th>χ², 1 df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Antipathy mother</td>
<td>.19</td>
<td>.01</td>
<td>≥ 28</td>
<td>2.10</td>
<td>4.79</td>
<td>.02</td>
</tr>
<tr>
<td>Antipathy father</td>
<td>.14</td>
<td>.06</td>
<td>≥ 30</td>
<td>2.45</td>
<td>5.36</td>
<td>.01</td>
</tr>
<tr>
<td>Neglect mother</td>
<td>.15</td>
<td>.04</td>
<td>≥ 25</td>
<td>1.80</td>
<td>2.86</td>
<td>.06</td>
</tr>
<tr>
<td>Neglect father</td>
<td>.16</td>
<td>.04</td>
<td>≥ 26</td>
<td>1.58</td>
<td>1.81</td>
<td>ns</td>
</tr>
<tr>
<td>Physical abuse mother</td>
<td>.08</td>
<td>ns</td>
<td>≥ 3</td>
<td>2.38</td>
<td>3.35</td>
<td>.09</td>
</tr>
<tr>
<td>Physical abuse father</td>
<td>.10</td>
<td>ns</td>
<td>≥ 3</td>
<td>2.41</td>
<td>3.35</td>
<td>.08</td>
</tr>
<tr>
<td>Sexual abuse screening</td>
<td>.16</td>
<td>.03</td>
<td>≥ 1</td>
<td>2.23</td>
<td>6.43</td>
<td>.01</td>
</tr>
<tr>
<td>Sexual abuse severity</td>
<td>.22</td>
<td>.002</td>
<td>≥ 2</td>
<td>2.58</td>
<td>8.05</td>
<td>.006</td>
</tr>
<tr>
<td>PBI</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PBI care mother</td>
<td>.24</td>
<td>.01</td>
<td>≥ 12</td>
<td>0.65</td>
<td>0.06</td>
<td>ns</td>
</tr>
<tr>
<td>PBI care father</td>
<td>.01</td>
<td>ns</td>
<td>≥ 8</td>
<td>0.98</td>
<td>0.001</td>
<td>ns</td>
</tr>
</tbody>
</table>

B. Indices combining CECA.Q scales, chronic/recurrent depression

<table>
<thead>
<tr>
<th>Questionnaire dichotomized indices (using higher cut-off scoresa)</th>
<th>Odds-ratio</th>
<th>χ², 1 df</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Peak severe antipathy mother or father</td>
<td>3.18</td>
<td>12.52</td>
<td>.001</td>
</tr>
<tr>
<td>Peak severe neglect mother or father</td>
<td>2.43</td>
<td>6.89</td>
<td>.009</td>
</tr>
<tr>
<td>Peak severe physical abuse mother or father</td>
<td>2.88</td>
<td>7.00</td>
<td>.008</td>
</tr>
<tr>
<td>Peak sexual abuse</td>
<td>2.58</td>
<td>8.05</td>
<td>.006</td>
</tr>
<tr>
<td>Peak index of severe neglect or antipathy or physical or sexual abuse (0–4)</td>
<td>3.25</td>
<td>12.47</td>
<td>.001</td>
</tr>
</tbody>
</table>

*selected for optimal association with depression outcome (*p < .05, one-tailed test).
Defining new cut-off scores

New cut-off scores for the CECA.Q were explored by examining each level of the summed scores by proportion depressed. In all cases (apart from screening sexual abuse items), these were higher than for the prior cut-off scores in relation to interview comparison (see Table 3). When sensitivity and specificity of these higher cut-off scores were determined against the CECA interview higher overall correct classification was achieved (average 80%) than with the previous cut-offs, and higher specificity or true negative rate (average 87%) but lower sensitivity or true positive rate (average of 60%). Utilizing the higher cut-off scores, nearly all scales were significantly related to depression, with average odds-ratios of 2.2 (see Table 3A). Exceptions involved neglect, and dichotomized PBI care scores (utilizing different cut-off scores did not increase the relationship with disorder). When the analysis was repeated using the lower CECA.Q cut-off points (those shown in Table 2), the associations with depression were less consistent. Only antipathy from mother (OR = 1.70, p < .03), neglect from father (OR = 1.98, p < .008), and severity of sexual abuse (OR = 2.0, p < .002) were significantly related to depression.

Creating indices

Previous interview analyses have found that indices of adverse experience utilizing ‘peak’ negative experiences of particular types of abuse from different perpetrators maximizes the association with depression. Similarly, an index reflecting general adversity including peak experience of any antipathy, neglect, physical abuse or sexual abuse maximized the relationship to depression. This was replicated for the CECA.Q by creating an index for the dichotomized scales across perpetrators (utilizing the higher cut-off scores). For example, an index of peak severe antipathy comprised the higher score from either mother or father to represent the presence of antipathy. Similarly, the highest score on neglect and physical abuse across parent figures was utilized. Sexual abuse involved taking the higher score for the two possible abuses rated. When these were examined in relation to lifetime depression, higher odds-ratios emerged than for each experience alone (see Table 3B). All such indices were significantly related to depression. An overall index of the presence of any one type of neglect, physical, or sexual abuse proved the most highly related to depression (OR = 3.3, p < .001).

When similar indices were compiled for the lower cut-off scores described in Table 2, significant relationships emerged with depression for all types of neglect/abuse apart from physical abuse (OR = 1.25, ns). However, odds-ratios overall were lower (average of 1.76) and the index of any one experience of neglect or abuse had an odds-ratio of 2.12 (p < .006).

Dose–response effect

An index summing the presence of peak severe neglect, antipathy, physical, or sexual abuse from parents or perpetrators (range 0–4) was examined in relation to lifetime depression (utilizing the higher cut-off scores). Figure 2 shows an increase of depression with each added type of abuse with 25% (18/73) of those with no abuse, 40% (14/25) of those with one abuse, 47% (14/30) of those with 2, 70% (16/23) of those with 3. However, this reached a plateau with four adversities having no increase above 3 (71% (5/7), but this may be because the latter category involved very small numbers. Another possibility is that one of the experiences, such as antipathy, may contribute little to disorder once the other neglect and abuse experiences taken into account, which is consistent with CECA interview findings.
Finally, because of the possibility that associations may have been artificially enhanced by familial characteristics in responding, the analysis was repeated once the 52 sisters included in the series were excluded. The same relationship between CECA.Q scores and chronic/recurrent depression held (figures available on request).

**Discussion**

This report finds high reliability and validity of the CECA.Q self-report of childhood adversity in terms of lack of care (neglect and antipathy), physical, and sexual abuse. It shows high internal consistency for care scales and satisfactory test-retest scores for all care and abuse scales. The neglect and antipathy parental care items were highly associated with an established self-report measure of care (PBI). However, the PBI scores of care were shown to be somewhat more associated with parental antipathy (representing emotional unavailability and criticism) than with neglect (with a material focus). All CECA.Q scales were significantly related to the parallel CECA interview. Satisfactory sensitivity and specificity was shown with lower cut-off scores achieving the higher sensitivity required for good screening capability, but higher cut-off scores achieving higher specificity and association with depression outcomes. Most scales individually related to recurrent or chronic lifetime depression, with indices of these in combination showing even higher associations. Physical abuse was less clearly related to disorder for each parent singly, but a combined index was significantly related to disorder. A dose-response effect was evident in the increased association with depression for the sum of neglect/abuse experiences. This indicates that the CECA.Q measure will be a useful tool in screening research populations for experiences of neglect and abuse in childhood and assessing childhood depressive risk.
There is some evidence that the CECA.Q performs better than the PBI in relation to adult disorder. However, two factors need to be acknowledged. First, that the full extent of the PBI including parental control and the ‘affectionless control’ construct was not included given the lack of a comparable parental control rating in the CECA.Q (other analyses of the CECA and PBI show high associations of both care and control items; Bifulco et al., 2002). Second, since the PBI does not traditionally test for a combined score of lack of care from either mother or father, it is difficult to compare with the CECA interview indices. The two self-report measures clearly have a different focus. Thus, the CECA.Q aims for both a broader assessment of childhood adversity (covering care and abuse) and has items with convey a more factual description of parental behaviour. The PBI has more of a focus on perceived parenting styles, with more ‘felt’ scales included to reflect ongoing parental representations.

Limitations of the study need to be identified.

(i) The women were interviewed 5 years prior to questionnaire completion. This may allow some ‘priming’ influence of the interview on childhood recall, which might increase the association between the two measures. However, in a tertiary depressed patient sample, Smith et al. (2002) found similarly good agreement with the CECA interview although the questionnaire was administered before hand in all instances.

(ii) The sample was a selected one. Not only did it solely comprise women, the majority of whom were psychosocially vulnerable, but it also involved intensive interview study over a period of years. Awareness of being in such a series may have increased motivation to complete the questionnaire carefully and accurately when compared with a series with no such input.

(iii) The series included a number of sister pairs who were retained to increase numbers. When the analysis was repeated once they were excluded, it appeared that their presence did not inflate concordance between questionnaire and interview. However, in an ideal series all respondents would be independent in testing the validity of the questionnaire.

(iv) There was no information on depression at point of questionnaire completion, so the possible contamination of questionnaire response and depression cannot be ascertained. However, given that the psychiatric assessment in all cases referred to an earlier time period and that the interview and questionnaire were unlikely to overlap consistently with depressive symptoms, there is unlikely to be a systematic bias that would influence associations. Moreover, when associations between questionnaire and interview were examined for those with no lifetime chronic/recurrent depression, the same associations held suggesting there was no significant bias. However, this may require confirmation in other series.

(v) There was only limited comparison between the CECA.Q and other self-report childhood instruments. There would be benefit in repeating the CECA.Q validation in a representative population sample with men included and with greater use of self-report childhood instruments and symptom scores.

(vi) Optimal cut-off scores for interview comparison and depression outcomes varied with the latter always somewhat higher. Reasons for this are unclear; although taking a lifetime recurrent assessment of disorder may be establishing even higher thresholds of childhood vulnerability than has been evidenced by previous interview thresholds geared to onset of single episodes. Both sets of cut-offs are
Advantages of using a questionnaire for research purposes are primarily economic. A large sample size can be encompassed with a brief measure, which can be administered by post and without entailing researcher training. This has obvious uses for research screening purposes and for large surveys. Its high association with interview ratings suggests that factual elements of experience are reflected and these at severity levels associated with adult depressive disorder. However, disadvantages include more restricted coverage than by interview. There is less opportunity for respondent engagement than is characteristic of face-to-face contact and reliance on adequate respondent literacy and language familiarity. It also has constraints due to issues of layout and comprehensibility. For example, childhood assessments will typically have reduced capacity for assessing multiples of the same type of abuse as often required in studies of forensic or personality disorder populations. Neither can the questionnaire carry much of a narrative element, which might indicate sequence and juxtaposition of experience to give a clear insight into how abuses are generated.

A companion paper examines the CECA.Q as a screening instrument in a clinical setting involving a series of tertiary depressed patients. The patients all completed the CECA.Q immediately prior to interview and high associations with interview measures were observed (Smith et al., 2002). However, only low rates of parental neglect or antipathy were found in the series restricting the exploration of the relative questionnaire cut-offs, and no examination of CECA.Q scores in relation to the presence or absence of depression was possible due to the nature of the sample. The current paper adds to the examination of the associations in a community series by ascertaining the relationship to major depressive disorder and determining cut-off scores and indices for certain analyses. This sets a precedence for utilizing the CECA.Q for clinical assessment purposes. There is increasing interest and need for research tools to be used in clinical and practitioner (e.g. social work) settings. This is in line with government policy demands for evidence-based practice and for standardization of assessment. The CECA.Q or CECA interview may increasingly be used as part of a clinical assessment to assess the full extent of psychosocial vulnerability prior to making treatment decisions. Clearly, the questionnaire version would provide a briefer and more economical format for early stages of such assessment.

In clinical contexts, and to some extent in interview research contexts, there are opportunities for ‘debriefing’ respondents or clients to deal with distress and provide routes to treatment or help if required in relation to recalling traumatic early life experience. The same opportunity is not automatically available for questionnaire research investigation. Of course, this is the case for all pencil and paper self-report assessment, particularly if conducted by post. The ethical issues potentially raised are complex, with clinicians and some researchers favouring face-to-face contact for the above reasons, whereas others argue for the ethical superiority of self-report modes for greater anonymity and less embarrassment/stigmatization and distress generated from checking off predetermined items rather than relating narrative experience. The ethical position of utilizing particular measures of traumatic childhood experience in research investigation or service provision, pertain to the full context of delivery and not to the measure/assessment tool per se. Thus, the way in which the measures are administered, together with the respondents’ understanding of their role and informed consent in the exercise, is critical. In the course of the study reported here, questionnaire respondents
were asked to provide written descriptions of experiences if they wished in addition to scoring items. This was provided for two reasons. First, for research purposes in case low agreement between questionnaire and interview experience was achieved, from which case a qualitative assessment of items could have been undertaken. However, this proved unnecessary. Second, to give respondents the opportunity to describe their particular experiences that typically only approximately fit the categories provided, which can be seen as ‘invalidating’ the complexity of the experience involved. Individual research teams using CECA.Q can decide whether they consider these open-ended descriptors necessary or desirable for their investigation in relation to their ethical implications of following-up on descriptions provided. However, these are excluded from the CECA.Q given in Appendix A.

The CECA interview assesses objective aspects of early experience rather than subjective perceptions of childhood, with validating evidence from independent sister interviews to lend support to this assumption. This is accomplished by detailed probing for factual elements of incidents as ‘evidence’ of what occurred and seeking consistency of accounts. High levels of agreement between sisters interviewed independently about their own and each other’s experience indicates that this may indeed be achieved. It is therefore of interest that high associations are achieved with a brief self-report instrument. This may be partly because items are worded in factual rather than ‘feeling’ terms. For example, the care items question about behaviour rather than feelings about parent (e.g. ‘s/he was interested in how I did at school’ or ‘s/he was interested in who my friends were’). Similarly, abuse items were worded in terms of examples of specific behaviour involved, such as incidents of being hit repeatedly with an implement, rather than relying on respondent definitions of abuse.

Another difference between interview and questionnaire approaches lies in the use of categorical versus dimensional measures. Although the CECA interview utilizes four-point scales of childhood neglect or abuse, which allows for assessment of severity of experience, in the optimal analyses these are typically dichotomized to determine the presence or absence of severe instances of neglect or abuse. This enables the use of indices combining peak experiences of neglect or abuse from different perpetrators to examine dose–response effects. In contrast, questionnaires typically sum a number of items on a continuous scale to derive a score, which is then examined in relation to a (usually) continuous dependent variables such as symptom scores. The CECA.Q provides for both types of analysis.

There need be no competition between brief self-report and interview measures of psychosocial risk for depression. Both serve different purposes and both are valuable for multimethod approaches in research investigation. Having such measures designed in parallel with close coverage of items to arrive at similar indices offers greater potential for reliable measurement to aid in the identification of risk in research investigation.

**Acknowledgements**

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programme grants. However, our particular gratitude, as always, is to the women who participated in the study in repeatedly describing their often painful childhood experiences.

References
Appendix A: CECA.Q

(FULL VERSION available from first author)

Your childhood experience

As you remember your mother figure in your first 17 years
Please circle the appropriate number. If you lived with more than one mother figure, choose the one you were with longest, or the one you found most difficult to live with.

Which mother figure are you describing below?

1. Natural mother
2. Step-mother/father’s live-in partner
3. Other relative (e.g. aunt, grandmother)
4. Other non-relative (e.g. foster mother, godmother)
5. Other (describe)............ (TABLE A1)

As you remember your father figure in your first 17 years
Please circle the appropriate number. If you lived with more than one father figure, choose the one you were with longest, or the one you found most difficult to live with.

Which father figure are you describing below?

1. Natural father
2. Step-father/mother’s live-in partner
3. Other relative (e.g. uncle, grandfather)
4. Other non-relative (e.g. foster father, godfather)
5. Other (describe)............(TABLE A2)

Physical punishment before age 17 by parent figure or other household member
When you were a child or teenager were you ever hit repeatedly with an implement (such as a belt or stick) or punched, kicked, or burnt by someone in the household? yes/no (if no then skip to section 4). (TABLE A3)

Unwanted sexual experiences before age 17 (please circle as appropriate Table A4)
If none then skip; if ‘yes’ or ‘unsure’ to above then complete the following. (TABLE A5)
### Table A1. MOTHER’S CARE

<table>
<thead>
<tr>
<th></th>
<th>Yes definitely</th>
<th>Unsure</th>
<th>No not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) She was very difficult to please............</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>(2) She was concerned about my worries............</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>(3) She was interested in how I did at school............</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>(4) She made me feel unwanted...</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>(5) She tried to make me feel better when I was upset............</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>(6) She was very critical of me............</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>(7) She would leave me unsupervised before I was 10 years old............</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>(8) She would usually have time to talk to me............</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>(9) At times she made me feel I was a nuisance............</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>(10) She often picked on me unfairly............</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>(11) She was there if I needed her............</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>(12) She was interested in who my friends were</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>(13) She was concerned about my whereabouts............</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>(14) She cared for me when I was ill............</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>(15) She neglected my basic needs (e.g. food and clothes)............</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>(16) She did not like me as much as my brothers and sisters............</td>
<td>5</td>
<td>4</td>
<td>3</td>
</tr>
</tbody>
</table>

---

### Appendix B: CECA.Q scoring – CARE ITEMS

#### Antipathy
Mother antipathy scales - reverse Items 8 and 11 and then sum 1, 4, 6, 8 to 11, 16. Repeat summing procedure for father’s antipathy.

#### Neglect
Mother neglect scale - reverse items 2, 3, 5, 12, 13, 14 and then sum 2,3,5,7,12 to 15. Repeat summing procedure for father’s neglect.
Table A2. FATHER’S CARE

<table>
<thead>
<tr>
<th></th>
<th>Yes definitely</th>
<th>Unsure</th>
<th>No not at all</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) He was very difficult to please</td>
<td>5 4 3 2 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) He was concerned about my worries</td>
<td>5 4 3 2 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) He was interested in how I did at school</td>
<td>5 4 3 2 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) He made me feel unwanted</td>
<td>5 4 3 2 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5) He tried to make me feel better when I was upset</td>
<td>5 4 3 2 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(6) He was very critical of me</td>
<td>5 4 3 2 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(7) He would leave me unsupervised before I was 10 years old</td>
<td>5 4 3 2 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(8) He would usually have time to talk to me</td>
<td>5 4 3 2 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(9) At times he made me feel I was a nuisance</td>
<td>5 4 3 2 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(10) He often picked on me unfairly</td>
<td>5 4 3 2 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(11) He was there if I needed him</td>
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<td></td>
<td></td>
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<tr>
<td>(12) He was interested in who my friends were</td>
<td>5 4 3 2 1</td>
<td></td>
<td></td>
</tr>
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<td>(13) He was concerned about my whereabouts</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>(14) He cared for me when I was ill</td>
<td>5 4 3 2 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(15) He neglected my basic needs (e.g. food and clothes)</td>
<td>5 4 3 2 1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(16) He did not like me as much as my brothers and sisters</td>
<td>5 4 3 2 1</td>
<td></td>
<td>(leave blank if no siblings)</td>
</tr>
</tbody>
</table>

Table A3. PHYSICAL PUNISHMENT

<table>
<thead>
<tr>
<th>If ‘yes’</th>
<th>Mother figure</th>
<th>Father figure</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. How old were you when it began?</td>
<td>Age............</td>
<td>Age............</td>
</tr>
<tr>
<td>b. Did the hitting happen on more than one occasion?</td>
<td>Yes/no</td>
<td>Yes/no</td>
</tr>
<tr>
<td>c. How were you hit?</td>
<td>Belt or stick</td>
<td>Belt or stick</td>
</tr>
<tr>
<td></td>
<td>Punched/kicked</td>
<td>Punched/kicked</td>
</tr>
<tr>
<td></td>
<td>Hit with hand</td>
<td>Hit with hand</td>
</tr>
<tr>
<td></td>
<td>Other</td>
<td>Other</td>
</tr>
<tr>
<td>d. Were you ever injured e.g. bruises, black eyes, broken limbs?</td>
<td>Yes/no</td>
<td>Yes/no</td>
</tr>
<tr>
<td>e. Was this person so angry they seemed out of control?</td>
<td>Yes/no</td>
<td>Yes/no</td>
</tr>
</tbody>
</table>
APPENDIX C: CECA.Q SCORING – ABUSE ITEMS

Physical abuse
Screen item if rated ‘yes’ score 1, ‘no’ score 0.

Severity of physical abuse
Mother: sum 3b to e [b(\(\text{yes}\)) = 1, c(1 or 2) = 1, d(\(\text{yes}\)) = 1, e(\(\text{yes}\)) = 1] (total 0–4).
Repeat procedure for father physical abuse.

Sexual abuse
Screen item for each of 4 (i–iii) rated ‘yes’ or ‘unsure’ = score 1 (total = 0–3).

Severity of sexual abuse
Scoring for each abuse: 4b to h, any item scored yes = 1, sum (total = 0–7; for cut-off scores see Tables 2 and 3)