

## BRIEF REPORT

# Reactive Attachment Disorder Symptoms in Adults with Intellectual Disabilities

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*Background* Studies with children suggest that reactive attachment disorder (RAD) is associated with pathogenic early care. Little is known about RAD in adults with intellectual disabilities, many of whom experience adversity and abuse in early life. We investigated whether RAD symptoms occur in this population, and explored whether hypothesized risk factors are associated with higher RAD symptom scores.

*Method* Fifty adults with intellectual disabilities residing in long-stay hospitals and their carers participated in a questionnaire survey of RAD symptoms, childhood experiences, and disabilities.

*Results* Reactive attachment disorder symptoms were present in this sample, and symptom scores were inde-

pendently associated with early childhood adversity, diminished with age, but were not associated with cognitive ability, gender, other disabilities, nor number of childhood years in institutional care.

*Conclusions* As with children with RAD, it is possible that some maltreated adults with intellectual disabilities fail to develop stranger anxiety by the usual developmental age. Over decades, they may gradually learn.

*Keywords:* attachment, intellectual disabilities, reactive attachment disorder

## Introduction

Unusual social behaviours such as disinhibited/overfriendly or, conversely, withdrawn hypervigilant behaviours, are core symptoms of Reactive Attachment Disorder (RAD). Our observations from clinical practice suggest that some adults with intellectual disabilities have such behaviours, and there is a previous case report of RAD experienced by a young adult with intellectual disability (Minnis *et al.* 1996).

The relationship between RAD, attachment patterns and cognition is complex and the field is at a very early stage: there is little research into attachment or RAD in adults with intellectual disability and none using standardized instruments. However, there is some informative research on attachment in children with intellectual disability which demonstrates that although atypical attachment is more common in syndromes associated

with moderate or severe intellectual disability such as Down's syndrome (Cicchetti & Serafica 1981; Cicchetti & Beeghly 1990) and classic Autism (van IJzendoorn *et al.* 2007), the majority of infants with intellectual disability are securely attached with their primary caregivers (Janssen *et al.* 2002; Rutgers *et al.* 2004). To complicate the picture, children with developmental disabilities may display attachment patterns which mimic the disorganized pattern but which may not have the same environmental associations (Barnett & Vondra 1999). Janssen *et al.* (2002) reviewed studies of the attachment of children with intellectual disability or neurological impairment and used these to inform theory on the causes of behavioural problems in adults with severe and profound learning disability. They suggested that a secure attachment system can moderate the effects of an individual's temperament allowing greater resilience in the face of stressful situations in their future. There has

also been recent work regarding the role of temperament and heredity in children with RAD and it is now clear that RAD is likely to arise from a complex interplay of genetic and environmental factors (Zeanah & Fox 2004; Minnis *et al.* 2007). Several authors have now shown that disorganized attachment, which is a description of a relationship, is not the same as RAD, which is a description of abnormal behaviours within the individual (Minnis *et al.* 2006b), and that secure attachment can coexist with symptoms of RAD (Chisholm 1998; O'Connor *et al.* 2003; Boris *et al.* 2004; Zeanah *et al.* 2005).

Early descriptions of RAD originated from accounts of institutionalized or maltreated children (Zeanah 1996). Disinhibited and Inhibited types are described, the former showing 'indiscriminate sociability' with strangers, the latter involving fearful disengagement from caregivers and failure to seek comfort in times of stress (American Psychiatric Association 2000). Both subtypes are thought to be associated with pathogenic early care. Individuals with intellectual disability may be at higher risk of both these subtypes, because both institutionalization and maltreatment are more common than for the general population (Green & Goldwyn 2002). This has not previously been studied. We aimed to investigate (a) whether RAD symptoms can occur in adults with intellectual disabilities and (b) possible aetiological factors for higher RAD symptom scores.

## Method

A multi-centred research ethics committee approved the study.

## Participants

Adults living in two long-stay intellectual disabilities hospitals were invited to participate between June 2004 and March 2005: we recruited from hospital accommodation on the basis of likely higher risk for RAD. Consent was taken from each participant, or the nearest relative of participants who did not have capacity to consent (in Accordance with the Adults with Incapacity (Scotland) Act) ([http://www.opsi.gov.uk/legislation/scotland/acts2000/asp\\_20000004\\_en\\_1](http://www.opsi.gov.uk/legislation/scotland/acts2000/asp_20000004_en_1)).

## Measures and procedure

Questionnaires were completed by one of the authors (GF) interviewing each participant and carer using:

**1** The RPQ, an 18-item questionnaire for RAD symptoms validated in a sample of children of similar developmental age to the current sample. In a large general population sample, the RPQ had good internal consistency (Cronbach's alpha 0.85) (Minnis *et al.* 2007). It was modified slightly: 'acts younger than his/her age' was changed to 'acts younger than his/her developmental level'. Because of the lack of population prevalence data on RAD, no cut-off point for diagnosis is recommended for the RPQ and it is simply used as a continuous measure of behaviours. Because of the relatively small sample size and because clinical overlap between the disinhibited and inhibited type is common in children (Boris *et al.* 2004), we have not attempted to separate the two subtypes in the analysis but from now on simply refer to 'RAD'.

**2** The Vineland Adaptive Behaviour Scale (survey form) (Sparrow *et al.* 1984) was used to assess ability level, with it categorized into mild, moderate, severe and profound intellectual disability.

**3** A demographic and life history questionnaire developed for the study, focussing on any childhood abuse, neglect or bullying, periods spent away from the family home in childhood, other serious childhood adverse experiences (e.g. severe poverty, maternal death), and disabilities. Participants and carers were asked a series of questions, with each item coded as having been absent or present.

**4** A health inventory, developed for the study, to gather information on whether or not each person had visual impairments, hearing impairments, incontinence, mobility impairments and/or epilepsy.

Data were also collected from each participant's case-notes to determine admission date to institutional care (and hence the number of years of institutional care in childhood), circumstances of admission, and results of any previous intelligence quotient tests. Each person's responsible Consultant was also consulted as a means of eliciting any further relevant details; however, this did not yield any additional relevant data and hence did not contribute to the results presented here.

## Analysis

Analysis was undertaken using the Statistical Package for the Social Sciences, version 13, SPSS Inc, Chicago, IL, USA. The distribution of RPQ scores was explored with a normal probability plot, with goodness-of-fit examined (Kolmogorov-Smirnov statistic = 0.065; d.f. = 50;  $P = 0.200$ , Shapiro-Wilk statistic = 0.983; d.f. = 50,

**Table 1** Results from the first-stage univariate analyses investigating factors associated with mean RPQ scores

	Categories	N (%)	Mean (SD)	Mean RPQ score	P
Demography					
Age	–	50 (100)	48.4 (15.3)	–	0.000
Gender	Male	35 (70)	–	22.9	0.493
	Female	15 (30)	–	25.3	
Ability	Mild intellectual disability	2 (4)	–	24.5	0.676
	Moderate intellectual disability	6 (12)	–	20.8	
	Severe intellectual disability	14 (28)	–	23.5	
	Profound intellectual disability	28 (56)	–	24.2	
Disabilities					
Visual impairment	No	44 (88)	–	23.5	0.959
	Yes	6 (12)	–	23.8	
Hearing impairment	No	48 (96)	–	24.1	0.149
	Yes	2 (4)	–	12.0	
Urinary incontinence	No	35 (70)	–	24.8	0.263
	Yes	15 (30)	–	20.8	
Bowel incontinence	No	36 (72)	–	24.3	0.529
	Yes	16 (32)	–	21.9	
Mobility impairment	No	33 (66)	–	26.3	0.018
	Yes	17 (34)	–	18.3	
Epilepsy	No	30 (60)	–	22.7	0.521
	Yes	20 (40)	–	24.9	
Childhood experiences					
Childhood adversity	No	25 (50)	–	18.8	0.002
	Yes	25 (50)	–	28.4	
Number of institutionalized years (years outside of a family home) before aged 18	–	50 (100)	7.0 (6.0)	–	0.008

$P = 0.689$ ), and skewness and kurtosis checked (skewness =  $-0.133$ ; SE =  $0.337$ , kurtosis =  $-0.515$ ; SE =  $0.662$ ). Parametric statistics were therefore used. The mean RPQ score and its distribution was calculated. The statistical analysis was then conducted in two stages. First, the putative association of 12 items (demographic characteristics, disabilities, and childhood experiences) with higher RPQ score (greater numbers of RAD symptoms) was investigated for each item in turn. Two-tailed Student's *t*-tests were used for each of the items listed in the Table 1 (groupings are also shown in the Table 1), except age, level of ability, and number of years spent living in an institution before the age of 18, which were investigated using univariate linear regressions. Second, items with a  $P < 0.05$ , i.e. those significantly associated with greater numbers of RAD symptoms on univariate analysis, were entered together into an overall linear regression (backwards stepwise method), to determine independent associations with the dependent variable, RPQ score.

## Results

Fifty adults participated out of 54 invited (92.6%). Their mean RPQ score was 23.6 (standard deviation = 11.5). Table 1 shows demographic characteristics of participants, and the proportion with disabilities and specified childhood experiences. It also shows RPQ scores for sub-groups, and *P*-values from the first-stage univariate analyses.

Based on first-stage results the following four items were entered into the overall linear regression:

- age,
- impaired mobility,
- childhood adversity (childhood experience of abuse, severe neglect, or other serious adverse experience),
- number of years of institutional living (years spent living somewhere that was not a family home) prior to the age of 18 years.

Of these, age and childhood adversity were retained within the final statistical model as being independently

associated with RPQ scores. RPQ scores were significantly lower in older participants (Beta =  $-0.39$ ; 95% CI =  $-0.49$ – $-0.09$ ;  $P = 0.005$ ), and significantly higher in adults who had experienced childhood adversity (B =  $0.27$ ; 95% CI =  $0.19$ – $12.3$ ;  $P = 0.044$ ).

## Discussion

With regard to our first aim, we have demonstrated that some adults with intellectual disability do have RAD symptoms. According to psychiatric classification systems, RAD should not be diagnosed in the presence of intellectual disability, presumably because of an assumption that lower ability can explain the presence of RAD symptoms. Conversely, classification systems recommend that RAD should only be diagnosed if there is a history of adverse early childhood experiences (American Psychiatric Association 2000). With regard to our second aim, we have shown that, within a population of adults with intellectual disability, RAD symptoms were associated with childhood adversity and *not* with ability level. We did not find a significant association between years of institutional living prior to age 18 and RAD symptom scores. Some children with intellectual disability residing in hospital care in the past may have maintained good relationships with their family, which might possibly contribute to this finding. This is, of course, speculative as we have no information regarding early family atmosphere and family/societal cultural practices regarding children with intellectual disability may have changed over the years. Limitations of the study include the small sample size ( $n = 50$ ), and data collection regarding childhood experiences necessarily being retrospective. In addition, we had no measure of the reliability of some data (for example, whether or not participants had experienced abuse as children). These limitations are balanced against an excellent response rate which makes this sample likely to be representative of a population of adults with intellectual disability living in institutions.

In childhood RAD, it appears that some children who have experienced institutional care or who have been maltreated fail to achieve a key developmental milestone, for example, the development of stranger anxiety (Abramson *et al.* 2005; Minnis *et al.* 2006a). Bowlby suggested that stranger anxiety was an important mechanism to protect children against predators (Bowlby 1982) and most children develop this around the age of 6 months. People with intellectual disability would also be expected to develop stranger anxiety at a developmental age of around 6 months (Blacher & Meyers 1983), which would be reached at a later chronological

age than the 6 months for typically-developing individuals. Our data support the view that adults with intellectual disability may also fail to develop stranger anxiety in the context of maltreatment. As for children, both genetic and environmental factors for this are likely to be important (Minnis *et al.* 2007).

The reasons why RAD symptoms appear to diminish with age in this sample of adults with intellectual disabilities are unclear. In children, one of the core symptoms of RAD, namely indiscriminate friendliness, has been shown to persist at least into adolescence even when children have been adopted into environments of sensitive caregiving (Hodges & Tizard 1989) and despite developmental catch-up in other areas (Rutter and The English and Romanian Adoptees (ERA) Study Team (1998). There are no data following inhibited RAD symptoms into adolescence and none following RAD symptoms from childhood into adulthood. One hypothesis regarding this apparent diminution in symptoms over time is a developmental one – that these symptoms reduce in adult life after decades of further development as developmental milestones are reached. Another is that there is a secular trend in quality of care for adults with intellectual disability (younger adults having experienced poorer care, hence higher symptom scores), but this seems unlikely due to the recent recognition and policy focus on the negative effects of institutional care and the importance of developing social relationships (Department of Health 2001). A third explanation might be that these phenomena are better construed as adaptive mechanisms which serve to elicit better care from caregivers, as has been suggested for insecure attachment (Crittenden & Claussen 2000), and that these reduce once this has been achieved.

## Clinical implications

Reactive attachment disorder should be considered within the differential diagnosis for an adult with intellectual disability who has problems with social interaction. Symptoms such as indiscriminate friendliness, and failure to seek comfort in times of stress may impair development and maintenance of relationships and place individuals at greater risk of abuse and neglect. Such persons may require greater support than their overall developmental level suggests. As for children with RAD (Howe & Fearnley 2003), difficulties in developing intimate relationships may place a great strain on carers and additional support may be essential for carers to provide care in an adaptive way, and to prevent relationship breakdown. Interventions for RAD are

poorly researched even in children. One promising intervention which has some pilot data in children is Dyadic Developmental Psychotherapy which focuses on relationship issues and in which the therapist works intensively with the individual and caregivers simultaneously (Becker-Weidman 2006). This kind of attachment focussed treatment may be worth piloting in adults with intellectual disability. In addition, an understanding of the nature of RAD symptoms may help with the design of social skills interventions, establishing the level of support required, and in supporting carers. This will be important in the longer term, to inform planning of services and supports.

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### Declarations of Interest

None.

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