Carr, A., Dooley, B., Fitzpatrick, M, Flanagan, E., Flanagan-Howard, R., Tierney, K., White, M., Daly, M. & Egan, J. (2010). Adult adjustment of survivors of institutional child abuse in Ireland. *Child Abuse and Neglect,* 34, 477-489.

Adult Adjustment of Survivors of Institutional Child Abuse in Ireland.

Alan Carr[1] , Barbara Dooley[1], Mark Fitzpatrick[1], Edel Flanagan[1], Roisin Flanagan-Howard[1], Kevin Tierney[1], Megan White[1] , Margaret Daly[1] & Jonathan Egan[2]

1. School of Psychology, University College Dublin, Belfield, Dublin 4, Ireland

2. The Arches National Counselling Centre, HSE, Tullamore, Co. Offaly, Ireland

Correspondence: Professor Alan Carr, School of Psychology, Belfield, UCD, Dublin 4 Ireland. Tel: +44 (0) 1 716 81740. email: **alan.carr@ucd.ie**

Key Words: Institutional abuse, clerical abuse

Submitted in April 2008, revised and resubmitted in November 2008, revised and resubmitted in June 2009, revised and resubmitted in October 2009 to Child Abuse and Neglect http://ees.elsevier.com/chiabuneg/default.asp

Acknowledgements. This study was funded by a grant from the Commission to Inquire into Child Abuse. Thanks to the interviewing team; colleagues at the NCS in Ireland and ICAP in the UK for clinical support; colleagues at psychology departments at UCL, MMU, University of Aberdeen who provided interviewing facilities in the UK; colleagues at Right of Place, Aisling, and the London-Irish centre for expert advice on survivor issues; Muriel Keegan for administrative support; Fred Lowe for liaison at CICA; and all participants for their generosity in taking part in the study.

Adult Adjustment of Survivors of Institutional Child Abuse in Ireland.

Objective. To document the adult adjustment of survivors of childhood institutional abuse.

Method. Two hundred and forty seven adult survivors of institutional abuse with a mean age of 60 were interviewed with a protocol that included the Childhood Trauma Questionnaire, modules from the Structured Clinical Interview for Axis I Disorders of DSM IV and the Structured Clinical Interview for DSM IV Personality Disorders, the Trauma Symptom Inventory, and the Experiences in Close Relationships Inventory.

Results. The prevalence of psychological disorders among adult survivors of institutional abuse was over 80% and far higher than in the normal population, with anxiety, mood and substance use disorders being the most prevalent diagnoses. Survivors also had high rates of trauma symptoms and insecure adult attachment styles, and these were higher for those who had experienced both institutional and intrafamilial abuse.

Conclusions. There was an association between the experience of institutional abuse in childhood and the prevalence of adult mental health problems, particularly anxiety, mood and substance use disorders.

Practice Implications. Policies, practices and procedures should be regularly reviewed and revised to maximize protection of young people in institutional care. Evidence-based psychological treatment should be made available to adult survivors of institutional abuse.

INTRODUCTION

Institutional child abuse differs from intrafamilial abuse insofar as it is perpetrated, not by family members, but by adults working in institutions serving children in the community, and also by peers within these institutions (Stein, 2006). Such institutions include residential care centres, schools, reformatories, churches, and recreational facilities which may be managed by either secular or religious organizations (Gallagher, 2000). At an individual level institutional abuse is typically an ongoing process rather than an isolated incident, within which an abuse of power and a breach of trust occurs, and which may involve physical, sexual or emotional maltreatment (Wolfe, Jaffe, Jette & Poisson, 2003). At a broader systemic level, institutional abuse may involve sanctioned use of particular ways of disciplining and managing children, as well as the failure of managerial and inspection systems to protect children (Stein, 2006). In Ireland in recent years there have been many allegations of institutional abuse within the context of religiously-affiliated residential institutions. In response, the Irish Government set up the Commission to Inquire into Child Abuse (CICA) and the present research was commissioned by CICA. The Report of the Commission to Inquire into Child Abuse (also known as the Ryan Report), which has attracted international attention, concluded that physical and sexual abuse and neglect within religiously-affiliated institutions was widespread (Ryan, 2009). In the study described in this paper, the focus is on the adjustment of adults who suffered institutional abuse in childhood within the context of Irish religiously-affiliated residential reformatories and industrial schools. The present study was informed by the literature on the effects of child abuse, institutional rearing, and institutional abuse, some of which is briefly reviewed below.

Child maltreatment has significant adverse long-term effects (Arnow, 2004; Springer, Sheridan, Kuo, & Carnes, 2003). In systematic narrative reviews of empirical studies Springer et al. (2003) and Arnow (2004) concluded that there is strong evidence that child abuse and neglect have a negative impact on adult physical and mental health, and psychosocial adjustment, with more severe child abuse leading to more adverse outcomes in adulthood. Child maltreatment may lead to a wide range of physical health problems, frequent illness, health service usage and risky health behaviour (Kendall-Tackett, 2002). It may also lead to mental health difficulties notably anxiety disorders (including PTSD), depression, and alcohol and substance abuse (McMillan, Fleming, & Streiner, 2001; Weich, Patterson, Shaw, & Stewart-Brown, 2009), personality disorders (Battle et al., 2004; Bierer et al., 2003), and self-harm (Brodsky et al., 2001; Soloff, Lynch, & Kelly, 2002). In addition, child maltreatment may give rise to problematic adult romantic attachments and intimate relationships in adulthood (Colman & Widom, 2004; Davis & Petretic-Jackson, 2000), and educational and occupational difficulties (Perez & Wodom, 1994).

Institutional upbringing, like child maltreatment, is also associated with a range of developmental problems (Gilligan, 2000; O'Doherty, 1970; Rutter, Kreppner, O'Connor, & the ERA Research Team 2001; Rutter, Quinton, & Hill, 1990; Vorria, Sarafidou, & Papaligoura, 2004). In the only study of children and adolescents living in Irish child care institutions, O'Doherty (1970) concluded, from a correlational investigation of over 300 participants aged 6-15 years, that rates of learning difficulties and intellectual disability were higher in residential reformatories and industrial schools than in the normal population. Rutter et al. (2001) found that children reared in Romanian institutions who suffered severe deprivation from birth until 2 years and then were adopted, at 4 and 6 years showed impaired cognitive development, attachment problems, inattention,

overactivity, and quasi-autistic features. In a series of studies of children reared in Greek institutions, Vorria et al. (2004) found that institutionalized children showed disorganized attachment styles and poorest outcomes in adulthood occurred among those who entered institutions before 2.5 years with an intergenerational continuity in the cycles of deprivation and disadvantage. Institutionalized children with the poorest outcome came from disadvantaged backgrounds, and grew up to be adults at risk of creating a disadvantaged environment for their own children. Among those who entered later in childhood, poorer outcomes occurred among those who had experienced parental separation or divorce before institutionalization. Rutter et al. (1990) found that adults reared in institutions showed high rates of personality disorder, marital and romantic relationship problems, criminality (in men), teenage pregnancy and having children taken in to care (in women).

In the only published study of psychological disorders among adult survivors of institutional clerical abuse, Wolfe, Francis and Straatman (2006) found that 88% of a group of 76 Canadian adult survivors of institutional abuse, at some point in their lives, suffered from a DSM IV (American Psychiatric Association, 1994) disorder and 59% presented with a current disorder. Posttraumatic stress, alcohol, and mood disorders were the most common conditions, and participants in the study also showed significant trauma symptomatology on the Trauma Symptom Inventory (TSI, Briere, 1996). The TSI scales most notably affected were those which assessed trauma, dysphoria, depression, intrusive experiences, defensive avoidance, and dissociation. Over half of the sample had a history of criminality, and more than two thirds had experienced significant sexual problems in adulthood.

The aim of the present study, which builds on the work of Wolfe et al. (2006), was to document the rates of psychological disorders and psychological difficulties in adult survivors of institutional abuse in Ireland. In light of the review of the literature above on

the long-term effects of child abuse, institutional rearing and institutional abuse, our main hypothesis was that there would be elevated rates of psychological disorders, trauma symptoms, and insecure adult attachment styles in our sample of adult survivors of institutional abuse compared with normative groups or community samples. A second hypothesis was that there would be an association between indices of institutional child abuse and adult adjustment. A third hypotheses was that participants who reported both intrafamilial and institutional child abuse would show poorer adjustment in adulthood than those who reported institutional abuse only. Finally we wanted to see if gender was associated with adult adjustment to institutional abuse.

METHOD

Context

The study was commissioned by CICA, a statutory body established by the Irish Government in 2000 to investigate and report on institutional abuse. CICA set up a Confidential Committee which provided a forum for victims of abuse to recount their experiences on an entirely confidential basis. CICA also established an Investigation Committee which facilitated victims who wished to both recount their experiences and have their allegations of abuse fully investigated. The Investigation Committee, which included legal professionals, had the right to compel persons accused of abuse, or persons involved in the management of institutions in which abuse was alleged to have occurred to attend hearings and to produce any documents it needed to see. Both alleged victims and perpetrators of abuse were allowed legal representation at Investigation Committee hearings. The findings from the Confidential and Investigation Committee hearings were presented in CICA's final report to the Irish Government (Ryan, 2009). CICA's committees through their hearings were satisfied that those whom they invited to

participate in the present study had suffered institutional child abuse. While there was no independent validation of CICA's judgments about the nature and extent of participants' institutional abuse, it is noteworthy that CICA had no authority to provide victims of institutional child abuse with compensation, so there was no financial incentive for study participants to give inflated accounts of the extent of their abuse or current problems. A separate statutory body, the Irish Residential Institutions Redress Board was set up under the Residential Institutions Redress Act, 2002 to make fair and reasonable awards to persons who, as children, were abused while a resident in industrial schools, reformatories and other institutions subject to state regulation or inspection. This Redress Board was independent of CICA, and research data collected from CICA attenders was not used for the purposes of seeking redress.

Participants

Two hundred and forty-seven adult survivors of institutional abuse in industrial schools and reformatories participated in the study. All but one had attended the CICA. The single non-CICA attender, a sibling of a CICA participant, was a survivor of severe institutional abuse, and explicitly asked to be included in the study. So for ethical reasons, an exception was made in this one case and data from this non-CICA attender has been included in the analysis. From Figure 1 it may be seen that of the 246 CICA attenders, 175 were recruited from the Confidential Committee and 71 from the Investigation Committee. One hundred and twenty-six were living and interviewed in Ireland. One hundred and twenty-one were living and interviewed in the UK. The path of recruitment and attrition for both the Confidential and Investigation Committees is presented in Figure 1. All people who attended CICA Confidential or Investigation Committees before December 2005 and who reported institutional abuse were invited to participate in the study unless their

whereabouts were unknown, they were residing outside Ireland and UK, they previously stated they did not want to participate in a research project, they previously stated they did not want to be contacted by CICA, they were known to be deceased, they were known to be in poor health (for example, to have cancer) or they were known to have a significant disability (for example, extensive speech and mobility problems following stroke). The overall exclusion rate was 26% (326 of 1267). The response rate for the study was 26% (246 of 941). Approximately 20% of CICA attenders participated in this study.

Insert Figure 1 and Table 1 about here

Demographic characteristics are summarized in Table 1. With regard to ethnicity all participants were indigenous Irish. The sample included almost equal numbers of males and females, with a mean age of 60 years and a range of 40 – 83 years. Participants were predominantly of lower socio-economic status and three quarters had only primary school education. Compared with the national population 2006 Irish census data provided in Table 1, it is clear that the sample was socio-economically and educationally disadvantaged. Thirty-nine percent were in their first marriage, and this did not differ greatly from the national average of 41% for the 2006 Irish census data. For the 212 participants with children, the average number of children was 3.38 (with a range from 1-12), and the average age when these participants had their first child was 25.53 years. For 76.8% of these participants, their children had lived with them while they were growing up.

Participants had spent an average of 5.4 years (SD = 4.55; range 0 – 16 years) living with their families before entering an institution and on average spent 10 years (SD = 5.21; range = 0.1 – 22 years) living in an institution. About half (49.0%) of participants had lived in institutions managed by nuns. Just under at third (31.2%) had lived in institutions

managed by religious brothers or priests. About a fifth (19.8%) had lived in both types of institutions. Participants reported entering institutions for various reasons including their parents being unable to look after them (42.1%), personal prosecution for petty crime (23.5%), illegitimacy (19.4%), and parental death (14.2%). Participants gave the following reasons for leaving institutions: 'I was too old to stay on' (71.3%), 'my family wanted to take me home' (13.8%), 'my sentence was over' (7.7%), 'I ran away' (3.2%), and 'the institution closed down' (1.6%).

Procedure

The study was designed to comply with the code of ethics of the Psychological Society of Ireland. In addition, ethical approval for the study was obtained through the University College Dublin (UCD) Human Research Ethics Committee. Every effort was made to ensure that research interviews were carried out in a way that was minimally distressing for participants. Follow-up contact and support was offered to all candidates in collaboration with the National Counselling Service in Ireland and the Immigrant Counselling and Psychotherapy Service in the UK. Over the six months of data collection fewer than five percent of participants required referral for counselling.

The CICA Confidential and Investigation Committees invited all those who had reported institutional abuse and attended these committees prior to December 2005 to participate in the study (with some exceptions mentioned earlier). Confidential Committee attenders were contacted personally and Investigation Committee attenders were contacted through their solicitors. Between June and December 2005, CICA provided the research team with lists of participants, who were then recruited into the study by telephone. A team of 29 trained interviewers, all of whom had psychology degrees, conducted face-to-face interviews at multiple sites in Ireland and the UK. Interviewers

participated in an intensive workshop which involved coaching and practice in using the entire assessment protocol, and video-based training in administering the Structured Clinical Interviews for making DSM IV diagnoses (First, Spitzer, Gibbon & Williams, 1996, 1997) which are described in the measures section. In most cases interviews were of about two hours duration. Participants were interviewed with a standard assessment protocol which contained a series of instruments, but only those that address the study hypotheses are described below. All instruments, including self-report inventories, were administered in the same order in interview format, and responses were written down or coded by interviewers. Participants were reimbursed for travel and subsistence expenses. Protocol data were not used for clinical or litigation purposes.

Inter-rater reliability of all scales in the protocol was evaluated by conducting interviews with 52 of 247 participants (21%) in which pairs of interviewers were present and each completed independent protocols for the same cases. Twenty-three of the 29 interviewers (78%) participated in inter-rater reliability interviews. Hardcopies of interview protocols were securely stored at UCD. Data were entered into an SPSS spreadsheet in an anonymized form, where they were verified and analysed.

Measures

Demographic and historical variables

To assess demographic and historical variables, a set of questions were asked about gender, current age, age of entry and duration of stay in institutions, reason for entering and leaving institutions, institution management, education, socio-economic status, marital status, and number of children.

Child abuse

To assess history of child abuse, a set of questions were asked about experiences of institutional and intrafamilial physical and sexual child abuse, and participants also completed two versions of the Childhood Trauma Questionnaire (CTQ, Bernstein & Fink, 1998; Scher, Stein, Asmundson, McCreary. & Forde, 2001), one to evaluate their recollections of abuse within their families (if they spent any time in their families as children) and one to evaluate their recollections of abuse while living in institutions. Participants were asked 'What was the most severe form of physical abuse you experienced in your institution and in your family?' Responses for institutional and intrafamilial abuse were each coded as none, being hit without being bruised, being hit to leave bruises, being assaulted to lead to cuts, and being assaulted to lead to medical attention. Participants were also asked 'What was the most severe form of sexual abuse that you experienced in your institution and in your family?' Responses for each abuse context were coded as none, non-contact abuse (flashing or exposure), fondling and masturbation, attempted oral, anal or vaginal penetration, and actual oral, anal or vaginal penetration. For institutional and intrafamilial physical and sexual abuse, participants were asked: 'How often did this severe form of abuse happen?' For each abuse type and context, responses were coded as never, once, 2-10 times, 11-100 times and more than 100 times. For institutional and intrafamilial physical and sexual abuse participants were also asked about the age of onset and duration of abuse.

The CTQ is a 28-item inventory that provides a reliable and valid assessment of recollections of childhood abuse and neglect (Bernstein & Fink, 1998). Five point self-report response formats are used for all items ranging from 1 = never true, to 5 = very often true. It yields scores for physical abuse, sexual abuse, emotional abuse, physical neglect, and emotional neglect scales. The following cut-off scores were used in classifying cases as abused: emotional abuse 13, emotional neglect 14, physical abuse

11, physical neglect 10, sexual abuse 9, and total child abuse 52. These cut-off scores were two standard deviations above the mean for combined male and female normative community samples from a large community study of 1007 18-65 year old men and women in Memphis, USA (Scher et al., 2001). In the present study internal consistency and inter-rater reliability co-efficients for all CTQ scales were greater than .9.

Psychological disorders

Modules from the Structured Clinical Interview for Axis I Disorders of DSM IV (SCID I, First, Spitzer, Gibbon & Williams, 1996; Zanarini et al., 2000) and the Structured Clinical Interview for DSM IV Personality Disorders (SCID II, First, Spitzer, Gibbon & Williams 1997; Zanarini et al., 2000) were used to assess a number of psychological disorders. Both instruments are reliable and valid semistructured interviews for making DSM IV diagnoses (American Psychiatric Association, 1994). In this study the SCID I modules for current and past (or lifetime) anxiety, mood and substance use disorders were used, since a previous study suggested that these are the main DSM IV axis I disorders shown by adult survivors of institutional abuse (Wolfe et al., 2006). SCID II modules for antisocial, borderline, avoidant and dependent personality disorders were used, since previous studies and clinical experience suggest that these are the main personality disorders associated with adult survival of child abuse (Battle et al., 2004; Bierer et al., 2003). SCID I and II diagnoses were made with inter-rater reliabilities between .77 and 1.00 as shown in Table 3.

Trauma symptoms

Trauma symptoms were assessed with the 100-item Trauma Symptom Inventory (TSI, Briere, 1996). On this reliable and valid instrument a four point response format is used for

all items from 0 = never to 3 = often. The TSI yields scores for ten clinical scales. Internal consistency and inter-rater reliability coefficients above .9 were obtained in the present study for scores on all TSI scales. In the present study cases were classified as showing clinically significant trauma symptoms if they scored two standard deviations above the mean for the normative sample.

Adult attachment style

Adult romantic attachment style was assessed with the 36-item Experiences in Close Relationships Inventory (ECRI, Brennan, Clark & Shaver, 1998). This reliable and valid instrument yields scores on interpersonal anxiety and interpersonal avoidance dimensions. On the basis of scores on these two dimensions, using the SPSS algorithm given in Brennan, Clark and Shaver (1998) cases were assigned to one of four adult attachment style categories: secure, fearful, dismissive and preoccupied. Seven point response formats were used for all items ranging from 1 = disagree strongly to 7 = agree strongly. The ECRI was developed from a pool of over 600 items identified in a review of 14 self-report measures of adult attachment. The avoidance and anxiety factors were identified by factor analyses, so there is evidence for the construct validity of the scale. Internal consistency and inter-rater reliability coefficients above .9 were obtained in the present study for scores on ECRI anxiety and avoidance scales.

RESULTS

Data were analysed by computing descriptive statistics (frequencies, percentages, means, and standard deviations), Pearson product moment correlations to asses associations between variables and t-tests and chi square tests to assess the statistical significance of differences between subgroups of participants on continuous and categorical variables respectively. One tailed tests were used to test directional

hypotheses. Where multiple correlations or tests were conducted, Bonferroni corrections were made to control for type 1 error.

_____

Insert Table 2 about here

_____

Child abuse

Data on institutional and intrafamilial child abuse from both the CTQ and specific questions about such experiences are presented in Table 2. Noteworthy trends in Table 2 are mentioned in this section. On the CTQ more than 90% of cases were classified as having experienced physical and emotional abuse or neglect and 47% as having experienced sexual abuse within institutions. Ninety-nine percent of cases were classified on the CTQ subscales as having experienced two or more forms of institutional maltreatment; 98% had experienced three or more forms of maltreatment; 91% had experienced 4 or more forms of maltreatment, and 44% of cases were classified as having experienced all five forms of institutional maltreatment assessed by the CTQ.

The most severe form of physical institutional abuse reported by survivors ranged from being hit without being bruised (6%) to being assaulted to lead to medical attention (42%). More severe forms of abuse were more common. Severe forms of physical institutional abuse occurred very frequently for many participants, with 46.6% reporting that such abuse occurred more than 100 times. The average age when the most severe form of physical institutional abuse began was 8.50 years (SD = 3.72) and the average duration was 6.74 years (SD = 4.42).

The most severe forms of sexual institutional abuse reported by survivors included fondling and masturbation, which was more common than actual or attempted oral, anal or

vaginal penetration, or non-contact exposure to perpetrators' genitals. Severe forms of sexual institutional abuse occurred very frequently for a significant minority of survivors. For example, 14.2% reported that it occurred 11-100 times and 9.72% reported a frequency of more than 100 times. The average age when the most severe form of sexual institutional abuse began was 10.73 years (SD = 2.87) and the average duration was 2.83 years (SD = 2.99).

One hundred and twenty-one participants had sufficient memories of living with their families to be able to complete the family version of the CTQ. On the CTQ, 38% of these 121 cases were classified as having experienced child maltreatment. On the CTQ, physical neglect was the most common, and sexual abuse the least common form of intrafamilial maltreatment. Thirty-six percent of cases were classified on the CTQ subscales as having experienced two or more forms of intrafamilial maltreatment; 20% had experienced three or more forms of maltreatment; 15% had experienced 4 or more forms of maltreatment, and 3% of cases were classified as having experienced all five forms of intrafamilial maltreatment assessed by the CTQ.

The most severe form of intrafamilial physical abuse reported by survivors ranged from being assaulted to lead to cuts (3.3%) to being assaulted to lead to bruises (18.18%). Severe forms of intrafamilial physical abuse occurred quite frequently for some participants, with 14.05% reporting that such abuse occurred 11-100 times and 10.74% reporting that it occurred more than 100 times. The average age when the most severe form of intrafamilial physical abuse began was 7.29 years (SD = 2.80) and the average duration was 5.2 years (SD = 4.13).

The most severe forms of intrafamilial sexual abuse reported by survivors included fondling and masturbation, which was more common than actual or attempted oral, anal or vaginal penetration. For 4 of the 14 survivors who reported severe sexual abuse, it

occurred 11-100 times, and for a further 4 it occurred more than 100 times. The average age when the most severe form of intrafamilial sexual abuse began was 8.55 years (SD = 2.36) and the average duration was 4.48 years (SD = 4.08).

In Table 2 it may be seen that there were small discrepancies (which ranged from 4-12 cases) between numbers of cases classified as physically and sexually abused on the basis of CTQ scores, and on the basis of responses to questions about the most severe forms of physical and sexual abuse survivors had experienced. This was due to the fact that cases were classified as abused on the CTQ if their scores exceeded normative clinical cut-off scores (Scher et al., 2001), whereas for questions about the most severe form of abuse, cases were classified as abused if they gave any response to such questions.

_____

Insert Table 3 about here

_____

Psychological disorders

In Table 3 rates of current and lifetime diagnoses are given. Current diagnoses were made if participants met diagnostic criteria for a disorder when interviewed. Lifetime diagnoses were made if they previously met diagnostic criteria for a disorder, but no longer met criteria when interviewed. Thus, it was possible for rates of current disorders to exceed rates of lifetime disorders. Currently or previously, 81.7% of participants had met the diagnostic criteria for an anxiety, mood, alcohol or substance use, or personality disorder. With respect to DSM IV Axis I disorders, 64.8% of participants had previously met the criteria for a diagnosis of an anxiety, mood, alcohol or substance use disorder. Fifty-one percent met the diagnostic criteria for a diagnosis of an anxiety, mood, or alcohol or

substance use disorder when they were interviewed. With respect to DSM IV Axis II disorders, 30.4% had a personality disorder when interviewed.

From Table 3 it may be seen that for combined current and lifetime diagnoses, anxiety disorders were the most common (current: 44.9%, lifetime: 34.4%); followed by mood disorders (current: 26.7%, lifetime: 36.0%); followed by substance use disorders (current: 4.9%, lifetime: 35.2%); with the rate of personality disorders being the lowest of all broad categories of diagnoses (30.4%). The three most common anxiety disorders were social phobia (current: 19.8%, lifetime: 10.9%); generalized anxiety disorder (current: 17%, lifetime: 6.9%); and posttraumatic stress disorder (current: 16.6%, lifetime: 8.5%). For mood disorders the current (26.7%) and lifetime (36.0%) prevalence rates for major depression were higher than the rate of current dysthymia (11.3%). (Only current and not lifetime diagnoses of dysthymia may be made.) For alcohol or substance use disorders, 27.1% had a lifetime diagnosis of alcohol dependence and 7.7% had a lifetime diagnosis of alcohol abuse. Prevalence rates for all other current and lifetime substance use diagnoses were below 5%. With respect to personality disorders, 21% of participants had avoidant personality disorder; 6.9% had antisocial personality disorder; 5.7% had borderline personality disorder and only 1.6% had dependent personality disorder.

_____

Insert Table 4 about here

_____

The overall rates of psychological disorders among survivors of institutional child abuse in the present study, were far higher than those found in major international epidemiological studies of normal community populations conducted in Europe, the USA and the UK, summarized in Table 3 (Alonso et al., 2004; Grant et al., 2004; Kessler, Berglund et al., 2005; Kessler, Chiu et al., 2005; Singleton et al., 2001; Torgersen et al., 2001). The

prevalence of current anxiety, mood and personality disorders among survivors of institutional abuse was more than twice that found in normal European, North American or British populations. The prevalence of lifetime diagnoses of anxiety, mood, and substance use among survivors of institutional child abuse exceeded those found in normal European, North American or British populations by between 5 and 30%.

Trauma symptoms

Cases were classified as showing clinically significant trauma symptoms if they scored two standard deviations above the mean for the normative sample described in Briere's (1996) manual for the TSI. More than half of all participants showed clinically significant levels of avoidance of reminders of early trauma (59.9%) and intrusive experiences such as flashbacks (55.9%). Between a third and almost a half had clinically significant problems with impaired self-reference (46.2%), dissociation (44.1%), depression (41.7%), anxious arousal (38.5%), and maladaptive tension reduction (35.2%). For less than a third, anger (32%), sexual concerns (23.9%), and sexual dysfunction (12.6%) were clinically significant problems.

Adult attachment styles

Cases were classified as falling into four adult attachment style categories using the Brennan et al.'s (1998) SPSS algorithm. Only 16.6% of cases were classified as having a secure adult attachment style, with the remaining 83.4% of cases having an insecure adult attachment style. A fearful adult attachment style, characterized by high interpersonal anxiety and avoidance was by far the most common insecure style, with 44.1% of participants being classified in this way. The rates for dismissive and preoccupied adult attachment styles were 26.7% and 12.6% respectively.

Association between child abuse and adult adjustment

To test the second hypothesis stated at the end of the introduction and determine if there was an association between child abuse and adult adjustment, Pearson product-moment correlations were computed between indices of institutional and intrafamilial child abuse on the one hand, and indices of adult adjustment on the other. The indices of child abuse were the total, physical abuse, sexual abuse, emotional abuse, physical neglect and emotional neglect scales of the institution and family versions of the CTQ. The indices of adjustment were the total number of current and lifetime psychological disorders on the SCID I and II, the total score on the TSI, and scores on the interpersonal anxiety and avoidance scales of the ECRI. To control for type 1 error associated with computing many correlations, only those greater than .3 (accounting for at least 9% of variance) and reaching a Bonferroni corrected p value of .05 were interpreted as statistically significant. For a study-wise p value of .05, with 48 correlations, the corrected significance level was .001. For correlations computed with the institutional version of the CTQ on all 247 cases, those of .19 were significant at .001. Correlations of .27 were significant at .001 for the 121 cases that completed the family version of the CTQ.

Significant correlations greater than r = .3 occurred between the total trauma symptoms score on the TSI on the one hand, and the total (r = .38), sexual (r = .35), and emotional abuse (r = .32) scales of the institution version of the CTQ on the other. These correlations show that participants who reported greater numbers of trauma symptoms in adulthood also reported recollections of more frequent institutional sexual and emotional abuse in childhood. None of the scales of the family version of the CTQ had significant correlations with any of the indices of adult adjustment, showing that for the 121 cases

who could recall living with their families during childhood, there was no significant association between recollections of intrafamilial child abuse and adult adjustment.

Comparison of institutional abuse with combined institutional and intrafamilial abuse

To test the third hypothesis stated at the end of the introduction and determine the effects of intrafamilial abuse combined with institutional abuse compared with institutional abuse only, analyses were conducted on data from the 121 participants who completed both the family and institutional versions of the CTQ. The significance of differences between the 46 cases who had experienced abuse in both contexts (as indexed by a CTQ total above the cut-off score of 52) and the 75 cases who had experienced institutional abuse only was assessed with one-tailed t-tests for the total number of current and lifetime psychological disorders on the SCID I and II, and the total TSI score. To avoid type 1 error associated with multiple tests, the Bonferroni correction was made. For a study-wise p value of .05, with 2 tests, the corrected significance level was .025. The TSI total was significantly higher for the group that had experienced both intrafamilial and institutional abuse ($M = 108.13$, $SD = 45.69$) compared with the group that had experienced institutional abuse only ($M = 87.86$, $SD = 53.11$; $t(119) = 2.13$, $p < .025$). The groups did not differ on the total number of current and lifetime psychological disorders on the SCID I and II. Bonferroni corrected chi square tests indicated that the groups did not differ on rates of specific diagnoses. However, the two groups differed significantly in the distribution of ECRI adult attachment styles (χ^2 (3, N = 121) = 9.87, $p < .05$). While 24% of participants who had experienced institutional abuse only reported a secure attached style, only 10.86% of those who had experienced both intrafamilial and institutional abuse reported secure adult attachment on the ECRI.

Comparison of males and females

To address the final research question stated at the end of the introduction and determine the effects of gender on adjustment to institutional abuse, the significance of differences between the 135 males and 112 females was assessed with Bonferroni corrected t-tests for the total number of current and lifetime psychological disorders on the SCID I and II and TSI total scores. There were no significant differences between males and females on either of these variables. Gender differences for ECRI attachment categories and specific diagnoses were assessed with chi square tests. The Bonferroni correction was made in assessing the significance of chi square tests for specific diagnoses. Females had a significantly higher rate of lifetime diagnosis of panic disorder with agoraphobia (Males = 1.5%; Females = 12.5%; Chi Square χ^2 (1, N = 247) = 12.27, $p < .001$). In contrast, males had a significantly higher rate of lifetime diagnosis of alcohol dependence (Males = 37.0%; Females = 14.3%%; Chi Square χ^2 (1, N = 247) = 16.18, $p < .001$). Males and females did not differ in the distribution of ECRI attachment categories.

DISCUSSION

Some support was found for our main hypothesis - that there would be elevated rates of psychological disorders, trauma symptoms, and insecure adult attachment styles within this sample compared with normative groups or community samples. About four fifths of participants at some point in their lives had met the criteria for a psychological disorder and this rate of psychological disorders was far higher than in normal community populations. The majority of participants also showed post-traumatic symptoms and an insecure adult attachment style. In support of our second hypothesis - that there would be an association between indices of institutional child abuse and adult adjustment - we found

that recollections of institutional sexual and emotional abuse were both correlated with current trauma symptoms. Our third hypotheses was that participants who reported both intrafamilial and institutional child abuse would show poorer adjustment in adulthood than those who reported institutional abuse only. We found that trauma symptomatology in adulthood was significantly higher, and the rate of secure adult attachment was significantly lower for those who had experienced both intrafamilial and institutional abuse. We also investigated the relationship between gender and adult adjustment to institutional abuse and found that while females had a significantly higher rate of lifetime diagnosis of panic disorder with agoraphobia, males had a significantly higher rate of lifetime diagnosis of alcohol dependence.

Our finding that 81.78% of participants at some point in their lives had met the diagnostic criteria for an anxiety, mood, alcohol or substance use, or personality disorder is broadly consistent with that of Wolfe et al. (2006) who found that 88% of a group of 76 adult males with a mean age of 39 years who had been abused in religiously affiliated institutions, at some point in their lives, suffered from a DSM IV disorder. In the present study and Wolfe et al.'s, anxiety disorders, depression and alcohol or substance abuse were the most common disorders. The lower rates of disorders in the present study compared with Wolfe et al.'s (81% vs. 88%) may reflect differences in sample characteristics (such as age and gender) or difference in the assessment contexts of the two studies. Our sample was older than Wolfe et al.'s and contained both females and males. In Wolfe et al.'s study, assessment data were used for litigation purposes, whereas in the present study, data were used exclusively for research purposes. Thus, in the present study, there were not litigation-related incentives for participants to consciously or inadvertently inflate the level of psychopathology they displayed.

In Wolfe et al's study 42.1% had current PTSD and 21.1% had a lifetime diagnosis of PTSD. In the present study the rates of PTSD were lower (current = 16.6% and lifetime = 8.9%). In the present study and Wolfe et al's, survivors had abnormal TSI profiles, on which intrusive experiences (or traumatic flashbacks) was one of the most abnormal features. In Wolfe et al's study 25% had current mood disorders and 11.8% had a lifetime diagnosis of a mood disorder. In the present study the rates of mood disorders were higher (current = 26.7% and lifetime = 36.0%). In Wolfe et al's study 21.1% had current alcohol use disorders and 44.7 % had a lifetime diagnosis of an alcohol use disorder. In the present study the rates of alcohol and substance use disorders were lower (current = 4.9% and lifetime = 35.2%). The fact that our sample was older than Wolfe et al.'s and contained both males and females may explain why we found higher rates of mood disorders, and Wolfe et al. found higher rates of anxiety and substance use disorders. Our finding that 83.4% of cases had an insecure adult attachment style is consistent with those from studies which have shown that insecure adult attachment is associated with non-optimal child-rearing experiences and psychopathology (Brennan & Shaver, 1998; Dozier, Stovall, & Albus, 1999; Muller, Lemieux & Sicoli, 2001).

The results of the present study showed that there were high rates of psychological disorders, trauma symptoms, and insecure attachment styles in adult survivors of institutional abuse. We also found significant correlations between indices of institutional child abuse and current adjustment in adulthood. A key question is why the effects of institutional abuse were so severe. Wolfe et al. (2003) proposed that four factors are important in explaining the degree of harm arsing from institutional abuse: (1) the value and significance of the institution within society, (2) the role of the perpetrator, (3) the degree of child involvement within the institution, and (4) the abuse and post abuse events. This framework provides a way for interpreting the severity of the effects of

institutional abuse found in our study. Survivors had been abused within Catholic institutions that were highly valued by a predominantly Catholic society. Perpetrators (Catholic nuns, brothers and priests) had a high level of power and authority over survivors, as their teachers, carers and spiritual leaders. Survivors were highly involved in the institutions in which they were abused, insofar as most were held against their will, or had no viable alternative place to live. Finally, the neglect and abuse suffered was severe, frequent and protracted, and attempts at disclosure were severely punished and disbelieved.

The principal limitations of this study were the non-representativeness of the sample, the retrospective nature of the childhood data, the exclusive reliance on interview data, and the absence of control groups. Participants were not a representative sample of CICA attenders, or of the total population of adult survivors of institutional abuse of whom CICA attenders form a subgroup. Participants were probably better adjusted than other CICA attenders, since older cases in poor health or with significant disabilities and who were homeless were excluded. Thus our findings may underestimate the level of mental health and adjustment problems in adult survivors of institutional abuse.

The retrospective design of the study entailed difficulties. Our participants, who were in middle or later life, may have had difficulty accurately remembering their childhood experiences due to the impact of normal aging on memory. Participants' current mental health and adjustment problems may have influenced their recollections of institutional abuse and other life events. For example, depressed participants may have selectively remembered more negative events from their childhoods (Williams, Watts, MacLeod, & Mathews, 1997).

The exclusive reliance on interview data to assess recollections of child abuse, without external corroboration from collateral sources or observation, made it impossible to

assess the validity of the accounts participants gave of their adverse childhood experiences. However, it is important to note that because CICA had no authority to provide victims of institutional child abuse with compensation and the research data could not be used for litigation or seeking redress, there was no financial incentive for study participants to give inflated accounts of the extent of their abuse or current problems. The interview instruments we used also had limitations. For example, the CTQ probably validly discriminated between individuals who had experienced different frequencies of abuse, but may have been less successful in discriminating between cases exposed to abusive experiences that differed in severity, since responses to CTQ items ranges from ‘never true’ to ‘often true’.

Comparisons with matched samples of individuals with histories of non-abusive institutional rearing, abusive rearing in a family context, and a normal family upbringing, would have permitted the identification of adult adjustment problems uniquely associated with institutional abuse, and those uniquely associated with institutional rearing. With the single sample design used and comparisons made with international epidemiological data and test norms, it was not possible to disentangle the effects of institutional rearing from the effects of institutional abuse, or family adversity experienced prior to or after living in an institution. Furthermore, differences between rates of psychological disorders in our sample and those in international epidemiological studies may be due partly to methodological differences between data collection procedures, and partly to the date and geographical locations of study sites.

On the positive side, ours is the largest study of its kind to date and the only such study conducted within an Irish context. An extensive reliable and valid interview protocol was used and normative test data or data from international epidemiological studies were used to partially and imperfectly compensate for the lack of a control group.

The priorities for future research should be replication of the current study in other contexts, and also exploration of mechanisms that link institutional abuse to adult adjustment. In the present study almost a fifth of participants never had any psychological disorder, therefore a critical issue for future research is exploration of protective factors that characterise resilient survivors of institutional abuse (Masten & Powell, 2003). The abuse suffered by participants in this study could have been prevented if adequate legislation for the protection of children's rights in the Republic of Ireland had been in place, and if this were supported by appropriate child protection policies and practices. Such measures would have included criteria about the quality of child care essential for registration of reformatories and industrial schools, the rigorous inspection of such institutions on a regular basis, the use of sanctions where institutions failed to meet adequate standards, child-centred procedures for responding constructively to allegations of abuse, and the prosecution of perpetrators of institutional abuse. The implementation of such measures is a critical implication of the present study. With regard to the welfare of survivors of institutional abuse, it is essential that evidence-based psychological treatment should be made available to them (Carr, 2008). Clinicians providing such services should be trained to assess and treat the range of anxiety, mood, substance use and personality disorders, trauma symptoms, adult attachment problems, and significant life problems with which such case present. Research evaluating the effectiveness of such services is also required.

REFERENCES

Alonso, J., Angermeyer, M., Bernert, S., Bruffaerts, R., Brugha, T.S., Bryson, H., de Girolamo, G., de Graaf, R., Demyttenaere, K., Gasquet, I., Haro, J.M., Katz, S., Kessler, R.C., Kovess, V., Lépine, J.P., Ormel, J., Polidori, G., & Vilagut, G. (2004). Prevalence of Mental Disorders in Europe: Results from the European Study of

Epidemiology of Mental Disorders (ESEMeD) Project. *Acta Psychiatrica Scandninavica*, 109 (suppl 420), 21-27.

American Psychiatric Association (1994). *Diagnostic and Statistical Manual of the Mental Disorders* (4th ed) (DSM IV). Washington, DC: APA.

Arnow, B. A. (2004). Relationships between childhood maltreatment, adult health and psychiatric outcomes, and medical utilization. *Journal of Clinical Psychiatry,* 65, 10–15.

Battle, C., Shea, M., & Johnson, D., Yen, S., Zlotnick, C., Zanarini, M., Sanislow, C., Skodol, A., Gunderson, J., Grilo, C., McGlashan, T., & Morey, L. (2004). Childhood maltreatment associated with adult personality disorders: findings from the collaborative longitudinal personality disorders study. *Journal of Personality Disorders*, *18,* 193-211.

Bernstein, D., & Fink, L. (1998). *Childhood Trauma Questionnaire: A Retrospective Self-report. Manual.* The Psychological Cooperation.

Bierer, L. Yehuda, R., Schmeidler, J., Mitropoulou, V. Antonia, S., Silverman, J., & Siever, L. (2003). Abuse and neglect in childhood: relationship to personality disorder diagnoses. *CNS Spectrums*, 8(10), 737-740, 749-754.

Brennan, K., Clark, C., & Shaver, P. (1998). Self-report measure of adult attachment: An integrative overview. In J. Simpson & W. Rholes (Eds.), *Attachment Theory and Close Relationships* (pp. 46-76). New York: Guilford Press.

Brennan, K., & Shaver, P. (1998). Attachment styles and personality disorders: Their connections to each other and to parental divorce, parental death, and perceptions of parental caregiving. *Journal of Personality, 66,* 835-878.

Briere, J. (1996). *Trauma Symptom Inventory*. Odessa, FL: Psychological Assessment Resources.

Brodsky, B. S., Oquendo, M., Ellis, S. P., Haas, G. L., Malone, K. M., & Mann, J. J. (2001). The relationship of childhood *abuse* to impulsivity and suicidal behaviour in adults, with major depression. *American Journal of Psychiatry. 2001,* 158, 1871-1877.

Carr, A. (2008). *What works with children, adolescents and adults? A review of research of the effectiveness of psychotherapy.* London: Routledge.

Central Statistics Office (2007). *Census 2006. Principal Socio-ecomomic results.* Dublin. CSO.

Cohen, J. (1960). A coefficient of agreement for nominal scales. *Educational and Psychological Measurement*, 20, 37-46.

Colman, R., & Widom, C. (2004). Childhood abuse and neglect and adult intimate relationships: A prospective study. *Child Abuse & Neglect,* 28, 1133-1151.

Davis, J., & Petretic-Jackson, P. (2000). The impact of child sexual abuse on adult interpersonal functioning: A review and synthesis of the empirical literature. *Aggression and Violent Behaviour,* 5, 291-323.

Dozier, M., Stovall, K., & Albus, K. E. (1999). Attachment and psychopathology in adulthood. In J. Cassidy & P.R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (pp. 497–519). New York: Guilford Press.

First, M., Spitzer, R., Gibbon, M., & Williams, J. (1996). *Structured Clinical Interview for DSM-IV Axis I Disorders, Clinician Version (SCID-CV).* Washington, DC: American Psychiatric Press.

First, M., Spitzer, R., Gibbon M., & Williams, J. (1997). *Structured Clinical Interview for DSM-IV Personality Disorders, (SCID-II).* Washington, DC: American Psychiatric Press.

Gallagher, B. (1999.) The abuse of children in public care. *Child Abuse Review*, 8(6), 357-365.

Gilligan, R. (2000). The developmental implications for children of life in public care - Irish and international perspectives. *Irish Journal of Psychology,* 21, 138-15.

Grant, B., Hasin, D., Stinson, F., Dawson, D., Chou, S., & Ruan, W. (2004). Prevalence, correlates, and disability of personality disorders in the United States: results from the National Epidemiologic Survey on Alcohol and Related Conditions. *Journal of Clinical Psychiatry,* 65, 948-58.

Kendall-Tackett, K. (2002). The health effects of childhood abuse: Four pathways by which abuse can influence health. *Child Abuse & Neglect,* 26, 715-729.

Kessler, R., Berglund, P., Demler, O., Jin, R., & Walters, E. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication (NCS-R). *Archives of General Psychiatry,* 62(6), 593-602.

Kessler, R., Chiu, W., Demler, O., & Walters, E. (2005). Prevalence, severity, and comorbidity of twelve-month DSM-IV disorders in the National Comorbidity Survey Replication (NCS-R). *Archives of General Psychiatry*, 62(6), 617-627.

MacMillan, H. L., Fleming, J. E., & Streiner, D. L . (2001). Childhood abuse and lifetime psychopathology in a community sample. *American Journal of Psychiatry,* 158, 1878-1883.

Masten, A., & Powell, J. (2003). A resilience framework for research, policy and practice. In S. Luthar (Ed.), *Resilience and vulnerability. Adaptation in the context of childhood adversity* (pp. 1-25). Cambridge: Cambridge University Press

Muller, R., Lemieux, K., & Sicoli, L. A. (2001). Attachment and psychopathology among formerly maltreated adults. *Journal of Family Violence, 16,* 151-169.

O'Doherty, F. (1970). Appendix F. In E. Kennedy (Ed.), *Reformatory and Industrial Schools Systems Report* (pp 50-53). Dublin: Stationary Office.

O'Hare, A., Whelan, C.T., & Commins, P. (1991). The development of an Irish census-based social class scale. *The Economic and Social Review*, 22, 135-156.

Perez, C., & Wodom, C. (1994). Childhood victimization and long-term intellectual and academic outcomes. *Child Abuse & Neglect,* 18(8),. 617-633.

Powers, J. L., Mooney, A., & Nunno, M. (1990). Institutional abuse: A review of the literature. *Journal of Child and Youth Care*, 4, 81-95.

Rutter, M., Kreppner, J. K., O'Connor, T. G., & the ERA Research Team (2001). Specificity and heterogeneity in children's responses to profound privation. *British Journal of Psychiatry*, 179, 97-103.

Rutter, M., Quinton, D., & Hill, J. (1990). Adult outcome of institution-reared children: Males and females compared. In L. Robins, & M. Rutter, Michael (Ed). *Straight and devious pathways from childhood to adulthood* (pp. 135-157). New York: Cambridge University Press.

Ryan, S. (2009). *Report of the Commission to Inquire into Child Abuse*. Dublin: Stationary Office. http://www.childabusecommission.com/rpt/pdfs/

Scher, C., Stein, M., Asmundson, G., McCreary, D., & Forde, D. (2001). The Childhood Trauma Questionnaire in a community sample: Psychometric properties and normative data. *Journal of Traumatic Stress*, 14 (4), 843- 857.

Singleton, N., Bumpstead, R., O'Brien, M., Lee, A., & Meltzer, H. (2001). *Psychiatric Morbidity Among Adults Living in Private Households, 2000.* London: Stationary Office.

Soloff, P., Lynch, K., & Kelly, T. (2002). Childhood abuse as a risk factor for suicidal behaviour in borderline personality disorder. *Journal of Personality Disorders,* 16 (3), 201-214.

Springer, K. W., Sheridan, J., Kuo, D., & Carnes, M. (2003). The long-term health outcomes of childhood abuse. An overview and a call to action. *Journal of General Internal Medicine,* 18, 864-870.

Stein, M. (2006) Missing years of abuse in children's homes. *Child and Family Social Work*, 11, 11-21.

Torgersen, S., Kringlen, E., & Cramer, V. (2001).The prevalence of personality disorders in a community sample. *Archives of General Psychiatry,* 58, 590-596.

Vorria, P., Sarafidou, Y., & Papaligoura, Z. (2004). The effects of state care on children's development: new findings, new approaches. *International Journal of Child and Family Welfare*, 7, 168-183.

Weich, S., Patterson, R., Shaw, R., & Stewart-Brown, S. (2009). Family relationships in childhood and common psychiatric disorders in later life: systematic review of prospective studies. *British Journal of Psychiatry*, 194, 392-398.

Williams, J.M.G., Watts, F., MacLeod, C., & Mathews, A. (1997). *Cognitive psychology and emotional disorders* (Second Edition). Chichester: Wiley.

Wolfe, D., Francis, K., & Straatman, A. (2006). Child abuse in religiously-affiliated institutions: long-term impact on men's mental health. *Child Abuse and Neglect, 30,* 205-212.

Wolfe, D. Jaffe, P., Jette, J., & Poisson, S. (2003). The impact of child abuse in community institutions and organizations: Advancing professional and scientific understanding. *Clinical Psychology: Science & Practice*, 10, 179-191

Zanarini, M. C., Skodol, A.E., Bender, D., Dolan, R., Sanislow, C., Schaefer, E., Morey, L., Grilo, C., Shea, M., McGlashan, T., & Gunderson, J. (2000). The Collaborative Longitudinal Personality Disorders Study: reliability of axis I and II diagnoses. *Journal of Personality Disorders, 14,* 291-9.

Figure 1. The path of recruitment and attrition for participants form the CICA Confidential and Investigation Committees

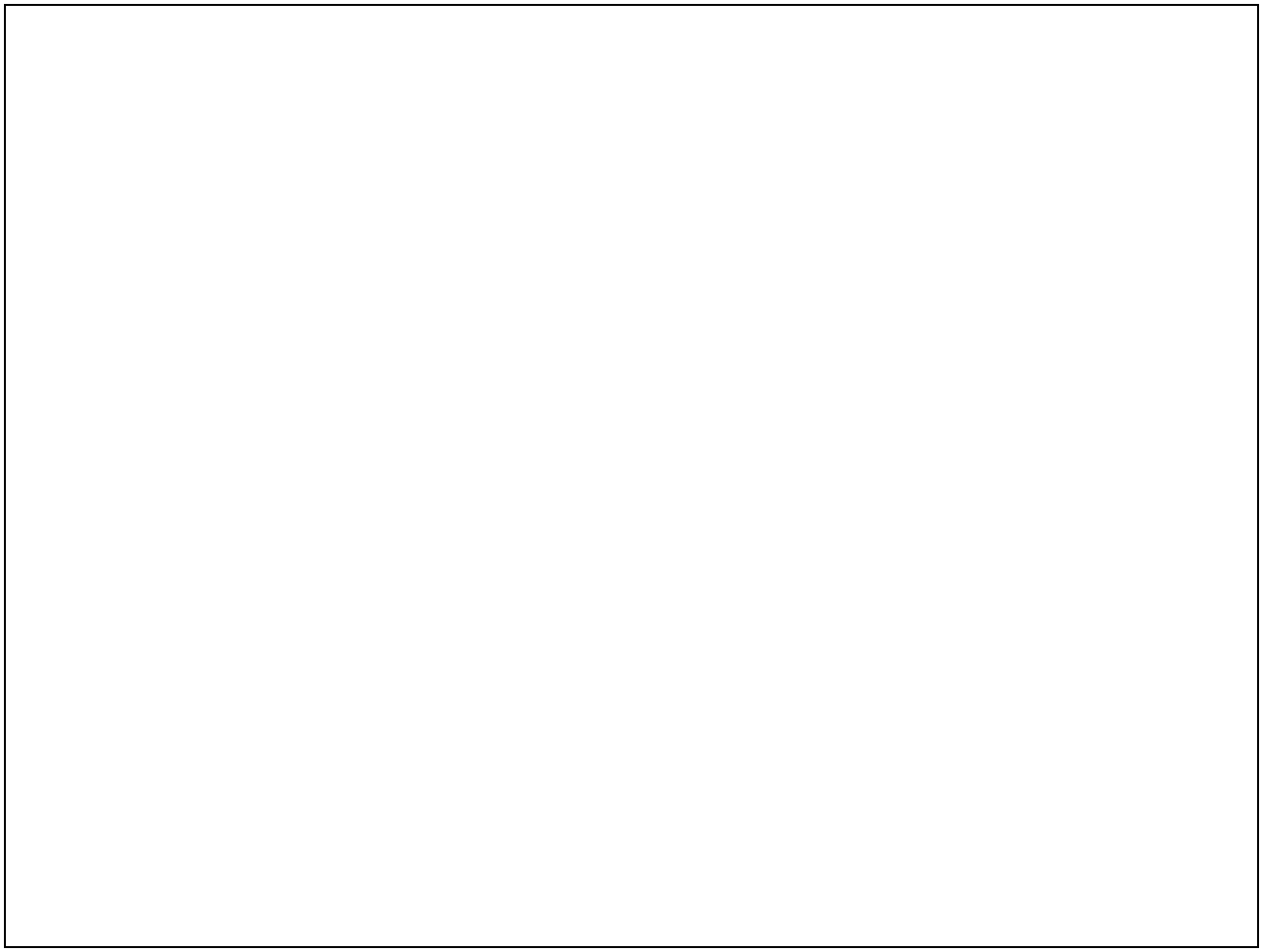

Table 1. Demographic characteristics

Variable	Categories		f	%	% Irish 2006 census
Gender (N=247)	Male		135	54.70	
	Female		112	45.30	
Age (N=247)		M	60.05		
		SD	8.33		
Highest educational level achieved (N=247)					
	Primary school		186	75.30	22.6
	High school		53	21.45	48.3
	Primary degree (e.g. BA)		8	3.20	29.1
Current socio-economic status (SES) (N=241)					
	Unemployed (never had a job)		60	24.30	3.9
	Unskilled manual		38	15.40	4.9
	Semi-skilled manual and farmers with < 30 acres		28	11.30	9.3
	Skilled manual and farmers with 30-49 acres		12	4.90	11.2
	Other non-manual and farmers with 50-99 acres		8	3.20	21.4
	Lower prof. & managers; farmers with 100-199 acres		9	3.65	28.8
	Higher prof. & managers; farmers with 200 acres		1	0.40	10.7
	Retired		85	34.40	9.9
Marital status (N=245)					
	Married in first long term relationship		98	39.70	41.0
	Married in second or later marriage		23	9.30	
	Cohabiting in first long term relationship		2	0.80	
	Cohabiting in second or later long term relationship		14	5.70	
	Single and widowed		22	8.90	
	Single and never married or cohabited		28	11.30	
	Single and divorced from first married partner		24	9.70	
	Single and separated from first cohabiting partner		6	2.40	
	Single and separated from first marital partner		17	6.90	
	Single and separated or divorced from second or later partner		11	4.50	
Years with current partner (N=134)		M	31.10		
		SD	10.73		
Number of children (N=212)		M	3.38		
		SD	1.92		
Age when had first Child (N=207)		M	25.53		
		SD	5.56		
Children's living arrangements (N=211)					
	Always lived with respondent		162	76.80	
	Spent some time living with their other parent		28	13.30	
	Spent some time living with their relatives		6	2.80	
	Spent some time living in care		10	4.70	
	Children put up for adoption		5	2.40	

Note: For each variable with multiple categories, the percentages sum to approximately 100. Minor deviations from 100 are due to rounding of decimals to two places. Socio-economic status (SES) was assessed with O'Hare et al's (1991). Irish census-based social class scale. The Irish census data are from Cental statistics Office (2007).

Table 2. Institutional and intrafamilial child abuse

Variable	f	%
INSITUTIONAL CHILD ABUSE	(N=247)	
Childhood Trauma Questionnaire		
Total child maltreatment	245	99.20
Physical abuse	240	97.20
Sexual abuse	116	47.00
Emotional abuse	234	94.70
Physical neglect	241	97.60
Emotional neglect	235	95.10
Most severe form of physical institutional abuse		
Being assaulted to lead to medical attention	104	42.10
Being hit to leave bruises	74	30.00
Being assaulted to lead to cuts	51	20.60
Being hit without being bruised	15	6.00
Total	244	98.70
Frequency of most severe form of physical institutional abuse		
More than 100 times	115	46.60
11-100 times	59	23.90
2-10 times	46	18.60
Once	24	9.70
Never	3	1.20
Most severe form of sexual institutional abuse		
Fondling and masturbation (by perpetrator or coerced to do so to perpetrator)	53	21.50
Oral, anal or vaginal penetrative sex	46	18.60
Attempted oral, anal or vaginal penetrative sex	17	6.90
Non-contact exposure to perpetrators genitals (‘flashing’)	8	3.20
Total	124	50.20
Frequency of most severe form of sexual institutional abuse		
Never	122	49.40
2-10 times	41	16.60
11-100 times	35	14.20
Once	26	10.50
More than 100 times	23	9.72
INTRAFAMILIAL CHILD ABUSE	(N=121)	
Childhood Trauma Questionnaire		
Total child maltreatment	46	38.00
Physical abuse	32	26.40
Sexual abuse	10	8.30
Emotional abuse	25	20.70
Physical neglect	58	47.90
Emotional neglect	35	28.90
Most severe form of intrafamilial physical abuse		
Being hit to leave bruises	22	18.18
Being assaulted to lead to medical attention	11	9.10
Being hit without being bruised	7	5.78
Being assaulted to lead to cuts	4	3.30
Total	44	36.36
Frequency of most severe form of intrafamilial physical abuse		
11-100 times	17	14.05
2-10 times	14	11.57
More than 100 times	13	10.74
Most severe form of intrafamilial sexual abuse		
Fondling and masturbation (by perpetrator or coerced to do so to perpetrator)	7	5.78
Oral, anal or vaginal penetrative sex	5	4.13
Attempted oral, anal or vaginal penetrative sex	2	1.65
Total	14	11.57
Frequency of most severe form of intrafamilial sexual abuse		
Once	5	4.13
More than 100 times	4	3.30
11-100 times	4	3.30
Unknown	1	0.83

Note: Percentages for institutional child abuse are based on 247 cases. Percentages for interfamilial child abuse are based on the 121 cases who were able to recall living with their families before entering institutions.

Table 3. Psychological disorders

Disorder	Lifetime			Current		
	N	%	Inter-rater reliability Kappa	N	%	Inter-rater reliability Kappa
Anxiety disorders						
Any anxiety disorder	85	34.40	0.95	111	44.90	0.88
Social phobia	27	10.90	1.00	49	19.80	1.00
Generalized anxiety disorder	17	6.90	1.00	42	17.00	0.77
Posttraumatic stress disorder	21	8.50	0.85	41	16.60	0.86
Panic disorder without agoraphobia	22	8.90	1.00	16	6.50	1.00
Panic disorder with agoraphobia	16	6.50	1.00	18	7.30	1.00
Agoraphobia without panic disorder	1	0.40	1.00	8	3.20	1.00
Specific phobia	10	4.00	1.00	25	10.10	0.91
Obsessive compulsive disorder	9	3.60	1.00	8	3.20	1.00
Mood Disorders						
Any mood disorder	89	36.00	1.00	66	26.70	1.00
Major depression	89	36.00	1.00	38	15.40	1.00
Dysthymia	-	-	-	28	11.30	1.00
Alcohol or substance use disorders						
Any alcohol and substance use disorder	87	35.20	1.00	12	4.9	1.00
Alcohol dependence	67	27.10	1.00	9	3.60	1.00
Alcohol abuse	19	7.70	1.00	1	0.40	1.00
Other substance dependence	8	3.20	1.00	3	1.20	1.00
Other substance abuse	2	0.80	1.00	0	0.00	1.00
Personality disorders						
Any personality disorder	-	-	-	75	30.40	0.96
Avoidant personality disorder	-	-	-	52	21.10	0.96
Antisocial personality disorder	-	-	-	17	6.90	1.00
Borderline personality disorder	-	-	-	14	5.70	1.00
Dependent personality disorder	-	-	-	4	1.60	1.00

Note: N=247. Mood, anxiety and substance use disorders were assessed with the SCID-I. Personality disorders were assessed with the SCID-II. Psychological disorders do not represent mutually exclusive categories and so percentages sum to more than 100%. Inter-rater reliability kappa coefficients for each of the diagnostic categories were computed for 52 cases, and found to be above .7 indicating that the diagnoses were reliably made (Cohen,1960).

Table 4. Rates of psychological disorders among survivors of institutional living compared with rates in normal community samples in Europe, UK and USA.

Disorder	CICA	Europe	USA	UK
Anxiety disorders				
Any lifetime anxiety disorder	34.40	13.60	28.80	-
Any current anxiety disorder	44.90	6.00	18.10	7.97
Mood Disorders				
Any lifetime mood disorder	36.00	14.00	20.80	-
Any current mood disorder	26.70	4.20	9.50	2.58
Substance induced disorders				
Any lifetime alcohol and substance use disorder	35.20	5.20	14.60	-
Any current alcohol or substance use disorder	4.9	1.00	3.80	-
Personality disorders				
Any personality disorder	30.40	13.10	14.79	4.00

Note. European current (1 year) and lifetime prevalence rates for anxiety mood and substance use disorders are from Alonso et al. (2004).
USA current (1 year) prevalence rates are from Kessler, Chiu et al. (2005).
USA lifetime prevalence rates are from Kessler, Berglund et al. (2005).
USA prevalence rates of personality disorders are from Grant et al. (2004).
UK current (1 week) prevalence rates are from Singleton et al. (2001).
European prevalence rate for personality disorders is based on a study in Norway (Torgersen et al., 2001).