

Title: Childhood abuse and the content of delusions: an exploratory study

Abstract

We aimed to investigate possible associations between histories of childhood abuse and the content of delusions for individuals with psychotic disorders. 39 participants with a psychotic disorder including one or more delusional beliefs successfully completed structured interviews about childhood trauma, delusional beliefs and associated anomalous perceptual experiences including hallucinations. The presence of hallucinations was predicted by greater physical abuse. Greater abuse in general was associated with delusions involving ‘special abilities’ (grandiosity) and, at trend levels, with those involving ‘defective self’. Though preliminary, these results suggest that further investigation is warranted. The presence and nature of abuse may be relevant to delusional presentations and should form an essential part of clinical assessment of psychotic disorder.

A growing literature suggests an association between childhood abusive experiences and psychotic disorders, with some reviewers suggesting that this amounts to a causal relationship (Read et al. 2005, Larkin and Morrison), though this remains contentious. Estimates from among in-patients (majority with a psychotic diagnosis, Read et al. (2005) suggest that around one half have suffered childhood physical abuse (CPA): furthermore, one half of females and one quarter of males have suffered childhood sexual abuse (CSA). Details from patients' casenotes suggested that those who have experienced sexual abuse are significantly more likely to endorse two or more positive symptoms characteristic of schizophrenia (Read et al. 2003). Though concern about accuracy is understandable, the evidence supports reliability estimates no different to the general population, and that the reported rates are more likely to be underestimates (Goodman et al., 1997). The exact nature of the relationship of childhood abuse with delusions remains unclear: Ross et al. (1994) found ideas of reference to relate to presence of CSA, a finding absent from Read et al. (2003) who instead found increased rates of paranoid delusions. In summary, though not necessarily a causal relationship, the wealth of data now emerging supports a strong and relevant association, in particular to positive symptoms, delusions amongst them.

Beyond evidence that childhood abuse predicts the presence of psychotic symptoms, some authors have suggested that it might also impact upon the *content* of symptoms, especially delusions and hallucinations. Beck and van der Kolk (1987) noted frequent sexual delusions in chronically hospitalised female incest survivors with psychosis. Olfactory delusions (and anomalous experiences) have been suggested as linked to sexual abuse. Paranoid delusions have sometimes been identified at a higher rate in individuals who have a history of familial childhood

abuse compared to those who do not; and individuals with a delusion of possession/ reference to evil/devil have been found to be more likely to have experienced sexual abuse than other psychotic individuals (Goff et al. 1991). Read and Argyle (1999) estimated that half of the positive symptoms for which content was recorded in inpatient notes appeared to be directly related to the abuse. We aimed to identify relationships between the nature of abuse and delusional themes. Though exploratory, we hypothesised that themes of ‘persecution/ paranoia’ might be particularly associated with abuse. Where present, themes of altered sexuality, evil, the devil or possession and/or ideas of reference might also be associated with CSA.

Methods

Participants

Fifty individuals were recruited from Barnet, Enfield & Haringey NHS Trust who gave ethical approval for the study. All possessed a DSM-IV diagnosis of a psychotic disorder according to psychiatric casenotes that also included a delusional component as reported by medical staff. Participants were excluded if they were unable to speak fluent English, or if they disclosed significant abuse in adulthood as adult abuse is also known to be relevant to positive symptoms (Read et al. 2003). As all individuals were known to the authors clinically, in practice very few potential participants declined or were excluded ($n = 9$), no details were obtained about these due to ethical considerations. Two participants were excluded due to their minimisation responses on the Childhood Trauma Questionnaire. The remaining thirty nine participants were aged between 19 and 60; twenty-three were male and sixteen were female. Nineteen (49%) participants described themselves as White-British; eight (21%) as Black-African; six (15%) as Black-British; two (5%) were White-Irish and four (10%) were Asian. 28 (72%) had a current diagnosis

of schizophrenia; five (13%) a diagnosis of delusional disorder; and six (15%) that of affective psychosis.

Measures

Childhood Trauma Questionnaire (CTQ, Bernstein and Fink 1998): A 28-item questionnaire that screens for childhood histories of abuse and neglect. The CTQ investigates five types of maltreatment – emotional, physical and sexual abuse, and emotional and physical neglect. It consists of a series of statements about childhood events, which are endorsed on a 5-point Likert scale according to frequency, ranging from ‘never true’ to ‘very often true’. Thresholds are provided for indicating severity of abuse (‘none’, ‘low’, ‘moderate’, and ‘severe’). Internal consistency of sub-scales ranged from 0.79 to 0.94, with retest reliability of 0.88 (Fink et al., 1995). The CTQ also includes a minimisation/denial scale (zero to three) for detecting possible false-negative abuse reports. Only those whose scores classified them at the ‘moderate’ or ‘severe’ level were included in either of the abuse groups, and those who scored at the ‘none’ or ‘low’ levels were included in the non-abused group.

SCAN–2.1 (Wing et al. 1990). The relevant subsections (16-19) were used to obtain detailed descriptions of delusions and other positive symptoms where present: The details of hallucinations, thought disorder and delusional ideas were taped for later scoring and detailed coding. Because SCAN categories themselves do not necessarily encompass all broad thematic areas and are not necessarily based on meaning, we conducted a thematic analysis based on the interview data. The thematic analysis progressed through three key stages (Barker et al., 2002): (1) identifying meaning; (2) categorising; and (3) integrating into themes. This resulted in eight themes that could be reliably identified ($\kappa=0.90$) by a second blind coder: these were

‘surveillance/conspiracy’; ‘spirituality/ spiritual entities’; ‘defective self’; ‘defective body’; ‘others see as defective’; ‘loss of control’; ‘threat of harm from others’; and ‘special abilities’.

Results

A notably high degree of childhood emotional abuse was seen (mean=14.3, s.d. =5.7), though CPA (mean=11.3, s.d.=6.2) and CSA (mean=8.6, s.d.=6.8) were also frequent. Twenty-three participants met criteria for emotional abuse (59%: 12 males, 11 females), seventeen for physical abuse (44%: 11 males, 6 females), and nine for sexual abuse (23%: 3 males, 6 females). Figure 1 presents a breakdown by abuse category and table 1 gives the frequencies of delusional themes.

Table 1/Figure 1 about here

Logistic regression tested associations between delusional themes and the scores for emotional, physical and sexual abuse (entered simultaneously as no abuse specific predictions were made) where numbers endorsing a category or theme were sufficient. The endorsement rates for neglect were extremely high: curtailment of range in the present sample rendered its analysis impractical. The presence of hallucinations (all types) was significantly predicted ($\chi^2=14.5$, $df=3$, $p=0.002$) by greater child physical abuse ($W=5.4$, $p=0.02$). *Auditory Hallucinations* were similarly predicted albeit at trend levels ($\chi^2=6.4$, $df=3$, $p=0.09$). There was a strong trend for *Defective Self* to be predicted ($\chi^2=7.1$, $df=3$, $p=0.07$) by greater abuse without a clear predictor emerging. *Special Abilities* was predicted ($\chi^2=8.6$, $df=3$, $p=0.04$) by greater abuse, though no single predictor reached significance. A similar pattern was seen for *Grandiose Abilities* at trend levels ($\chi^2=6.5$, $df=3$, $p=0.08$).

Discussion

The results attested to very common presence of abuse and neglect in the background of patients – rates of CSA and CPA are consistent with much larger systematic studies. Less commonly documented is the frequency of emotional abuse, sometimes in tandem with physical or sexual abuse. This is consistent with the broader picture of ‘a marked excess of victimising experiences’ in people with psychosis seen in the British National Survey of Psychiatric Morbidity (Bebbington et al. 2004). In terms of the hypotheses, no support was found for an association between abuse and paranoid delusions as none of the relevant SCAN categories (being spied on, persecution, conspiracy) brought significant results. Neither olfactory hallucinations nor delusions of smell were associated with abuse though the latter were rare. No cases contained delusions specifically of bodily invasion/infestation or possession so that this hypothesis could not be tested, though the broader category of ‘spirituality/spiritual entities’ (much of it ‘malign’) showed no significant relationships. However, equivocal findings linked grandiose delusions with childhood abuse. Results predicting *Defective Self* were suggestive but more substantial replication is needed. Nevertheless they support the idea that early trauma is relevant to negative views of self in individuals with psychosis. Although prior observations have tended to favour CSA as a predictor of hallucinations’ severity, in the present sample, hallucinations’ presence (severity was not assessed) were associated with childhood physical abuse. However, the sample size allowed only limited statistical power, and ‘pure’ CSA was not in evidence. Though the present sample was not an ideal one to investigate the nature of an abuse/hallucination association, the finding is consistent with recent studies positing a cognitive schema-based link between trauma and hallucinations (Hardy et al. 2005, Gracie et al. 2007). Large-scale

investigation of the formal relationships of the content of psychotic symptoms to childhood experience is overdue.

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Declaration of Interest

The authors have no interests to declare.

References

Barker, C., Pistrang, N., & Elliott, R. (2002). *Research methods in clinical psychology*. Sussex: Wiley.

Bebbington, P., Bhugra, D., Brugha, T., *et al.* (2004). Psychosis, victimisation and childhood disadvantage: Evidence from the second British National Survey of Psychiatric Morbidity. *The British Journal of Psychiatry*, **185**, 220-226.

Beck, J. C. & van der Kolk, B. (1987). Reports of childhood incest and current behavior of chronically hospitalized psychotic women. *American Journal of Psychiatry*, **144**, 1474-1476.

Bernstein, D. P. & Fink, L. (1988). *Childhood trauma questionnaire: A retrospective self-report manual*. The Psychological Corporation.

Fink, L., Bernstein, D. P., Handelsman, L., Foote, J., & Lovejoy, M. (1995). Initial reliability and validity of the childhood trauma interview: A new multidimensional measure of childhood interpersonal trauma. *American Journal of Psychiatry*, **152**, 1329-1335.

Goff, D. C., Brotman, A. W., Kindlon, D., *et al.* (1991). The delusion of possession in chronically psychotic patients. *The Journal of Nervous and Mental Disease*, **179**, 567-571.

Goodman, L. A., Rosenberg, S. D. & Mueser, K.T., (1997). Physical and sexual assault history in women with serious mental illness: prevalence, correlates, treatment, and future research directions. *Schizophrenia Bulletin*, **23**, 685-696.

Gracie, A., Freeman, D., Green, S., *et al.* (2007). The association between traumatic experience, paranoia and hallucinations: a test of psychological models. *Acta Psychiatrica Scandinavica*
Published article online: 19-Mar-2007.

Hardy, A., Fowler, D., Freeman, D., *et al.* (2005). Trauma and hallucinatory experience in psychosis. *Journal of Nervous and Mental Disease*, 193: 501-507.

Larkin, W.& Morrison, A. P. (2006) *Understanding Trauma and Psychosis*.

Hove: Brunner-Routledge.

Read, J., Agar, K., Argyle, N. *et al.* (2003). Sexual and physical abuse during childhood and adulthood as predictors of hallucinations, delusions and thought disorders. *Psychology and Psychotherapy: Theory, Research and Practice*, **76**, 1-22.

Read, J. & Argyle, N. (1999). Hallucinations, delusions, and thought disorder among adult psychiatric inpatients with a history of child abuse. *Psychiatric Services*, **50**, 1467-1472.

Read, J., van Os, J., Morrison, A. P. *et al.* (2005). Childhood trauma, psychosis and schizophrenia: A literature review with theoretical and clinical implications. *Acta Psychiatrica Scandinavica*, **112**(5), 330-350.

Ross, C. A., Anderson, G., & Clarke, P. (1994). Childhood abuse and the positive symptoms of schizophrenia. *Hospital and Community Psychiatry*, **45**, 489-491.

Wing, J. K., Babor, T., Brugha, T., *et al.* (1990). SCAN - Schedules for clinical-assessment in neuropsychiatry. *Archives of General Psychiatry*, **47**, 589-593.

Wright, K. D., Asmundson, G. J., McCreary, D. R., Scher, C., Hami, S., & Stein, M. B. (2001). Factorial validity of the Childhood Trauma Questionnaire in men and women. *Depression and Anxiety*, **13**, 179-183.