Childhood maltreatment and social functioning in adults with sub-clinical psychosis

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ABSTRACT

Studies now acknowledge a robust association between childhood maltreatment and psychosis development in adulthood. Research shows that maltreatment not only influences the child's psychological wellbeing but also inhibits domains of social development. These social impairments have been found to predate the onset of psychosis and may crucially represent an intervening factor which triggers the decline towards psychosis. To examine social functioning as a potential mediating pathway between early maltreatment and sub-clinical psychosis. The study utilised data from the Adult Psychiatric Morbidity Survey ($N = 7403$). Psychotic-like experiences were assessed using the Psychosis Screening Questionnaire (PSQ) along with measures designed to capture childhood maltreatment and social impairment. Results revealed that maltreatment was associated with both social functioning deficits as well as psychotic symptomology. Furthermore, social functioning was found to mediate the relationship between maltreatment and psychosis. The results align with literature linking maltreatment to both social functioning deficits and psychosis. Crucially, the study bridges these research areas by presenting functional decline as possible risk indicator and intervening factor between maltreatment and psychosis. Intervention strategies should therefore seek to capitalise on treatments which boost social aptitude as a means of averting further decline towards psychopathology.

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1. Introduction

In recent years, numerous methodologically robust studies have established a link between distant trauma and psychosis (Cutajar et al., 2010). It has been suggested that the aetiology of psychosis in adulthood can be traced back to the crucial developmental period of early adolescence when the expression of psychosis becomes widespread (Escher et al., 2002). Exposure to trauma during this period is known to be associated with significant disruption to a child's psychological, emotional, and social development. While many negative experiences including peer victimisation, parental loss and economic hardship have been associated with the risk of developing psychotic-like experiences or symptoms; childhood maltreatment continues to impose the most distressing and prolonged effects (Bebbington, 2004; Fryers and Brugha, 2013; Janssen et al., 2004; Thompson et al., 2009; Varese et al., 2012). Although there has been enduring controversy surrounding the relationship between adverse childhood events and psychosis, recent studies have advocated support for a possible causal link. This is in light of the statistical association between child sexual abuse (CSA) with subsequent psychotic disorders and schizophrenic syndromes in adulthood (Cutajar et al., 2010). Nonetheless, while research has largely focused on the consequences of childhood trauma and the elevated risk for psychiatric disorders; relatively little attention has been directed towards the effect that these experiences may exert on domains of social functioning (Roberts et al., 2004; Postmus, 2012).

Indeed, while trauma victims struggle to accept both the physical and psychological impact of their experience (including the loss of trust towards an emotionally significant person), there is now considerable evidence that these experiences also have a substantial impact on his or her social functioning over their life span (Cole and Putnam, 1992; Koenig et al., 2002; Haskett and Willoughby, 2007). Alink et al. (2012) found that children who experienced childhood trauma demonstrated poorer social functioning compared to non-abused children which intensified as the number of traumas increased. Other authors have found that childhood trauma is also associated with a greater likelihood of dysfunctional self-perception, poor self-esteem, fewer friends and social supports as well as disinterest in community involvement (Clemmons et al., 2007; Postmus, 2012). Moreover, trauma victims are more likely to isolate themselves from close social networks (i.e., family and friends) resulting in lower social support and limited social skills (Jehu et al., 1988).

Furthermore, a litany of studies now report that adult survivors frequently develop problems in interpersonal functioning including mistrust of others which can manifest in emotionally unstable and chaotic relationships (Dietrich, 2007). This may be a consequence of the timing of trauma in the developmental trajectory given that such maltreatment typically occurs at a time when beliefs and expectations are initially formed regarding interpersonal relationships. In sum, the impact of being sexually or physically abused, emotionally or physically neglected in childhood is likely to propagate into adulthood, manifesting in difficulties across domains of daily functioning. These factors are associated with poorer cognitive skills and reduced learning potential including the ability to work and financially sustain oneself (Postmus, 2012).

Indeed impairments in social functioning are a common feature in individuals at ultra-high risk (UHR) for psychotic disorder (Addington et al., 2008). Such impairments can impede functionality in domains necessary for normal daily activities such as self-care, household activities, use of public transport and areas of interpersonal functioning such as communication and interaction with others (Viertiö et al., 2012). Furthermore, individuals with a psychotic disorder tend to be less independent, are less likely to be employed or in a partnership and are less satisfied with social relationships potentially increasing the risk of becoming socially isolated (Steiger, 1990). Prospective studies examining the behaviour of children genetically deemed high risk due to parental history of psychosis show patterns of social impairments which are thought to predict vulnerability to schizophrenia (Hans et al., 1992, 2000; Collip et al., 2013). In fact, recent studies have noted that impairments in social functioning often precedes the onset of psychosis (Ballon et al., 2007; Chudleigh et al., 2011; Ienciu et al., 2013; Kelleher et al., 2013) and as such may represent a useful subsyndromal marker. However, despite extensive literature linking childhood trauma and social impairment to psychosis; few studies if any have examined whether psychotic outcomes are contingent on the additional effect of poor social functioning resulting from early trauma.

In lieu of this, the current study sought to examine social functioning and loneliness as potential mediating pathways between early adverse experience and psychosis. First it was hypothesised that the experience of childhood trauma would significantly predict impairments across domains of social functioning and loneliness. Second, it was hypothesised that experiences of childhood trauma would be significantly and directly associated with psychotic like experiences. The final aim was to test whether the relationship between childhood trauma and psychotic like experiences would be mediated through dimensions of social functioning and loneliness after controlling for social and behavioural correlates known to pose a risk for psychosis.

2. Methods

2.1. Sample

The current study was based on the Adult Psychiatric Morbidity Survey (APMS) 2007. The APMS was designed to be representative of the population living in private households in England. Using the small users' postcode address file (PAF), the National Centre for Social Research adopted a multi-stage stratified probability sampling design. The survey consisted of a phase one and a phase two (clinical) interview. For phase one, 13,214 potentially eligible private households were identified. One adult aged 16 years or over was selected for interview within each household. Where there was more than one person aged 16 years or over, one adult was chosen randomly in order to ensure that all eligible members of any household had an equal chance of being selected. Fifty-

seven per cent of eligible respondents agreed to participate which resulted in the completion of 7403 successful interviews (3197 males and 4206 females). Of those who did not take part, 31% refused, 5% were unable and the remaining 8% were not contactable. The phase one interview utilised standardised instruments to document demographic variables along with the assessment of common mental disorders.

2.2. Weighting

Data were weighted to take account of non-response so that the results were representative of the household population aged 16 years and over in England. Weighting occurred in three steps. First, sample weights were applied to take account of the different probabilities of selecting respondents in different sized households. Second, to reduce household non-response bias, a household level weight was calculated from a logistic regression model using interviewer observation and area-level variables (collected from Census 2001 data) available for responding and non-responding households. Finally, weights were applied using the techniques of calibration weighting based on the age, sex and region to weight the data up to represent the structure of the national population, taking account of differential non-response between regions, and age-by-sex groups. The population control totals used were the Office for National Statistics (ONS) 2006 mid-year household population estimates.

2.3. Measures

2.3.1. Demographics

Adjustment was made for a range of background variables known to be associated with psychotic-like experiences. These included age, gender and the following variables. *Education*: Educational attainment was initially assessed in a multi-level format ranging from no qualifications to degree level and above. This was recoded into a binary variable denoting whether or not respondents had any educational qualification: (0) No (1) Yes. *Ethnicity*: Ethnic background was coded into a binary variable: White (0) Ethnic minority (1). *Low socio-economic status*: Participants were asked if they were in receipt of state or housing benefits. The variable was coded into a binary variable: (0) "No" (1) "Yes". *Drug dependence*: Drug dependence was assessed by the agreement on any of the following drugs: "Dependent on cannabis, amphetamines, cocaine, crack, heroin/methadone, tranquilisers, or glue" and was summed as a composite variable then coded as a binary variable: (0) "Not dependent" (1) "Substance dependent".

2.3.2. Mood disorder

This study used two variables which identified the presence of anxiety and depression as specified by the Clinical Interview Schedule Revised (Lewis et al., 1992). The variables were summed and re-coded as a binary variable: (0) "The absence of a mood disorder" (1) "Presence of mood disorder".

2.3.3. Childhood trauma

A measure of physical and sexual abuse was derived from the domestic violence and abuse section of questionnaire.

2.3.3.1. Physical abuse. Experiences of physical abuse from parent or guardian before the age of 16 was generated from the item "Severely beaten by parent/step-parent/carer before the age of 16". Endorsed items were scored: (0) No, otherwise (1) Yes.

2.3.3.2. Sexual abuse. A measure of childhood sexual abuse was constructed from two items i.e. "Someone touched in sexual way