The Impact of Psychological Intervention on Rates of Sexual and Non-Sexual Recidivism in Men Convicted and Imprisoned for Sexual Crimes in Ireland.

A Research Report for the Irish Prison Service.

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EXECUTIVE SUMMARY

Aim of the current study.

This report presents the findings of an independent research study evaluating the impact of the Irish Prison Service (IPS) structured sexual offender intervention programme on rates of sexual and non-sexual recidivism for all men for whom it was offered since the programmes inception in 1994.

Key findings from previous national and international research.

Does intervention change the psychological functioning of sexual offending men?

There are two strands in the evaluation of the effectiveness of psychological intervention such as that delivered by the IPS structured sexual offender programme. The first is to identify the psychological risk factors associated with sexual offending behaviour and recidivism that are targeted by the intervention programme and to assess whether participants change in their functioning in these targeted areas. To achieve this O' Reilly and Carr (2004) conducted a detailed and independent evaluation of the IPS programme comparing the psychological functioning 38 participating men before and after intervention with that of a control group of similarly offending men who did not receive intervention. This evaluation compared all programme participants over a three year period with an appropriate control group. O' Reilly and Carr (2004) found that men who took part in the programme functioned differently post intervention with regard to the distorted thinking that offenders use to facilitate sexually abusive behaviour, they overcame deficits in victim empathy, and improved in aspects of personal and interpersonal adjustment associated with sexual offending such as emotional loneliness, assertiveness, sense of personal responsibility for events, self-esteem, and anger management difficulties. The programme also had a significant positive impact on relapse prevention awareness. No change in any of these areas of psychological functioning associated with sexual offending was evident among the untreated control group. That is, the changes observed in those sexually offending men who took part in the programme could be attributed to the intervention they

received. It was not due to the passage of time, the effects of sexual offence detection, the impact of other people's responses to their crimes, the effects of incarceration, changing societal awareness and attitudes towards sexual offending, or motivation to change. Some areas of programme revision were highlighted. In particular, the need to support programme participants in maintaining and further developing changes made during intervention after they completed the programme and returned to the community, in order to translate the therapeutic gains made into a reduction in recidivism.

Does intervention reduce recidivism?

The second strand of sexual offender intervention effectiveness research is to compare the impact of intervention on rates of recidivism among those who do and do not receive it. The current study represents the achievement of this aim for the Irish Prison Service programme.

A key question in measuring the rate of recidivism by men who commit sexual crimes concerns how long is long enough for an adequate follow-up? The Washington State Institute for Public Policy (2005) analysed data from 35,160 offenders convicted of any type of felony offence who were returned to the community between 1990 and 1995. These men were followed up for a ten year "at-risk" period on their return to the community. They concluded that a five year follow-up period is needed to adequately measure sexual offence recidivism. That is, following a felony offender's return to the community, of all sexual offences committed in a ten year window at least 75% occur within the first five years (ranging from 75-90% of offences in a 10-year period committed within the first 5 years across various categories of sexual crimes). In the present study the average follow-up period was 6.2 years.

International research on the impact of intervention on sexual offence recidivism is reported through a number of meta-analytic studies that combine the findings from a large number of separate evaluations addressing the question of recidivism rate differences between "treated" and "untreated" men. The idea is to combine the findings from reasonably designed studies to establish a cumulative evidence base. These reviews of the research literature conclude that structured intervention programmes for men who sexually offend significantly reduce recidivism. Hanson et al. (2002) report a sexual offence recidivism rate among untreated offenders of 17.4% compared to 9.9% among those in receipt of what they termed "current" intervention approaches. Similarly, Losel and Schmucker (2005) report a sexual offence recidivism rate of 17.5% among untreated offenders compared to 11.1% among those who received intervention. The conclusion that can be drawn from this research is that sexual offender intervention has a significant role in contributing to a safer society. In terms of assessing the impact of intervention the evidence clearly shows that structured programmes have the potential to make a very real contribution to the reduction, but not eradication, of sexual crimes thus protecting significant numbers of children and adults from victimisation.

Participants in the present study.

There were a total of 248 participants in the present study.

Group one were men convicted and imprisoned for sexual offences who participated in the IPS structured sexual offender programme. Since its establishment in 1994 the intervention programme was offered to 142 men. Of these 124 met the eligibility criteria for the present study, which was that they were released back into the community for at least 12 months at the time of the close of data collection (November 2008). Of the other 18 men, 15 are still in prison, 5 were released for less than 12 months, and 1 is deceased. Of the 124 eligible men data was successfully collected for all. This 100% inclusion of all men released into the community for at least one-year for whom intervention was ever attempted by the IPS programme is a particular methodological strength of the current study.

Group two were 124 men convicted and imprisoned for serious sexual crimes who did not participate in the IPS sexual offender intervention programme. They were specifically matched to group one on the following variables: age; sentence length; release date; sexual offence victim gender; sexual offence victim age; familial status of victim; inclusion

of internet use in offending. In addition they were equivalent to group one on the following variables: previous sexual and non-sexual offence history; marital status; and employment status. This detailed matching of the untreated group with the treated group is unusual in recidivism studies published in the international literature and represents another methodological strength of the current study. It allows us to say that the findings of the current study were not confounded by any of these offender characteristics.

Impact of intervention on recidivism.

There were four categories of re-offending considered in the present study. These were (i) sexual offences; (ii) violent non-sexual offences; (iii) non-violent non-sexual offences; and (iv) all offences combined. In each instance re-offending was measured through combining three sources of information: (a) official records of reconviction identified through the Garda Siochana PULSE system; (b) official records of re-imprisonment on remand identified through the IPS; and (c) official records of sentenced re-imprisonment identified through the IPS. This allowed us firstly to determine whether participants from the intervention and control groups had re-offended at different *rates*, and secondly to assess any differences in *time* from release to re-offending or free from re-offending.

Sexual offence recidivism.

Among the total sample of 248 men in the present study there was an overall sexual offence recidivism rate of 8.1%. Among those who participated in the IPS intervention programme the sexual offence recidivism rate was 8.9%. Among the matched untreated control group it was 7.3%. Statistically comparing these two groups indicates no intervention effect is evident.

An alternative outcome of intervention may have resulted in participants taking longer to re-engage in sexual offending activity. Within the current study this was also evaluated. That is, time (number of months) post release from prison with and without re-offending was recorded, analysed, and compared between the two groups. In relation to time to

sexual offence recidivism there was no significant difference between those who did and those who did not receive intervention.

Violent non-sexual offence recidivism.

Among the total sample of 248 men in the present study there was an overall violent nonsexual offence recidivism rate of 7.3%. Among those who participated in the IPS intervention programme and those who did not, the violent offence recidivism rate was 7.3%. Statistically comparing the two groups obviously indicates no treatment effect is evident.

An alternative outcome of intervention may have resulted in participants taking longer to re-engage in violent non-sexual criminal activity. Within the current study this was also evaluated. That is, time (number of months) post release from prison with and without re-offending was recorded, analysed, and compared between the two groups. In relation to time to violent non-sexual offence recidivism there was no significant difference between those who did and those who did not receive intervention.

Non-sexual non-violent offence recidivism

Among the total sample of 248 men in the present study there was an overall non-sexual non-violent recidivism rate of 24.6%. Among those who participated in the IPS intervention programme the non-violent non-sexual offence recidivism rate was 27.4%. Among the matched untreated control group it was 21.8%. Statistically comparing the two groups indicates no treatment effect is evident.

An alternative outcome of intervention may have resulted in participants taking longer to re-engage in non-sexual non-violent criminal activity. Within the current study this was also evaluated. That is, time (number of months) post release from prison with and without re-offending was recorded, analysed, and compared between the two groups. In relation to time to non-sexual non-violent offence recidivism there was no significant difference between those who did and did not receive intervention.

Combining all offences

Combining sexual, violent, and non-sexual non-violent re-offending data from all sources indicates that of the total sample in the present study there was an overall recidivism rate for any type of offence of 28.2%. Among those who participated in the IPS intervention programme the recidivism rate for any type of offence was 29.8%. Among the matched untreated control group it was 26.6%. Statistically comparing the two groups indicates no treatment effect is evident.

An alternative outcome of intervention may have resulted in participants taking longer to re-engage in criminal activity when all three categories above are combined (sexual; violent non-sexual; non-sexual non-violent). Within the current study this was also evaluated. That is, time (number of months) post release from prison with and without re-offending was recorded, analysed, and compared between the two groups. In relation to time to any recidivism there was no significant difference between those who did and did not receive intervention.

Offender characteristics associated with recidivism.

In addition to addressing questions regarding the impact of the IPS programme on rates of sexual and non-sexual recidivism the present study investigated whether offender characteristics distinguished men who did and did not re-offend. This analysis concerned all 248 participants.

The following predictor variables were analysed to investigated whether they were associated with sexual, violent non-sexual, non-violent non sexual, and any offence recidivism status: (i) age; (ii) sentence length; (iii) marital status; (iv) employment status; (v) index sexual offence victim (child-girl/ child-boy/ child girl & boy/ child & adult/ adult only); (vi) familial relationship to index offence victim; (vii) history of sexual offending prior to index offence; (viii) history of non-sexual offending prior to the index offence; (ix) number of non-sexual offences prior to the index offence; and (x) number of sexual offence.

Predicting sexual offence recidivism status.

Offending against girls only relative to other victims as part of the index offence is associated with a decrease in the odds of sexual re-offending by a factor of .05 (95% CI 0.003 and 0.79). No other variables were found to be reliably predictive of sexual offence recidivism.

Predicting violent non-sexual offence recidivism status.

Violent non-sexual recidivism was reliably predicted by the age of the offender and with the number of prior non-sexual offences. An increase in one year of age of the offender was associated with a decrease in the odds of violent non-sexual re-offending by a factor of 0.84 (95% CI 0.74 and 0.95). Similarly, number of non-sexual offences prior to the index sexual offence was associated with an increase in the risk of violent non-sexual recidivism. Each additional prior offence was associated with increasing risk of violent offence recidivism by a factor of 1.18 (95% CI 1.02-1.37). No other variables were found to be reliably predictive of sexual offence recidivism.

Predicting non-violent non-sexual offence recidivism status.

Non-violent non-sexual recidivism was reliably predicted by age; history of prior-sexual offending (as a binary yes/no variable); number of non-sexual offences prior to the index offence; number of sexual offences prior to the index offence; and sexual offending against boys only as part of the index offence. Increasing age is associated with a decrease in the odds of non-violent non-sexual re-offending. Each increase of one year of age decreases risk of recidivism by a factor of 0.91 (95% CI = 0.87-0.96). A history of sexual offending (when entered as a binary yes/no variable) is associated with a decrease in the risk of non-violent offending by a factor of 0.04 (95% CI = 0.004-0.44). Similarly, number of sexual offences prior to the index offence is associated with a decreased risk of non-violent non-sexual offences by a factor of 0.14 (95% CI = 0.02-0.80). Number of non-sexual offences prior to the index sexual offence was associated with an increase in the risk of non-violent non-sexual recidivism. Each additional prior offence was associated with increasing risk of non-violent non-sexual offence recidivism.

CI = 1.03-1.28). Having a boy only victim in the index offence was associated with a decrease in the risk of non-violent non-sexual recidivism relative to other types of index offence victims by a factor of 0.05 (95% CI = 0.004-0.73) No other variables were found to be reliably predictive of sexual offence recidivism.

Predicting all types of offence combined.

Recidivism for all offences combined was reliably predicted by the age of the offender and history of non-sexual offending (as a binary yes/no variable). Increasing age is associated in a decreased risk of recidivism. Each additional year of age is associated with a decrease in the odds of re-offending by a factor of 0.94 (95% CI 0.90 and 0.98). Similarly, those with no history of non-sexual offending prior to their index offence had a decreased risk of re-offending relative to those with a history of prior non-sexual offending. A prior history of non-sexual offending was associated with an increased risk of some form of recidivism by a factor of 0.35 (95% CI = 0.16-0.79). No other variables were found to be reliably predictive of sexual offence recidivism.

Summary and recommendations

The present study investigated the impact of the IPS structured sexual offender intervention programme on rates of sexual and non-sexual offence recidivism. It did so by comparing the recidivism rates of sexual offending, violent non-sexual offending, non-violent non-sexual offending, and any re-offending for all men for whom intervention has been attempted with those of a carefully matched group of men who received no intervention. Men who received intervention did not differ from those who did not in any category of re-offending. Compared to sexual re-offence rates reported in the international research literature the recidivism rate of the untreated group in the present study was relatively low. A critique of sexual offender recidivism studies is that successful programmes of intervention may look unsuccessful when low base rates of recidivism exist. However, this limitation of studies with low base rates of recidivism is overcome through the analysis of time to re-offending. The current study also investigated whether those men who participated in the IPS programme differed from those who did not, in the

time it took them to re-engage in offending. There was no evidence of a difference between those men who received intervention and those who did not.

Research from other jurisdictions on the effectiveness of psychological intervention for sexual offending men clearly indicates that it reduces recidivism, thus contributing to a safer society. Previous independent research evaluating the IPS programme found that it successfully achieved its aims in changing many areas of psychological functioning associated with sexual offending and recidivism. It also identified that programme revision was required. In particular programme participants required further support and management to maintain and further develop changes made during intervention, after they completed the programme in order to translate gains made during intervention into a reduction in recidivism in the community. The previous study acknowledged that the achievement of this aim required not just programme amendment but the development of a broad strategy regarding the management of sexual offending men.

In conclusion, the current study, along with the previous evaluation by O' Reilly and Carr (2004), indicates that this well designed, well run, and well executed programme, which resulted in significant psychological change in factors associated with sexual offending among participants, did not result in a reduction in sexual or other offence recidivism. This outcome suggests three key recommendations:

Recommendation One: The adoption of a broad strategy for the management of sexual offending men that incorporates but also goes beyond the IPS structured intervention programme.

Recommendation Two: The continued revision and development of the IPS sexual offender intervention programme according to the standards of international best practice.

Recommendation Three: The establishment of a Randomised Controlled Trial to evaluate the newly revised IPS sexual offender intervention programme.

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The adoption of these strategies and the evidence from such an evaluation will support the IPS in its continued efforts to achieve the highest standards for those in its custody and those whose safety its custodial and rehabilitative practices serve.

CHAPTER ONE: INTRODUCTION

The management of men who commit sexual offences in order to maximise the safety of the public is a vital and complex task. The present study is a key component required by any attempt to offer management and intervention with this population that claims to reduce sexual and other types of recidivism. It is the first study to evaluate the effects on recidivism of the Irish Prison Service's (IPS) structured intervention programme for men who commit sexual offences, and the only such study completed in Ireland despite the existence for a number of years of many community based sexual offender intervention programmes for adults and adolescents.

There are two stages to the evaluation of a programme such as the IPS Sexual Offender Intervention Programme. The first is to examine whether specific psychological risk factors associated with sexual offending and recidivism targeted by the programme change as an outcome of participation. This introduction briefly reviews the evidence from these type of studies from the UK and Ireland. The second is to evaluate the impact of intervention on rates of recidivism post release into the community. This strand of evidence is subject to much public and professional debate. Its current resolution was achieved through the emergence of reports that statistically draw together the evidence from all studies that compare the recidivism rates of men who receive intervention from those who do not. This introduction briefly describes three of these meta-analytic reviews. The first was derived from an expert group established by the Association for the Treatment of Sexual Abusers (ATSA) to determine an evidenced-based consensus in the field. The second is an up-dated meta-analysis by Lösel and Schmucker (2005) that expands the ATSA review to include evidence from non-English language publications. The final review introduced here is from the Cochrane Library which considers only studies that reach the gold standard of a randomised control trial. The methodology and results of the current study are then outlined. This report concludes with a discussion of the implications of the current study's findings in light of the evidence reviewed in this introduction, culminating in three key recommendations for the future.



Figure 1: Two strands of evidence informing the debate on the effectiveness of intervention with sexual offending men.

FINDINGS FROM PREVIOUS RESEARCH

Previous evaluation of the IPS structured sexual offender intervention programme.

In the UK the Home Office commissioned a series of studies to address the first stage of evaluation for both community and prison based sexual offender intervention (Beckett, Beech, Fisher, & Fordham, 1994; Beech, Fisher, & Beckett, 1998). These studies developed a set of psychological instruments designed to assess the functioning of sexual offending men before and after intervention. In evaluating sexual offending men participating in prison and community programmes these studies broadly found that intervention produced significant change in key areas of psychological functioning (Beckett, Beech, Fisher, & Fordham, 1994; Beech, Fisher, & Beckett, 1998). However,

these studies had a significant methodological weakness in that they lacked a control group of similarly offending men who were not participating in structured intervention. Consequently, we cannot conclude that sexual offending men changed between assessment at the outset of intervention and reassessment at the termination of intervention solely due to their programme of treatment. We may conclude, as Beckett and colleagues did, that it is likely that the change observed is attributable to the intervention programme. However, in the absence of a control group of untreated men we cannot say for certain that it was not due in part or entirely to other factors such as the passage of time, the effects of sexual offence detection, the impact of the response of other people in the offender's life to these crime, the effects of incarceration, or changing societal awareness and attitudes towards sexual offending.

O' Reilly and Carr (2004) undertook an independent evaluation of the IPS sexual offender intervention programme. In doing so they extended the approach taken by the UK studies. O' Reilly and Carr evaluated all participants (38 men) in the IPS sexual offender intervention programme over three consecutive years on the measures developed for the Home Office research. In addition O' Reilly and Carr assessed a control group of 38 untreated men, at times equivalent to the beginning and conclusion of the intervention programme (roughly 9 months), who were imprisoned at the same time, and convicted of similar sexual offences. An interesting feature of O' Reilly and Carr's untreated control group was that half were motivated to change, in that they had applied to participate in the programme but were unable to do so at that time due to limited resources, while half expressed no interest in programme participation. The inclusion of the control group in this study allowed a judgement to be made on whether any changes in the intervention group were attributable to the intervention programme or might be confounded or explained by other variables.

O' Reilly and Carr (2004) found that the IPS structured sexual offender intervention programme resulted in significant change in the psychological functioning of participating men. In particular, men who took part in the programme functioned differently post intervention with regard to the distorted thinking that offenders use to facilitate sexually

abusive behaviour, they overcame deficits in victim empathy, and improved in aspects of personal and interpersonal adjustment associated with sexual offending such as emotional loneliness, assertiveness, sense of personal responsibility for events, self-esteem, and anger management difficulties. The programme also had a significant positive impact on relapse prevention awareness. No change in any of these areas of psychological functioning associated with sexual offending was evident among the untreated control group. That is, the changes observed in those sexually offending men who took part in the programme could be attributed to the intervention they received. It was not due to the passage of time, the effects of sexual offence detection, the impact of other people's responses, the effects of incarceration, changing societal awareness and attitudes towards sexual offending. In further analysing the functioning of those men who had applied but not participated in the programme were entirely unchanged. That is, change required programme participation and was not facilitated by motivation to change alone.



0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1.0 1.1 1.2 1.3 1.4 1.5

Figure 2: Findings (expressed as effect sizes) of very positive impact on psychological functioning attributable to participation in the IPS programme (O' Reilly & Carr, 2004).

Three main recommendations emerged from the O' Reilly and Carr (2004) study. The first was a recommendation that the programme required revision in order to help participants translate the gains made during intervention into their lives after the programme was completed, and in particular while making their post release return to the community. The second recommendation was that the programme should be expanded to offer intervention to a larger number of men, and this would require the development of strategies that would motivate participation. Thirdly, that a follow-up research study was required to evaluate the impact of the IPS programme on rates of sexual and non-sexual recidivism. The current study accomplishes this final recommendation.

Meta-analytic research evaluating impact of intervention on rates of recidivism

There is robust debate within the literature on whether intervention with men who commit sexual offences reduces their rates of sexual and non-sexual recidivism. This reflects the strong and often opposing views that exist within society on whether intervention with sexual offending men is warranted. In establishing an evidenced based position the best source of data comes from a number of meta-analytic studies that combine results from different independent evaluations in the published and unpublished literature. These meta-analyses allow us to maximise and amalgamate the sources of data available to us in order to reach a current conclusion.

Hanson et al. (2002) review

The Association for the Treatment of Sexual Abusers (ATSA) responded to the need to provide a unified empirical voice on the effect of intervention on recidivism rates in sexual offenders through the establishment of the Collaborative Outcome Data Project on the Effectiveness of Psychological Treatment for Sex Offenders (Hanson et al., 2002). This group brought together many leading clinicians and researchers committed to empirically based findings in this area and includes those who have been on opposing sides in the

sexual offender intervention effectiveness debate. Its output was a meta-analysis of psychological intervention recidivism studies.

In order for a study to be included in Hanson et al.'s meta-analysis it had to fulfil the following five criteria: (a) the study had to compare sexual or general rates of recidivism from a group of treated sexual offenders with a group of untreated sexual offenders; (b) the same recidivism criteria must have been applied to both groups; (c) both groups must have been afforded approximately the same period of time in which to re-offend; (d) as a minimum standard each group must have at least 5 participants; and (e) the treatment group must have received predominantly psychological rather than other forms of treatment (such as medication). By the cut-off point for study identification (May, 2000) applying these criteria yielded a total of 43 published and unpublished studies that compared the recidivism rates of sexual offenders who had received psychological intervention with those of men who had not. The country of origin for the 43 studies were as follows: United States of America 21 studies, Canada 16, United Kingdom 5, and New Zealand 1. These studies concerned treatment programmes from a range of settings. Twenty-three reported recidivism findings from institutionally based programmes (in settings such as prisons or secure adult mental health facilities), 17 were from community based programmes, and 3 were from mixed institutional/community settings. In total these 43 programmes delivered treatment from 1965-1999, however, 80% were developed after 1980. The length of the follow-up period ranged from 12 months to 16 years with a median time of 46 months (3.8 years). Forty programmes were described as sexualoffence specific in their design, and three were more generally focused on broad criminality. Hanson et al. made a further distinction between "current" and "non-current" programmes. Current programmes were defined as any programme that was still running at the time of the study or any programme that was sexual offence specific and based on the principles of cognitive behavioural intervention or systemic therapy. According to these criteria 30 of the 43 programmes were defined as "current". Studies also differed in their definition of recidivism. Eight studies defined recidivism as reconviction, 11 defined it as re-arrest, and 20 studies used a broad definition that also included parole violation, readmission to institutions, and unofficial community reports.

Table 1: Study characteristics from Hanson et al.'s (2002) meta-analytic review of intervention effectiveness.

Hanson et al.'s (2002) review of intervention effectiveness					
Total number of studies included: Time period covered by review:	43 1965-1999	Study settings Institutional settings	23 studies		
Studies evaluating "current"	30	Community settings	17 studies		
intervention approaches.		Both institutional and community settings	3 studies		
Country of origin of included studie	Country of origin of included studies Recidivism definition used				
USA:	21 studies	Reconviction:	8 studies		
Canada:	16 studies	Re-arrest:	11 studies		
UK:	5 studies	Broad definition (including	20 studies		
New Zealand:	1 study	reconviction, re-arrest, parole violation, child protection reports).			
Programme type					
Sexual offence specific	40 studies	Follow-up period			
Broadly focused on criminality	3 studies	Median	3.8 years		

Hanson et al.'s meta-analytic review of the 43 identified studies allowed a comparison of 5,078 treated sexual offenders with 4,376 untreated sexual offenders. Averaging across all studies men who were treated were found to have a lower rate of sexual offence recidivism (12.3%) than men who had not received intervention (16.8%). A similar treatment benefit was found for general recidivism rates. The treated sexual offender group had a general recidivism rate of 27.9% compared to 39.2% in the untreated group. Evidence concerning current treatment programmes rather than all treatment programmes also indicated intervention related reductions in recidivism rates. Among the 1,638 sexual offending men who had received current approaches to treatment the sexual offence recidivism rate was 9.9%, compared with a rate of 17.4% among the 1,378 untreated participants from the current programme evaluations. Similarly a reduction in general recidivism was also apparent for current programmes. From the data available, 709 sexual offenders who had received intervention from current programmes had a general recidivism rate of 32.3% compared to 466 men in the untreated control groups from these studies who had a general recidivism rate of 51.3%. Non-current treatment approaches were not associated with a reduction in sexual or general recidivism.

Hanson et al. Meta-Analysis (2002)	Treated Sexual Offenders	Untreated Sexual Offenders
All 43 studies reported since 1965		
Sexual offence recidivism rate:	12.3%	16.8%
Sample size:	(5.078)	(4.376)
General recidivism rate:	27.9%	39.2%
Sample size:	(5,078)	(4,376)
Studies comparing "current" approaches to interve	ntion	
Sexual offence recidivism rate:	9.9%	17.4%
Sample size:	(1,638)	(1,378)
General recidivism rate:	32.3%	51.3%
Sample size:	(709)	(466)
	· · ·	

Table 2: Impact of intervention on sexual offender recidivism rates (Hanson et al. 2002).

Within the 43 studies included in Hanson et al.'s review a number of useful study design features could be distinguished that allowed an evidenced based commentary on a number of important issues. These can be summarised as follows. Within the literature they reviewed there were only three studies that adopted a random design allocation of subjects to treatment and no-treatment conditions. This type of research design is regarded as the optimal approach to treatment outcome research. However, these three studies were very different in other key design features which limits their utility for combination to compare recidivism related findings from studies with random assignment. One study was a sexual offence specific treatment programme for adults, one was a multisystemic programme for adolescents, and one was an unstructured group psychotherapy programme. Combining findings from 17 studies that did not have random assignment between treatment and non-treatment conditions but who had otherwise apparently equivalent groups indicated that treatment significantly reduces sexual and general recidivism. Offenders who dropped-out of intervention had significantly higher rates of sexual and general offence recidivism than those who completed treatment. Treatmentrefusal was not associated with higher risk of sexual re-offending but was associated with increased general recidivism. Offenders who were assessed as in need of sexual offender intervention were at higher risk of sexual recidivism than those who were assessed as not requiring intervention. Hanson et al. comment that it appears we are better able to identify rather than change men who are high risk. Both those assessed as in need and not in

need of intervention were at equal risk of general recidivism. Current treatment programmes appear to be equally effective for reducing sexual and general re-offending in adults and adolescents. Current institutional and community programmes were associated with a reduction in sexual offence recidivism. Finally, community programmes appeared to have a more positive effect on reducing recidivism than institutional programmes. However, Hanson et al. prompt caution regarding this finding as it is based on a comparison between a small number of studies. It is also likely that institutionalised men are engaged in more broadly criminal behaviour thus influencing relative recidivism rates.

Lösel and Schmucker (2005) review

An up-dated and expanded meta-analysis was reported by Lösel and Schmucker (2005). The main additions within the Lösel and Schmucker review are an extended time period for study publication (June 2003), an inclusion of non-English language studies, and the consideration of biological and psychological forms of intervention. A total of 69 studies which incorporated 80 different comparisons between treated and untreated sexual offenders were included in the Lösel and Schmucker meta-analysis. Thirty-one of these were from the USA, 17 from Canada, eight from the UK, eight from German speaking countries, and 5 from other unspecified nations. Various forms of intervention were included in the analyses. They represented 37 Cognitive-Behavioural Therapy (CBT) programmes (including 2 multi-systemic interventions), seven classical behavioural programmes, seven insight oriented programmes, 10 therapeutic community approaches, five psychosocial or unclearly described approaches, six hormonal medication approaches, and eight surgical castration interventions. While the majority were concerned with adult offenders (45 studies), seven concerned adolescents who sexually abused others, and eight studies mixed adult and adolescent offenders.

Table 3: Study characteristics from Lösel & Schumucker (2005) meta-analytic review of intervention effectiveness.

Lösel and Schmucker (2005) frequency of study characteristics				
Total number of studies included:	69 studies all	owing 80 comparisons		
Time period of intervention implementation: Study setting:				
Prior to 1970	14	Prison	25	
1970s	17	Hospital	14	
1980s	30	Outpatient	29	
1990s	19	Mixed	10	
		Unknown	2	
Country of origin:		Recidivism definition:		
USA:	31	Arrest:	19	
Canada:	17	Conviction:	24	
UK:	8	Charge:	15	
German speaking countries:	8	Lapse behaviour:	3	
Other nations	5	Multiple outcomes:	6	
		Not indicated	13	
Programme type:		Follow-up period:		
Sexual offence specific	64	12-24 mths	14	
Not sexual offence specific	9	25-36 mths	12	
Unknown	7	37-60 mths	23	
		61-84 mths	12	
		>84 mths	19	
Sample size:		Group equivalence:		
10-50 participants	25	Non-equivalent groups	48	
51-100 participants	12	Group equivalence assumed	19	
101-200 participants	18	Matched or statistically controlled	7	
201-500 participants	14	Random assignment	6	
>500 participants	11	-		

Lösel and Schmucker (2005) report that 74 comparisons were possible from their combined data set regarding the impact of intervention on sexual offence recidivism. Of these 53 showed a positive effect associated with intervention while 21 did not. Statistically combining the results indicated that on balance intervention significantly reduced sexual offending by 37%. Similarly combining 20 available comparisons showed

a 44% reduction in violent offending. A 31% reduction in any type of recidivism was apparent from a combining data from 49 available comparisons.

Type of offending	Number of comparisons	Rate of recidivism in treated sexual offenders	Rate of recidivism in untreated sexual offenders	% reduction in offending
Sexual recidivism Violent recidivism	74 20	11.1% 6.6%	17.5% 11.8%	37% 44%
Any recidivism	49	22.4%	22.4%	31%

Table 4: Impact of intervention on sexual offender recidivism rates (Lösel and Schmucker, 2005).

Given the range of features of the different studies and approaches to intervention incorporated into their review Lösel and Schmucker explored their data for factors significantly associated with positive outcome in reducing sexual offending. They found that the type of intervention was significant. Physical interventions of surgical castration (based on 8 comparisons) and hormonal treatment (based on 6 comparisons) had the biggest effect on sexual offence recidivism. However, they caution that there were methodological and other limitations associated with these evaluations of physical intervention. Firstly, the implementation of surgical castration is rare and those who are subject to it do so voluntarily after being accepted for such treatment through a rigorous medical selection process. Consequently they represent a highly selective and motivated subgroup of offenders. Secondly, all of the castration studies met the poorest standards in the constitution of their comparison group that were acceptable for inclusion in the Lösel and Schmucker review. Their equivalence is unknown and cannot be assumed. Thirdly, the hormonal interventions evaluated require high levels of participant motivation and compliance and usually include substantial psychological intervention. Finally, all of the hormonal treatments evaluations included in the meta-analysis incorporated offender selfreport as a measure of recidivism.

Purely psychological interventions clearly had a positive impact on sexual offence recidivism. Within different psychological approaches clear evidence of effectiveness and ineffectiveness was apparent. Based on the largest number of independent comparisons

within the review (37) Cognitive Behaviour Therapy (CBT) had the largest impact on recidivism. A significant positive impact on recidivism was also evident for classical behavioural approaches (based on 7 comparisons). All of the other forms of psychological intervention, (insight-oriented psychotherapy (7 comparisons), therapeutic communities (10 comparisons) and other psycho-social approaches (5 comparisons)) were not associated with a reduction in sexual offence recidivism.

A number of other findings were evident or suggested from Lösel and Schmucker's Only sexual offence specific programmes were effective. analysis. Programmes developed and delivered during the 1970s were ineffective. Programmes developed in the 1980's, 1990's, and up to the close of data analysis in 2003 were effective, and equally so. Inclusion of programme deliverers as study authors was associated with increased intervention effectiveness. There was mixed evidence on the impact of setting on programme effectiveness. While all settings had positive outcomes there was some indication of increasing success moving from institutional, to mixed settings, to community settings. There was no indication that group rather than individually delivered intervention were superior to each other. However, this may be confounded by the fact that physical interventions of surgical castration and hormonal treatment, which had large effects, are delivered individually. There was no indication that juvenile or adult programmes were superior to each other. However, regardless of age, voluntary programmes had a clear effect while involuntary programmes or those that mixed voluntary with involuntary participants were clearly ineffective. Finally, those who dropped out of intervention had twice the rate of recidivism compared to treatment completers.

The gold standard of evaluative research: Randomised control trials

It is clear that research indicates that on balance intervention with sexual offending men reduces sexual, violent, and other types of recidivism in a real and meaningful way. However, these reviews encompass a maximised set of studies to increase the evidence available to us. However, in doing so the clarity of the evidence becomes compromised by an increased acceptance of methodological limitations within studies. In evaluating any type of intervention the highest standard of evidence comes from Randomised Control Trials (RCTs). These avoid potential bias in control group selection by starting with a population and randomly assigning them to different forms of intervention which are equally valued, or intervention versus no intervention.

A review published in the Cochrane Library Database by Kenworthy, Adams, Bilby, Brooks-Gordon and Fenton (2003) attempted to approach the question of sexual offender intervention effectiveness by reviewing only RCTs. They reached the same conclusion as Hanson et al. (2002) and Lösel and Schmucker (2005) regarding the utility of their combination. According to Kenworthy et al. there are nine RCTs in the literature and they are so diverse in the approaches they evaluate, and in many cases deal with only a handful of participants, that they cannot be meaningfully combined. Of the nine two are large scale evaluations. One is an RCT of CBT which suggests that at one year it had an effect on violent rather than sexual recidivism. The other evaluated a group psychotherapy programme that lacked a specific theoretical orientation. It was found over a ten year period to have no effect on sexual or other types of recidivism.

Clearly in the sexual offending literature RCTs are possible but unhelpfully rare. One of the main reasons is that it is often argued that to withhold intervention in order to evaluate intervention effectiveness will result in potentially depriving a man who has sexually offended from the potential benefits that might ensue and result ultimately in the otherwise avoidable victimisation of a child or adult. However, this is something of a circular argument and assumes that intervention works. The counter and unfortunately infrequently expressed side to this argument asks are we sure intervention works? Might it be possible that the methodological difficulties in most studies provide us with a biased view of effectiveness? Or if many but not all programmes, and CBT oriented and multi-systemic programmes in particular, do work how can we tell whether a specific programme in our jurisdiction is one that contributes to reduced recidivism? The answer to these questions clearly rests on the need for the establishment of further RCTs as recommended by Kenworthy et al. (2003).

Do we know anything about recidivism rates in Ireland?

Utilising the relatively recent introduction in 2000 of a computerised prison records information system by the IPS, O' Donnell, Baumer, and Hughes (2008) conducted the first review of re-imprisonment rates in Ireland for all types of offenders. During the four-year period January 1st 2001 to the 30th of November 2004, there were 19,955 releases of 14,485 individuals completing custodial sentences in the Republic of Ireland. Data regarding re-imprisonment for this study concerned the time period January 1st 2001 to December 31st, 2004. Thus follow-up time to re-imprisonment for participants within the study ranged from 1 to 48 months. O' Donnell et al. report that at 48 months the reimprisonment rate in Ireland for all types of offenders combined is 49.2%. Differences were apparent by offence type. Data analysed by type of offender were reported at 36 months, indicating that men convicted and imprisoned of sexual offences had the lowest re-imprisonment rate at 18.03% (based on 488 people). Those classified in the O' Donnell et al. study as released following "other types" of offending had the second lowest reimprisonment rate at 30.54%, followed by those completing sentences for motoring offences (35.86%), drug offences (42.07%), public order offences (42.32%), violent offences (45.72%), and property offences (49.07%). O' Donnell et al.'s study did not extend to the provision of information regarding reconviction rather than re-imprisonment, or a breakdown of the offences within each category of offender that resulted in their reimprisonment, or a comparison between those who were in receipt of intervention or no intervention during their prison term. These issues are all addressed within the present study over a longer post release follow-up period for men convicted and imprisoned for sexual crimes.

How long is a long enough follow-up time in a recidivism study?

This question was addressed by the Washington State Institute for Public Policy (2005) who were directed by the Washington Legislature to determine the effectiveness of their sexual offender sentencing practices. They analysed data from 35,160 offenders convicted of any type of felony offence who were returned to the community between 1990

to 1995. These men were followed up for a ten year period on their return to the community. Table 5 outlines the number of offences captured at 3 and 5 years from an "at-risk" window of 10 years. This analysis lead the authors to conclude that a five year follow-up period is needed to adequately measure sexual offence recidivism. That is, of all sexual offences committed in a ten year window on return to the community at least 70% occur within the first five years. In the present study the average follow-up was 6.19 years (range 1-13 years; SD = 3.22 years).

Table 5: Percentage of sexual offences in a ten year period identified at 3 and 5 years (From Washington State Institute for Public Policy, 2005).

Type of reoffence	3 year follow-up	5 year follow-up	
Any felony offence	58%	77%	
Violent felony offence	53%	73%	
Sexual felony offence	57%	75%	
Rape	72%	88%	
Child sexual offence	59%	78%	
Other felony sexual offence	60%	90%	

THE PRESENT STUDY

From the literature reviewed here we know that the IPS structured sexual offender intervention programme produced significant psychological changes in participating men. The meta-analysis of data from a large number of studies conducted outside Ireland indicates that on balance sexual offender intervention, particularly CBT and multi-systemic approaches, make a significant contribution to the reduction of sexual and other forms of recidivism. However, the literature tells there is clearly a need for the further development of methodologically improved studies, and the provision of data concerning the impact of intervention on rates of recidivism within the jurisdiction of Ireland. The current study attempts to address this gap in our knowledge by comparing the rates of sexual and other forms of recidivism in all men for whom structured sexual offender intervention was attempted by the IPS during their incarceration, with those of a carefully matched control group equivalent in age, sentence length, offence characteristics, and post prison release time in the community.

CHAPTER TWO: METHOD

Aim

The aim of the present study was to assess whether the IPS structured sexual offender intervention programme resulted in a reduction in sexual, violent non-sexual, non-violent non-sexual, or any type of recidivism among participants compared to a carefully matched group of sexual offending men who did not participate in the intervention programme.

The IPS programme

The Irish Prison Service sexual offender intervention programme was established in a medium-security prison at Arbour Hill, Dublin in 1994 (Department of Justice, 1993). It was extended to the Curragh Prison for a three year period from 2000 to 2003. It is a manualised programme based on the principles of cognitive behaviour therapy (Irish Prison Service, 2002). It runs over ten months and consists of two-hour group sessions three-times per week which are facilitated by a team of clinical psychologists and probation officers. Participants also complete therapeutic assignments between sessions and can avail of a limited amount of individual counselling. The programme is designed to modify psychological risk factors associated with sexual offending, specifically cognitive distortions, victim empathy deficits, beliefs about self-control, and interpersonal skills. Thus, the programme aims to promote (i) the acceptance of responsibility for sexual offending; (ii) awareness of an offence decision chain; (iii) the modification of cognitive distortions; (iv) the development of victim empathy; (v) the improvement of interpersonal skills; and (vi) the development of self-regulation skills including those required for relapse prevention (Murphy, 1998). Designated family members, friends or other concerned persons, participate in four specially designed sessions of the programme. These help significant members of the sexual offender's social network to develop an understanding of risk factors associated with sexual re-offending and to plan ways to offer constructive support following release from prison.

On an annual basis, all imprisoned sexual offenders are invited by letter to apply for a place on the programme and 10-15% of those eligible to apply do so (Murphy, 1998). The programme accepts between eight and ten of these applicants each year according to the following criteria: (i) admission of sexual offending; (ii) acceptance that offending behaviour is a problem; (iii) agreement to participate fully in the programme; (iv) the absence of an intellectual disability, and (v) the absence of major psychiatric disorder (such as schizophrenia). Priority is given to those closest to their release dates.

Participants

There were a total of 248 participants in the present study. They were divided into two groups. Group one were men convicted and imprisoned for serious sexual offences who took part in the Irish Prison Service sexual offender intervention programme. Group two were men, who although imprisoned for serious sexual crimes, did not receive intervention, but were matched to the intervention group for age, sentence length, release date, sexual offence victim gender; sexual offence victim age; familial status of victim; and inclusion of internet use in their offending behaviour. Table 6 provides information on the above and following additional characteristics of the two groups: age at time of release; marital status; employment status; prior history of sexual and other offending.

Group one comprised 124 men who were imprisoned for sexual crimes and who participated in the Irish Prison Service Sexual Offender Intervention Programme. Their demographic details are presented in table 6. Since its inception in 1994 the intervention programme was offered to 142 men. Of these 124 met the eligibility criteria for the present study which was that they were released back into the community for at least 12 months at the time of the close of data collection for the study (3rd of November 2008). Of the other 18 men, 15 are still in prison, 5 were released for less than 12 months, and 1 is deceased. Of the 124 eligible men data was successfully collected for all. One-hundred-and-one of these men completed the programme in Arbour Hill Prison. The other 23 did so at the Curragh Prison. The average follow-up time was 6.22 years (SD=3.17 years) ranging from a minimum of one year to a maximum of 13.5 years. So the present study provides an

analysis of the impact of the intervention programme on rates of recidivism for 100% of men in the jurisdiction of the Republic of Ireland for whom intervention in prison was ever attempted and who have returned to the community for at least 12 months.

Group two were 124 men convicted and imprisoned for serious sexual crimes who did not participate in the IPS sexual offender intervention programme. They were successfully matched to group one on the following characteristics: age, sentence length, release date, sexual offence victim gender; sexual offence victim age; familial status of victim; and inclusion of internet use in their offending behaviour. The average follow-up time for group two participants was 6.16 years (SD = 3.29 years) ranging from a minimum of one year to a maximum of 13.8 years.

Variable	Treated Group (n = 124)	Untreated Group (n = 124)	Total (N = 248)	Chi Square or t- test
Chronological age Mean SD Range	45.34 yrs 11.11 yrs 23-73 yrs	45.96 yrs 11.32 yrs 23-76 yrs	45.65 yrs 11.19 yrs 23-76 yrs	t = 0.43
Index sentence length Mean SD Range	6.12 yrs 2.62 yrs 1-20 yrs	5.84 yrs 3.27 yrs 1-20 yrs	5.98 yrs 2.96 yrs 1-20 yrs	t = 0.60
Age at release Mean SD Range	38.63 yrs 11.52 yrs 20-68 yrs	39.25 yrs 11.70 yrs 20-71 yrs	38.94 yrs 11.59 yrs 20-71 yrs	t = 0.42
Follow-up time for current study Mean SD Range	6.22 yrs 3.17 yrs 1-13.5 yrs	6.16 yrs 3.29 yrs 1-13.8 yrs	6.19 yrs 3.22 yrs 1-13.8 yrs	t = 0.89

Table 6: Matching and other demographic characteristics of participants
Variable	Treated Group (n = 124)	Untreated Group (n = 124)	Total (N = 248)	Chi Square or t- test
Index sexual offence victim cha	racteristics			
Sexual assault of a girl	52 (41.9%)	53 (42.7%)	105 (42.3%)	$\chi^2 = 2.94$
Sexual assault of a boy	24 (19.4%)	24 (19.4%)	48 (19.4%)	
Sexual assault girls and boys	7 (5.6%)	9 (7.3%)	16 (6.5%)	
Sexual assault children & adults	5 (4.0%)	1 (0.8%)	6 (2.4%)	
Sexual assault of a woman	33 (26.6%)	34 (27.4%)	67 (27.0%)	
Internet offence	3 (2.4%)	3 (2.4%)	6 (2.4%)	
Total	124 (100%)	124 (100%)	248 (100%)	
Familial or non-familial relation	ship to index se	exual offence victim		
Familial	34 (27.4%)	31 (25.0%)	65 (26.2%)	$\chi^2 = 0.24$
Non-familial	81 (65.3%)	83 (66.9%)	164 (66.1%)	
Familial & non-familial	6 (4.8%)	7 (5.6%)	13 (5.2%)	
Internet offending	3 (2.4%)	3 (2.4%)	6 (2.4%)	
Total	124 (100%)	124 (100%)	248 (100%)	
Offence history prior to index s	exual offence			-
No prior offending	59 (47.6%)	62 (50.0%)	121 (48.8%)	$\chi^2 = 3.48$
Prior sexual offending	18 (14.5%)	9 (7.3%)	27 (10.9%)	
Prior violent offending	17 (13.7%)	18 (14.5%)	35 (14.1%)	
Prior NSNV offending	30 (24.2%)	35 (28.2%)	65 (26.2%)	
Total	124 (100%)	124 (100%)	248 (100%)	
Marital status at time of incarce	ration for index	sexual offence		
Not Married	71 (57.2%)	76 (61.3%)	147 (59.3%)	$\chi^2 = 3.43$
Married	25 (20.2%)	30 (24.2%)	55 (22.2%)	
Separated or divorced	27 (21.8%)	16 (12.9%)	43 (17.3%)	
Unknown	1 (0.8%)	2 (1.6%)	3 (1.2%)	
Total	124 (100%)	124 (100%)	248 (100%)	
Employment status at time of ir	ncarceration for	· index sexual offence	e	
Unemployed	80 (64.5%)	85 (68.5%)	165 (66.5%)	$\chi^2 = 0.93$
Employed	27 (21.8%)	21 (16.9%)	48 (19.4%)	
Unknown	17 (13.3%)	18 (14.5%)	35 (14.1%)	
	124 (100%)	124 (100%)	248 (100%)	

Table 6 continued: Matching and other demographic characteristics of participants

Note: SD = standard deviation; NSNV = Non-sexual non-violent offence; t = observed value from an independent t-test analysis; χ^2 = observed value from a chi-square analysis.

Procedure

The first stage of the present study involved the description of group one participants on the matching and other demographic variables, and the identification of suitable untreated control group equivalent participants. All 124 men who completed the IPS programme and who released into the community for a minimum of 12 months were characterised on the

following variables: (i) age; (ii) sentence length; (iii) release date, and; (iv) index sexual offence characteristics. A second group of 124 men imprisoned at the same time for equivalent offences were identified on a case-by-case basis applying the following (i) Age which was matched as closely as possible to the linked matching criteria. intervention group participant, with a maximum of a 5 year difference considered Table 6 indicates that on the completion of the matching process the acceptable. intervention and control groups were equivalent in age. (ii) Sentence length was also matched as closely as possible to the linked equivalent intervention group participant. Table 6 indicates that on the completion of the matching process the intervention and control groups were equivalent in sentence length. (iii) Release date was matched as closely as possible to the equivalent intervention group participant with a maximum of a 12 month difference considered acceptable. Table 6 indicates that the intervention and control groups were equivalent in release dates. (iv) Index sexual offence characteristics; control group participants were also only selected if they were equivalent on the following index sexual offence characteristics: (a) gender (male only victim, female only victim, male and female victims); (b) age of victim (child only victim, adult only victim, child and adult victims); (c) familial status of victim (familial victim, non-familial victim, familial and nonfamilial victims) and (d) contact or internet offences (contact only, internet non-contact only). Again table 6 indicates that the matching procedure established a control group equivalent to the intervention group on each of these characteristics. The intervention and control groups were also equivalent on the following characteristics although we did not specifically set out to match them on these variables: previous offence history prior to their index sexual assault; marital status at the time of their incarceration; and occupation status at the time of their incarceration.

Information regarding the characteristics of the intervention group were identified through IPS records. Matching information on age, sentence length, and release date for the control group was also researched and accessed from IPS records. Matching information on sexual offence victim gender; sexual offence victim age; familial status of victim; and inclusion of internet use in offence, for the control group were identified from the following

sources: IPS records (52.4%); newspaper archives (29%); Irish Probation Service records (15.3%); O' Reilly and Carr (2004) study (3.2%).

The second stage of the current study involved the identification of re-offending from official records for both groups. Full conviction records for all 248 participants were accessed from the Domestic Violence and Sexual Assault Unit of the National Criminal Bureau of Investigation of An Garda Siochana through their computerised records system (PULSE; Police Using Leading Systems Effectively). In addition full records of sentenced imprisonment and remand imprisonment were access from the IPS computerised records system (PRIS; Prison Records Information System). IPS archival files were accessed where relevant for participants whose release predated the introduction of the PRIS system in 2000. Starting with each participant's index sexual offence any subsequent remand or sentenced reimprisonment was identified through the IPS records. Consequently recidivism in the current study reflects any indication of reconviction, or resentenced imprisonment, or remand re-imprisonment.

Four categories of recidivism were analysed. These were sexual re-offending, violent nonsexual re-offending, non-violent non-sexual re-offending, or any recidivism. The various crimes that constitute sexual, violent non-sexual, non-violent non-sexual offending as analysed in the present study are outlined in the results chapter. The "any" recidivism category reflects a combination of the sexual, violent non-sexual, and non-violent nonsexual categories.

Statistical analyses

All data were coded, entered and analysed using the Statistical Package for Social Sciences (SPSS) version 16. Comparisons regarding matching and demographic variables were analysed through a series of t-tests and Chi-square tests. Comparisons on rates of sexual, violent non-sexual, non-violent non-sexual, and any recidivism were analysed through a series of Chi-square comparisons. Time to sexual, violent non-sexual,

non-violent non-sexual, and any recidivism were analysed through a series of Kaplan-Meirer Survival Curve analyses and Log-Rank tests. We investigated whether any offender characteristics could be identified that were predictive of sexual, violent nonsexual, non-violent non-sexual, or any type of recidivism through a series of correlational, linear regression, and logistic regression analyses.

Balancing the risks of reaching the wrong conclusions

In the present study we were attempting to make a judgement to accept or reject the hypothesis that there is no difference in re-offending between those receiving intervention and those not (the null hypothesis). There are two important types of error that can occur in a study of this nature (Hinkle, Wiersma, & Jurs, 1998). The first is a Type I error, where we conclude from our data that intervention is effective when it is not. The second is a Type II error, where we conclude from our data that intervention is not effective when in fact it is. The implications of these errors within the present study have very significant real world implications. A Type I error would lead us to erroneously consider whether more resources should be put into intervention believing that it would make our society a safer place when in fact it makes no difference. This would waste limited resources and convey a misplaced sense of safety to children and adults who may be the potential future targets of sexual offenders. In contrast a Type II error would lead us to erroneously consider whether we should discontinue current approaches to intervention, concluding that they are not contributing to a safer society when in fact they are, and perhaps ought to be expanded rather than revised or curtailed. This would mean that resources available to reduce re-offending are not appropriately directed and result in a failure to protect children and adults from sexual crimes.

Type I and Type II errors are related. As we take steps to reduce Type I error we increase our exposure to Type II, and vice versa. For example, in order to guard against a type I error we can set an increasingly conservative level of significance for our statistical tests. That is, while normal convention accepts a .05 level of significance for our statistical tests we might choose to use the more conservative .01 level. This makes it harder for us to conclude treatment works and so lessens the chance that we will say a treatment is effective when it is not. However, as type I and II errors are related, by doing this we increase the chance of saying treatment is not effective when in fact it is. The resolution is normally to set the level of significance required in a way that balances the real world implications of making a Type I or Type II error (Hinkle et al., 1998). In the present study both errors are potentially equally harmful so we propose the acceptance of a .05 level of significance for the statistical analyses employed.

To determine an appropriate sample size, a power analysis was conducted. lt was concluded that in order for chi-square statistical tests with p values of .05 and power values of .80 to detect moderate differences (d = .75) between two groups, a sample size of 85 (42.5 cases per cell) was required for our study (Cohen, 1992; Hinkle, et al., 2003). In order to detect a small effect a total sample of 783 participants (391.5 per group) would be required. Barbaree (1997) argues that further care that goes beyond the above consideration of p values, power values, and effect sizes is needed in considering sample size in sexual offence recidivism studies when there are non-significant trends in the data that support treatment that takes account of low base rates of offending. He argues that in such instances a small or moderate treatment effect will be masked. This issue was addressed in the present study by incorporating Barbaree's approach to analysis when comparing rates of recidivism among treated and untreated offenders and through an analysis of time to the various forms of recidivism measured in the study. Analysing time to recidivism, rather than categories of re-offending or no re-offending, overcomes all of the cautions outlined by Barbaree.

CHAPTER THREE: RESULTS

Sexual offence recidivism

Combining all sources of data (Garda PULSE data, IPS PRIS remand data, and IPS PRIS re-sentence data) for sexual offence recidivism identified the following re-offences among the total sample of 248 men: sexual assault of a female; indecent assault of a female; gross indecency towards a male child; indecent assault of male under 16 years of age; rape; rape under section 4; unlawful carnal knowledge of a person aged 15-17 years; murder with a sexual motivation; aggravated sexual assault; sexual assault on a male/female; and indecency.

Among the total sample of 248 men there was an overall sexual offence recidivism rate of 8.1%. Among those who participated in the IPS intervention programme the sexual offence recidivism rate was 8.9%. Among the matched untreated control group it was 7.3%. Table seven reports a Chi Square analysis on whether treatment status impacted on sexual offence recidivism. No treatment effect is evident.

Status	Treated Group (n = 124)	Untreated Group (n = 124)	Total Sample (N = 248)	Chi Square
Sexual re-offending No Yes	113 (91.1%) 11 (8.9%)	115 (92.7%) 9 (7.3%)	228 (91.9%) 20 (8.1%)	0.22

Table 7: Impact of intervention on rates of recidivism for any type of sexual offence.

As indicated in the method section of the present study a conventional power analysis suggests our sample size of 248 is more than adequate to detect a moderate positive effect among the treated group compared to the untreated group. We now return to the concerns expressed by Barbaree (1997) that despite these power calculations a moderate treatment effect may go unrecognised in studies with (a) low base rates of recidivism and (b) trends in the data supportive of intervention. Barbaree defines the base rate of re-offending as the proportion of the untreated group who re-offend. It is indeed low in this

study at 9/124 = .07. Barbaree defines what he terms the "treatment effect" as the proportion within the treatment group that sexual recidivism was reduced by relative to the untreated group. In this study the treatment effect is calculated as the negative value -.22 ((9-11)/9= -.22). As such, although our base rate is indeed low, no trend is apparent in our data that suggests a reduction in recidivism among treated participants. This is inconsistent with the objection that a moderate treatment effect is masked by the low base rate of sexual offence recidivism in the present study.

An alternative outcome of intervention may have resulted in participants taking longer to re-engage in criminal activity. Within the current study this was also evaluated. That is, time (number of months) post release from prison with and without re-offending was recorded, analysed, and compared between the two groups. A further advantage of this approach is that it overcomes the low base-rates of recidivism and sample size limitations that we identified and addressed above. In relation to time to sexual offence recidivism the two survival curves illustrated in figure 3 are statistically equivalent (Log Rank Test = Chi-square = 0.22; p > 0.05). That is, there was no significant difference between those who did and those who did not receive intervention. Among the 8.9% of the total sample who did recidivate the average time to sexual offence recidivism was 49.60 months (SD = 34.88 months) ranging from a minimum of 2 to a maximum of 109 months. The average time to sexual recidivism among those who did so in the treatment group was 46.00 months (SD = 31.85 months) and 54.00 months (SD = 39.80 months) in the untreated group.



Kaplan-Meier Survival Curves

Figure 3: Survival time comparison between treated and untreated men for sexual offence recidivism

Violent non-sexual offence recidivism

Combining all sources of data (Garda PULSE data, IPS PRIS remand data, and IPS PRIS re-sentence data) for violent offence recidivism identified the following offences among the total sample of 248 men: murder; assault causing harm; assault; assault with intent to rob; non-fatal offences against the person; threatening to kill; production of an article in a fight; and violent behaviour in a garda station.

Among the total sample there was an overall violent offence recidivism rate of 7.3%. Among those who participated in the IPS intervention programme and those who did not the violent offence recidivism rate was 7.3%. Table 8 reports a Chi Square analysis on whether treatment status impacted on violent re-offending. No treatment effect is evident.

Status	Treated Group (n = 124)	Untreated Group (n = 124)	Total Sample (N = 248)	Chi Square
Violent non-sexual re-offendi No Yes	ng 115 (92.7%) 9 (7.3%)	115 (92.7%) 9 (7.3%)	230 (92.7%) 18 (7.3%)	0.00

Table 8: Impact of intervention on rates of recidivism for any type of violent offence.

An alternative outcome of intervention may have resulted in participants taking longer to re-engage in violent non-sexual criminal activity. Within the current study this was also evaluated. That is, time (number of months) post release from prison with and without re-offending was recorded, analysed, and compared between the two groups. In relation to time violent non-sexual offence recidivism the two survival curves illustrated in figure 4 are statistically equivalent (Log Rank Test = Chi-square = 0.001; p > 0.05). That is, there was no significant difference between those who did and those who did not receive intervention. Among the 7.3% of the total sample who did recidivate the average time to violent non-sexual offence recidivism was 34.61 months (SD = 27.14 months) ranging from a minimum of 1 to a maximum of 105 months. The average time to violent non-sexual recidivism among those who did so in the treatment group was 43.88 months (SD=20.21) and 25.33 months (SD=31.04) in the untreated group.



Figure 4: Survival time comparison between treated and untreated men for violent non-sexual offence recidivism

Non-sexual non-violent offence recidivism

Combining all sources of data (Garda PULSE data, IPS PRIS remand data, and IPS PRIS re-sentence data) for non-sexual non-violent recidivism identified the following offences among the total sample of 248 men: false imprisonment; possession of an article with intent; possession of an offensive weapon; firearms offence; burglary and theft; burglary; theft; theft-causing loss by deception; making gain or causing loss by deception; larceny; forgery and larceny; handling stolen property; withholding information regarding stolen property; attempted robbery; robbery; unauthorised taking of a motor propelled vehicle; unlawful seizure of a vehicle; unauthorized interference with a motor propelled vehicle; unauthorized carriage in a motor propelled vehicle; damaging property; arson; custody of false instrument; criminal damage; trespass in a building; trespassing; entering a building; entering building with intent; possessing telecommunication device; unlawful possession of drugs; possession of drugs for sale; unlawful supply of drugs; dangerous driving; driving without consideration; careless driving; drunk driving; defective vehicle; dangerously defective vehicle; no driving license; failure to display tax disc; no tax; non display of insurance disc; no insurance; failure to produce insurance certificate; valid NCT disc not displayed; vehicle without NCT cert; failure to display L plates; failure to be accompanied by a qualified driver; failing to stop for a garda; no crash helmet; failure-seatbelt; refuse name and address; refusal to give specimen; failure to comply with providing urine; lighting of vehicle offence; double parking; giving false name under road traffic act; hit and run; failure to comply with garda; failure to carry out community service; breach of a barring order; threatening/abusive behaviour in public; abusive words; intoxication in a public place; possession of intoxicating liquor; failure to leave peacefully; language calculated to lead to breach of peace; breach of peace; disorderly conduct in public; failure to notify under the requirements of the sex offender act; littering; obstruction of peace officer; failure to appear; failure to answer bail; attempt to commit an indictable offence; assault to resist apprehension for a road traffic offence.

Among the total sample there was an overall non-sexual non-violent recidivism rate of 24.6%. Among those who participated in the IPS intervention programme the non-violent non sexual offence recidivism rate was 27.4%. Among the matched untreated control

group it was 21.8%. Table 9 reports a Chi Square analysis on whether treatment status impacted on non-sexual non-violent recidivism. No treatment effect is evident.

Status	Treated Group (n = 124)	Untreated Group (n = 124)	Total Sample (N = 248)	Chi Square
Non-sexual non-violent re-	offending	07 (79 20/)	107 (75 40/)	1.07
Yes	90 (72.6%) 34 (27.4%)	97 (78.2%) 27 (21.8%)	61 (24.6%)	1.07

Table 9: Impact of intervention on rates of recidivism for any type of non-sexual non-violent offence.

An alternative outcome of intervention may have resulted in participants taking longer to re-engage in non-sexual non-violent criminal activity. Within the current study this was also evaluated. That is, time (number of months) post release from prison with and without re-offending was recorded, analysed, and compared between the two groups. In relation to time to non-sexual non-violent offence recidivism the two survival curves illustrated in figure 5 are statistically equivalent (Log Rank Test = Chi-square = 1.05; p > 0.05). That is, there was no significant difference between those who did and did not receive intervention. Among the 24.6% of the total sample who did recidivate the average time to non-sexual non-violent offence recidivism was 33.37 months (SD = 30.66 months) ranging from a minimum of 1 to a maximum of 121 months. The average time to non-violent non-sexual recidivism among those who did so in the treatment group was 36.82 months (SD=33.64) and 29.03 months (SD=26.42) in the untreated group.



Figure 5: Survival time comparison between groups on non-sexual non-violent offence recidivism

Combining all offences

Combining sexual, violent, and non-sexual non-violent re-offending data from all sources (Garda PULSE data, IPS PRIS remand data, and IPS PRIS re-sentence data) indicates that of the total sample in the present study there was an overall any type of offence recidivism rate of 28.2%. Among those who participated in the IPS intervention programme the recidivism rate for any type of offence was 29.8%. Among the matched untreated control group it was 26.6%. Table 10 reports a Chi Square analysis on whether treatment status impacted on recidivism rates for all types of offence combined. This analysis tells us in absolute terms if members of the treatment or non-treatment groups reoffended at differing rates allowing for the fact that the same individual may re-offend sexually, violently or non-sexual non-violently. No treatment effect is evident.

Status	Treated Group (n = 124)	Untreated Group (n = 124)	Total Sample (N = 248)	Chi Square
All types of re-offending c	ombinod			
All types of re-offending c				
No	87 (70.2%)	91 (73.4%)	178 (71.8%)	0.32
Yes	37 (29.8%)	33 (26.6%)	70 (28.2%)	
Total	124 (100%)	124 (100%)	248 (100%)	

 Table 10: Impact of intervention on rates of recidivism for all types of offence combined.

An alternative outcome of intervention may have resulted in participants taking longer to re-engage in criminal activity when all three categories above are combined (sexual; violent non-sexual; non-sexual non-violent). Within the current study this was also evaluated. That is, time (number of months) post release from prison with and without re-offending was recorded, analysed, and compared between the two groups. In relation to time to all types of offence combined recidivism the two survival curves illustrated in figure 6 are statistically equivalent (Log Rank Test = Chi-square = 0.34; p > 0.05). That is, there was no significant difference between those who did and did not receive intervention. Among the 28.2% of the total sample who recidivated in some form the average time to any recidivism was 35.48 months (SD = 32.37 months) ranging from a minimum of 1 to a maximum of 121 months. The average time to any recidivism among those who did so in

the treatment group was 37.32 months (SD=5.61) and 33.42 months (SD=30.67) in the untreated group.



Figure 6: Survival time comparison between treated and untreated groups on recidivism for all types of offence combined.

Are there variables included in the study other than intervention status that predict recidivism?

We computed a series of correlations in order explore the relationship between the variable "time to all types of recidivism" and the other continuous variables included in our study (age; imposed sentence length; number of previous sexual convictions; and number of previous non-sexual convictions). This analysis concerned the outcome variable "time to all types of recidivism" as this allowed the largest number of participants to be included (n=70; as 70 of the total 248 participants had some form of re-offence). Table 11 reports the results from this analysis and indicates that age had a significant but weak positive correlation with time to any type of recidivism. That is, relatively older age is associated with longer time to recidivism. There was no relationship between time to any type of recidivism and imposed sentence length; number of sexual offences prior to the index offence; and number of non-sexual offences prior to the index offence.

Variable	Correlation with time to any recidivism
Age	0.34**
Imposed sentence length	0.06
Number of previous sexual convictions	-0.16
Number of previous non-sexual convictions	-0.17

 Table 11: Correlation between continuous variables and time to any recidivism (N=70).

Note: Observed value from Pearson correlation; ** = observed value is significant at p < 0.01

Similarly turning to the binary outcome variables of sexual recidivism (yes/no), violent nonsexual recidivism (yes/no), non-sexual non-violent recidivism (yes/no), and any recidivism (yes/no) allowed us to explore whether any of the matching, demographic or index sexual offence variables included in the study were predictive of recidivism in each category. Four logistical regression analyses were computed where the predictor variables considered were (i) age; (ii) sentence length; (iii) marital status; (iv) employment status; (v) index sexual offence victim child girl/child boy/ child girl-boy/ child-adult/ adult); (vi) familial relationship to index offence victim; (vii) history of sexual offending prior to index offence; (viii) history of non-sexual offending prior to the index offence; (ix) number of non-sexual offences prior to the index offence; (x) a history of sexual offending prior to the index offence; and (xi) number of sexual offences prior to the index offence. All 248 participants were included in these analyses.

Predicting sexual offence recidivism

The model significantly predicted sexual recidivism status (omnibus chi-square = 32.75, df 15, p < .01). It accounted for between 12.5% and 29.0% of the variance in sexual offence 99.1% and 15.0% of the those without and with sexual offence recidivism status. recidivism respectively were successfully predicted by the model. Table 12 indicates the coefficients, Wald statistic and associated probability value for each predictor variable. It indicates that sexual recidivism was reliably predicted by offending against girls only in the index offence. The values of the coefficients show that offending against girls relative to other victims as part of the index offence is associated with a decrease in the odds of sexual re-offending by a factor of .05 (95% CI 0.003 and 0.79). Age, sentence length, a prior history of sexual offending (as a binary yes/no variable), a prior history of non-sexual offending (as a binary yes/no variable), the number of prior sexual offences, the number of prior non-sexual offences, boy victims in the index offence, mixed gender child victims in the index offence, child and adult victims in the index offence, adult victims in the index offence, familial status of the index offence victim, and marital status of the offender, were not reliably predictive of sexual offence recidivism.

Predictor Variable	В	Wald	Exp (B)
Age Sentence length Prior sexual offending Prior non-sexual offending Number of prior sexual offences Number of prior non-sexual offences Index offence girl victim Index offence boy victim Index offence girl and boy victim Index offence adult victim Index offence familial offence Index offence non-familial offence Index offence familial & non-familial offence Unmarried	-0.01 0.11 2.47 -1.23 1.86 0.02 -3.01 -3.00 -20.60 -2.50 19.19 21.06 -0.53 0.18	0.41 1.38 1.10 3.33 1.72 0.13 4.52* 3.81 0.00 3.47 0.00 0.00 0.00 0.00 0.00	0.99 1.12 11.81 0.29 6.40 1.02 0.05 0.05 0.00 0.08 2.16E7 1.34E8 0.59 1.20
Married	1.16	1.30	3.19

Table 12: Results from logistic regression predicting sexual offence recidivism

Note: * = observed value significant at p<.05.

Predicting violent non-sexual offence recidivism

The model significantly predicted violent non-sexual recidivism status (omnibus chi-square = 68.83, df 15, p < .001). It accounted for between 24.5% and 61.9% of the variance in violent non-sexual offence recidivism status. 99.1% and 47.1% of the those without and with violent non-sexual offence recidivism respectively were successfully predicted by the model. Table 13 indicates the coefficients, Wald statistic, and associated probability value for each predictor variable. It indicates that violent non-sexual recidivism was reliably predicted by the age of the offender and with number of prior non-sexual offences. The values of the coefficients show that an increase in one year of age of the offender was associated with a decrease in the odds of violent non-sexual re-offending by a factor of 0.84 (95% CI 0.74 and 0.95). Similarly, number of non-sexual offences prior to the index sexual offence was associated with an increase in the risk of violent non-sexual recidivism. Each additional prior offence was associated with increasing risk of violent offence recidivism by a factor of 1.18 (95% CI 1.02-1.37). Sentence length, a prior history of sexual offending (as a binary yes/no variable), a prior history of non-sexual offending (as a binary yes/no variable), the number of prior sexual offences, girl only victims in the index offence, boy only victims in the index offence, mixed gender child victims in the index

offence, child and adult victims in the index offence, adult victims in the index offence, familial status of the index offence victim, and marital status, were not reliably predictive of violent non-sexual offence recidivism.

Predictor Variable	В	Wald	Exp (B)
Age Sentence length Prior sexual offending Prior non-sexual offending Number of prior sexual offences Number of prior non-sexual offences Index offence girl victim Index offence boy victim Index offence girl and boy victim Index offence adult victim Index offence familial offence Index offence non-familial offence Index offence familial & non-familial offence	-1.18 0.12 19.74 -2.19 21.48 0.17 -1.82 -1.78 -1.14 -16.90 13.75 14.71 -26.20	7.32*** 0.92 0.00 3.24 0.00 4.80* 0.64 0.00 0.27 0.00 0.00 0.00 0.00 0.00	0.84 1.13 3.73E7 0.11 2.12E7 1.18 0.16 0.00 0.32 0.00 9.40E4 2.46E6 0.00
Unmarried Married	39.71 40.92	1.28 0.00	1.75E17 5.92E17

Table 13: Results from logistic regression predicting violent non-sexual offence recidivism

Note: * = observed value significant at p>.05.; *** = observed value significant at p<.001.

Predicting non-violent non-sexual offence recidivism

The model significantly predicted non-violent nonsexual recidivism status (omnibus chisquare = 81.80, df 15, p < .001). It accounted for between 28.4% and 42.3% of the variance in sexual offence recidivism status. 91.9% and 55.0% of the those without and with non-violent non-sexual offence recidivism respectively were successfully predicted by the model. Table 14 indicates the coefficients, Wald statistic and associated probability value for each predictor variable. It indicates that non-violent non-sexual recidivism was reliably predicted by age; history of prior-sexual offencing (as a binary yes/no variable); number of non-sexual offences prior to the index offence; number of sexual offences prior to the index offence; and sexual offending against boys only as the index offence. The values of the coefficients show that increasing age is associated with a decrease in the odds of non-violent non-sexual re-offending. Each increase of one year of age decreases risk of recidivism by a factor of 0.91 (95% CI = 0.87-0.96). A history of sexual offending (when entered as a binary yes/no variable) is associated with a decrease in the risk of non-sexual non-violent offending by a factor of 0.04 (95% CI = 0.004-0.44). Similarly, number of sexual offences prior to the index offence is associated with a decreased risk of non-violent non-sexual offences by a factor of 0.14 (95% CI = 0.02-0.80). Number of non-sexual offences prior to the index sexual offence was associated with an increase in the risk of non-violent non-sexual recidivism. Each additional prior offence was associated with increasing risk of non-violent non-sexual offence recidivism by a factor of 1.15 (95% CI = 1.03-1.28). Having a boy only victim in the index offence was associated with a decrease in the risk of non-violent non-sexual recidivism relative to other types of index offence victims by a factor of 0.05 (95% CI = 0.004-0.73) Sentence length, a prior history of non-sexual offending (as a binary yes/no variable), girl only victims in the index offence, mixed gender child victims in the index offence, child and adult victims in the index offence, adult victims in the index offence, familial status of the offence victim, and marital status of the offender, were not reliably predictive of non-violent non-sexual offence recidivism.

Predictor Variable	В	Wald	Exp (B)
Age	-0.09	13.26***	0.91
Sentence length	-0.02	0.05	0.98
Prior sexual offending	-3.16	7.03**	0.04
Prior non-sexual offending	-0.86	3.51	0.43
Number of prior sexual offences	-1.99	4.84*	0.13
Number of prior non-sexual offences	0.14	6.48*	1.15
Index offence girl victim	-1.22	1.10	0.30
Index offence boy victim	-2.91	4.83*	0.06
Index offence girl and boy victim	-1.14	0.95	0.32
Index offence adult victim	-0.67	0.22	0.51
Index offence familial offence	20.20	0.00	5.94E7
Index offence non-familial offence	20.61	0.00	8.94E7
Index offence familial & non-familial offence	19.17	0.00	2.11E7
Unmarried	0.64	1.19	1.90
Married	0.25	0.12	1.28

Table 14: Results from logistic regression predicting non-violent non-sexual offence recidivism

Note: * = observed value significant at p<.05.; ** = observed value significant at p<.01; *** = observed value significant at p>.001.

Predicting all types of offence combined.

The model significantly predicted recidivism for all types of offence combined (omnibus chi-square = 70.25, df 15, p < .001). It accounted for between 24.9% and 35.8% of the variance in recidivism status. 90.9% and 49.3% of the those without and with some recidivism respectively were successfully predicted by the model. Table 15 indicates the coefficients, Wald statistic and associated probability value for each predictor variable. It indicates that recidivism for all offences combined was reliably predicted by offending age and history of non-sexual offending (as a binary yes/no variable). The values of the coefficients show that recidivism increasing age is associated in a decreased risk of recidivism. Each additional year of age is associated with a decrease in the odds of reoffending by a factor of 0.94 (95% CI 0.90 and 0.98). Similarly, those with no history of non-sexual offending prior to their index offence had a decreased risk of re-offending relative to those with a history of prior non-sexual offending. A prior history of non-sexual offending was associated with an increased risk of some form of recidivism by a factor of 0.35 (95% CI = 0.16-0.79). Sentence length, a prior history of sexual offending (as a binary yes/no variable), the number of prior sexual offences, the number of prior nonsexual offences, girl victims in the index offence, boy victims in the index offence, mixed gender child victims in the index offence, child and adult victims in the index offence, adult victims in the index offence, familial status of the index offence victim, and marital status of the offender, were not reliably predictive of sexual offence recidivism.

Predictor Variable	В	Wald	Exp (B)
Age Sentence length Prior sexual offending Prior non-sexual offending Number of prior sexual offences Number of prior non-sexual offences Index offence girl victim Index offence boy victim Index offence girl and boy victim Index offence adult victim	-0.60 0.00 -1.48 -1.05 -0.59 0.10 -0.86 -1.80 -0.74 -0.67 20.55	7.87** 0.00 2.12 6.47** 0.63 3.75 0.59 2.19 0.42 0.24 0.00	0.94 1.00 0.23 0.35 0.56 1.11 0.42 0.17 0.48 0.51 8.43E7
Index offence non-familial offence Index offence familial & non-familial offence Unmarried Married	20.51 19.14 0.35 0.10	0.00 0.00 0.46 0.03	8.10E7 2.05E7 1.42 1.11

Table 15: Results from logistic regression predicting any offence recidivism

Note: ** = observed value significant at p<.01.

Does sexual offending prior to the index offence confound our results?

In the present study great care was taken to match the two groups of participants on age, offence victim characteristics, release date, and imposed sentence length variables. However, they were not specifically matched on the variable of whether they had any sexual offence convictions prior to their index offence. We did however set about recording whether they had prior sexual offences in order to determine whether this variable would differ between groups or have an influence on rates of re-offending.

Table 16 reports the prior history of sexual offending among participants. Of the total sample 89.1% had no prior history of sexual offending. Among the intervention group 14.5% had a conviction for a sexual offence prior to their index offence compared with 7.3% among the untreated group. Despite the fact that twice as many men in intervention had a prior history compared with the control group a chi-square comparison indicated that the groups did not differ significantly on prior history of sexual offending. The difference was close to statistical significance however.

Table 16: History of sexual offending prior to the index sexual offence.

Status	Treated Group (n = 124)	Untreated Group (n = 124)	Total Sample (N = 248)	Chi Square
History of sexual offendi	ng prior to index offe	nce		
No	106 (85.5%)	115 (92.7%)	221 (89.1%)	3.37
Yes	18 (14.5%)	9 (7.3%)	27 (10.9%)	
Total	124 (100%)	124 (100%)	248 (100%)	

Given the importance identified in the research literature of prior history of sexual offending to sexual offence recidivism we further explored its influence on the results of the present study. We were concerned that despite the statistically non-significant results reported above the difference between the two groups on this variable approached statistical significant. Consequently, the larger number of men in the intervention group with a prior history of sexual offending may have confounded our results. Within the confines of the data available to us if we restrict our analysis by matching the treated and untreated groups on the additional variable of prior sexual history then this produces two matched groups of 105 participants (210 out of the original 248 participants). These two groups are matched on the variables of age; offence victim characteristics; sentence length; release date from prison, and prior history of sexual offending. That is, for this exploratory analysis we lose a small number of participants by extending our matching criteria. Table 17 presents the comparison between men who completed the intervention programme compared to those who did not on the variables of sexual offence recidivism, violent-nonsexual offence recidivism, non-violent non-sexual offence recidivism, and combined offences. In each case there was no evidence of an intervention effect or that the variable prior sexual history had confounded the results reported for our full sample. Running an equivalent analysis selecting just those participants in the present study with no history of prior sexual offending and just those with a history also indicates no evidence that this variable confounded our findings (see appendix A). Similarly extending the exploratory analysis to compare length of time until the various forms of re-offending between the two groups matched on the additional variable of prior history of sexual offence indicates the same pattern of results reported above (see appendix B).

			Participants	
Status	Treated Group (n = 105)	Untreated Group (n = 105)	Matched for Prior Sexual Offences (N = 210)	Chi Square
Sexual re-offending				
No Yes Total	95 (90.5%) 10 (9.5%) 105 (100%)	97 (92.4%) 8 (7.6%) 105 (100%)	192 (91.4%) 18 (8.6%) 210 (100%)	0.24
Violent non-sexual re-offen	ding			
No	99 (94.3%)	99 (94.3%)	198 (94.3%)	0.00
Yes	6 (5.7%)	6 (5.7%)	12 (5.7%)	
Total	105 (100%)	105 (100%)	210 (100%)	
Non-sexual non-violent re-	offending			
No	77 (73.3%)	83 (79.0%)	160 (76.2%)	0.95
Yes	28 (26.7%)	22 (21.0%)	50 (23.8%)	
Total	105 (100%)	105 (100%)	210 (100%)	
All types of offending com	bined			
No	74 (70.5%)	77 (73.3%)	151 (71.9%)	0.21
Yes	31 (29.5%)	28 (26.7%)	59 (28.1%)	
Total	105 (100%)	105 (100%)	210 (100%)	

Table 17: Rates of recidivism among participants matching for prior history of sexual offending.

Does intervention completion or non-completion make a difference to sexual offence recidivism?

The data presented here concerns all men to whom the Irish Prison Service offered specific intervention for their sexual crimes while incarcerated who have returned to the community for at least one year. At times during intervention some participants may decide to terminate their attendance. At other times the professionals delivering the programme may ask a group participant to withdraw. The latter may occur if the intervention team are concerned for the welfare of the participant, may have concerns that he is not actively and fully committed to the programme, or that his continuation for some reason would be detrimental to the wellbeing and therapeutic experience of other programme members. Of the 124 intervention group participants 110 fully completed the programme and 14 terminated their own attendance or were asked by the intervention team to withdraw. A methodological strength of current study is that it evaluates the impact of intervention on the rates of criminal recidivism for all men for whom intervention

was attempted, and not a potentially biased sub-sample of only those for whom it was attempted *and* completed. There is some evidence to suggest that intervention non-completers are at increased risk of re-offending. Within the present study of the 11 men from the intervention group who sexually recidivated, all fully completed the programme. None were intervention programme non-completers. As such there is no evidence that programme non-completion was a factor in their sexual offence recidivism.

CHAPTER FOUR: DISCUSSION

The present study investigated the impact of the IPS structured intervention programme for men who commit sexual offences on their rates of sexual and non-sexual offence recidivism. As far as we are aware it is the first study in the history of the Irish state to evaluate the impact of a strategy for the management of a particular group of prisoners through reference to official records of re-offending. The IPS programme is the only evaluated sexual offender intervention service in Ireland despite the existence for many years of community programmes for adults and adolescents. The study compared all 124 men who participated in the IPS structured sexual offender intervention programme since its establishment in 1994 who have returned to the community for at least one year with a carefully selected control group of 124 men who did not receive intervention but who were equivalent in terms of their age, sentence length, release date, and 11 aspects of their index sexual offence. The average post-release time in the community for all participants was 6.2 years. This length of the follow-up time, the inclusion of all participants who have ever participated in the IPS programme, and their detailed matching to a carefully selected control group, are particular methodological strengths of the present study relative to similar evaluations from other jurisdictions. The study was limited by the fact that there was not a randomised assignment of the 248 participants to intervention or no intervention and the fact that prior sexual offending was not a matching variable (however, the two groups were equivalent in their prior offending history).

Disappointingly, the results indicated that intervention did not reduce the number of men who re-offended sexually, violently, or non-sexually non-violently compared to the untreated control group. The over-all rate of sexual offence recidivism was relatively low at 8.1%. Violent non-sexual offence recidivism was 7.3%, and non-sexual non-violent offence recidivism was 24.6%. In total 28.2% of all participants were identified with some form of re-offending. Similarly, there was no difference in the time taken to re-engage in sexual, violent, non-sexual non-violent offending between those who participated in intervention and those who did not. The average time to sexual re-offending among the 20 out of the 248 total participants who did so, was just over four years (49.60 months). The

average time to violent non-sexual offence recidivism among the 18 men identified as doing so was almost three years (34.61 months). The average time to non-sexual non-violent non-sexual offending among 61 men who did so was also just under three years (33.37 months).

A number of offender characteristics associated with sexual, violent, and non-sexual nonviolent re-offending were identified. Relatively older age was associated with longer time to recidivism. Sexual re-offending had a very minor association with marginally lower risk if the index offence victim was a girl rather than a boy or an adult. Similarly, relatively younger age and a larger number of previous non-sexual offences were associated with increased violent re-offending. Non-violent non-sexual re-offending was also associated with relatively younger age and a larger number of previous sexual and non-sexual offences. Offenders with a boy victim rather than a girl or adult in their index offence also had a marginally lower risk of non-sexual non-violent re-offending.

As indicated in the introduction, meta-analyses of the international research on psychological intervention for sexual offending men clearly indicates that it reduces recidivism, thus contributing to a safer society (Hanson et al., 2002; Lösel & Schmucker, 2005). Similarly, a previous independent research study evaluating the IPS programme found that it was a well run, well delivered programme, successfully achieving its aims in changing many areas of psychological functioning associated with sexual offending and recidivism (O' Reilly & Carr, 2004). These findings might reasonably lead us to expect that the IPS programme would deliver a reduction in rates of recidivism. So how might we explain the gap between these expectations and the reality of the current findings?

One possibility is that the gains made during the IPS programme are not maintained after participation and translated into reduced recidivism on the offender's return to the community. This seems to us to be a plausible explanation. It is further supported by the main area of concern emerging from the previous controlled evaluation of psychological change in the IPS programme. While participants made the largest improvements on their *awareness* of their personal risk factors that made their sexual offence relapse more likely

compared to any other variable targeted by the IPS programme, they remained unchanged in the quality and range of practical relapse prevention *strategies* available to them. That is, on completing a well designed, well delivered programme participants were changed on important psychological characteristics related to their sexual offending, particularly in the area of awareness regarding the emotional, behavioural, cognitive, and situational factors that indicated their increased risk of re-offending. However, the environment of relationships, living circumstances, and community resources that would support and monitor them at times of risk were unchanged. It is easy to see how such a situation may be more likely to result in a programme participant making the deliberate decision to return to his offending behaviour. Ultimately responsibility for re-offending always rests with the individual perpetrator, however, a safer society may result from revisions to the IPS programme and broader sexual offender management policies that help offenders develop better relapse prevention strategies that are embedded in their post intervention prison and community lives providing support and monitoring. This leads us to the first two of our recommendations.

Recommendation One: The adoption of a broad strategy for the management of sexual offending men that incorporates but also goes beyond the IPS structured intervention programme. This strategy should address a variety of issues including the risk assessment of sexual offending men, the need to increase IPS programme participation, and strategies for monitoring and facilitating the appropriate transfer of gains made during intervention on return to the community post release from prison, similar to those outlined in the Department of Justice, Equality and Law Reform Discussion Document (January, 2009).

Recommendation Two: The continued revision and development of the IPS sexual offender intervention programme according to the standards of best international practice. It was evident through-out the current and previous independent evaluations that this has always been a feature of the IPS programme and should be fully supported in its continuation.

An alternative explanation for the divergence between the findings of the present study and those of the meta-analyses of the international literature is that there is a systematic bias in this literature that makes it appear that intervention is successful when in fact it is not. Surprisingly this is plausible. Within the meta-analytic reports it is clearly identified that there is insufficient use of Randomised Control Trials (RCTs) which are the gold standard of evaluative research design (Hanson et al., 2002; Kenworthy, Adams, Bilby, Brooks-Gordon, & Fenton 2003; Lösel & Schmucker, 2005). There is only one large RCT that meaningfully evaluates current approaches to intervention and its outcome is mixed suggesting a one year reduction in violent but not sexual recidivism. In contrast Hanson et al. comment that combining the data from 17 studies that did not have random assignment but did have apparently equivalent groups clearly supported sexual offender intervention effectiveness. It appears to us that the important question of whether or not intervention contributes to a reduction in sexual and other types of re-offending will only be definitively answered when we have the combined data from studies that meet the highest standards of evaluative design. This brings us to our third and final recommendation.

Recommendation Three. The IPS should establish a Randomised Control Trial to evaluate its newly revised sexual offender intervention programme. The evidence from such an evaluation will unambiguously guide the IPS in its continued efforts to achieve the highest standards for those in its custody and those whose safety its custodial and rehabilitative practices serve.

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Appendix A. Influence of Prior History of Sexual Offending on Recidivism.

Selecting only those cases with no prior history of sexual offending (221) and comparing them between treated (106) and untreated conditions (115) did not reveal any difference in sexual, violent-non-sexual, non-sexual non-violent, or combined offences. These results are displayed in table A-1.

Status	Treated Group with No Prior Sexual Offences (n = 106)	Untreated Group with No Prior Sexual Offences (n = 115)	All Participants with No Prior Sexual Offences (N = 221)	Chi Square			
Sexual re-offending							
No Yes Total	96 (90.6%) 10 (9.4%) 106 (100%)	108 (93.9%) 7 (6.1%) 115 (100%)	204 (92.3%) 17 (7.7%) 221 (100%)	0.87			
Violent non-sexual re-offe	Violent non-sexual re-offending						
No	99 (93.4%)	109 (94.8%)	208 (94.1%)	0.19			
Yes	7 (6.6%)	6 (5.2%)	13 (5.9%)				
Total	106 (100%)	115 (100%)	221 (100%)				
Non-sexual non-violent re-offending							
No	79 (74.5%)	90 (78.3%)	169 (76.5%)	0.43			
Yes Total	27 (25.5%)	25 (21.7%)	52 (23.5%)				
All types of offending combined							
No	76 (71.7%)	86 (74.8%)	162 (73.3%)	0.27			
Yes	30 (2.8%)	29 (25.2%)	59 (26.7%)				
Total	106 (100%)	115 (100%)	221 (100%)				

Fable A-1: Rates of recidivism	among all participants with	no history of prior sexual offend	ing
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Selecting only those cases who did have a prior history of sexual offending and comparing them between treated and untreated conditions did not reveal any difference in sexual, violent-non-sexual, non-sexual non-violent, or combined offences. These results are displayed in table A-2. Unlike our other findings reported above, the numbers of participants with a history of prior sexual offending in this analysis is relatively small. Consequently, caution is warranted with regard to these findings.

Table A-2: Rates	of recidivism	among all	participants	with a his	orv of	prior sexual	offendina
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Status	Treated Group with Prior Sexual Offences (n = 18)	Untreated Group with Prior Sexual Offences (n = 9)	All Participants with Prior Sexual Offences (N = 27)	Chi Square			
Sexual re-offending							
No	17 (94.4%)	7 (77.8%)	24 (92.3%)	1.69			
Yes	1 (5.6%)	2 (6.1%)	3 (7.7%)				
Total	18 (100%)	9 (100%)	27 (100%)				
Violent non-sexual re-offer	nding						
No	16 (88.9%)	6 (66.7%)	22 (81.5%)	1.97			
Yes	2 (11.1%)	3 (33.3%)	5 (18.5%)				
Total	18 (100%)	9 (100%)	27 (100%)				
Non-sexual non-violent re-offending							
No	11 (61.1%)	7 (77.8%)	18 (66.7%)	0.75			
Yes	7 (38.9%)	2 (22.2%)	9 (33.3%)				
Total	18 (100%)	9 (100%)	27 (100%)				
All types of offending combined							
No	11 (61.1%)	5 (55.6%)	16 (59.3%)	0.07			
Yes	7 (38.9%)	4 (44.4%)	11 (40.7%)				
Total	18 (100%)	9 (100%)	27 (100%)				

Appendix B. Survival Curves for Analysis Comparing the Two Groups While also Matching for Prior History of Sexual Offending.



Kaplan-Meier Survival Curves

Figure B-1: Survival time comparison between groups on sexual non-violent offence recidivism while also matching for prior history of sexual offending. In relation to time to sexual offence recidivism the two survival curves are statistically equivalent (Log Rank Test = Chi-square = 0.24; p > 0.05). That is, there was no significant difference between those who did and did not receive intervention.



Kaplan-Meier Survival Curves

Figure B-2: Survival time comparison between groups on non-sexual violent offence recidivism while also matching for prior history of sexual offending. In relation to time to violent non-sexual offence recidivism the two survival curves are statistically equivalent (Log Rank Test = Chi-square = 0.00; p > 0.05). That is, there was no significant difference between those who did and did not receive intervention.



Figure B-3: Survival time comparison between groups on non-sexual non-violent offence recidivism while also matching for prior history of sexual offending. In relation to time to non-sexual non-violent offence recidivism the two survival curves are statistically equivalent (Log Rank Test = Chi-square = 0.96; p > 0.05). That is, there was no significant difference between those who did and did not receive intervention.


Kaplan-Meier Survival Curves

Figure B-4: Survival time comparison between groups for combined offence recidivism while also matching for prior history of sexual offending. In relation to time to all types of offence combined recidivism the two survival curves are statistically equivalent (Log Rank Test = Chi-square = 0.24; p > 0.05). That is, there was no significant difference between those who did and did not receive intervention.