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A process and outcome evaluation of the Under the Limit (UTL) therapeutic drink driving program for recidivist and high range offenders

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1. Executive summary

Drink driving is a major public health issue and this report examines the experiences of convicted offenders who have participated in an established drink driving rehabilitation program "Under the Limit" (UTL). It involved a survey of the experiences of course completers at least three months after they had finished the 11 week course. This study was particularly concerned with whether the program, which is designed to develop skills to avoid combining drinking and driving, had any impact on the participants' levels of alcohol consumption and life style.

The response rate was very low because initially it was difficult to recruit participants who gave consent to be followed up and subsequently to locate and survey those who had consented to be involved. The findings are based on the responses of 30 participants (response rate: 20%) with more females and more persons who were aged over fifty years than the population of offenders who complete the UTL program.

The respondents reported that their attendance at the program had led to reductions in both their drinking and their drink driving. This reduction in overall alcohol consumption is interesting and informative. The majority reported decreasing their consumption and demonstrated high knowledge of the effects of alcohol on the body. The majority also indicated that the course and the associated court appearance and licence suspension had led to a major change in their drink driving. The research also indicated that knowledge of standard drinks and different alcohol types needed further attention in the UTL program.

There were a number of important limitations of the study primarily related to the low level of recruitment and its selectivity. The findings were strong and important however and it is recommended that further research is undertaken.

2. Background

Drink driving is a major public health issue and is involved in over one fifth of the national road toll. While the ongoing use of random breath testing (RBT) and the high profile given to blood alcohol content (BAC) levels have led to a reduction in drink driving, there is still a large number of offenders who are convicted each year. The use of educational and therapeutic programs has been on the increase, with many magistrates tending to refer to programs rather than see offenders incarcerated. Ideally, it is preferable to see offenders rehabilitated and change their behaviours to stop reoffending.

A large proportion of drink driving offenders have a background of heavy and risky alcohol use or dependence, particularly those who are considered to be 'hard core' recidivist drink drivers. Examination of the international literature on drink driving rehabilitation programs indicates that there are three models used to address the problem. The first involves concentrating almost exclusively on changing or treating the offender's alcohol consumption. This is the model used almost universally in North America. Most English, European and Australian approaches explicitly focus on changing the offender's drink driving problem as such. The NSW Sober Driving Program (1) is an example of this approach and it was also the model used in the original format of the UTL

program. More recently, some programs have aimed to cover both issues. That is firstly, to help participants understand the problems associated with drink driving and to assist them to develop strategies to avoid future drinking and driving. Secondly, to reduce alcohol use and move clients to recognition of the problem level of their alcohol consumption and its impact on their life style including driving. This is the model being used in the revised UTL program being considered in this report and tends to characterise the majority of the programs used in Victoria.

The two most comprehensive evaluation studies have been conducted in the USA (2, 3) and have found that the alcohol use change programs are effective but very long (36 months), intensive and also very expensive for the State provider. The main aim of Australian programs, particularly the one being evaluated in the current study, is separating drinking from driving, which could be seen as harm minimisation for drink driving, and as only secondarily concerned with changing alcohol use as such. In fact the large NSW program "Sober Driving" (1) specifically avoids any focus on a reduction in alcohol use.

Several reviews of drink driving programs have examined the size of the impact on drink driving recidivism and alcohol-related crashes. A meta-analysis conducted by Wells-Parker and others (2) found that participation in a drink driving rehabilitation program resulted in an 8 to 9% reduction in drink driving recidivism. Programs that addressed both overall drinking behaviour, as well as drink driving behaviour were found to be more effective. Research in California found that licensed drivers convicted of Driving Under the Influence (DUI) were less likely to reoffend after completing a treatment program when compared to those who experience a "suspension only" penalty (3). A review of the Sober Driver Program (NSW), found that recidivism rates were significantly lower for offenders who participated in the program (1, 4).

The aim of the present study is to determine whether a therapeutic drink driving program (namely UTL) can have the separate outcome of reducing drinking by participants. This could have implications for policy regarding rehabilitation programs for drink driving where the reduction of drinking is not the main aim of the program, but rather an important secondary aim or simply an unexpected outcome.

2.1. UTL drink driving program

The UTL drink driving rehabilitation program has been available through Queensland courts as a sentencing option since 1993. The program was developed by a research team headed by Professor Mary Sheehan from the Centre for Accident Research and Road Safety – Queensland (CARRS-Q). It consists of 11 lessons (each 1½ hours) and is delivered mainly through the TAFE system, costing around $750 for fees in the program (payable by the offender prior to commencement of the program). Drink driving offenders may be offered the UTL program by the magistrate in lieu of a fine, and if they opt to do the program, they are put on probation under supervision of a Community Corrections Officer. The first version of the program was based on a major program of research conducted in rural Queensland and particularly concerned with content, relevancy and educational process issues (5). It was initially designed to provide a service to rural and remote people who were disadvantaged in terms of alternative services.

After considerable developmental research the first version of the program focussed on the separation of drinking and driving as an explicit goal. This was based on findings at the time that

there were very high levels of resistance by offenders to recognise or change drinking behaviours (5). Since that time there has been a major recognition by the community and by drink drivers that they are engaged in dysfunctional drinking behaviour and that management of their drinking is a high priority. In response to this change in understanding, in 2006 the Centre began a major re-write of the program which now maintains an explicit focus on drink driving but also includes components that draw on the most recent alcohol treatment literature. In particular it includes sessions that aim to increase motivation to reduce drinking, use of the Alcohol Use and Disorder Identification Test (AUDIT) (6) as a personal screening tool and changes to the weekly diary and review sessions. The program is conducted in one and a half hour sessions per week over 11 weeks by specially trained and selected facilitators. Sessions are held in the local TAFE or Community Corrections Centre. The content of the program is summarised in the following Table 1.

Table 1. UTL Course Outline

Week	Content
1	Orientation; activities; gathering baseline data.
2	Effectiveness of UTL program; consequences of own drink driving; why some personal strategies fail.
3	The effects of alcohol on driving.
4	Drinking and driving links; the standard drink; UTL drink tracker.
5	Legal BAC levels; effects of alcohol; consumption risks.
6	Lifestyle and lower alcohol consumption.
7	Separating drinking from driving; alcohol ignition interlocks.
8	Stress factors; rehabilitation progress.
9	Personal stress factors; lifestyle; communication.
10	Developing personal drink driving reduction strategies.
11	Review; successes; future strategies.

As part of the revised program the issue of unsafe licit and illicit drug use in the context of driving is covered. In addition to the focus group activities in the final session, participants are strongly encouraged to consider accessing local community Alcoholics Anonymous (AA) groups through the community helpline. Community Corrections Officers who are associated with the participants through probation and parole regulations are also encouraged to refer participants to alcohol management programs such as AA.

The extensive literature on drink driving recidivism and informal feedback through the UTL program from the State Coordinator and numerous facilitators has indicated that excessive alcohol consumption is a primary problem for many offenders. The program is particularly concerned with separating driving and drinking with alternatives to driving actively reinforced. However, the issue of poorly managed alcohol consumption is also targeted from both a cognitive behavioural counselling approach and a health perspective. A variety of approaches and social strategies are introduced and processed to help the participants reduce their alcohol consumption. A number of previous follow up studies of the impact of the program have raised the possibility that the program is not immediately and directly effective but that the changes observed are consistent with the “stages of change” conceptualisation. Prochaska & DiClemente (11) have proposed that persons moving to

change and reduce their alcohol consumption move through clearly discernible stages of change in their approach to the problem. The stages are "pre-contemplation"; contemplation"; and "action" and refer to the individual's commitment to moving into a therapeutic treatment or personal change initiative. It is also possible that the stages of change conceptualisation may be reflected in participants' responses to changing their involvement in drink driving quite apart from their drinking behaviours.

The UTL program is an important initiative with state wide coverage providing service in urban, rural and remote communities. Alcohol dependency is an endemic problem and drink driving recidivism levels are high. Our own examination of the re-offence rates of Queensland drink driving offenders who did not complete the program is given below in Table 2 (6). The data indicate that offenders living in remote regions are 20% more likely to re-offend than metropolitan offenders. An examination of the offence rates of the full state sample comparing levels of BAC indicates that those with higher BACs are 29% more likely to re-offend and that those with at least one previous offence/s recorded are 65% more likely to offend again than those for whom the index offence is their first conviction.

Table 2. Difference by category of 5-year offence rates among Queensland drink driving offenders, 2001 -2006

Category	Offence Rates
Remote: metropolitan and regional	+ 20%
BAC at index offence ≥ 0.15 mg/L: BAC <0.15 mg/L	+ 29%
At least 1 prior drink driving offence: First drink driving offence	+ 65%

The program directly and overtly targets the key issue of drink driving by high risk multiple offenders with a particular focus on separating drinking and driving. The current research aimed to determine whether the re-written UTL program with its added focus on reducing drinking levels has the potential to move persons with alcohol dependency into a treatment mode that would otherwise not occur without the stimulus of court supported referral to rehabilitation.

2.2. Outcome effectiveness of the UTL program

Previous evaluations have examined the effectiveness of UTL. The UTL program has been shown to have a very high level of outreach, and currently approximately 480 offenders complete the program each year. It was evaluated using Transport and Police records to 1997, and found to be significantly effective in reducing drink driving re-offending with the serious multiple recidivist group. A more recent evaluation, undertaken in parallel with this project, replicated these findings and found significantly reduced drink driving re-offence rates for multiple offenders completing UTL compared with a Queensland comparison sample (7).

3. Overview of project

The aim of this study was to examine whether the UTL program reduced the level of alcohol consumption either directly as a result of participation in the UTL drink driving program or through increased use of community alcohol programs by participants.

The research reported here involved:

(1) A self-report outcome evaluation to determine whether the self-reported levels of alcohol use after the course had changed from the initial alcohol use reported by offenders;

(2) A process evaluation was proposed in the initial application. However, a low response rate from program participants and the intensive follow up required to try to obtain a viable sample and subsequent skewed sampling meant that this follow up research with facilitators was not feasible.

4. Methodology

4.1. Participants

The participants for the study were drink-driving offenders who had completed the UTL program. Typically these are recidivist offenders or those at high range BAC or high risk at the time of apprehension. A very small number of first time offenders are referred to the program and it is our experience that these persons probably have other very serious offences leading to the magistrate's referral.

4.2. Procedure

During the UTL program, there are two opportunities where facilitators can ask participants' consent to be followed up at a later date. Taking place at week 3 and week 10 of the program, this allows facilitators to discuss the research involved in this project and obtain voluntary consent. Over a much extended period of time, 150 offenders agreed to be followed up in this study. They signed consent forms and were registered. The consent form also required participants' contact details. Three months after the program the follow up questionnaire was sent via the preferred method (postal address or email questionnaire). Due to poor response rates, ultimately four types of follow up were attempted: mail out; email; and multiple day and night telephone contacts. This finally led to 30 participants agreeing to take part. As is evident in the report, these persons are not representative of the overall group of participants. While the study originally intended to follow up three months after completion, the problems with recruitment meant that the time was at least three months but was probably considerably longer in many cases.

5. Results

This study examined the impact of UTL on drinking and drink-driving variables at least three months after course completion. A questionnaire was distributed to consenting program participants at their three months post completion time. This meant that the survey period ran from November 2010 to July 2011 and achieved a response rate of 20%.

5.1. Demographics

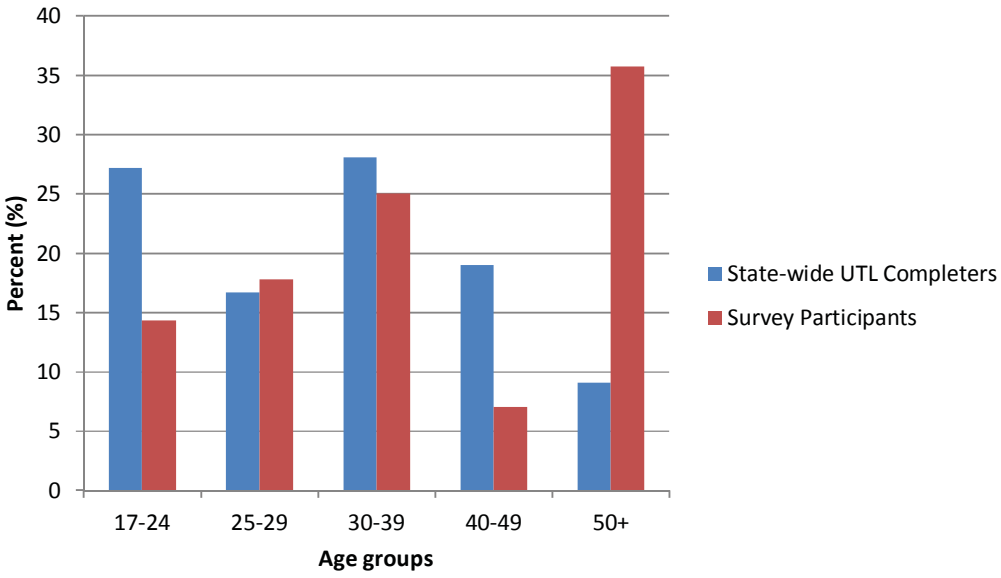
The majority of respondents (67.9%) were male which is consistent with the figures available for all participants in the program (86.6% male) (see Table 3).

Table 3. Age and gender of the sample, compared with UTL participants overall.

Demographics	Sample (n=28*)	All UTL Completers
Gender		
Male	67.9%	86.6%
Female	32.1%	13.4%
Age		
17-24	14.3%	27.2%
25-29	17.8%	16.7%
30-39	25.0%	28.1%
40-49	7.0%	19.0%
50+	35.7%	9.1%

Two thirds (67.7%) were 30 years of age or older which is considerably older than UTL course participants as a whole (5, 10). For a comparison of age distributions see Figure 1.

Figure 1. Comparison of age groups between respondents, and all persons who completed the UTL program.



Consistent with international findings and earlier studies of UTL participants, program respondents had a lower level of education, were predominantly employed in blue collar occupations, or unemployed and receiving Government assistance (see Table 4). A surprisingly high (74%) proportion reported having access to the internet.

Table 4. Additional demographical information of the sample

Demographics	**Percentage** (n=28)
Education	
Didn't complete primary	3.6%
Primary school	3.6%
Junior high (year 10)	42.9%
Senior high (year 12)	25.0%
Certificate/diploma	25.0%
Bachelor degree	0.0%
Postgraduate qualification	0.0%
Employment	
None	32.1%
Full time	39.3%
Part time	17.9%
Voluntary	7.1%
Other	3.6%
*Internet Access**	
Yes	74.0%
No	26.0%
ATSI status	
Neither	92.9%
Aboriginal	0.0%
Torres Strait Islander	0.0%
Both	0.0%
Not stated	7.1%
Occupation	
Managers	3.3%
Professionals	3.3%
Technicians and Trades Workers	13.3%
Community and Personal Service Workers	10.0%
Clerical and Administrative Workers	3.3%
Sales Workers	10.0%
Machinery Operators and Drivers	6.7%
Labourers	20.0%
Undefined	30.0%
*Receiving Government assistance***	
Not receiving any assistance	60.0%
One assistance program	33.3%
Two assistance programs	3.3%
Three assistance programs	3.3%

* n=23 for this question, as there were 7 non responses.
** n=30 for this question.

5.2. Alcohol and drinking

5.2.1. Knowledge about alcohol of UTL respondents

The UTL program provides participants with knowledge about the alcohol content of drinks, as well as information on how the body processes alcohol. While UTL participants could generally identify the quantity of beer, mixed drinks and spirits that represented a standard drink, there was a low level of knowledge about what constitutes a standard glass of wine (see Table 5). Their knowledge of safe drinking recommendations was better with the majority correctly identifying low risk levels for both males and females (see Table 6).

Table 5. Knowledge of standard drinks after completion of the UTL program.[1]

What represents a standard drink?	Per cent answering YES	Per cent answering NO	Per cent Unsure
Full Strength Can of Beer (375ml)*	33.3%	***67%***	0.0%
Pot of Light Beer (285ml)	***79%***	16.7%	4.2%
Nip of spirits (30ml)**	***100%***	0.0%	0.0%
Glass of wine (180ml)*	58.3%	***33%***	8.3%
Can of Mixed Drink with Spirits (375ml)***	18.2%	***82%***	0.0%

*Missing =6
** Missing =7
*** Missing =8

Table 6. Knowledge of safe drinking recommendations

Area of understanding	Proportion
Recommended Standard Drinks per week (Male)	
<5 (low risk)	20.8%
5-10 (low risk)	25.0%
11-28 (low risk)	37.5%
29-42 (risk)	16.7%
43+ (high risk)	0.0%
Recommended Standard Drinks per week (Female)	
<5 (low risk	18.2%
5-14 (low risk)	50.0%
15-28 (risky)	22.7%
29+ (high risk)	9.1%
*Alcohol-free days recommended each week**	
1 day	11.1%
2 days	33.3%
3 days	33.3%
4 days	7.4%
5 days	7.4%
6 days	7.4%

*Missing =3

[1] Correct response indicated in italics.

5.2.2. Overall alcohol use three months after completing UTL

Respondents completed the AUDIT-C (6). At the three month follow-up, 72.4% were scored at a hazardous drinking level. However, 23.3% of the sample reported no alcohol use at all after completion of the UTL program. As part of the program participants complete the AUDIT at the beginning and later sessions. These are scored by the participants in class but results on both occasions are completely private and are not available for comparison with the findings of the present study.

While no specific scale was developed to measure participants' "Readiness to Change" (7), the five items included in the survey reflected the four key stages of change: Pre-contemplation; Contemplation; Action; and Maintenance. The majority of participants have taken action to reduce their alcohol consumption including taking part in an alcohol counselling service, while 25% are considering reducing their consumption (see Table 7). Almost all participants are now thinking about their alcohol consumption and in a separate item, 87% of participants reported that they monitored the number of alcoholic drinks consumed each week.

Table 7. Change in actions since the program

Action	Per cent
Increase in alcohol consumption	0%
Alcohol consumption has stayed the same *(Pre-contemplation)*	8%
Thinking about taking steps to reduce alcohol consumption, but consumption has stayed the same *(Contemplation)*	25%
Taken action to reduce alcohol consumption, e.g. attended alcohol counselling service *(Action)*	55%

The questionnaire did not require information about specific actions taken so this is not available. An examination of the qualitative data provided only one specific reference to the type of counselling service approached.

> *"Do regular Alcoholics Anonymous meetings 3-4 weekly.*
>
> *Have a sponsor + do the 12 step program of total abstinence.*
>
> *Need more teaching on abstinence from drugs + alcohol.*
>
> *Most people in the course were alcoholics + should give up entirely like myself."*

However, most respondents did complete an open question at the end of the questionnaire that asked, "Could you tell me if you have a current plan to avoid drink driving and if so, what is it?". The responses are discussed in section 5.3.3 of this report.

5.2.3. Alcohol use in the week preceding the survey

Most participants did not drink daily during the last week, with only two (both males) reporting they drank every day. For those who reported some drinking in the past week, respondents were more likely to drink on Fridays or Saturdays (see Table 8).

Table 8. Self-reported alcohol use by day of week.

Day of week	Number reporting drinking
Monday	6 (20.0%)
Tuesday	8 (26.7%)
Wednesday	7 (23.3%)
Thursday	6 (20.0%)
Friday	12 (40.0%)
Saturday	12 (40.0%)
Sunday	8 (26.7%)

5.2.4. Impact of the UTL program on overall lifestyle

Participants were asked to evaluate the impact of the UTL program on several aspects of their life, not just drinking behaviour. While the UTL program in general had little impact on the development of new relationships, commencing new activities, and employment, participants did indicate that there were increases in other health behaviours (exercise and diet), as well as an increase in alcohol-free days (see Table 9).

Table 9. Identified improvements in other aspects of life since completing the UTL program.

Changes to life since course completion	Mean response (1=strongly disagree; 5=strongly agree)	Median
More low alcohol drinks	2.7	2.0
Employment opportunities improved	2.8	3.0
More friends	3.0	3.0
Started new activities	3.3	3.5
More exercise	3.4	3.0
Eating habits improved	3.5	3.5
More relaxed	3.5	3.5
Spend more time with family	3.6	3.0
Relationships improved	3.7	3.0
More alcohol-free days	4.2	5.0

5.2.5. Qualitative feedback on drinking behaviour

The majority of participants reported a reduction in alcohol use. Participants noted how the program provided information about how dangerous alcohol can be, the impact of alcohol, and also increased participants' awareness of their alcohol consumption.

> *"The program has made me realise how dangerous drinking really is"*
>
> *"I used to drink every day till I messed up my life and found it hard trying to get back to work or even getting around"*
>
> *"I have cut back – I am more aware of how much I drink"*

5.3. Drink driving knowledge and behaviour after completing UTL

5.3.1. Knowledge about alcohol and driving

The majority of respondents could correctly identify the number of standard drinks that could be consumed by an individual (average males and average females) before they would be over the legal BAC for someone with an Open Car Licence (see Table 10).

Table 10. Knowledge of safe drinking recommendations

Driving and alcohol consumption	Proportion
Awareness of the number of Standard Drinks that can be consumed in 1 hour before over BAC (average Male)	(n=28)
1 Standard Drink	10.7%
2 Standard Drinks	82.1%
3 Standard Drinks	7.1%
Awareness of the number of Standard Drinks that can be consumed in 1 hour before over BAC (average Female)	(n=28)
1 Standard Drink	89.3%
2 Standard Drinks	10.7%

The majority of UTL participants could correctly identify the only way to become sober was with time, and correctly dismissed other methods of sobering up (see Table 11).

Table 11. Knowledge of appropriate methods for sobering up.

What will make you sober up?	Per cent with correct response
Drinking milk (correct response is No)	100%
Drinking coffee (correct response is No)	100%
Vomiting (correct response is No)	96%
Time (correct response is Yes)	86%
Having a shower (correct response is No)	100%
Exercising (correct response is No)	89%

5.3.2. Drink-driving behaviour

The survey did not ask participants to detail their drink-driving behaviour of the last three months. However, participants were asked to document their drinking, and drink driving behaviour for the previous week. Only one person reported drink driving, on one day, in the previous week (this participant was not a daily drinker) (see Table 12).

Table 12. Self-reporting drinking and driving behaviour in the past week

Day of week	Number of those drinking reporting driving
Monday	0 of 6 (0.0%)
Tuesday	0 of 8 (0.0%)
Wednesday	0 of 7 (0.0%)
Thursday	0 of 6 (0.0%)
Friday	0 of 12 (0.0%)
Saturday	1 of 12 (8.3%)
Sunday	0 of 8 (0.0%)

Participants were also asked to provide details about their current plans to avoid drink-driving. Approximately 90% of the sample reported developing a plan to avoid drink-driving in the future. Planning ahead and reducing alcohol consumption were the two most frequently reported strategies (see Table 13). Strategies that were rarely used by participants included: nominating a support person, not drinking, and drinking but not driving.

Table 13. Strategies to reduce drink driving following completion of the UTL program

Strategies to avoid drink driving	Mean response (1=never; 5=regularly)	Median	Mode
Nominate support person	1.7	1	1
Drink, but don't drive	2.2	3	1
Don't drink	2.6	2	1
Drive, but don't drink	3.4	3	5
Don't drive	3.4	4	5
Say no to drink offer	3.5	3	5
Strategy plan	3.8	4	5
Plan ahead	3.9	5	5
Cut back on drinking	4.1	4	5

5.3.3. Qualitative feedback about planning to avoid drink driving in the future

Most respondents reported developing a plan to avoid drink driving in the future. Several identified planning to reduce (or completely abstain from) alcohol consumption in general, while others developed plans for alternative transportation.

"I plan to be wise about my drinking and feel free to say no ..."

"Plan ahead, public transport/taxi, leave car at home; either drinking or driving, never both"

"Well when I get back my licence, I won't be taking it for granted, so if planning a night out have more money for taxi, leave car at home ..."

"My plan is to avoid drink driving altogether. I probably do this once a month at the moment you know maybe a beer after work at a mate's place only the one heavy but that's it."

As a whole these responses were very informative and have been included in full in Appendix 3.

5.4. Perceptions about the UTL Course Components

Participants were asked about their perceptions of certain aspects of the UTL program. Mean scores demonstrate that on average participants found all aspects of the program at least "somewhat useful". The aspects that were considered most useful were information about strategies to reduce drink driving, information on keeping track of alcohol consumption, and the program facilitator (see Table 14).

Table 14. Participant rating of usefulness of course components

Course component	Mean response (1=useless; 5=useful)	Median	Mode
Probation officer	3.0	2.5	5
Learning about program effectiveness	3.3	4.5	5
The videos	3.7	4.0	4
Working in groups	3.9	4.0	5
Information about different strategies	4.3	5.0	5
Drink tracker	4.4	5.0	5
Program facilitator	4.4	5.0	5

5.4.1. Qualitative feedback about the UTL course

Many participants identified that their responses about alcohol consumption were different following completion of the course. Most reported decreasing their alcohol consumption. There were few comments about the program, but no comments were negative.

"Yes I have had to stop drinking altogether because I attempted to drive while I was drunk"

"Yes, I used to drink a heap more, now I value my licence more"

"Yes I have an alcohol problem and have given up completely. Total abstinence is the only choice"

"I've been sober for 6 months now"

"The program was ok, the program itself did not stop me from drink driving, the fines & no licence did"

6. Discussion

6.1. Were the outcomes as expected?

It was expected that the UTL program would result in a reduction in drinking and driving. These results are consistent with the large cohort evaluations of UTL that have been conducted over the years. It is also consistent with evaluation reports of the leading international and other Australian programs (1-4, 10-13). The reduction in the overall alcohol consumption of participants is interesting and informative. Not only did the majority of participants report decreasing their alcohol consumption, participants also demonstrated greater knowledge of the effects of alcohol on the body. There was also a reported movement by the majority of respondents towards contemplating action about their alcohol dependency.

The participants' poor retention of alcohol information is concerning. People need to make informed decisions. The findings of this study have led to the decision that the program should be more closely reviewed and if necessary some sections re-written. It is anticipated that this process will begin in the latter half of 2012.The recommendation from the Foundation for Alcohol Research and Education (FARE) that a pre and post-test questionnaire assessment of knowledge scores be included as part of the program is being actively considered.

6.2. What were the impacts of the study?

The study identified that attendance at drink driving rehabilitation programs by recidivist offenders has gains both for reducing drink driving but also drinking levels in a heavy drinking group. The findings are consistent with, and potentially extend, the recent introduction by the World Health Organization of the drink driving management measures of RBT and BAC=.05 as high priority strategies in alcohol control (14). The response rate and lack of representativeness of the sample means it is impossible to draw firm conclusions. However, in the context of outcome evaluations indicating significant and meaningful reduction in drink driving in offenders completing drink driving rehabilitation programs, the evidence strongly suggest that the behaviour change underlying this success is probably reduction in alcohol consumption and moves towards treatment and management of harmful levels of alcohol consumption. A more comprehensive study is required, but this study strongly supports further investigation of this issue and the role of drink driving rehabilitation in a community's approach to managing alcohol problems.

A more comprehensive study could build upon the content and process experiences of the current project. The effect documented here was very strong so that sample numbers could be relatively small. That is approximately 75 cases recruited to be representative of all UTL participants in both age and gender should provide sufficient power for tests of significance of change. The major modification would be in terms of the intensity of recruitment and retention of the sample. Participants would need to be offered a payment to participate and this would need to be paid for completion of both the pre- and post - questionnaire. The literacy levels evident in this study and the

fact that the questionnaires were probably not completed by those with lowest literacy levels indicate that a telephone or personal interview should be used at the second follow up stage. Two additional strategies recommended to improve the response rates include a group interview with volunteering participants at the last session of the program and the recording of family/friend associates who could be contacted to assist in locating participants who had moved address since the course was completed. The potential for follow up contact with some respondents using the internet may also be a possibility. The level of internet access recorded in the present study was surprisingly high. A content change that should also be included would relate to knowledge of, access to and use of other rehabilitation facilities on completion of the program.

6.3. Limitations

The major limitation of this study was the difficulty recruiting a sample. Every effort was made to recruit through the current program recruitment system with multiple follow up efforts, but this was unsuccessful and the method would need to be re-visited for any future study. The findings are of such import that a further study should be undertaken. Another major limitation related to the respondents reporting on their own previous behaviour and their perceptions of change. In a future study, pre-treatment measures should be taken that are then compared with post-treatment outcomes. This is a difficult task. We are advised by program facilitators that offenders are deeply suspicious of them and of any suggestion of research at the beginning of the program. It is only as they build group experiences and confidence that they are prepared to volunteer for research. A further possible limitation of the present study was the bias to older and female respondents. In these areas the sample was not representative of the treatment cohort. However, the impact of these differences is difficult to determine.

6.4. Did the project meet the needs expressed in the application form?

The project appears to have demonstrated that a drink driving intervention has the potential to influence overall alcohol consumption, and modify drink driving behaviours of recidivist offenders. It is strongly recommended that another study that takes account of the limitations of the present one be undertaken.

7. Outcomes of the research

The results of this study, conducted as a result of the grant provided by FARE have been presented at international conferences.

Sheehan, M. (2011). *The impact of completing a drink driving rehabilitation program on future drinking: the clients' perspective*. Paper presented at the International Council on Alcohol, Drugs & Traffic Safety (ICADTS) Symposium, September 8, Potsdam, Germany.

Sheehan, M. & Siskind, V. (2012). *Process and outcome challenges raised by mandatory drink driving rehabilitation*. Paper presented at the Transportation Research Board (TRB) 91st Annual Meeting, January 22-26, Washington D.C.

Early findings have also been presented to the UTL stakeholders meeting (senior executive members of Qld Transport, Qld Community Corrections Department, Qld Police, Qld Department of Justice and Magistrates) at the bi-annual meeting September 2011.

Findings of this research will also be published in a forthcoming edition of Safety Visions, a newsletter distributed by CARRS-Q.

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10. Appendices

Appendix 1. Questionnaire Items – Online Questionnaire for Facilitators

Appendix 2. Questionnaire categories – Offender Data

Appendix 3. UTL participants' descriptions of their current plan to avoid drink driving.

Appendix 1: Questionnaire Items – Online Questionnaire for Facilitators

Dear facilitator,

You are being asked to complete a brief evaluation of the Under the Limit (UTL) program for drink driving offenders. As you are aware, the program is being evaluated in terms of its outcome in the reduction of drinking for participants who took part. Of the participants who gave consent, a number were followed up and we would like to share some of these results with you as well as ask you for any input you may have into the general program process. We are asking if you could please take the time to complete the following online questionnaire and provide your opinion on results. All fields will provide ample space for comment and all comments will be taken into account. We appreciate your time.

Page break

The following are preliminary results of a questionnaire given to offenders who took part in the UTL therapeutic program for drink driving offenders.

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In general, do you think that the UTL program runs smoothly in the 11 weeks?

What improvements do you think could be made in terms of the content of the program?

What improvements do you think could be made in terms of the process?

Appendix 2: Questionnaire categories – Offender data

The following is a list of the general categories which were in the questionnaire sent to offenders. For specific questionnaire items, please contact the authors.

- *Demographics (gender, age, marital status, housing)*
- *Any perceived changes in the past 6 months in:*
    - *Income*
    - *Family activity*
    - *Employment status and/or training*
    - *General health*
    - *Drinking frequency and quantity*
- *Knowledge questions on alcohol and how the body processes alcohol, risks for drink driving, strategies for avoiding drink driving*
- *Experiences in applying the strategies and likelihood of applying them in the future*
- *Attitudes to drinking and drink driving*
- *Views on the effectiveness of the program, the content of the program, their facilitator and how it was presented to them*

Appendix 3: Comments provided by UTL Course participants regarding their plan to avoid drink driving.

Q8: Could you please tell me if you have a current plan to avoid drink driving, and if so, what is it? (This can be completed using dot points.)

"Well, when I get back my license I won't be taking it for granted. So:
If planning a night out have more money for taxi
Leave car at home
Plan for a driver that won't drink
Drive, but only take money for one drink."
(Female, 23 years)

"I plan to be wise about my drinking and feel free to say no wicth I do alot of the time to make my life more plesent for me and others around me."
(Male, 29 years)

"Don't know about dot points but my plan is to avoid drink driving all together. I probly do this once a month at the moment you know maybe a beer after work at a mates place only the one heavy but thats it."
(Male, 26 years)

"Simply don't drink & drive."
(Female, 52 years)

"Keeping busy."
(Gender and age not specified.)

"My plan is to do what will only work for me. To not drink at all. I'm very sensible when I'm sober so I bring the drink home. When I consume a certain amount I'm insane and I jump in my car. Not much choice if I want to stay out of trouble."
(Male, 69 years)

"No drink."
(Male, 51 years)

"NO. I have cut down alot. I only drink once a month now."
(Female, 20 years)

"Happiest I've every been, better."
(Female, 50 years)

"If you drink, don't drive."
(Male, 20 years)

"To avoid drink driving, I used a taxi, if am not at home, and I would not even take a car with me, or I can get a friend to drop me home when Im drunk, also I can sleep over my friends place. Or plays sports and get involved with many activities that involve no drinking."
(Male, 22 years)

"By planning ahead that I don't have any drinks when knowing I have to drive."
(Male, 65 years)

"Limit drinking before driving."
(Male, 52 years)

"I don't drink & drive."
(Female, 53 years)

"I'm still unliscenced so it's not a problem at present. In six months when I do obtain it I will hopefully be fully dry. I can't afford to drink any more with my home commitments and single income."
(Male, 35 years)

"Drive by necessity before 6pm. Drink after 6pm. If a social occasion is necessary I do not drive – planned in advance."
(Male, 49 years)

"Just don't do it where I go and I do have a few drinks I can stay the night any time."
(Gender and age not specified.)

"Abstain from drinking alcohol completely."
(Male, 33 years)

"Soft drinks water more helthy."
(Male, 28 years)

"Drink but use public transport at all times. Never have a single drink and take car."
(Male, 31 years)

*" * plan ahead*
** don't have any drinks if driving*
**drink less during week"*
(Female, 29 years)

*" * stay at friends house if drinking*
** nominated driver if drinking*
** use personal breathalyser to check self if driving after drinks*
** try and drink later in the evening"*
(Male, 36 years)

Dont drink at all.
(Female, 39 years)

"Yes I got push bike and go riding more and surf ski more and fish more."
(Male, 43 years)

" * Plan ahead.
* Public transport/taxi.
* Leave car at home.
* Either drinking or driving, never both."
(Female, 32 years)

*" * Avoid senseless past habits*
** Alcohol + medication = neither assist driving*
** Control consumption = say "no"."*
(Male, 61 years)

*" * Drink only after coming home from work*
** Drink at weekends*
** Have week days free of drink."*
(Male, 59 years)

"Do regular Alcoholic Anonamous meeting 3-4 weekly
have a sponsor
+ do the 12 step program
Total abstaince."
(Female, 34 years)