

Situational and psycho-social factors associated with relapse following residential detoxification in a population of Irish opioid dependent patients

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Abstract

Aims: To identify and describe the context and factors involved in the opioid lapse process following discharge from an Irish inpatient opioid detoxification treatment programme.

Design, participants, setting: Prospective follow-up study of consecutive detoxified opioid dependent patients treated in a specialist inpatient drug dependency unit.

Measurements: The Maudsley Addiction Profile and a structured interview were administered to 109 patients, 18–36 months after discharge.

Findings: Of 109 people interviewed at follow-up, 102 (94%) reported at least one episode of opioid use after leaving the residential treatment programme. Eighty eight patients (86% of the lapsed) identified more than one major factor contributing to their recidivism. The median number of factors identified as having a major role in the lapse was four. The most frequently reported major contributors to lapse were low mood (62%), difficulties with craving (62%), ease of access to heroin (48%) and missing the support of the treatment centre (43%).

Conclusions: Early lapse was common following inpatient treatment of opioid dependence. Lapse tended to result from a number of common, identifiable, high-risk situations, feelings and cognitions which may assist clinicians and patients develop lapse prevention strategies to anticipate and interrupt this process.

Key Words: Lapse, relapse, opioids, heroin, relapse- prevention, psychological, drug, addiction, abstinence, social.

1. Background

Over the past four decades the major misused opioid in Ireland has been heroin.¹ Methadone substitution treatment, a harm-reduction strategy, is currently the dominant intervention for opioid dependence.² Despite the robust evidence that methadone maintenance treatment (MMT) reduces mortality, drug use and associated criminal behaviour,³ there is increasing international pressure⁴ to provide recovery orientated treatments which may include medically supported opioid detoxification. Detoxification is the general term referring to the structured process whereby patients aspiring to live 'drug free' lives are medically weaned from either illicit or prescribed opioids. Opioid detoxification completion is higher where treatment is residential or inpatient.⁵⁻⁷

Irish national treatment protocols for opioid dependence have recently undergone a major external review⁸ resulting in an increased accent on opioid detoxification⁹ as a treatment goal for this typically chronic and relapsing condition.¹⁰ The 2009 Irish Comptroller and Auditor General's Report⁸ notes that levels of detoxification and follow-on rehabilitation treatment are very low, equating to about 1.25% of those receiving methadone substitution treatment per annum. This scenario is likely to change as goals arising from recent Irish National Drug Strategies now include an increased commitment to opioid dependent patients being directed to eventual drug-free lifestyles and the provision of increased residential detoxification services to facilitate greater levels of rehabilitation.^{11,12} Similarly, a major objective of the recently published external review⁹ of the Department of Health and Children's Report of Methadone Treatment Services Review Group (1998) was to consider the provisioning of treatments such as detoxification.

As relapse is the most common outcome following treatment for a range of psychological and substance use problems¹³⁻¹⁷ moves towards increased opioid detoxification are not without risks related to lapse, overdose and mortality.^{18,19} An onus will be placed on treatment centres offering detoxification to assist service users in anticipating and avoiding contexts associated with lapse, a potentially perilous scenario when opioid tolerance is low. As opioid detoxification treatments are likely to increase in Ireland there is a clinical imperative to better understand relapse precipitants in detoxified patients.

Factors associated with lapse have been broadly categorised into interoceptive or intrapersonal determinants (mood states or cognitions) and external or interpersonal precipitants (drug availability, drug-related cues and contact with drug using peers). Across all addictions, factors most frequently linked to relapse were found to be negative emotional states, interpersonal conflict and social pressure.²⁰ According to Donovan²¹ the most frequent generic situations associated with relapse include social or peer pressure, a wish for interpersonal inclusion, negative emotional states and an absence of time structure; as well as anger and resentment, normally arising from interpersonal conflict.

Early models of relapse²⁰ were characterised by hierarchical

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classifications of risk factors and a reliance on linear statistical methods. Critiques of earlier static, taxonomic models of relapse, led to the proposal of revised dynamic models.^{14, 22-24} Witkiewitz and Marlatt²⁴ have noted that the characteristics of alcohol are most amenable to the development of relapse prevention models. Within this research tradition there has been recent interest in incorporating the mechanism by which social variables impact upon the internal (efficacy, expectancies, negative affect, craving, motivation) and behavioural factors (coping and alcohol use) salient to alcohol relapse.²⁵ These writers have suggested the existence of a dynamic, reciprocal feedback loop between social network and intra-individual factors, noting that social network and interpersonal variables probably moderate alcohol treatment outcomes by impacting upon the co-varying, intra-individual cognitive, affective and behavioural mechanisms of change.

Witkiewitz and Marlatt²⁴ have encouraged scientist-practitioners to incorporate the idiosyncrasies of particular substances such as heroin in the modification and development of drug specific relapse prevention procedures. Focussing specifically on opioid-dependent patients, Bradley *et al.*,²⁶ identified 11 different factors associated with lapse following inpatient detoxification. Cognitive factors, mood factors and external events were the factors most frequently associated with initial lapse. Social pressure, drug availability and priming rarely contributed to initial lapse. Cognitive, mood and external events as well as withdrawal symptoms were the factors most strongly associated with continued use of opioids following initial lapse. This contrasts with the findings of Marlatt²⁰ who noted the important role of social pressure as a relapse precipitant for heroin addicts. Social pressure, negative emotional states and interpersonal conflict were found to be the most frequent relapse situation among this cohort. Westermeyer²⁷ found social factors such as arguments and the loss of supportive relationships to be associated with the probability of relapse. Gossop *et al.*²⁸ found most lapses to heroin use occurred in the company of other drug users or in social scenarios associated with drug taking. Unnithan, Gossop & Strang,²⁹ found that drug-related cues and interpersonal events were the most important factors in lapses amongst opioid-dependent individuals. The significance of cues, particularly amongst heroin users, was also noted by Heather, Stallard, and Tebbutt³⁰ who found temptations or urges in the presence of substance cues were regarded by heroin users to be the most important factor precipitating their last relapse. Maulik, Tripathi and Pal³¹ similarly found observing others using and then subsequently wanting to use were the predominant reasons for an initial lapse to heroin use. Westphal, *et al.*³² conclude that whilst the high-risk situations which may lead to opioid use relapse are too plentiful to list, the empirical literature has indicated interactions with other drug users, exposure to drugs and drug cues and use of other substances are major categories of high-risk situations.

There has been a paucity of published research investigating the situational, contextual and psycho-social factors associated with the lapse process following residential detoxification of Irish opioid dependent patients. Little information is known about the potentially modifiable lapse catalysts among this population. A recent study by Smyth *et al.*³³ examining the medium-term outcome of Irish opioid dependent patients admitted for opioid detoxification found that 23% of patients were neither using opiates nor on methadone maintenance when interviewed at

follow up 18-36 months later. Abstinence was significantly associated with completion of the full six-week treatment programme, attendance at aftercare and not having an opioid dependent sibling. A related study³⁴ which sought to identify factors associated with early relapse found that this process was significantly predicted by general demographic or patient characteristics such as younger age, greater heroin use prior to treatment, history of injecting and a failure to enter aftercare. Those who completed a full six-week inpatient treatment programme also had a significantly delayed relapse.

In a 2010 review Veilleux *et al.*³⁵ argued that physicians and drug abuse treatment facilities must work alongside researchers to better understand the mechanisms that influence treatment retention and develop interventions to overcome barriers to abstinence. As national and international pressure mounts to direct heroin dependent patients towards abstinence based treatments and detoxification from opioids, it will be incumbent upon treatment providers to better understand the opioid relapse trajectory as well as strategies which may prevent this outcome. As noted by Bradley *et al.*²⁶ by learning how detoxified individuals return to drug use, it may be possible to identify strategies to minimise the risk, impact and scale of this ubiquitous treatment hazard. Our study, by investigating the situational, psychological and social factors implicated in individual lapse processes attempts to further extend the understanding of the more clinically accessible and modifiable determinants of the heroin lapse process following residential treatment within the Irish milieu. This investigation finds its relevance in the scantiness of Irish research on this topic and the anticipated increased shift towards opioid detoxification as a treatment objective. Resultant findings would be of particular salience given the generally unsatisfactory results of abstinence-directed treatments,^{13,35} the recent counsel to robustly embed national detoxification efforts in a psycho-social context⁹ and the fact that periods following detoxification are associated with an increased risk of death.³⁶ In light of the danger posed by relapse in the initial perilous period following treatment, enhancing relapse-related coping skills during treatment and aftercare is seen to be vital¹³. Given the prospect of increased levels of opioid detoxification treatment in Ireland, the primary aim of the current study was to revisit earlier gathered data to identify factors associated with lapse following discharge from a residential detoxification treatment service among the same cohort of patients previously investigated by Smyth *et al.* elsewhere.^{33,34}

2. Aim

As medically supported detoxification from opioids is likely to become an increasingly common treatment activity in Ireland, the aim of this study was to identify and describe the context and factors involved in the opioid lapse trajectory following discharge from an inpatient opioid detoxification programme, thus further extending an understanding of those clinically accessible and therapeutically malleable factors within Irish, and similar, milieus.

3. Method

The methods involved in this study are largely described in the related paper by Smyth *et al.*³³

3.1 Participants

Respondents were recruited from Cuan Dara which is a residential detoxification treatment centre in Dublin. The standard treatment

episode during this period involved a six-week admission with a medically assisted opioid detoxification taking place during the first two weeks of the admission. The treatment provided during admission is described in more detail elsewhere.³³ Of 144 opioid dependent patients admitted to Cuan Dara with the goal of abstinence, 109 were interviewed 18-36 months after discharge. Five of the 40 patients not interviewed had died during the intervening period. A further six had relocated. There were twenty individuals still living in Dublin who were not interviewed because they either could not be contacted or because they refused to participate. There was insufficient information available to initiate the interview process with the remaining 11 patients.

3.2 Measures

When interviewed, respondents completed the Maudsley Addiction Profile³⁷ to provide detailed information on patterns of drug use and other relevant behaviours in the month before interview, the findings of which have already been reported.³³ Those patients who had lapsed also completed a modified structured questionnaire, based upon the factors associated with relapse as identified in Bradley *et al.*'s initial qualitative study of opiate users.²⁶ Whilst this questionnaire was specially developed for this study, reflecting a move from a qualitative to quantitative methodology, no comment regarding the psychometric properties or robustness of this instrument can be presented. The purpose of this structured questionnaire was to fully explore the circumstances of their first lapse to opioid use, as follows.

3.3 Procedures

From lapsed respondents information was obtained regarding their location and company when lapse occurred, the type of drug used and method by which the drug was taken. For each potential relapse related factor, participants were asked whether or not this had been relevant to their own lapse. If it was a relevant factor they were asked to categorise it as having either a major or minor role in the lapse episode. Following completion of this list, patients were asked to identify the main factor(s) involved in the lapse, taken from the list presented.

3.4 Data Analysis

Descriptive statistics were collated to examine the percentage frequency of factors reported by participants as being pertinent to their relapse.

4. Results

The demographic and the other drug use factors reported by the 102 opioid dependent patients who reported a lapse episode following residential detoxification treatment are recorded in Table 1.

Sixty six (72%) of respondents who used heroin (either by itself or in combination with methadone) reported being in the company of another drug user during their first lapse. Forty seven (51%) of this group injected during their first lapse and 15 (65%) of the subset of 23 who were alone during heroin re-initiation engaged in this most risky route of drug administration.

As shown in Table 2, it emerged that the most important issues involved in the lapse were low mood and difficulties with cravings, with each of these being the main factor in one third of cases, while each had either a major or minor role in three quarters of

Table 1. Demographic and drug use factors cited by the 102 opioid dependent patients who reported a lapse episode post residential detoxification treatment.

	N	%	Median
Admission demographics			
Median admission age	N/A	N/A	22
Median period of past opioid use (years)	N/A	N/A	4
Heroin the main reported opioid used	90	(89)	
Reporting a history of injecting	82	(80)	
In a relationship with another opioid user	29	(28)	
Has an opioid dependent sibling	41	(40)	
Working at time of admission	4	(4)	
Male	66	(65)	
Lapse data			
Lapsed within one week of discharge	72	(71)	
Opioid used during first lapse			
Heroin alone	89	(87)	
Methadone alone	5	(5)	
Morphine Sulphate	2	(2)	
Heroin and Methadone	3	(3)	
Other combination	2	(2)	
Unknown	1	(1)	
Social and other context of first lapse			
Company when first lapsed			
Lapsed alone	26	(25)	
Lapsed with another drug user	72	(71)	
Unknown social context	4	(4)	
Lapsed in own home			
Lapsed in home of another drug user	36	(35)	
Lapsed under influence of another substance	35	(34)	
Mood when first lapsed			
Lapsed when mood worse than usual	27	(27)	
Lapsed when mood better than usual	65	(64)	
Lapsed under normal mood	26	(26)	
Injected on first lapse occasion	10	(10)	
Injected when alone on first lapse occasion	50	(49)	
	16	(16)	

lapse episodes. The next most important factors were "ease of access to heroin, due to living with a heroin user for example" and "missing the support of Cuan Dara", each of these being identified as a major factor by more than 40% of respondents. The factors which had the smallest role in lapse were "being under the influence of another substance" and "knowledge that they could re-access methadone treatment if they became 'strung out' again", these being involved in 16 and 17 cases respectively.

A total of 88 (86%) people identified two or more major factors contributing to their lapse. The median number of factors identified as having a major role in the lapse was four (IQR 2 – 6).

Patients rated the quality of their recall regarding the circumstances of the initial lapse as very good in 77% of cases and fairly good in 13% cases, although 10% reported having relatively poor recollection of details. The interviewers rated the patients recall as being very good in 72% of cases and fairly good in 18% of cases.

Table 2. Factors involved in first lapse following a period of residential detoxification treatment amongst 102 opioid dependent patients

	Identified as the main precipitating factor		Identified as a major precipitating factor		Identified as a minor precipitating factor
	N	(%)	N	(%)	N
Simply made a decision to start using again	11	(11)	29	(28)	15
Thought that I could just try it once again	8	(8)	40	(39)	16
Mood was bad and wanted a lift	27	(27)	63	(62)	12
Mood was good	3	(3)	16	(16)	11
Wasn't sleeping or felt 'sick'	8	(8)	31	(31)	10
Upset at prospect of meeting partner/family/friends	4	(4)	25	(25)	4
Met someone and offered opioids	9	(9)	37	(37)	4
Missed support of Cuan Dara	9	(9)	43	(43)	14
Ease of access to opioids e.g. living with a user	11	(11)	48	(48)	11
Knew that I could get on a methadone programme if ended up 'strung out' again	1	(1)	13	(13)	4
Under the influence of alcohol or another drug	3	(3)	11	(11)	5
Drug-related cues					
e.g. saw someone stoned or found 'works'	8	(8)	23	(23)	6
Cravings were too much	30	(30)	63	(62)	10

5. Discussion

Our finding that the majority of lapses occurred during the first week after leaving treatment confirms Gossop *et al's* findings as to the general alacrity of initial opioid lapse^{28, 38} and the notion of a 'critical period' of extraordinarily high-risk immediately after leaving residential treatment during which the best possible support should be provided. Connors *et al*³⁹ similarly highlighted the importance of preventing relapse immediately following treatment as the prognosis for ongoing abstinence are significantly better once an initial period of abstinence has been attained. We have discussed issues salient to the rapidity of lapse amongst this patient population in more detail in a related paper.³⁴ Our findings that half of lapsing heroin users injected on their first lapse occasion and that nearly two-thirds of those who were alone during their first lapse episode injected, reflects scenarios with a high risk potential which need to be proactively addressed when preparing clients for discharge. Such findings underscore the current National Institute for Clinical Excellence (NICE) guideline³⁶ that it is imperative that detoxification treatments include wider psychosocial support as well as education on post-detoxification vulnerability to relapse and to overdose.

Our determination that a large percentage of respondents lapsed in the company of another drug user confirms Gossop *et al's*²⁸ observation that most opioid lapses occur in the company or home of other users and emphasises the detrimental role played by certain drug-related peer group influences and social contexts in precipitating opioid use lapses. Having examined social networks and alcohol use disorders, McCrady⁴⁰ notes that the impact of social networks on problem drinking may be positive, negative or mixed. Hunter-Reel *et al*,²⁵ recognising the impact of social network influences in predicting drinking outcomes, have proposed a model of alcohol relapse in which social variables have a reciprocal influence on drinking outcomes by altering those intra-individual factors and processes salient to alcohol use relapse. Westphal *et al*³² have similarly argued the empirical literature indicates encounters with other drug users, exposure to drugs and

drug cues (which may imply ease of access) together with the consumption of other drugs are significant categories of high-risk situations and associating with other drug users is a strong predictor of relapse. Social pressure has been found to be the most significant relapse precipitant for heroin addicts.³⁰ Unnithan *et al*²⁹ found interpersonal factors and drug-related cues as being most strongly associated with opioid use lapses. In this study the cited lapse precipitant 'ease of access' is a broad construct that may encapsulate the ready availability of drugs, access to other drug users and exposure to other drug cues. All these risk factors may be amenable to cognitive behavioural interventions. Beck *et al*⁴¹ argue that as exposure to high-risk situations is inevitable, careful, planned and graded exposure assignments or 'inoculation' to such cues are a clinically sound strategy leading to increased self efficacy. The need to specifically identify the deleterious impact of social interactions; prepare clients for peer or social risk factors; anticipate related intrinsic drug-use cues and their impact on intra-individual functioning under such situations, as well as to harness the potentially beneficial elements of social networks in facilitating desired change is thus strongly recommended as a treatment activity.

The factors low mood, cravings, ease of access to opioids, missing the supports offered in treatment, cognitive factors and meeting someone and being offered opiates were similarly ordered in the aforementioned hierarchy of importance, when cited either as 'the main' precipitant to lapse or as 'a major' factor contributing to lapse.

More than six times as many respondents reported their mood was worse than usual during first lapse than those who reported lapsing under normal mood. Examining a range of addictive behaviours, Cummings *et al*⁴² found most lapses were associated with factors such as negative emotions, social forces and interpersonal discord. Marlatt²⁰ found negative emotional states were the intrapersonal factor most highly linked with relapse amongst heroin users and that negative emotional states and interpersonal conflict were associated with a resumption of

substance use in more than half of such cases.⁴³ Bradley *et al*²⁶ found dysphoric mood states to be the second-most common factor associated with relapse. Negative emotional states have been found to be a pervasive relapse predictor across the majority of studies investigating relapse precipitants.¹⁴ Consistent with the dynamic models^{14, 22-25} discussed earlier, Unnithan *et al*²⁹ suggests negative mood states be viewed as a chronic background factor which enhances the risk of relapse when linked with other specific relapse precipitants.

Our finding as to the role of negative mood states as a lapse precipitant underscores the importance of clinicians being sensitive to the existence of possible co-morbid depressive disorders, a distal relapse precipitant according to Shiffman's²² model. The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) regards such conditions as being underestimated and under diagnosed and suggest that about 80% of patients with a drug dependency diagnosis also have co-morbid psychiatric diagnoses. They cite European data to highlight the anomaly that whilst co-morbid depression ranges from 5% to 72% and that suicide attempts occur in around 50% of drug dependent patients, treatment teams commonly fail to spot patients with such psychiatric co-morbidity.^{44, 45}

Craving has been described as the most widely studied yet poorly understood topic in the domain of drug addiction.⁴⁶ Niaura⁴⁷ argues that whilst the role of craving has been given a position of prominence in many current theories of relapse, debate remains as to the motivational significance of craving in drug-use behaviours. Westphal *et al*³² note too the weak empirical relationship between craving and relapse and the contradictory role played by this construct in the area of opioid use. Marlatt and Witkiewitz⁴⁸ similarly assert a common finding of contemporary addiction research is the absence of a strong association between craving and relapse. We found that cravings were the most commonly cited 'main' lapse precipitant and together with 'a mood worse than usual' the most commonly cited "major" factor associated with an opioid lapse. This is of import given Siegel's precipitating factor treatise on cues and cravings. According to his thesis, based upon the Pavlovian conditioning paradigm, the treated addict's experience of cravings are elicited by exposure to exteroceptive (e.g. social settings, the company of friends, paraphernalia) or interoceptive (cognitions, memories, emotions) situations previously paired with drug use. This study's finding as to the significance of cravings as an opioid lapse precipitant confirms the importance of addressing factors associated with this phenomenon early in treatment.^{50, 51}

A number of writers^{25, 40, 48} cite a raft of research to indicate that whilst positive social support is highly predictive of abstinence across a number of addictive behaviours, other social interactions are conversely linked to impeded therapeutic change and an increased risk of relapse. We found missing the support offered by Cuan Dara was ranked fourth, both as the most commonly identified lapse antecedent and the most commonly cited 'major' precipitant. Hunt and Azrin's⁵² Community Reinforcement Approach is based on the operant learning principal that substance use is a behaviour determined by arrangements of contingencies and specifically influenced by patterns of reinforcers either lost or received. Working with alcohol use disorders and utilising a social network perspective Hunter-Reel *et al*²⁵ have extended

reformulated relapse models^{14, 22-24} to describe the interpersonal factors that may interrelate with intrapersonal characteristics and processes to produce change. Given the accepted convention and ubiquitous nature of alcohol consumption in Ireland against the fact heroin users are often a much more marginalised group with multiple morbidities⁵³ the interplay between inter and intra personal factors within these populations may be dissimilar. Notwithstanding this, our findings confirm the potential salience of social networks in the development of a model reflecting the lapse idiosyncrasies of recently detoxified opioid dependent persons.

The above underscores the importance of social interventions which either positively impact upon intrapersonal processes supporting positive change, or reinforce abstinence through interpersonal relationships. A review of social network variables in Alcoholics Anonymous (AA) by Groh *et al*⁵⁴ found not only was support from others in AA to be of great value to recovery but also that individuals with harmful social networks benefited the most from AA involvement. Gossop *et al*⁵⁵ found that predominantly heroin-addicted patients in the UK who regularly attend 12-step groups after residential treatment have been more likely to sustain abstinence from alcohol and opiates. These writers suggest the effectiveness of treatment services may be enhanced by systems that lead to increased involvement and engagement with groups such as Narcotics Anonymous (NA) and AA which have proven to be valuable aftercare resources. Conversely this study's finding that ease of access to drugs, for example living with a user, was the third most influential main risk factor and that 40% of this group had an opioid dependent sibling or intimate partner illustrates the inherent complexities in motivating changes in social networks as a treatment strategy. The synergistic impact of social network influences on intrapersonal variables²⁸ when living with another opioid user, together with the influence of classically conditioned drug-use or cravings cues^{49, 56} in such intimate relationships are likely to produce a blend of post detoxification risk scenarios that are challenging to address.

Other factors intermediately ranked as having a major role in a first lapse included thinking one could just try it once again, simply making a decision to start using again, meeting someone and being offered opioids, exposure to cues (e.g. saw someone stoned or found 'works') and being upset at the prospect of meeting significant others. Whilst cognitive factors such as "simply made a decision to start using again" or "I thought I could just try it once again" were only of moderate importance as 'main' or 'major' relapse precipitants, they were the most frequently cited 'minor' lapse precipitating factors. This finding contrasts with Bradley *et al*'s²⁶ determination as to the importance of cognitive factors in relapse. According to Beck *et al*⁴¹ exposure to high-risk triggers activate a chain of cognitive, behavioural and internal experiences potentially culminating in drug-use behaviours. In response to cravings and urges the individual may experience permissive cognitions (e.g. "I thought I could just try it once again") thus activating drug-seeking behaviour. Treatment strategies may include assisting patients in understanding how these transient thoughts about drug use may be elicited by antecedent cues and be proactively managed through cognitive behavioural coping skills. Interventions^{41, 50, 51} to manage attractive thoughts about drug use and reduce positive drug expectancies are regarded as a primary active ingredient of cognitive-behavioural treatments⁵⁷ and

are readily available to clinicians preparing patients to cope with such challenges. Consistent with the work of Hunter-Reel²⁵ many of the other aforementioned factors (e.g. upset at prospect of meeting a significant other, being offered opiates, exposure to drug-related cues such as seeing someone stoned or finding works) are socially or inter-personally mediated, highlighting the adverse impact of certain social network influences on intrapersonal experiences.

Our finding as to the relatively small roles played by post-detoxification and discharge symptoms such as sleep difficulties or feeling “sick” in precipitating opioid lapses are consistent with Bradley *et al*'s²⁶ verdict that ‘withdrawal symptoms’, including sleep difficulties, were not dominant factors associated with relapse. Whilst Unnithan *et al*'s²⁹ noted a high prevalence of symptoms of feeling unwell (either because of withdrawals or because of other health problems) amongst responders, they found no significant difference between opiate lapsed and non-lapsed in terms of either withdrawal symptoms or feeling unwell. Thus residual symptoms of illness or feeling unwell, when experienced after detoxification has been completed and patients have been discharged, may act only as a modest intermediate or contextual background risk factors, compromising abstinence when superimposed with other acute or proximal relapse precipitants. Such findings may provide some consolation to suggestible, alarmist or highly anxious patients and serve as a tool for clinicians wishing to therapeutically normalise the perceived hazard of these physical experiences.

That 88 (86%) people in this study identified two or more factors contributing to their lapse and with four being the median number of factors identified as having a major role in the lapse, suggests that the majority of respondents have insight to both the compound nature of their own lapse episodes and an intuitive understanding that multiple interacting risk factors precede and impact upon their lapse. Bradley *et al*'s²⁶ noted relapse factors occur in systemic clusters and argued that a complete model of lapse should encompass the interactions between external events, cognitions and affect in explaining renewed drug use. As has been suggested^{14, 22-24} relapse may thus be best conceptualised as a consequence of a complex nonlinear interaction of background, physiological state, cognitive and coping-skill related factors or similarly as a consequence of the reciprocal dynamic between the individual's social network and their internal cognitive, affective and behavioural processes.²⁵ Future research examining relationships between these factors should provide exciting data for those seeking to develop a systemic model explaining the relapse process following successful opioid detoxification.

Limitations of this study include the reliance on a retrospective assessment of relapse precipitants and the static model of assessment. These features of the methodology bring with them the risks of recall bias and inaccurate identification of true precipitants.²¹ The fact that in most instances relapses occurred close to discharge is however likely to have assisted patients in accurate recall. Previous studies report too that drug users are capable of valid self-reports regarding their drug use in environments where social desirability does not play a major role⁵⁸ As also noted, whilst retrospective responding has the potential for selectivity in recall, such questioning is often the only practical option given the challenges of engaging relapsing substance

abusers under the influence of drugs.⁵⁹ The design of the questionnaire based on Bradley *et al*'s²⁶ work also predated the emergence of more systemic, non-linear and dynamic models of relapse^{14, 22-25} as well as research highlighting the relevance of coping skills in preventing opioid relapse.⁶⁰ As the data for this study was gathered more than a decade ago and prior to the development of more dynamic models of relapse, it is thus predisposed towards linear lapse processes and proximal determinants whilst paying less attention to the synergy between these and intermediate, background and distal factors, including the role of social networks. Ideally further research should meet the challenge of both prospectively examining the opioid relapse process and integrating the impact of tonic or underlying background risk factors with clinically relevant phasic proximal factors (such as coping skills, motivation, self efficacy and drug and outcome expectancies) in an effort to develop a systemic and dynamic understanding of the opioid relapse process. Such a focus should include the interaction between environmental, social network and intra-individual factors.

On a positive note these findings, taken together with the earlier work of Smyth *et al*'s^{33, 34} suggest specific areas of focus for those clinicians hoping to support detoxified patients to recognise, anticipate and avoid where possible and better manage clearly identified threats to their newfound drug-free status. The National Institute for Clinical Excellence's guideline on opiate detoxification³⁶ records that whilst a number of psycho-social treatment models exist, interventions can be unfocussed and both therapist and client may not have a clear understanding of the therapeutic goals of treatment. This body notes too that evidence for adjunctive psychosocial interventions, such as relapse prevention cognitive behavioural therapy is sparse. It is thus hoped this examination of the opioid lapse process, specifically categorising the specific situational and psychosocial hazards recovering patients should anticipate and psychologically prepare for, has contributed to establishing helpful mechanisms of intervention. These findings furthermore neatly interlock with the practical cognitive and behavioural strategies that Wanigaratne *et al*'s⁶¹ have argued are fundamental to dealing with relapse triggers. These include recognising high-risk conditions and triggers for craving; developing strategies to minimise exposure to these high-risk situations; learning skills to manage cravings and other distressing emotions without recourse to drug use; learning to control lapses; learning to identify, contest and manage unhelpful or dysfunctional thoughts about drug use; developing emergency plans to manage high-risk situations when other skills are not effective; generating enjoyable sober activities and relationships; constructing a life worth living and attaining a balanced lifestyle.

6. Conclusion

In Ireland, as in other jurisdictions, lapse following the inpatient treatment of opioid dependence is typically alacritous. Lapse following detoxification tends to follow key, identifiable high-risk situations, feelings, and cognitions. Identification of these components may be useful for Irish treatment providers facing an increased expectation to provide detoxification-based treatment models and goals. Such findings highlight the need to ensure resources are made available for clinicians to develop and implement contextually relevant treatment strategies which prepare clients to anticipate, interrupt and better manage likely lapse precipitants.

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Conflict of interest

None.

Addendum

Since the submission of this paper Prof. J Strang (2011) has published *Recovery-oriented drug treatment. An interim report*. This National Treatment Agency document, heralding a new direction in UK clinical guidance for treating heroin addicts recommends that clinicians should promote abstinence; helping more heroin users recover and break free of opioid dependence. Professor Strang notes that in focussing more on helping patients overcome their dependence clinicians must guard against relapse and that by drawing upon layered and phased psychosocial and pharmacological approaches this threat, together with associated risks, can be minimised.

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