Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Keltoi Client Evaluation Study

October 2007

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Contents

1 Report Summary 3

2 Introduction to Evaluation Project 3

3 History & Philosophy of Keltoi 4

4 Methodology 6
- 4.1 Study Design 6
- 4.2 Data Entry & Verification 8

5 Results 8
- 5.1 Abstinence Results 11
- 5.1.1 Alcohol & Cannabis Consumption 12
- 5.2 Crime Results 12
- 5.2.1 Number of Crimes Committed Per Client-All Clients 13
- 5.2.2 Number of Crimes Committed Per Client-Abstinent Clients . . 14
- 5.2.3 Number of Crimes Committed Per Client-Clients Abstinent Excluding Alcohol 14
- 5.2.4 Number of Crimes Committed Per Client by Gender 14
- 5.3 Health & Risk Behaviour Results 15
- 5.3.1 Health 15
- 5.3.2 Risk Behaviours 18
- 5.3.3 Deceased Clients 19
- 5.4 Social & Personal Contact Results 19
- 5.5 Employment Results 22

6 Study Limitations 23

7 Literature Review 25
- 7.1 Research Outcome Study in Ireland (ROSIE) 26
- 7.1.1 Key Results: Abstinence Modality 1-Year 28
- 7.2 Drug Outcomes Research Study in Scotland (DORIS) 28
- 7.3 National Treatment Outcome Research Study (NTORS) 29

7.4 Drug Abuse Treatment Outcome Study (DATOS) 29
7.4.1 Key Results: Long Term Residential (<3 months) 1-Year 29
7.5 Australian Treatment Outcome Study (ATOS) 30
7.5.1 Key Results: All Modalities1-Year 30
7.6 Other Irish Studies 30
7.7 Other Treatment Outcome Evaluation Studies 31

8 Discussion 31
8.1 Comparison of the Keltoi Approach to Other Approaches . . . 31

9 Conclusions & Recommendations 33
9.1 Conclusions 33
9.1.1 Outcomes for Treatment in Keltoi 33
9.1.2 Keltoi Outcomes Compared to Other Studies 34
9.2 Recommendations 34

10 Acknowledgements & Thanks 35

Referral Procedures 37
References 38

1 Report Summary

Keltoi is a therapeutic residential facility within the Eastern region of the Health Service Executive (HSE) that uses an innovative systemic model to provide an 8 week rehabilitation programme for former drug users. This report describes the results of a follow-up evaluation survey of 94 successive clients who attended the programme and who were between 1-and 3-years post-discharge.

100 attendees of the Keltoi programme who were (minimum) 1-year post-completion of the residential component of their treatment agreed to take part in the study, whereby the four page Maudsley Addiction Profile (MAP) was completed, as was a short qualitative interview. The cohort was recruited on a temporal basis; the first study participant was discharged on 18 November 2002, the one hundredth was discharged on 30 August 2004. This is a non-random cross-sectional field-study of a sample of 67% (100/150) of the total number of Keltoi clients to that date.

Of the 80 clients on whose responses analysis was carried out, 51% were abstinent from all illicit drugs and alcohol in 30 days pre-interview; 60% were abstinent from all illicit drugs but had consumed alcohol in the 30 day preinterview period; and 65% were abstinent from all substances excluding alcohol and cannabis in the same period. Of the 40% of individuals who were using substances other than alcohol, only five (5.4%) were injecting drugs.

Cross-sectional outcomes are also presented with respect to crime, health and risk behaviours, social and personal functioning and employment. In general, abstinent clients (including those who were abstinent excluding alcohol) reported minimal criminal activity and positive outcomes in relation to the other measures.

2 Introduction to Evaluation Project

Keltoi's approach remains unique in Ireland; its chosen model is based on the finding that rehabilitation with a focus on living skills rather than insight produces more favourable outcomes (Mesa Grande [42]), where a favourable outcome sees clients developing and successfully maintaining a drug free lifestyle.

However, with the pursuit of favourable outcomes in mind, it has always been understood that the Keltoi philosophy will be determined by what works, rather than allegiance to any particular treatment modality. Naturally, this means that ongoing research and evaluation are essential. It was envisaged from the inception of the project that formal client feedback would be actively sought and that the policies and procedures in use would be reviewed on an ongoing basis.

The purpose of this evaluation process is to identify and develop the elements of the Keltoi philosophy that maximise clients' opportunities to develop a drug-free lifestyle, while reconsidering those aspects seen as less useful. As part of this process, intensive clinical and management supervision involving use of video taping for clinical best practice and training are in use. Staff and residents continue to actively contribute to this evaluation and residents' files are available to them to read and comment on. To date, the formal client feedback involves an outcomes analysis using the Maudsley Addiction Profile (MAP), a brief, structured interview for treatment outcome research, and a short, qualitative internally-designed questionnaire. Interviews were carried out with recruited clients between 1-and 3-years after they left Keltoi, regardless of whether they had completed the programme.

Like Keltoi itself, the concept of evaluation from the outset of a project of this nature is progressive and thus it is unfortunate that Keltoi cannot directly compare the results of its client survey with similar studies conducted on or by treatment centres with different aligned philosophies. Nonetheless, some general conclusions may be drawn and there is scope to review the results of the Keltoi study in the context of other, not directly comparable, but related studies, including ROSIE [47] and ATOS [53][15]. These studies have a common aim of evaluating the effectiveness of different treatment and rehabilitation modalities for dependent drug-users.

3 History & Philosophy of Keltoi

Capture re-capture studies [12][34] to measure prevalence of drug use in Ireland have estimated the opiate using population at approximately 14,000 over the period 1996 to 2001. In the meantime, the reports of the National Drug Treatment Reporting System (NDTRS) [35] make it clear that increasing numbers of individuals are seeking treatment for opiate addiction.

This study into a new residential rehabilitation programme is timely. The National Drug Strategy of 2001 set targets for data collection, treatment, and supply reduction. The mid-term review has now clearly seen the importance of rehabilitation and has expanded the strategy to incorporate rehabilitation as the fifth pillar.

Keltoi opened its doors in February 2001 as a research and residential therapeutic project with the goal of providing a facility for opiate users over the age of sixteen who want to realise and maintain a drug-free lifestyle. Located in the grounds of St. Mary's Hospital in the Phoenix Park, Dublin and funded by the then Eastern Regional Health Authority (ERHA), its unique service delivery is based on a systemic approach to addiction [29]. This approach depends on the belief system of the client rather than the belief system of the treatment provider; clients develop their own care plan and there is a great deal of equality between clients and staff.

The actual therapeutic work is primarily cognitive behavioural [11] and occurs throughout all aspects of living in Keltoi. This focuses on cognitive, affective and external stimuli that trigger substance misuse episodes.

The programme is over an eight-week period with a strong emphasis on occupational work. Evidence suggests that occupational conditions are associated with self-esteem [22][9], but these circumstances also provide opportunities to investigate individual relapse factors for prevention within a realistic framework using a Relapse Prevention approach [16][33]. The essence of all activities at Keltoi is therapeutic; advocating respect, life management and negotiating around interpersonal relationships, in the context of groups.

Prior to admission, clients need to be drug-free, physically stable and committed to remaining drug-free while resident at Keltoi. Keltoi is an environment where as an organisation and as a therapeutic space every effort is made to implement many of the principles of Anderson and Goolishian's "not-knowing approach" [4][5], or as it is more recently referred to, a "collaborative language systems approach" [3].

There is a total of 18 staff at Keltoi, including counsellors, residential care-workers, a cooking instructor, a fitness instructor, an administrator and a manager[2], whose role includes clinical and management duties. There are 20 beds in the centre, but only 8 of these are currently utilised, due to the full staff complement not being deployed. The staff members, by design, are from a variety of different backgrounds and many do not have prior experience of addiction treatment and rehabilitation; this diversity was an expressed wish of those setting up the project, the purpose being to obtain a multiplicity of perspectives.

Dual-diagnosis patients are able to access a place in the programme and are likely to have been on psychotropic medication for depression and/or psychotic illness. Neuroleptics and anti-depressants are the only psychotropic medications that are permitted.

Clients who join the Keltoi programme are verifiably drug-free (including prescribed substitute drugs) for a period prior to their arrival as part of the recruitment process, thus all clients can be considered to be abstinent at the beginning of their stay. A large proportion of Keltoi clients (50%) are referred from detoxification centres and Bobby Smyth et al. have published research on the characteristics of the individuals who attend these centres [51][52]. 95% of the client group in these papers had severe opiate dependence problems for many years and a small proportion had severe cocaine dependence. It is highly appropriate that clients detoxify before starting the programme, as the Keltoi approach depends on clients developing their own care plan and living skills. The Keltoi assessment process usually takes between 10 days and 3 weeks unless a problem arises.

[2]A literacy instructor is employed on a sessional basis and an art therapist was employed on a part-time basis for much of the study period.

4 Methodology

4.1 Study Design

100 Keltoi clients agreed to take part in the study. This entailed participating in a 15 minute interview between 1-and 3-years post-completion of the residential component of their Keltoi programme. At this interview, the 4-page Maudsley Addiction Profile (MAP) [36] was completed, as was a short qualitative questionnaire. The MAP is a brief, structured interview for treatment outcome research. It was first published in 1998 and is intended for use as a core research instrument; a resource for treatment services wishing to undertake outcome studies.

The cohort was recruited on a temporal basis; the first study participant completed the programme and went to live in the community on 18 November 2002, the hundredth was discharged on 30 August 2004. This is a cross-sectional cohort sample of approximately 67% of the total number of Keltoi clients admitted to the programme by that date. Starting in September 2002, each successive client arriving in Keltoi was requested to take part in the evaluation study. No clients declined to take part in the study at the recruitment phase and no clients were excluded from the recruitment process (the only criterion for study eligibility was to be starting a new treatment episode in Keltoi). The recruitment process ended in July 2004, by which time a sample of 100 individuals was obtained, each of whom was allocated a unique client identification number and signed a consent form. These individuals left contact details with Keltoi on their departure and knew that they would be contacted at least one year following their departure to take part in the evaluation interview. Keltoi clients are sixteen years of age and over; participation in the study was entirely voluntary; full consent was obtained as part of the recruitment process and ethical approval was in place. It was not a recruitment requirement that clients finish the Keltoi programme. No remuneration was offered for participation in the study. Questionnaires are identified by a number only and clients' contact details are stored separately, thus the surveys are effectively anonymous for analysis purposes. Completed questionnaires were returned to an investigator within the Health Service Executive (HSE) who was not part of the Keltoi team. The interview process began in May 2004 and the final interview took place in July 2006. Prior to interview, Keltoi contacted the individual clients to confirm that consent was still in place, however, follow-up and interviewing of study participants was carried out independently of Keltoi by the Rehabilitation and Integration Service (RIS) in the Northern Area Health Board Addiction Service. All interviewers were trained in the correct procedure for completion of the MAP. The MAP is a well-validated, self-reporting instrument that has been extensively field tested [36].

Although 100 clients were recruited, it was decided that 6 members of that sample who attended Keltoi twice within the recruitment period, would be interviewed once only in relation to their Keltoi experience. Thus the total recruited to the study is 94 clients. Two of these clients died pre-interview (mortality rate 2/94 = 2.13%).

Analysis was carried out on 80 completed questionnaires; Table 1 shows the follow-up status for the full cohort of 94 individuals. Of these 80 questionnaires, 52 respondents were male, 18 were female and 10 did not have a client gender associated with them.

All interviews took place at least one year after discharge from Keltoi and 80% were verifiably completed within three years of the clients' discharge dates. A tender was issued in October 2006 seeking an external consultant to enter the data, perform statistical analysis and produce a report describing the results of the study.

Table 1: **Follow-up**

Status	%	n
Successful interview	85.1	80
Interviewed outside timeframe	1.1	1
Not traced	7.4	7
Traced but not interviewed	4.3	4
Believed deceased	2.1	2
Total	**100**	**94**

Key outcome measures include drug use, criminal involvement, general health, sexual behaviour, employment and social functioning. Measures were taken for the 30 day pre-interview period. Dependent drug use is a chronic, relapsing condition [38], therefore applying abstinence as a marker of success is to evaluate drug treatment at its highest level. Where the word "abstinent" is used without qualification, it means that the client is abstinent from all substances including alcohol, cannabis and substitute prescription drugs.

Descriptive statistics were computed for the entered data and frequency analyses were carried out. Missing data and invalid answers are excluded from the analyses on a question by question basis. Results are presented in tabular form, with percentages rounded to the nearest percent and where "n" denotes numbers of individuals.

4.2 Data Entry & Verification

The data was entered to the statistical software package SPSS 12.0. Two types of visual accuracy inspection were used following data entry: one sorted the data into columns and looked for discrepancies and the other involved a full comparison of the data from each questionnaire against the corresponding datapoint in the dataset. The database consists of 190 variables for each of 80 clients 15,200 datapoints in all. The initial data entry error rate was less than 0.5%.

Table 2: **Keltoi Admission Record**

Reason	%	n
Admitted	30.7	149
Not accepted	6	29
Client/referrer did not proceed	52.2	253
Positive urines	9.7	47
Insuficient information	0.8	4
SubTotal	**99.4**	**482**
Allocated ID not linked to client	0.6	3
Total	**100**	**485**

5 Results

Of the 485 documented client assessments from Keltoi's opening until July 2004 (when the last study participant was recruited), 30.9% (150 clients)[3] were accepted to the programme; 1 person declined to attend following successful completion of the referral process.

Table 2 shows the admission record. 149 clients out of 482 referrals were admitted to Keltoi. "Client/referrer did not proceed" includes clients who relapsed following referral, thus did not fully undergo the assessment process and therefore were not in a position to present for admission: the total number of these is 253 out of 482 referrals. Where clients completed the assessment process but were not accepted

[3]Some clients have attended Keltoi on more than one occasion. They received separate client ID numbers for each admission.

to the programme, either Keltoi was deemed to be unsuitable for their needs at the time of assessment or they failed an element of the assessment process other than submission of drug-free urine samples: this comprises 29 out of 482 referrals.

Of the 100 clients who agreed to take part in the study, 28 were female and 72 were male. 4 men were recruited twice and 2 women were recruited twice; thus the sample size of 94 individuals is made up of 68 men and 26 women. Two of these clients died pre-interview (mortality rate 2/94 = 2.13%).

Table 3: **Completion by Gender**

	%	n
Male (n=52)		
Yes	83	43
No	17	9
Total	**100**	**52**
Female (n=18)		
Yes	83	15
No	17	3
Total	**100**	**18**

Table 3 clearly shows that completion rates are the same for members of each gender. However, in line with what has been observed in international studies [20], Keltoi has had more males present for treatment than females, in a ratio of 7:3. This ratio is also observed in the Keltoi Evaluation Sample: Males 68/94 = 72%, Females 26/94 = 28%.

Of the 80 clients who successfully completed an interview, 80% (64 clients) could be verified to have given an interview between 1-and 3-years following their discharge. The mean time at which an interview took place post-discharge was 1.9 years (mode = 1.6 years, median = 1.8 years).

Table 4: **Completion & Abstinence**

		Completion					
		Yes		No		Total	
		%	*n*	%	*n*	%	*n*
Abstinence	**Yes**	41.5	29	5.5	4	47	33
	No	41.5	29	11.5	8	53	37
Total		**83**	**58**	**17**	**12**	**100**	**70**

Table 5: **Completion & Abstinence Excluding Alcohol**

		Completion					
		Yes		No		Total	
		%	*n*	%	*n*	%	*n*
Abstinence	**Yes**	51.5	36	6.0	4	57.5	40
	No	31.5	22	11.0	8	42.5	30
Total		**83**	**58**	**17**	**12**	**100**	**70**

The earliest that an interview took place was 1.2 years post-discharge and the latest was 3 years. 52 of these clients are men, 18 are women and the remaining 10 questionnaires do not have a client gender associated with them.
Note that the 4 people who are abstinent but did not complete the Keltoi programme (Table 4) could coincide with individuals who were recruited twice and completed one treatment episode but not the other(s).

Table 6: **Abstinence in Past 30 Days**

Abstinent	%	n
Yes	51	41
No	49	39
Total	**100**	**80**

5.1 Abstinence Results

Table 6 shows the levels of abstinence from all substances including alcohol in the last 30 days (n=80). Table 7 shows the levels of abstinence for each gender in the last 30 days (n=70)[4] .

Table 7: **Abstinence by Gender**

	%	n
Male (n=52)		
Yes	50	26
No	50	26
Total	**100**	**52**
Female (n=18)		
Yes	39	7
No	61	11
Total	**100**	**18**

While no clients were abstinent from all substances excluding cannabis, a proportion of clients were abstinent from all substances apart from alcohol and cannabis: these figures are shown in Table 9.

Table 8: **Abstinence, Excluding Alcohol, in Past 30 Days**

Abstinent Exc. Alcohol	%	n
Yes	60	48
No	40	32
Total	**100**	**80**

Table 9: **Abstinence, Excluding Alcohol & Cannabis, in Past 30 Days**

Abstinent Exc. Alcohol & Canabis	%	n
Yes	65	52
No	35	28
Total	**100**	**80**

[4]This analysis is conducted only on the clients for whom gender data is available.

5.1.1 Alcohol & Cannabis Consumption

Of the 7 clients who are abstinent excluding alcohol, two are women, each of whom consumed alcohol on two days only within the last 30 and did not exceed the recommended 14 units of alcohol/week. Of the five men, each reported consumption of approximately 24 units per week within the last 30 days: the recommended limit for men is 21 units per week or less. The further 4 clients who consumed alcohol and cannabis in the last thirty days, 1 was female, 3 were male and they were smoking/eating cannabis daily or six days a week. 1 of the men reported alcohol consumption significantly in excess of the recommended weekly limit, the others were within or just outside the recommended levels.

5.2 Crime Results

6 clients (7.5%) of the full cohort (n=80) sold drugs in the past 30 days. 5 of these clients are male. 2 clients (1 male, 1 female) are selling drugs on average 10

Table 10: Crime Committed in Past 30 Days -All Clients

Crime Committed	%	n
Yes	22.5	18
No	77.5	62
Total	**100**	**80**

Table 11: Crime Committed in Past 30 Days -Abstinent Clients

Crime Committed	%	n
Yes	15	6
No	85	35
Total	**100**	**41**

Table 12: Crime Committed in Past 30 Days -Clients Abstinent Excluding Alcohol

Crime Committed	%	n
Yes	12.5	6
No	87.5	42
Total	**100**	**48**

times per day. The mean number of times that drugs are being sold on a typical day in the 30 days is 8.25 (median 8.25, mode 10). The standard deviation is 6.9, the minimum is once daily and the maximum is 20 times daily (1 client only). None of the abstinent cohort are selling drugs, nor are any of those who are abstinent excluding alcohol.
Clients using drugs including cannabis did not report purchase or consumption

Table 13: **Crime Committed in Past 30 Days by Gender**

	%	n
Male (n=52)		
Yes	25	13
No	75	39
Total	**100**	**52**
Female (n=18)		
Yes	17	3
No	83	15
Total	**100**	**18**

of those drugs when answering the questions on crime[5] . Tables 10-13 show reported crime figures. The number of crimes committed per client is considered to be the number of days on which a crime was committed multiplied by the number of times that crime was committed on a particular day.

5.2.1 Number of Crimes Committed Per Client -All Clients

The mean number of crimes per client (n=78) was 10, the median and the mode number of crimes was zero. However, the standard deviation was 37.4 and the number of crimes ranged from zero to 240 crimes committed in the past 30 days. The total number of crimes committed by this cohort was 788 in the past 30 days. Nonetheless, the majority of clients (77.5%) committed no crimes. No theft from or of vehicles was reported. 2 people (2.5%) reported overall property theft; 1 on 2 days, 1 on 1 day. 2 people (2.5%) committed a crime not described above; 1 person committed criminal damage on 1 day, the other bought a stolen article on 1 day. 3 people (3.8%) shoplifted daily, 3 people (3.8%) shoplifted on 1 day only and 1 person shoplifted on 2 days.

[5]This has been observed in other studies including ROSIE.

Fraud/forgery was committed by 3 people (3.8%); 1 person (1.3%) reported daily fraud/forgery, the others reported 3 days and 2 days respectively. 6 people (7.6%) reported selling drugs; 1 person on 2 days only, 2 people once a week, 1 person twice a week, 1 person three times a week and 1 person four times a week. Of the two individuals who committed the most crimes, one was selling drugs three times a week on average 10 times a day and was shoplifting twice daily, the other was shoplifting on average eight times daily.

5.2.2 Number of Crimes Committed Per Client -Abstinent Clients

The mean number of crimes per client (n=39) was 3.3, the median and the mode number of crimes was zero. The standard deviation was 15.1 and the number of crimes ranged from zero to 90 crimes committed in the past 30 days. The total number of crimes committed by this cohort was 130 (16.5%) in the past 30 days.

5.2.3 Number of Crimes Committed Per Client -Clients Abstinent Excluding Alcohol

The additional 7 clients in this cohort (n=46) who are abstinent excluding alcohol, did not report any commission of crime. Thus the total number of crimes committed by this cohort was again 130 (16.5%) in the past 30 days and the number of crimes once more ranged from zero to 90. The mean number of crimes per client was 2.83, the median and the mode number of crimes was zero. The standard deviation was 13.9.

5.2.4 Number of Crimes Committed Per Client by Gender

The mean number of crimes per male client (n=52) was 6.8, the median and the mode number of crimes was zero. The standard deviation was 19.6 and the number of crimes ranged from zero to 90 crimes committed in the past 30 days. The total number of crimes committed by this cohort was 354 in the past 30 days.

The mean number of crimes per female client (n=17) was 11.4, the median and the mode number of crimes was zero. The standard deviation was 46 and the number of crimes ranged from zero to 190 crimes committed in the past 30 days. The total number of crimes committed by this cohort was 194 in the past 30 days. In fact, 1 client committed 190 crimes, 4 clients committed 1 crime and the remainder did not commit any crimes.

5.3 Health & Risk Behaviour Results

To derive a "health score", clients are asked a number of questions about their physical and psychological well-being. For each symptom out of a ten, they are asked if, in the past 30 days, they have experienced it Always (=4), Often (=3), Sometimes (=2), Rarely (=1) and Never (=0). These replies are each allocated a numeric value and the sum of the values of the physical responses gives a physical health score; the same applies to the psychological health indicators. Lower scores indicate higher levels of wellbeing -a zero score means that a client has never experienced any of the symptoms in the past 30 days, a score of 40 means that the client has experienced all of the symptoms all the time in the past 30 days.

Physical health measures are reported in Tables 14-16 and psychological health measures are reported in Tables 17-19. Where more than one modal value exists, the lowest is reported.

5.3.1 Health

Table 14: **Physical Health Scores**

Score	Abstinent	Non-Abstinent
	n=41	*n=37*
Mean	7.9	12.7
Median	7	12
Mode	7	9
Standard Deviation	5.3	5.8
Minimum	0	0
Maximum	21	26

Table 15: **Physical Health Scores**

Score	Abstinent Excluding Alcohol	Non-Abstinent
	n=46	*n=32*
Mean	7.7	13.8
Median	7	13
Mode	7	13
Standard Deviation	5.2	5.3
Minimum	0	3
Maximum	21	26

With respect to thoughts of suicide, 15 people (19%) reported thoughts of ending their own life within the past 30 days; 8 people (10%) thought rarely of ending their own life, of whom 3 were abstinent from all substances whilst the other 5 were non-abstinent. 5 people (6.3%) reported that they sometimes had thoughts of ending their own life, of whom all were non-abstinent and 2 people (2.5%) reported that they often had thoughts of ending their own life, of whom 1 was abstinent from all substances excluding alcohol and the other was non-abstinent.

Table 16: **Physical Health Scores by Gender**

Score	Male	Female
	n=50	*n=18*
Mean	9.9	11.8
Median	9	11.5
Mode	9	13
Standard Deviation	6.3	5.4
Minimum	0	4
Maximum	26	24

Table 17: **Psychological Health Scores**

Score	Abstinent	Non-Abstinent
	n=39	*n=39*
Mean	12.3	17.2
Median	13	16
Mode	14	12
Standard Deviation	6.6	7.7
Minimum	0	5
Maximum	26	35

Physically and psychologically, it appears that abstinent individuals are reporting higher levels of wellbeing than those who are non-abstinent. Men are reporting marginally better levels of wellbeing than women. It has been observed that individuals not in treatment for drug use often have lower health expectations [44] and thus post-treatment health scores may not reflect improvement in general health and wellbeing.

Table 18: **Psychological Health Scores**

Score	Abstinent Excluding Alcohol	Non-Abstinent
	n=46	*n=32*
Mean	12.5	17.9
Median	13	17
Mode	13	15
Standard Deviation	7	7
Minimum	0	6
Maximum	34	35

Table 19: **Psychological Health Scores by Gender**

Score	Male	Female
	n=50	*n=18*
Mean	14	16.7
Median	13.5	17.5
Mode	13	12
Standard Deviation	7.8	7.7
Minimum	0	3
Maximum	35	34

Table 20 shows that many clients (n=71) are in contact with drug rehabilitation and related services that they accessed subsequent to their time at Keltoi. 62 individuals (78%, n=79) were in contact with Keltoi aftercare services post-discharge, 20 clients (25%) are still in touch with Keltoi one-to-one counselling services and 9 clients (11.5%) report continued contact with Keltoi aftercare services[6]. International research has pointed out that increased involvement and engagement with services seems to assist in achieving better outcomes [10][48].

Table 20: **In Contact with Services Accessed Since Keltoi**

Contact with Services		
	%	n
Yes	84	59
No	16	12
Total	**100**	**71**

5.3.2 Risk Behaviours

Of the 29 clients (36%) who consumed substances other than cannabis and alcohol in the past 30 days, 5 clients only (6%) reported injecting behaviour. These clients were all using heroin, although all reported polydrug use. 2 clients (2.5%) injected daily twice a day, 1 client (1.3%) injected once on 1 day, 1 client (1.3%) twice on 2 days and 1 client (1.3%) injected once on each of 4 days.

[6] 8 of the 9 clients reporting continued contact with Keltoi aftercare are receiving one-to-one counselling.

38 clients (47.5%) reported that they did not have contact with a regular partner. Table 21 reports sexual contact results for these clients (n=37). Of the 5 clients who did not have a regular partner and who had sex without a condom, the mean number of sexual partners was 4.2 (median = 3, mode = 3) and the standard deviation was 3. The minimum was once and the maximum was 9 times.

Table 21: **Sex Without a Condom**

Sexual patrtners	%	n
0	86	32
1	11	4
2	3	1
Total	**100**	**37**

5.3.3 Deceased Clients

Two clients are reported to have died before their interview took place. The mortality rate over the two years of the study was thus 2.13% (2/94). However, there is no record of these deaths with the General Mortality Register (GMR), or relevant Coroners' offices.
Subsequent to the completion of their interview, three further participants are reported to have died; one of these deaths has been officially verified, no record of the other deaths has been identified. This corresponds to five deaths over a three year period.

5.4 Social & Personal Contact Results

From Table 22, entirely abstinent clients are reporting lower levels of contact with partners, but both abstinent and non-abstinent clients have similar levels of contact with relatives and friends. Table 23 shows that non-abstinent clients have a greater number of contact days with their partner, where partner indicates an individual with whom the client has an ongoing relationship.

Table 22: **Social & Personal Contact**

	Abstinent		Non-Abstinent	
	n=41		*n=39*	
	%	n	%	n
Had Partner Contact	46	19	59	23
Had Relatives Contact	93	38	95	37
Had Friends Contact	90	37	85	33

Table 23: **Partner Contact Days**

Days	Abstinent	Non-Abstinent
	n=41	*n=39*
Mean	12.7	16.4
Median	0	26
Mode	0	30
Standard Deviation	14.4	14.7
Minimum	0	0
Maximum	30	30

Table 24 indicates broadly similar levels of partner, relative and friend contact for those clients who are abstinent excluding alcohol and those clients who are non-abstinent. However, note that the median and modal values in each column of Table 25 represent the full range of the distribution.
28 male clients (54%) reported no contact with a partner in the past 30 days. 48 male clients (92%) reported contact with relatives and 46 male clients (85%) reported contact with friends. 6 female clients (33.3%) reported no contact with a partner in the past 30 days. 17 female clients (94%) reported contact with relatives and 15 female clients (83%) reported contact with friends. These results, in conjunction with Table 26 seem to indicate that female clients in this cohort are more likely to have a regular partner and to spend more time with their partner than male clients, but contact with relatives and friends is similar for both groups. Note that the median and modal values for each gender represent the full distribution.

Table 24: **Social & Personal Contact**

	Abstinent Excluding Alcohol		Non-Abstinent	
	n=48		*n=32*	
	%	n	%	n
Had Partner Contact	50	24	56	18
Had Relatives Contact	94	45	94	30
Had Friends Contact	90	43	84	27

Table 25: **Partner Contact Days**

Days	Abstinent Excluding Alcohol	Non-Abstinent
	n=48	*n=32*
Mean	13.6	15.8
Median	4.5	26
Mode	0	30
Standard Deviation	14.4	14.9
Minimum	0	0
Maximum	30	30

Table 26: **Partner Contact Days by Gender**

Days	Male	Female
	n=52	*n=18*
Mean	12.2	19.8
Median	0	30
Mode	0	30
Standard Deviation	14.2	14.4
Minimum	0	0
Maximum	30	30

5.5 Employment Results

Of the 40 clients (50%) who had paid work in the last 30 days, 23 individuals (57.5%) did not miss any days work during that period while 8 of those individuals (20%) reported that they were formally unemployed.
9 individuals (11.25%) of the full cohort (n=80) did not report unemployment or paid work in the last 30 days: 2 (2.5%) reported that they were on disability allowance, 2 (2.5%) reported that they were full-time students and 1 (1.25%) reported being in training.
Within the entirely abstinent cohort (n=41), 18 individuals (44%) had paid work in the last 30 days while 17 individuals (42%) reported formal unemployment in the same timeframe: 3 of those in paid work (17%) also reported formal unemployment in that period. 13 individuals of this cohort (31.7%) worked 5 days a week/every day. 13 individuals (72%) of those who were in paid work did not miss any days due to sickness or unauthorised absence. Table 27 shows a noticeable difference in mean and median days with the non-abstinent group reporting higher levels of employment.

Table 27: **Days Employment**

Days	Abstinent	Non-Abstinent
	n=41	*n=39*
Mean	9.5	12.6
Median	0	13
Mode	0	0
Standard Deviation	12.2	12.6
Minimum	0	0
Maximum	30	30

Within the cohort that reported abstinence excluding alcohol (n=48), 24 individuals (50%) had paid work in the last 30 days while 21 individuals (44%) reported formal unemployment in the same timeframe: 3 of those in paid work (6.25%) also reported formal unemployment in that period. 18 individuals of this cohort (37.5%) worked 5 days a week/every day. 16 individuals (67%) of those who were in paid work did not miss any days due to sickness or unauthorised absence. Table 28 shows that there is little difference in reported days of employment for the specified two groups. Tables 28-29 show that while formal unemployment results are similar for each gender, male clients report higher mean and median days of paid work. It should be noted that based on information from the Keltoi aftercare team, many former clients are engaged in education and/or training. The MAP does not explicitly ask about these activities, so formal data is not available.

Table 28: **Days Employment**

Days	Abstinent Excluding Alcohol	Non-Abstinent
	n=48	*n=32*
Mean	11	11
Median	1.5	0.5
Mode	0	0
Standard Deviation	12.4	12.8
Minimum	0	0
Maximum	30	30

Table 29: **Days Employment by Gender**

Days	Male	Female
	n=52	*n=18*
Mean	12.6	8.7
Median	13	0
Mode	0	0
Standard Deviation	12.7	11.8
Minimum	0	0
Maximum	30	30

6 Study Limitations

It is a limitation of this study that no validation of the self-report interviews took place. Although Keltoi did not carry out urinalysis to verify the self-reported results, research has concluded that self-reporting tends to be reliable when no negative consequences are incurred [39][14]. For reference, ROSIE results are not validated, DORIS results were validated with the first 275 clients out of 1084 [55] and their results were in line with the literature -86% concordance. NTORS also carried out validation using urinalysis and achieved a concordance rate of 92%. Furthermore, although the MAP is a self-reporting instrument, it is well-validated and extensively field-tested [36]: validation

showed that the content of MAP was acceptable to clients and easily comprehended. Results from the test-retest were highly acceptable and self-report validity was confirmed by the high level of agreement with results of urinalysis in a sub-sample. As the MAP was the research instrument of choice, its usefulness at baseline was limited by the fact that clients have completed a detoxification prior to their admission to Keltoi. Nonetheless, as a baseline interview was not conducted, longitudinal results are not available for the key outcome measures of abstinence, criminal involvement, general health, sexual behaviour, employment and social functioning. Thus the results presented here cannot be considered in a "before and after" context; caution must be exercised in drawing conclusions about if and how attendance at Keltoi influenced outcomes.

Table 30: **Days Formal Unemployment by Gender**

Days	Male	Female
	n=51	*n=18*
Mean	13.5	12.9
Median	0	0
Mode	0	0
Standard Deviation	14.6	14.9
Minimum	0	0
Maximum	30	30

The design of the study does not permit reductions in problem behaviours to be attributed directly to the impact of treatment factors. Keltoi did not use formal control groups and participants were not randomly recruited.

As this is not a longitudinal study, definitive results cannot be presented in relation to changes in the drug and alcohol use of those who partook in the Keltoi programme. This is therefore a field study to see if more in-depth evaluation of such programmes is warranted. However, Keltoi clients generally share a common background of drug misuse. Clients entering Keltoi are usually from the Irish opiate-addicted cohort, the vast majority of whom have come through either detoxification units or residential rehabilitation units, as these are the referral pathways for the Keltoi programme. More than 50% of the sampled clients came from detoxification centres and thus are known to fulfil heavy-dependence criteria and share common characteristics [51][52]. The individuals sharing these characteristics have high relapse rates and present to healthcare professionals with urgent treatment needs. That said, dependent drug use is known to be a chronic, relapsing condition [38], therefore abstinence for any period of time is a positive outcome that could be associated with attendance at Keltoi.

Individual behavioural changes result from interactions of the person, their environment and the intervention(s) that they experience. Each and all of these may influence outcomes to a greater or lesser degree and this could not be controlled for in this study.
Other studies, including ROSIE, DORIS, and NTORS, collected baseline data and measures were taken of behaviours for a 90 day pre-interview period, rather than the 30 day pre-interview period used in this study.
Per Table 1, this study successfully followed-up 85% of its cohort but would have preferred that figure to be higher; however, the ROSIE abstinent cohort achieved follow-up rates of 68% at 1-year.

7 Literature Review

A literature review took place to establish what related work has already been carried out and thus to contextualise this report in terms of the existing international literature. Search words used for the online databases Medline, PsycInfo and JSTOR were various combinations of "drug addiction, treatment, outcomes, residential rehabilitation, abstinence" and "evaluation". Very little material was sourced using these keywords. Use was also made of the Health Research Board's (HRB) National Documentation Centre (NDC) and of journals including *Addiction, the Journal of Substance Abuse Treatment and Drug and Alcohol Dependence*.
It is clear firstly that, although there is a commitment to treatment evaluation at a European level [18], published data on treatment outcome studies is not widely available. It is also clear that there is a significant lack of consistency in the methodology of the existing treatment outcome studies, which renders results incomparable across studies and modalities, at a local, national and international level. Studies may be cross-sectional or longitudinal, and have vastly different sample sizes. Instrument validation does not always take place. Although guidelines and sample evaluation instruments are available at European level [17], the core research instruments vary in length and in the measures examined, as well as in the pre-interview period measure and in defining, for example, abstinence. Research questions are often similar yet studies differ substantially in their data collection and analysis. It also seems that studies at treatment centre or local level are not widely published, if they have taken place at all.
Table 31 briefly describes some characteristics of five major international longitudinal prospective cohort studies -others exist, including VEdeTTE [54] in Italy.

Some key results are described in further detail below, but it is important to note that direct comparison between these studies and Keltoi is not possible due to differences in the study parameters and data collection. Nonetheless, in the absence of directly comparable research, some insight can be gained into levels of abstinence obtained subsequent to treatment for drug misuse.

7.1 Research Outcome Study in Ireland (ROSIE)

82 individuals were recruited within the ROSIE abstinence modality, where "abstinence modality" is defined as being in any structured programme which required individuals to be drug-free (including free from any pharmacological intervention) in order to participate in and remain on the programme[1] . 68% (n=56) successfully completed a 1-year interview [13] measuring a 90-day preinterview period and 64% were in some form of treatment at 1-year.

[1] Six individuals were recruited to the ROSIE Study from Keltoi: it is not known if any of these individuals were participants in both studies.

Table 31: **Longitudinal Cohort Outcome Studies**

Name	*ROSIE*	*DORIS*	*NTORS*	*DATOS*	*ATOS*
Country	Ireland	Scotland	UK	USA	Australia
Start Year	2003	2000	1995	1990	2001
Finish Year	Ongoing	Ongoing	2000	1997	2003
Recruited Cohort	404	1007	1075	10010	825
Abstinence Definition Excludes	Alcohol & tobacco	Alcohol & tobacco	Substitute prescribed medication, alcohol & tobacco	Undefined	Undefined
Pre-Interview Days	90	90	90	365	30
Recruitment Across Modalities	Yes	Yes	Yes	Yes	Yes
Results by Modality	Yes	No	Yes	Yes	Yes
Longitudinal Cohort	Yes	Yes	Yes	Yes	Yes
Age Group	Over 18	Unspecified	Unspecified	Unspecified	Over 18
Research Instrument	Unvalidated	Validated	Validated	Validated	Validated
Coverage	National	National	National	11 cities	3 cities
Payment	€10 voucher	Stg£10	Unspecified	USA$10-15	A$30

7.1.1 Key Results: Abstinence Modality 1-Year

- 66% of participants completed their index abstinence-based treatment programme.
- 11% of individuals recruited within the abstinence modality were female.
- Abstinence from all drugs (including prescribed methadone and excluding alcohol) was 41% at one year.
- Levels of involvement in crime reduced across six of the twelve categories of offences.
- Improvements were observed in nine out of the ten physical health symptoms and five out of the ten mental health symptoms.
- The mortality rate of the cohort was 1.2% (1/82).
- 76% of participants reported no criminal involvement in the 90 days prior to interview at 1-year.
- 20% of the cohort were injecting a drug at 1-year, a reduction of 10%.
- Participants' contact with social services increased from treatment intake.

7.2 Drug Outcomes Research Study in Scotland (DORIS)

DORIS [40] is the largest survey of the effectiveness of drug misuse treatment services ever carried out in Scotland. Results have been published for all modalities at 33-month follow-up (90-day pre-interview period), however, results are not available for the residential rehabilitation cohort alone, nor are 1-year results available, thus it is referenced here for completeness only. DORIS is careful to point out that the study identifies an association between becoming drug-free and different treatment modalities, rather than a causal explanation of the route through which drug users in Scotland were able to become drug free.

7.3 National Treatment Outcome Research Study (NTORS)

The UK NTORS has published 1-year [28] and 4-5 year [27] outcome results (90-day pre-interview period) with 19% of the original cohort recruited from residential settings. However, NTORS includes individuals using substitute prescribed medication as abstinent. Once more, it is referenced for completeness only.

7.4 Drug Abuse Treatment Outcome Study (DATOS)

DATOS [30][31] is the third US national multiprogram study, following the Drug Abuse Reporting Program (DARP) [49] and the Treatment Outcome Prospective Study (TOPS) [32].
DARP followed 4,017 individuals from a sample of 27,214 clients admitted to treatment between 1969-1972, while TOPS followed 4,270 of 9,989 clients admitted to treatment from 1979-1981. Both studies documented large decreases in opioid use and criminal involvement after treatment. DATOS was designed not only to enable replication of previous outcome studies but to investigate emerging research and policy issues about treatment effectiveness. Results are available for 1-year and 5-years, but abstinence of individuals is not strictly defined; instead results are provided for cohort percentage using particular drugs at 1-year. The pre-interview measure period varied from 90-days to 1-year, depending on the question asked. The closest modality corresponding to Keltoi is long-term residential (LTR) less than 3 months (sample size 213). Results are published in terms of the % who participated in a given activity at the 1-year interview; it is difficult to directly compare with Keltoi on this basis.

7.4.1 Key Results: Long Term Residential (<3 months) 1-Year

- Major reductions in most types of drug use were observed from baseline (heroin: baseline = 17.2%, 1-year = 7.1%).
- Predatory illegal activity dropped by 20% approx. and sexual behaviour risk dropped by 15% approx.
- Increases in full-time employment were observed.
- Health limitations decreased.

7.5 Australian Treatment Outcome Study (ATOS)

ATOS [15][53] reports a follow-up rate of 78% within the cohort of participants recruited from residential rehabilitation.

7.5.1 Key Results: All Modalities 1-Year

- 49% of the residential rehabilitation cohort were in some form of treatment at 1-year.
- 63% of participants had not used heroin within 30-days pre-interview.
- Substantial declines in heroin and other drug use were observed.
- There were reductions in non-fatal heroin overdose and in needle risk taking.
- Physical and mental health both improved subsequent to treatment.
- Criminal activity decreased.

7.6 Other Irish Studies

The Drug Misuse Research Division (DMRD) of the Health Research Board (HRB) is the focal point for reporting to the European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). As such, it has been involved in a number of studies related to the misuse of drugs, however, it has not been responsible for evaluation of individual treatment centres and although organisations such as Addiction Response Crumlin (ARC) [6] and Merchant's Quay [7] have produced evaluation reports of their activities, they are not producing treatment evaluation outcome research. In fact, the Research Office of the Merchant's Quay Project Residential Programmes produced a report in 1999 on the Hyde Park residential facility, which is based on the democratic therapeutic community model. Key results were that 33% of programme participants were female and that 42% (n=96) of those referred to the programme were admitted, with 27% successfully completing the full programme. A pilot outcome research study was scheduled to take place subsequent to that report, but results have not been published. The National Advisory Council for Drugs (NACD) has recently published a cross-community study on indicators for drug use [43], but ROSIE [47] is its principal treatment outcome study to date.

It is clear that there is a gap in the existing Irish literature on treatment outcome evaluation. This has been partly met by the two studies by Smyth et al., one auditing the characteristics of clients presenting for treatment in Cuan Dara in 1995-96 [51] and the other evaluating medium-term outcomes for inpatient treatment of opiate dependence [52]. Despite differences in modality and methodology, it is in the context of these works that Keltoi presents its treatment evaluation outcome study.

7.7 Other Treatment Outcome Evaluation Studies

The above studies and others have produced a wealth of literature on their research findings. Topics include improvements in individuals' physical and mental health [31], reductions in drug use for certain modalities [27], reductions in criminal behaviours [21], perceptions of drug treatment services [19] and sustained contact with drug treatment services [48]. However, their aim is not to evaluate specific treatment settings or modalities. Studies such as that recently conducted in the UK "What happens to drug users when they leave in-patient drug treatment?", which follows up 100 clients from a detoxification setting [37], are of more direct relevance. It must be noted however that Keltoi is a unique treatment setting and a straight-forward "like-with-like" comparison is not possible, not least because it is clear that causal links between treatment and abstinence have yet to be established.

8 Discussion

8.1 Comparison of the Keltoi Approach to Other Approaches

The Keltoi approach was developed using evidence from a small number of outcome studies on abstinence and rehabilitation of drug users and those who are alcohol-dependent persons across the world, including Mesa Grande [42] and Project Match [46]. Most of the studies were community-based. They all pointed to a focus on drug misuse prevention and life skills training plus community reinforcement-type models [50]. Earlier residential rehabilitation models often emphasised a requirement to look in-depth at psychological and developmental antecedents to drug use, in particular early traumatic environments and/or experiences, whereby there is a "golden key" to unlock the door to the reasons for substance misuse problems and once these are identified, recovery will follow. Other models, such as the 12-step philosophy [2], emphasised mutual support and the acceptance of a ready-made ideology; "off-the-peg", "one-size-fits-all" thinking about substance misuse.

Keltoi follows the more recent evidence cited above with a view to designing and developing a programme that uses an individual skills-based approach to coping with avoidance of drug use; the development of new coping skills and strategies for living [11] that bring with them a rewarding lifestyle.

Per Table 1, the Keltoi evaluation study successfully followed-up 85% of its cohort but would have preferred that figure to be higher; however, the ROSIE abstinent cohort achieved follow-up rates of 68% at 1-year. Of the 100 clients initially recruited to the study, 77% completed the full Keltoi programme. 66% of the ROSIE study participants completed their abstinence-based treatment programme. It is important to note that of the 341 males and 141 females (n = 482) who presented for assessment up to July 2004, attendance rates were very similar -31% of males and 32% of females who presented for treatment were admitted to Keltoi.

ROSIE and DORIS define abstinence as abstinence from all drugs, including prescribed substitute drugs, but excluding alcohol: this definition corresponds to the Keltoi cohort results shown in Table 8. The Keltoi programme does not necessarily advise all patients to desist from alcohol use. If a person has a light social drinking pattern, they are warned of the possibility of cross-addiction to alcohol but are not explicitly prohibited from continuing to use alcohol in that way. Accordingly, 7 clients (9%) of the Keltoi cohort consumed alcohol but did not report any other substance use in the 30-day pre-interview period.

- ROSIE reported 41% abstinence at 12 months for those recruited within the abstinence modality.

- DORIS reported 8% abstinence at 33 months, but the analysis is across modalities, in a different time-frame and not limited to those recruited in a residential rehabilitation setting.

NTORS defines abstinence as abstinence from all drugs excluding prescribed substitute drugs and alcohol. However, it must be noted that studies including ROSIE, DORIS, and NTORS took measures of behaviours for a 90-day preinterview period, rather than the 30-day pre-interview period used in this study.

With respect to the Keltoi cohort, it is clear from the risk behaviour results, the psychological and physical health scores, as well as the crime results, that those who are abstinent from all illicit drugs report better physical and psychological health, less risk behaviour and less crime. Similar outcomes associated with abstinence are reported in ROSIE, DORIS and NTORS.

The ROSIE study [13] reported a mortality rate in its abstinence cohort of 1.2% at one year. To our knowledge, the two year Keltoi study mortality rate stands at 2.13% (2/94 individuals).

A recent report issued by the Irish College of General Practitioners (ICGP) [8] has identified male drug users as being at especially high risk of death; 75% of those whose deaths were investigated as part of this report were men. Four (80%) of those who are believed to have died before or after the Keltoi study are men. A Dublin-based study published in 2006 makes it clear that at a community level, it is strongly felt that drug-related deaths are under-reported [43]

9 Conclusions & Recommendations

9.1 Conclusions

9.1.1 Outcomes for Treatment in Keltoi

6% of clients who applied to enter the treatment programme were not accepted. This suggests that for those clients who meet the entry requirement for Keltoi, the chances of commencing treatment are high.

It is clear from the study results that the impact and outcomes for clients attending Keltoi were positive. 51% of clients who undertook the treatment programme were fully abstinent at the time of interview. 60% were abstinent from all substances excluding alcohol in the same timeframe. Given the known high relapse rates to chronic drug misuse, these results are encouraging.

There was a considerable reduction in risk and social harm behaviours for those who were abstinent. For those who were not abstinent, only 6% of this group reported injecting behaviour. Abstinent clients reported higher levels of physical and psychological well-being.

The sample of clients in Keltoi reflects the gender balance for clients within the Irish services generally. Previous research indicates that women may be less likely to take up residential treatment services, possibly because of childcare issues. This was not the case for Keltoi's client group.

77% of the clients completed the treatment programme in its entirety. Such high rates of completion are associated with greater likelihood of abstinence. It demonstrates that clients felt the programme approach and components to be relevant. This also demonstrates the programme's value for money by appropriate utilisation of Keltoi's resources for clients.

These figures suggest also that as a result of the treatment programme at Keltoi, clients did not experience a negative impact on their drug-abuse and risk-taking behaviour.

9.1.2 Keltoi Outcomes Compared to Other Studies

Compared to a contemporaneous Irish study, treatment completion rates and follow-up rates for this study are high. The completion rate of the ROSIE study abstinent cohort was 66% compared to Keltoi's 77%, while the follow-up rate for the same ROSIE cohort was 68% compared to 85% in this study. Follow-up data collected from clients in this study was robust.

Abstinence rates achieved in this study were higher than those reported by the ROSIE abstinent cohort, the closest comparator group. In the ROSIE study, abstinence rates from all drugs (excluding alcohol) was 41% at 1-year. In the Keltoi study, the equivalent rate was 60% for clients at 1-3 years.

Given the reductions in drug use, social harm and risk behaviours, as well as the health and psychological benefits that are reported by this study, we can conclude, as other studies have demonstrated, that treatment achieving such results is cost-effective [2] [27] [30].

The Keltoi programme was carefully designed around existing evidence in the field. These key ingredients included prevention of drug use, the use of brief interventions and addressing the social context (e.g. preparation for community living) as well as the coping skills of the individual to prevent relapse to drug misuse, a less adaptive coping mechanism, and linking with community aftercare and aftercare from Keltoi counsellors for up to two years. The results achieved in this study by this cohort help to generate a useful hypothesis: "Are outcomes improved by the delivery of evidenced based interventions within a residential setting where the focus is on creating a real-life working context where clients can practice the living skills needed in the community, with community follow-up?"

9.2 Recommendations

This study has shown that little outcomes-based evaluation for treatment programmes exists in Ireland and elsewhere[1]. More importantly, this lack of both evaluation emphasis and outcome data limits the development of strategic health policies for this area and limits the development of health services research to maximise the efficiency and effectiveness of drug treatment services (especially rehabilitation services). It is clear that a health-outcomes focused monitoring-system should be introduced to all new and existing clients within the drug treatment system and that regular data on outcomes should be published by all services.

Concomitantly, further outcomes data on rehabilitation services could serve to raise awareness across the system on an efficient care-pathway to abstinent-focused services.

The data from this study indicates that there could be substantial benefits from the treatment model ingredients, as outlined. To provide the best evidence on what works with clients, it is necessary to undertake a controlled study to compare the Keltoi model with other treatment approaches. This should be done as a matter of priority, given the need to provide evidence-based care.

The evidence from this and numerous other studies shows that significant portions of clients in rehabilitation programmes do not achieve the desired outcomes. As much as there is an obligation to discover what worked for abstinent clients, it is equally necessary to understand what did not work with the non-abstinent group of clients. Similarly, there is an immediate need to understand how these clients could be re-engaged in treatment services. Perhaps the coping skills training they accessed or received was not robust enough [24].

Of particular concern is the mortality rate associated with this cohort: two deaths within the follow-up period from November 2002 to July 2006 -a period of just over 3.7 years. There have been reports of a further three deaths (two unconfirmed) between November 2002 and November 2006: five deaths over a four year period. Data on the causes of death for the majority of this group are unavailable but it is clear that the Keltoi cohort, like similar cohorts in substitute and other treatment modalities [56] [52], is not protected from the harms of drug abuse and its ancillary health risks. Data collection on such deaths needs to be tightened and more needs to be understood about the circumstances surrounding the deaths of those who leave drug-treatment and other related services.

10 Acknowledgements & Thanks

Thanks to the clients of Keltoi especially to those who participated in the evaluation; staff of Keltoi past and present especially Mr Jim Coakley; Health Services Executive; Rehabilitation and Integration Services - Northern Area Addiction Services; General Mortality Register; Dublin Coroners office; Dublin and Kildare County Coroners office; and the Drug Misuse Research Division of the Health Research Board.

List of Tables

1 Follow-up 7
2 Keltoi Admission Record 8
3 Completion by Gender 9
4 Completion & Abstinence 10
5 Completion & Abstinence Excluding Alcohol 10
6 Abstinence in Past 30 Days 10
7 Abstinence by Gender 11
8 Abstinence, Excluding Alcohol, in Past 30 Days 11
9 Abstinence, Excluding Alcohol & Cannabis, in Past 30 Days 11
10 Crime Committed in Past 30 Days -All Clients 12
11 Crime Committed in Past 30 Days -Abstinent Clients 12
12 Crime Committed in Past 30 Days -Clients Abstinent Excluding Alcohol 12
13 Crime Committed in Past 30 Days by Gender 13
14 Physical Health Scores 15
15 Physical Health Scores 16
16 Physical Health Scores by Gender 16
17 Psychological Health Scores 17
18 Psychological Health Scores 17
19 Psychological Health Scores by Gender 18
20 In Contact with Services Accessed Since Keltoi 18
21 Sex Without a Condom 19
22 Social & Personal Contact 20
23 Partner Contact Days 20
24 Social & Personal Contact 21
25 Partner Contact Days 21
26 Partner Contact Days by Gender 21
27 Days Employment 22
28 Days Employment 23
29 Days Employment by Gender 23
30 Days Formal Unemployment by Gender 24
31 Longitudinal Cohort Outcome Studies 27

Referral Procedures

For best practice and to ensure that the prospective client makes an informed choice, the Keltoi team strongly recommends that the referring agent visit Keltoi in order to understand fully this unique programme. The referring agent, when visiting their client, must be aware of the transparency of all meeting and documentation, and most importantly, the partnership with the residential staff in arranging a practical and workable discharge.

Keltoi is unable to provide a holding period for clients who are awaiting accommodation, nor is it able to facilitate referrals where mental health is the main problem. However, residents with mental health problems who are in remission or stabilised will be accepted. Admission must be voluntary and the resident drug free, which includes being off methadone. This does not include those on a psychotropic script, however, this will need to be negotiated with the manager. Referrals made from in-patient facilities may transfer directly to Keltoi upon completion of detoxification and assessments.

Clients, if they request, can be referred from drug-treatment clinics first of all for detoxification, and from there to Keltoi. Clients can also be referred by GPs, community drug teams, the probation service, or they can even self-refer once they are verifiably drug-free. Referrals made from out-patient facilities e.g. community based programmes, must be drug free for two to six weeks depending on the individual case and the assessment of the team. Each referral is individually viewed and Keltoi staff will willingly work with referrers and clients to establish an admission plan. A more detailed copy of the referral procedures and polices for admission and stay at Keltoi are available upon request.

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