Profiles of Adult Survivors of Severe Sexual, Physical and Emotional Institutional Abuse in Ireland.

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ABSTRACT
Adult survivors of institutional abuse were interviewed with a comprehensive assessment protocol which included the Childhood Trauma Questionnaire, the Institutional Child Abuse Processes and Coping Inventory, the Structured Clinical Interviews for DSM IV axis I disorders and personality disorders, the Trauma Symptoms Inventory, a Life Problems Checklist, the Experiences in Close Relationships Inventory and the Kansas Marital Satisfaction Scale. Profiles were identified for subgroups who described severe sexual (N=60), physical (N=102), or emotional (N=85) abuse as their worst forms of maltreatment. Survivors of severe sexual abuse had the most abnormal profile, which was characterized by higher rates of all forms of child maltreatment and higher rates of posttraumatic stress disorder, alcohol and substance abuse, antisocial personality disorder, trauma symptoms, and life problems. Survivors of severe emotional abuse were better adjusted than the other two groups. The profile of survivors of severe physical abuse occupied an intermediate position between the other two groups. A thorough assessment of abuse history and current functioning should be conducted when providing services to adult survivors of institutional abuse, since this may have important implications for the intensity of services required. Survivors of severe sexual abuse may require more intensive services.
INTRODUCTION

Recently there have been frequent allegations of child abuse perpetrated within religiously-affiliated residential institutions in Ireland. The Irish Government set up the Commission to Inquire into Child Abuse (CICA, 2009) in response to such allegations. The research reported in this paper was commissioned by CICA to throw light on the adjustment of adults who suffered institutional abuse in childhood in Irish religiously-affiliated residential reformatories and industrial schools. These institutions were originally established by religious nuns, brothers and priests for children whose families could not financially support them or provide them with a morally appropriate upbringing. They had the aims of reforming deviant children and providing them with skills to support themselves through manual labour. The Report of the Commission to Inquire into Child Abuse (also known as the Ryan Report) has shown that physical and sexual abuse and neglect within these institutions was widespread (Ryan, 2009). The literature on the effects of child abuse, institutional rearing, and institutional abuse informed the present study, and so is briefly reviewed below.

The long-term adverse effects of child abuse and neglect have been well documented (Arnow, 2004; Springer et al., 2003; Widom et al., 2007). For example, Springer et al. (2003) and Arnow (2004) conducted extensive reviews of empirical studies in this area and concluded that child abuse and neglect lead to physical and mental health problems and psychosocial adjustment difficulties in adulthood, with the most severely maltreated being the worst affected. Child abuse and neglect has been shown to lead to frequent illness and risky health behaviour (Kendall-Tackett, 2002), mental health problems notably depression, anxiety, post-traumatic stress disorder (PTSD), and alcohol and substance abuse (McMillan, Fleming, & Streiner, 2001), personality disorders (Battle et al., 2004; Bierer et al., 2003), self-harm (Brodsky et al., 2001; Soloff, Lynch, & Kelly, 2002), difficulty with adult romantic attachments (Colman & Widom, 2004; Davis & Petretic-Jackson, 2000), and educational and occupational problems (Perez & Wodom, 1994) in adulthood. Although the mechanisms by which these adverse outcomes occur are not fully understood, it is clear that the experience of child abuse leads to derailment from normal developmental pathways (Widom et al., 2007).
Institutional upbringing has been shown to have negative effects on development in childhood and across the lifespan into adulthood (Rutter et al., 2001; Rutter, Quinton, & Hill, 1990; Vorria, Sarafidou & Papaligoura, 2004). In a study of children who suffered severe deprivation from birth until 2 years in Romanian institutions prior to adoption by UK families, Rutter et al. (2001) found that at 4 and 6 years these children showed impaired cognitive development, attachment problems, inattention, overactivity, and autistic-like features. Vorria et al. (2004) found that children reared in Greek institutions had disorganized attachment styles. Those who showed the most problematic adjustment in adulthood had entered institutions before they were two and a half years, and came from families with multigenerational histories of disadvantage and deprivation. Rutter et al. (1990) found that adults reared in care in the UK showed high rates of personality disorder and romantic relationship problems. Men reared in care had high rates of criminality, while women reared in institutions had high rates of teenage pregnancy and having their children taken in to care.

There is limited evidence on the effects of child abuse perpetrated within religiously affiliated institutions on adult adjustment. The only empirical study published in English on this issue was conducted by Wolfe, Francis and Straatman (2006) in Canada. They found that 88% of a group of 76 adult survivors of institutional abuse, at some point in their lives, suffered from a psychological disorder and 59% presented with a current disorder. The most common conditions were PTSD, alcohol, and mood disorders. Participants also showed significant trauma symptomatology on the Trauma Symptom Inventory (TSI, Briere, 1996) with elevations on TSI scales that assessed trauma, dysphoria, depression, intrusive experiences, defensive avoidance, and dissociation. More than two thirds of the sample had experienced significant sexual problems in adulthood, and over half had a history of criminality.

In a previous paper we described a study of 247 Irish adult survivors of institutional abuse in which similar rates of psychiatric disorders were found (Carr et al., In Press). Participants had spent an average of 10 years living in institutions before the age of 16. Almost all said they had been physically abused and about half reported being sexually abused while living in institutions. Over four fifths of participants at some point in their life
had met the diagnostic criteria for an anxiety, mood, substance use, or personality disorder (American Psychiatric Association, 1994). On the Experiences in Close Relationships Inventory using Brennan, Clark and Shaver’s (1998) algorithm, only 16.59% of cases were classified as having a secure adult attachment style. From this brief summary, it is clear that there was considerable variability within this group, in terms of the types of institutional abuse to which participants had been subjected and their overall adjustment in adulthood.

The aim of the present paper was to investigate this heterogeneity by establishing the profiles of survivors who identified severe sexual, physical or emotional abuse as the worst form of child abuse to which they had been subjected in institutions. We set out to profile these subgroups in terms of their histories of maltreatment in childhood and functioning in adulthood on indices of psychological adjustment. Subgroup profiles might have implications for understanding the impact of different patterns of abuse.

**METHOD**

**Participants**
Participants were 247 adult survivors of institutional abuse recruited through CICA (Carr et al., In Press). All people who attended CICA before December 2005 and who reported institutional abuse were invited to participate in the study unless their whereabouts were unknown; they were resident 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; or they were known to be in poor health or to have a significant disability. 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. The sample included almost equal numbers of males (54.7%) and females (45.3%), with a mean age of 60 years (SD = 8.33; Range = 40 – 83 years). Participants had spent an average of 5.4 years (SD = 4.55) living with their families before entering an institution and on average spent 10 years (SD = 5.21) living in an institution. It had been 22-65 years since they had suffered institutional abuse. Thirty four
percent of participants were retired; 24% were unemployed; 27% were unskilled or semiskilled; and the remaining 15% had skilled or professional jobs. Forty nine percent had never passed any state, college or university examination. Fifty five percent were married or in a long term cohabiting relationship, and the mean duration of such relationships was 31.10 years (SD = 10.73 years). In terms of mental health, educational and socio-economic factors, as a group, participants in this study were poorly adjusted compared with the general population, but were probably better adjusted than other CICA attenders, and other survivors of institutional abuse, since older cases in poor health or with significant disabilities and who were homeless were excluded.

**Instruments**

Participants were interviewed with a standard assessment protocol which elicited information on demographic characteristic, history of institutional experiences as well as containing the instruments described below which assessed history of child abuse and current psychological functioning. All of the instruments used had acceptable levels of reliability with alphas greater than .7 for internal consistency of all scales, and kappas greater than .7 for the inter-rater reliability of all diagnoses.

**Childhood Trauma Questionnaire (CTQ)**

The CTQ is a 28-item inventory that provides a reliable and valid assessment of recollections of childhood abuse and neglect (Bernstein & Fink, 1998; Scher et al., 2001). It yields scores on physical abuse, sexual abuse, emotional abuse, physical neglect, and emotional neglect scales. Five point self-report response formats were used for all items ranging from 1 = never true, to 5 = very often true. In the present study participants completed two versions of the CTQ: 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.

**Institutional Child Abuse Processes and Coping Inventory (ICAPCI)**

The ICAPCI is a 43 item instrument developed within the context of the present study
(Flanagan-Howard et al., In Press) to assess psychological processes and coping strategies theoretically purported to be associated with institutional abuse (Wolfe et al., 2003), institutional rearing (Rutter et al., 1990), stress and coping in the face of childhood adversity (Luthar, 2003), and clerical abuse (Bottoms et al., 1995; Farrell & Taylor, 2000; Fater & Mullaney, 2000; McLaughlin, 1994, Wolfe et al., 2006). It has six factor scales: (1) traumatization, (2) re-enactment, (3) spiritual disengagement, (4) positive coping, (5) coping by complying, and (6) avoidant coping. Participants completed two versions of the ICACPI. The first inquired about processes and coping strategies used in childhood while living in institutions, and the second inquired about the same processes and coping strategies in adulthood. For all items, five point self-report response formats were used ranging from 1 = never true to 5 = very often true.

**Trauma Symptom Inventory (TSI)**

The 100 item TSI is a reliable and valid instrument which evaluates posttraumatic symptomatology (Briere, 1996). A four point self-report response format was used for all items ranging from 0 = never to 3 = often. The TSI yields scores for ten clinical subscales, but in the present report, only results for the total score are reported, since this reflects the pattern of results on the subscales.

**Life problem checklist (LPC)**

The LPC is a 14 item list, which was constructed for the present study. It provided a rapid survey of 10 key problem areas including unemployment, homelessness, frequent illness, frequent hospitalization for physical and mental health problems, psychiatric disorders, substance use, self-harm, anger control in close relationships and criminality. Self-report yes/no response formats were used for all items.

**Experiences in Close Relationships Inventory (ECRI)**

The 36-item ECRI is a reliable and valid instrument for assessing adult romantic attachment style and yields scores on interpersonal anxiety and interpersonal avoidance dimensions (Brennan, Clark & Shaver, 1998). Seven point self-report response formats
were used for all ECRI items ranging from 1 = disagree strongly to 7 = agree strongly.

Kansas Marital Satisfaction Scale (KMS)
The 3 item KMS is a reliable and valid measure of the quality of marital or long-term cohabiting relationships (Schumm et al., 1986). Seven point self-report response formats were used for all items ranging from 1 = extremely dissatisfied to 7 = extremely satisfied.

Structured Clinical Interview for Axis I Disorders of Diagnostic and Statistical Manual of Mental Disorders IV (DSM IV, SCID I)
The SCID I is a reliable and valid semistructured interview (First et al., 1996) for assessing psychological disorders in DSM IV (American Psychiatric Association, 1994). Diagnoses were rated by interviewers on the basis of responses to a series of questions. In this study the modules for assessing anxiety, mood and substance use disorders were used, since a previous study suggested that these are the main psychological disorders shown by adult survivors of institutional abuse (Wolfe et al., 2006). The presence of both current disorders and past (or lifetime) disorders were assessed.

Structured Clinical Interview for DSM IV Personality Disorders (SCID II)
The SCID II is a reliable and valid semistructured interview (First et al., 1997) for assessing all DSM-IV axis II personality disorders (American Psychiatric Association, 1994). Diagnoses were rated by interviewers on the basis of responses to a series of questions. In this study the modules for antisocial, borderline, avoidant and dependent personality disorders were used. With the SCID II, only current (but not past) personality disorders were assessed.

Procedure
The study was designed to comply with the code of ethics of the Psychological Society of Ireland and ethical approval for the study was obtained through the University College Dublin Human Research Ethics Committee. A team of 29 interviewers, all of whom had psychology degrees, conducted face-to-face interviews of about 2 hours duration at multiple sites in Ireland (N=126) and the UK (N=121). A large team of interviewers was
used to allow data to be collected rapidly at multiple sites. To insure consistency in interviewing style, all interviewers completed intensive training in using the interview schedule. Participants were reimbursed for travel and subsistence expenses. Research data were not used for clinical or litigation purposes. Inter-rater reliability of all protocol scales was evaluated for 52 cases.

**Classification of cases**

The 247 cases were classified into three groups who reported that the worst thing that had happened to them in an institution was either severe sexual, severe physical, or severe emotional abuse. Statements about worst experiences were elicited with the question: ‘What was the worst thing that happened to you in the institution?’ Participants’ statements about their worst experiences were classified as severe sexual abuse if the words ‘sexual abuse’ or ‘rape’ were mentioned, or if they reported genital, anal or oral sex, masturbation or other coercive, contact sexual activities involving either staff or older pupils. Participants’ statements about their worst experiences were classified as severe physical abuse if physical violence, beating, slapping or being physically injured were reported. Statements of actions involving humiliation, degradation, severe lack of care, withholding medical treatment, witnessing the traumatisation of siblings or other members of their social support networks, and adverse experiences that were not clearly classifiable as severe sexual or severe physical abuse were classified as severe emotional abuse. If participants reported any form of severe sexual abuse, they were allocated to group 1 (even if they also indicated that the sexual abuse was accompanied by violent physical abuse and emotional abuse, such as being hit and humiliated verbally while being raped). If participants reported any form of severe physical abuse (in the absence of sexual abuse), they were allocated to group 2 (even if they also indicated that the physical abuse was accompanied by additional severe emotional abuse, such as being verbally chastised while being beaten). If participants reported that severe emotional abuse was the worst thing that had happened to them (in the absence of severe sexual and physical abuse), they were allocated to group 3. Inter-rater agreement greater than 90% was achieved for a sample of statements from 10% of participants. The 60 participants who reported severe
sexual abuse cases were allocated to group 1; 102 participants who reported severe physical abuse were allocated to group 2; and 85 participants who reported severe emotional abuse were assigned to group 3. All participants had experienced multiple forms of abuse and neglect, so the three groups were not representative of cases that had exclusive exposure to sexual, physical or emotional abuse. Rather, they were groups for whom episodes of severe sexual, physical or emotional abuse were their most traumatic experience, and for whom these traumatic experiences occurred within the context of exposure to multiple forms of abuse.

Analytic strategy
The statistical significance of intergroup differences was determined with chi square tests for categorical variables and one-way ANOVAs for continuous variables, with p values set conservatively at p<.01 to reduce the probability of type 1 error. Where chi square tests were significant at p<.01, group differences were interpreted as significant if standardised residuals in table cells exceeded an absolute value of 2. Scheffe post-hoc comparison tests for designs with unequal cell sizes were conducted to identify significant intergroup differences in those instances where ANOVAs yielded significant F values (indicating that there was significant overall variation between the means of the three groups). Dunnett’s test was used instead of Scheffe’s, where the assumption of homogeneity of variance was violated. For continuous variables additional strategies were used to control for type 1 error within conceptually related groups of variables. The first strategy was to conduct a one-way ANOVA on the total scale of an instrument, and only if this was significant at p<.01, to proceed to conduct ANOVAs on its subscales. This strategy was used with the CTQ. The second strategy was to conduct a multivariate analysis of variance (MANOVAs) on an instrument’s subscales if no meaningful total score could be derived, and only to proceed to conduct ANOVAs on subscales if the MANOVA was significant at p<.01. This strategy was used with the ICAPCI. To facilitate interpretation of profiles of means, all variables on continuous scales were transformed to T-scores (with means of 50 and standard deviations of 10) before analyses were conducted.
Institutional Abuse

RESULTS

Group differences on demographic and historical variables

From Table 1 it may be seen that there were significant intergroup differences for gender, age, length of time living with family before entering an institution, reasons participants believed the were placed in institutions, and institution management. Group 1, the severe sexual abuse group, contained significantly more males than group 2, the severe physical abuse group, who in turn contained significantly more males than group 3, the severe emotional abuse group. The mean age of group 2 was significantly greater than that of group 3, which in turn was significantly greater than that of group 1. The mean duration of time spent with family before entering an institution for group 1 was significantly greater than for group 3. Significantly more members of group 1 reported that they had been placed in institutions for petty crime, compared with group 2, who in turn contained more members who reported that they had been placed in institutions for this reason than group 3. Reasons for institutional placement in Table 1 refer to participants’ beliefs, and not officially recorded reasons for placement. Significantly more members of group 3 spent time in institutions managed by nuns compared with group 2, who in turn contained more members who spent time in such institutions than group 1. In contrast, significantly more members of group 1 spent time in institutions managed by religious brothers or priests compared with group 2, who in turn contained more members who spent time in such institutions than group 3.

Group differences on psychosocial variables

Means standard deviations and results of ANOVAs for the psychosocial variables on which the three groups differed significantly are presented in Table 2. With regard to group differences on measures of institutional abuse, the three groups differed significantly on the total, sexual and physical abuse scales of the institution version of the CTQ. The mean CTQ total abuse score for group 1, the severe sexual abuse group, was significantly greater than that of group 2, the severe physical abuse group, which was significantly greater than that of group 3, the severe emotional abuse group. The mean CTQ sexual abuse score for group 1 was significantly greater than those of groups 2 and 3. The mean
CTQ physical abuse scores for groups 1 and 2 were significantly greater than that of group 3.

With regard to group differences on measures of trauma, coping and current psychological adjustment, the groups differed significantly on the re-enactment scale of the past version of the ICAPCI, the coping by complying scale of the present version of the ICAPCI, the TSI total score, the LPC total score, the ECRI interpersonal anxiety scale, and the KMS. The mean re-enactment scale score on the past version of the ICAPCI for group 1 was significantly greater than those of groups 2 and 3. The mean coping by complying scale score of the present version of the ICAPCI for group 2 was significantly greater than those of groups 1 and 3. The mean TSI total score for group 1 was significantly greater than those of groups 2 and 3. The mean LPC total score for group 1 was significantly greater than that of group 2, which was significantly greater than that of group 3. On the ECRI interpersonal anxiety scale, the mean score of group 1 was significantly higher than that of group 3. On the KMS, the mean score of group 1 was significantly greater than those of groups 2 and 3.

From Table 2 it may also be seen that the groups differed significantly in their rates of current PTSD, lifetime alcohol and substance use disorders, and antisocial personality disorder. For all three categories, rates were significantly higher in group 1 than in the other two groups. Rates of lifetime alcohol and substance use disorders and antisocial personality disorder were significantly higher in group 2 than in group 3.

Profile of group 1 - severe sexual abuse

Members of group 1 reported that severe sexual abuse was their worst institutional experience. Group 1 contained more males than the other two groups. The members of this group were, on average in their mid-50s, and were younger than those in the other two groups. They had spent more time living with their families before institutional placement, and for more of them they believed that institutional placement had occurred because of their involvement in petty crime. Compared with the other two groups, the profile of group 1 was characterized by the highest levels of CTQ total abuse and CTQ sexual abuse. On the CTQ physical abuse scale there was no difference between the mean scores of group 1
and group 2, for whom severe physical abuse was their worst institutional experience. This indicates that group 1 had suffered high levels of physical abuse as well as severe sexual abuse. Compared with the other two groups, the profile of group 1 was characterized by the highest levels ICAPCI past re-enactment, which indicates that as youngsters, those in group 1 re-enacted their abuse on others. On the SCIDs I and II, compared with the other two groups, group 1 had the highest rates of PTSD, alcohol and substance abuse, and antisocial personality disorder. Compared with the other two groups, the profile of group 1 was characterized by the highest levels of TSI total symptoms and LPC total life problems. Finally, the profile of group 1 was characterized by the highest level of ECRI interpersonal anxiety, and (surprisingly), the highest level of marital satisfaction.

**Profile of group 2 – severe physical abuse**

Members of group 2 reported that severe physical abuse was their worst institutional experience. This was the oldest group with the average age being in the early 60s, but in other respects the historical and demographic profile of group 2 was intermediate between those of groups 1 and 3. Compared with the other two groups, the profile of group 2 was characterized by intermediate levels CTQ total abuse, and like group 3, group 2 had high levels of CTQ physical abuse. Compared with the other two groups, the profile of group 2 was characterized by the highest levels of present ICAPCI coping by complying, which indicates that in adulthood, members of group 2 coped with conflict by complying with the wishes of others, which is understandable given their history of severe physical abuse. On the SCIDs I and II, compared with the other two groups, group 2 had intermediate rates alcohol and substance abuse, and antisocial personality disorder. On the TSI total symptoms scale, the profile of group 2 was similar to that of group 3. On the LPC total life problems and the IAPCI interpersonal anxiety, the profile of group 2 was intermediate between that of groups 1 and 3.

**Profile of group 3 - severe emotional abuse**

For the members of group 3, severe emotional abuse was their worst institutional experience. Group 3 contained more females than the other two groups. Members of this
group were placed in institutions early in their lives and had spent the least time living in their families before institutional placement. Fewer members of this group reported that their institutional placement has occurred because of petty crime. Compared with the other two groups, the profile of group 3 was characterized by the lowest levels of CTQ total abuse and CTQ sexual abuse. On the SCIDs I and II, group 3 had the lowest rates of alcohol and substance abuse, and antisocial personality disorder. Compared with the other two groups, the profile of group 3 was characterized by the lowest levels of LPC total life problems, and the lowest level of ECRI interpersonal anxiety.

DISCUSSION

The three subgroups of adult survivors of institutional abuse, defined by personal accounts of their worst abusive experiences, were found to have distinct profiles. Group 1 had the most abnormal profile, and contained survivors who reported that severe sexual abuse was the worst form of abuse they had suffered. Group 3 had the least problematic profile. The members of this group identified severe emotional abuse as their worst form of maltreatment. The profile of group 2 occupied an intermediate position between those of the other two groups. Members of group 2 reported that severe physical abuse was their worst abusive experience.

The distinct profiles of the three groups indicate that survivors who described their worst abusive experiences as involving different types of institutional abuse had different outcomes in adulthood. However, it is unlikely that survivors’ worst abusive experiences alone could have accounted for their different outcomes. This is because the three groups had also been exposed to different overall levels of abuse, as indicated by their CTQ total scores. Group 1 (in which sexual abuse was the worst abusive experience) was exposed to the highest level of overall abuse as assessed by the CTQ. In contrast group 3 (in which emotional abuse was the worst abusive experience) was exposed to the lowest level of overall abuse. Group 2 (in which physical abuse was the worst abusive experience) had a mean CTQ total abuse score intermediate between those of groups 1 and 3. Thus, worst abusive experience and overall level of abuse were confounded, and so the outcomes in adulthood may have been due to either factor or a combination of both. However, it is
noteworthy that in this cohort of survivors of multiple forms of institutional abuse there was such a clear association between type of worst abusive experience and overall level of abuse. For example, it was not the case that those who reported that sexual abuse was their worst abusive experience, were exposed to less physical and emotional abuse. Rather the severe sexual abuse occurred within the context of ongoing physical and emotional maltreatment, and these traumatic experiences in turn were associated with particularly severe adult adjustment problems. The amount of time spent in their families prior to entering institutions and reasons for entry to institutions may also have accounted for intergroup differences, but not level of family-based child abuse, since the three groups did not differ in their scores on the family version of the CTQ.

Limitations
The study had a number of limitations including the non-representativeness of the sample, the absence of control groups, the reliance on self-report data, and the retrospective nature of the childhood data.

The survivors who participated in the study were not a representative sample of CICA attenders, or of the total population of adult survivors of institutional abuse from Irish reformatories and industrial schools. Our group of participants were probably better adjusted than the population of survivors from which they came because older cases, those in poor health or with significant disabilities, and those who were homeless were excluded from the study.

Comparisons with demographically matched control groups 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 different types of worst forms of institutional abuse, and those uniquely associated with institutional rearing.

The exclusive reliance on interview data to assess current adjustment, and recollections of child abuse, without corroboration from other sources was problematic.
Responses to the questions about current adjustment, past abuse and worst abusive experiences used to classify cases, may all have been influenced by factors such as the way participants interpreted the questions and the stigma or benefits they perceived to be associated with admitting to being well or poorly adjusted and to having been subjected to certain abusive 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 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 probably was less successful in discriminating between cases exposed to abusive experiences that differed in severity.

The fact that the interview protocol was extensive and much of it focused on past adversity and current life problems may have heightened respondents awareness of personal problems and limitations, compared to their strengths and personal resources.

The use of a relatively large team of interviewers in this study to permit data to be collected rapidly at multiple sites, may have led to some inconsistency in the way data were collected. However, all interviewers were given intensive training in using the interview schedule to maximize consistency in interviewing style.

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.

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 by trained interviewers.

**Consistency with other studies**
The most important finding of the study was higher rates of PTSD, alcohol and substance use disorders, and antisocial personality disorder among those for whom severe sexual abuse was their worst abusive experience, compared with those for whom severe physical or emotional abuse were their worst experiences. Our results are consistent with Wolfe et al.’s (2006) finding of high rates of PTSD and alcohol use disorders in their study of 76 adult male survivors of institutional abuse. However, our results extend Wolfe et al.’s findings, since they did not compare rates of PTSD and alcohol use disorders among survivors of different types of worst institutional abuse, as was done in the current study. Our results are also consistent with those from community-based studies which have established associations between physical and sexual child abuse on the one hand and PTSD (e.g., Duncan et al. 1996; Hanson et al., 2001; Molner et al. 2000; Paloucci et al., 2001; Schaaf & McCanne, 1998; Silverman et al., 1996; Widom, 1999), alcohol and substance use disorders (e.g., Dube et al., 2002; Duncan et al., 1996; Fergusson & Lynsky, 1997; Horowitz et al., 2001; Kessler et al., 1994; MacMillan et al., 2001; Molnar et al, 2001; Mullen et al., 1993; Silverman et al., 1996; Spataro et al., 2004; Widom et al., 1999), and antisocial personality disorder (e.g., Horowitz et al., 2001; Luntz & Widom, 1994; MacMillan et al., 2001; Silverman et al., 1996) on the other. However, our results extend these findings by showing that these disorders also occur in survivors of institutional child abuse, and that higher rates occur in survivors of for whom severe sexual abuse was their worst experience compared with survivors of other extreme forms of abuse.

Implications
The present study has implications for future research, practice and policy. Priorities for future research should be replication of the current study in other contexts, and also exploration of mechanisms that link different types of severe institutional abuse to different patterns of adult adjustment.

Adult survivors of institutional abuse should be offered evidence-based psychological treatment to help them address psychological disorders arising from their abuse (Carr, 2009). The present study shows that worst abusive experiences and overall
level of exposure to abuse is associated with adult mental health problems and service need. 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 cases present. Research evaluating the effectiveness of such services is also required.

The results of the current study shows that adult survivors of institutional abuse are a heterogeneous group, with variability in their abuse histories and adult adjustment. Our findings support the practice of the Irish Residential Institutions Redress Board (2005) of taking the nature and extent of institutional abuse and its impact on adult adjustment into account in making decisions about compensation.
REFERENCES


Table 1. Demographic and historical profiles of groups who experienced severe institutional sexual, physical and emotional abuse

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<th>Variable and categories</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>χ² or F</th>
<th>Group diffs</th>
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<td>5.65 (4.7)</td>
<td>4.09 (3.8)</td>
<td>7.04***</td>
</tr>
<tr>
<td>Reason for entering an institution (N = 245)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I was illegitimate and given to the orphanage</td>
<td>n (%)</td>
<td>6 (10.0%)</td>
<td>18 (17.6)</td>
<td>24 (28.9%)</td>
<td>26.49***</td>
</tr>
<tr>
<td>Put in by authorities for petty crime</td>
<td>n (%)</td>
<td>23 (38.3%)</td>
<td>30 (29.4%)</td>
<td>5 (6.0%)</td>
<td>1 &gt; 2 &lt; 3</td>
</tr>
<tr>
<td>Put in by parent because they could not look after me</td>
<td>n (%)</td>
<td>23 (38.3%)</td>
<td>42 (41.2%)</td>
<td>39 (47.0%)</td>
<td></td>
</tr>
<tr>
<td>Put in by parent because other parent died</td>
<td>n (%)</td>
<td>8 (13.3%)</td>
<td>12 (11.8%)</td>
<td>15 (18.1%)</td>
<td></td>
</tr>
<tr>
<td>Institution management</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nuns</td>
<td>n (%)</td>
<td>15 (25.0%)</td>
<td>48 (47.1%)</td>
<td>58 (68.2%)</td>
<td>31.51***</td>
</tr>
<tr>
<td>Religious brothers or religious brothers and priests</td>
<td>n (%)</td>
<td>31 (51.7%)</td>
<td>35 (34.3%)</td>
<td>11 (12.9%)</td>
<td>1 &gt; 2 &gt; 3</td>
</tr>
<tr>
<td>Nuns, religious brothers and priests</td>
<td>n (%)</td>
<td>14 (23.3%)</td>
<td>19 (18.6%)</td>
<td>16 (18.8%)</td>
<td></td>
</tr>
</tbody>
</table>

*** p < 0.001.

Note: For continuous variables F values are from one-way analysis of variance and group differences are from post-hoc tests for unequal groups. For categorical variables, where chi square tests were significant at p < 0.05, group differences were interpreted as significant if standardised residuals exceeded an absolute value of 2.
Table 2. Profiles of groups that experienced severe institutional sexual, physical and emotional abuse on psychosocial variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>Group 1</th>
<th>Group 2</th>
<th>Group 3</th>
<th>$\chi^2$ or F</th>
<th>Group diffs</th>
</tr>
</thead>
<tbody>
<tr>
<td>CTQ – Total child abuse scale</td>
<td>M (sd)</td>
<td>7.39 (9.3)</td>
<td>49.36 (8.3)</td>
<td>5.55 (9.6)</td>
<td>31.10***</td>
</tr>
<tr>
<td>CTQ – Sexual abuse scale</td>
<td>M (sd)</td>
<td>61.29 (8.0)</td>
<td>47.25 (8.5)</td>
<td>45.34 (6.2)</td>
<td>87.49***</td>
</tr>
<tr>
<td>CTQ – Physical abuse scale</td>
<td>M (sd)</td>
<td>52.44 (8.6)</td>
<td>51.94 (8.9)</td>
<td>45.94 (10.9)</td>
<td>11.63***</td>
</tr>
<tr>
<td>ICAPCI – Past re-enactment scale</td>
<td>M (sd)</td>
<td>54.78 (11.0)</td>
<td>49.28 (9.2)</td>
<td>47.41 (8.9)</td>
<td>10.86***</td>
</tr>
<tr>
<td>ICAPCI – Present coping by complying scale</td>
<td>M (sd)</td>
<td>48.01 (9.8)</td>
<td>52.68 (8.3)</td>
<td>48.25 (11.2)</td>
<td>6.46**</td>
</tr>
<tr>
<td>TSI – Total trauma symptoms score</td>
<td>M (sd)</td>
<td>53.95 (9.2)</td>
<td>49.34 (10.6)</td>
<td>48.00 (9.2)</td>
<td>6.93***</td>
</tr>
<tr>
<td>LPC – Total life problems score</td>
<td>M (sd)</td>
<td>55.67 (11.8)</td>
<td>49.67 (8.5)</td>
<td>46.38 (8.4)</td>
<td>17.35***</td>
</tr>
<tr>
<td>ECRI – Interpersonal anxiety</td>
<td>M (sd)</td>
<td>52.85 (9.9)</td>
<td>48.89 (10.3)</td>
<td>47.95 (9.4)</td>
<td>4.04**</td>
</tr>
<tr>
<td>KMS – Marital satisfaction scale (N = 136)</td>
<td>M (sd)</td>
<td>57.03 (6.4)</td>
<td>50.34 (10.7)</td>
<td>49.36 (11.4)</td>
<td>6.49**</td>
</tr>
<tr>
<td>SCID I – Current PTSD</td>
<td>n (%)</td>
<td>21 (35.0%)</td>
<td>11 (10.8%)</td>
<td>9 (10.6%)</td>
<td>19.38***</td>
</tr>
<tr>
<td>SCID I – Lifetime alcohol or substance use disorders</td>
<td>n (%)</td>
<td>34 (56.7%)</td>
<td>35 (34.3%)</td>
<td>19 (22.4%)</td>
<td>18.19***</td>
</tr>
<tr>
<td>SCID II – Current antisocial personality disorder</td>
<td>n (%)</td>
<td>11 (18.3%)</td>
<td>4 (3.9%)</td>
<td>2 (2.4%)</td>
<td>16.39***</td>
</tr>
</tbody>
</table>

** p < 0.01, *** p < 0.001.

Note: Abbreviations are defined in the text. For continuous variables F values are from one-way analysis of variance and group differences are from post-hoc tests for unequal groups. For categorical variables, where chi square tests were significant at $p < 0.05$, group differences were interpreted as significant if standardised residuals exceeded an absolute value of 2.