

An Evaluation of Holyoake's Group Programs



Robert Tait

**National Drug
Research Institute,
Curtin University**

July 2016



Preventing harmful drug use in Australia

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Summary

Aim

The primary aim of the study was to assess the effectiveness of the group programs provided by Holyoake for clients with alcohol and other drug (AoD) problems and family members affected by another person's AoD consumption.

Method

All clients attending Holyoake's Victoria Park, Western Australia site between January 2015 and October 2015 were eligible to be enrolled in the study. Clients were enrolled by Holyoake staff but follow-up information at three and six months was collected by Curtin researchers who were not involved in treatment. The outcomes of interest were psychological distress (Kessler 10), wellbeing, social support, self-esteem and days out of role. The AoD clients also completed the alcohol smoking, and substance involvement screening test (ASSIST) and reported their seven day alcohol consumption.

Results

Two hundred and twenty people were recruited from five programs (Men's n = 83, Women's n = 34, Young Adults n = 18, Parents n = 41, Relationships in Focus n = 43). Overall 55% of participants were male and the age range was 18-81 years (median 38 years). Clients received a mix of individual (mean 2.5) and group (mean 3.5) sessions with a few receiving couple sessions (mean 0.2).

At baseline the mean K-10 score was 24.8 (threshold for "moderate" psychological distress = 25), the wellbeing score of 58.5 was below the national average (~73-76), 30% of participants were socially isolated, and the average self-esteem score of 3.1 was below the norm of 3.8. The mean days out of role in the AoD programs was higher (3.9-4.4 days) than typical values (3.2 days out of previous 30 days). Among AoD clients, the mean number of drinks in the last week was 23 and their ASSIST score was 64.

We re-interviewed 71 (32%) participants at three months and 123 (56%) at six months (overall 60%). By six month psychological distress had been reduced with only the Women's program exceeded the "mild" distress threshold of 20. Wellbeing improved with only those in the Men's and Women's falling below the Australian norms. Social support increased with only 21 (18%) participants classified as isolated, although a decline in support was noted in the Parents program. All groups reported increased self-esteem at six months although the mean (3.6) was still below normative values. In general, days out of role either completely or partially, declined over six months as did those due to AoD use. However, those in the Parents program and the Relationship program reported more days out of role due to AoD use by their family member.

There were clinically significant declines in alcohol use (≥ 14 standard drinks) for the Men's and Young Adults programs, but with no reduction for the Women's program. The overall measure of substance use (ASSIST) showed improvements for all the programs, with a 34% reduction in ASSIST scores. Finally there was a high level of satisfaction (83% were satisfied or completely satisfied) with Holyoake's help in achieving their goals.

An Evaluation of Holyoake's Group Programs

Conclusions

On a range of psychosocial measures, and for AoD clients, substance use measures too, there were general improvements in the outcomes reported by participants in all the programs. Participants also reported high levels of satisfaction and provided generally supportive comments on Holyoake's staff and programs. The most important caveat to these findings was the lack of a control group to provide a reference for the changes that occur without intervention.

Contents

Summary.....	3
Aim	3
Method	3
Results	3
Conclusions	4
Contents.....	5
Table of Figures	6
Table of Tables	6
1.0 Introduction	7
2.0 Method	8
2.1 Participants	8
2.2 Methods.....	8
2.3 Interventions	8
2.4 Measures.....	8
2.5 Analyses	9
3.0 Results.....	10
3.1 Demographics of the Study Cohort	10
3.2 Baseline Characteristics	11
3.2.1 Substance use.....	11
3.2.2 Primary drug of concern	14
3.2.3 Psychosocial characteristics	14
3.2.4 Functionality.....	15
3.3 Follow-up	17
3.3.1 Participation	17
3.3.2 Substance use.....	17
3.3.3 Psychosocial outcomes	19
3.3.4 Functionality.....	22
3.4 Satisfaction in Achieving Goals	24
3.4.1 Predictors of satisfaction	24
3.5 Predictors of Treatment Outcomes.....	24
3.6 Qualitative Feedback	24
4.0 Discussion	26

An Evaluation of Holyoake's Group Programs

4.1 Substance Use Outcomes	26
4.2 Psychosocial Outcomes	26
4.3 Limitations.....	28
4.4 Future Directions.....	28
5.0 References	29
Appendix 1a: The Holyoake Model (up to August 2015) & Appendix 1b: The Holyoake Approach (August 2015 onwards)	31

Table of Figures

Figure 1: ASSIST risk categories (moderate or high) for individual drugs at baseline	13
Figure 2: Primary drugs of concern.....	14
Figure 3A: Days either partially or completely out of role.....	15
Figure 3B: Days either partially or completely out of role due to alcohol or other drug use.	16
Figure 4: Recent substance use - last 3 months ASSIST score (estimated marginal means) ..	17
Figure 5: ASSIST risk categories (moderate or high) for individual drugs at 6 months	18
Figure 6: Alcohol use in the last 7 days (estimated marginal means)	19
Figure 7: Kessler 10 scores (estimated marginal means).....	20
Figure 8: Personal Wellbeing Index (estimated marginal means).....	20
Figure 9: Lubben Social Networks Score (estimated marginal means)	21
Figure 10: Self-esteem transformed to 5 point scale (estimated marginal means).....	21
Figure 11A: Days completely or partially out of role (estimated marginal means)	22
Figure 11B: Days completely or partly out of role due to alcohol or other drug use (estimated marginal means)	23
Figure 12: Satisfaction in achieving goals.....	24

Table of Tables

Table 1: Participant characteristics and treatment	11
Table 2: Weekly alcohol use and ASSIST score	12
Table 3: Mean scores on the four psychosocial measures sub-divided by program.	14
Table 4: Number interviewed at three and six month or at either interview	17

1.0 Introduction

In Australia, there is widespread use of alcohol and other drugs (AoD). It is estimated that four-fifths of those aged 14 years or older are current drinkers with 18% drinking more than the long-term guideline (two standard drinks per day) and more than 25% exceeding the single occasion guideline (four standard drinks) on at least a monthly basis (Australian Institute of Health and Welfare, 2014; National Health and Medical Research Council, 2009). More severe alcohol use problems, such as very risky drinking (≥ 11 drinks on an occasion) in the last month occurs in about 7% of the population (Australian Institute of Health and Welfare, 2014) and about 1.4% reach the criteria for current alcohol dependence (Teesson et al., 2010). Illicit drug use in the previous year is reported by 15% of those aged 14 or older, with cannabis the most prevalent illicit drug (10.2%) followed by 'ecstasy' (2.6%) and meth/amphetamine (2.1%) (Australian Institute of Health and Welfare, 2014). In addition, the misuse of pharmaceuticals (4.7%) is of concern (Australian Institute of Health and Welfare, 2014).

The use of AoD results in considerable demand for services, with nearly 120,000 clients receiving more than 180,000 treatment episodes in 2013/14 (Australian Institute of Health and Welfare, 2015). The most often cited principal drug of concern was alcohol (40%), especially among older clients, but among those aged 10-29 years, cannabis use gave rise to most treatment episodes (overall 24%). However, the patterns of illicit drug use are changing: between 2009/10 and 2013/14, amphetamine use has increasingly been cited, up from 7% to 17% of episodes over this period (Australian Institute of Health and Welfare, 2015).

Substance use also impacts on people other than the individual consumer, however only 7,000 people received treatment episodes for the drug use of others, compared with 113,000 who received treatment for their own use (with about 1.1% receiving services for both their own and another person's use) (Australian Institute of Health and Welfare, 2015). Nevertheless, there is increasing interest in this area with recognition of the costs that are borne, particularly by family members, but also wider society.

For alcohol consumption, these harms have been estimated to total about \$14 billion in tangible costs, with a further \$6 billion in intangible costs to people other than the consumer (Laslett et al., 2010). Successfully treating the AoD using person can substantially improve the quality of life of a resident partner or child. Attempts to quantify this benefit suggest that the improved quality of life is between one half and equal to the benefits experienced by the user themselves (Mortimer and Segal, 2006; Salize et al., 2013). While providing services to AoD clients can thus indirectly benefit family members, providing services directly to affected family members also can help them to address the challenges of living with a substance using person.

To date there have been few major treatment outcome studies in Australia (Lubman et al., 2014). Both the Australia Treatment Outcome Study (ATOS) (Teesson et al., 2008) and the Methamphetamine Treatment Evaluation Study (MATES) (McKetin et al., 2012) focused on a single category of illicit drug – respectively heroin (opioids) and methamphetamine. The more recent Patient Pathway study covered the range of clients attending alcohol and other drug

treatment services including long-term residential, acute withdrawal and outpatient treatment services (Lubman et al., 2014).

All the programs offered by Holyoake are based on counselling although referrals can be provided to other services for withdrawal management. The aim of the study was to evaluate the effectiveness across a range of outcomes for the group treatment programs provided by Holyoake, six months after either AoD clients or family members entered into the program. Three of the programs target AoD using clients, while the Parents program and Relationships in Focus programs are for those impacted or concerned by the AoD use of a family member.

2.0 Method

2.1 Participants

Clients, both new to the service provider and those starting a new episode of treatment, were eligible for the study. There were no age or gender restrictions with recruitment running from January 2015 to October 2015. During this period there were 509 new program attendees at the Victoria Park site, but no data were available on the number of people entering these programs (i.e. attendees could finish one program and subsequently commence a second program within the timeframe.) Therefore, it is not possible to precisely calculate the proportion of clients who were recruited to the evaluation, but with 220 recruited, this equates to approximately 43%.

2.2 Methods

The research study was approved by the Human Research Ethics committee at Curtin University. The participants were provided with an information sheet and consent form at their initial appointment. This included permission for their contact details and descriptive data to be provided to the research team. Pencil and paper surveys (details below) were completed at the first assessment. Follow-up telephone interviews were conducted by the research team at three and six months post entry into treatment. A minimum of three attempts were made to contact participants at each occasion.

2.3 Interventions

The study investigated the outcomes associated with the five group Holyoake treatment programs: Men's, Women's, Young Adults, Parents, and Relationships in Focus. All of these offer a combination of individual and group sessions with the option of couple sessions. The philosophical principles, therapeutic processes and theoretical underpinnings of the treatment draw on a broad range of practices, as illustrated in Appendix 1a. In August 2015, Holyoake implemented a redesigned treatment philosophy and approach as shown in Appendix 1b.

2.4 Measures

All participants completed measures of psychological distress, well-being, social networks, self-esteem and days out of role. The Kessler K-10 was used as an index of global psychological distress (Kessler et al., 2002). This has been widely used in epidemiological studies and has a range of 10-50 (20-24 = mild, 25-29 = moderate, 30-50 = severe distress) (AMHOCH, 2005). Subjective wellbeing was assessed with the Personal Wellbeing Index which was developed

and validated in Australia (International Wellbeing Group, 2013). Scores range from 0-70 and are converted to percentages. In Australia, the normal range is 73.4-76.4 (International Wellbeing Group, 2013). The Lubben social network scale (LSNS-6) was used to evaluate social support and social networks (Lubben et al., 2006): scores of <12 show social isolation. This measure was originally developed and validated with older adults, but has also been used in substance using populations (Cepeda et al., 2013). Self-esteem was assessed using the single item self-esteem measure which is available as a five or seven point scale: the later correlating 0.73 with the widely used Rosenberg self-esteem scale (Robins et al., 2001; Rosenberg, 1989). On the 5 point version of the scale the mean score is 3.8 (SD 0.7) (Robins et al., 2001). The study assessed days fully or partially out of role in the previous 30 days with Kessler's measure of functionality and referenced alcohol or drug use (Kessler and Frank, 1997). Those who were in the Parents program or the Relationships program, were asked about days fully or partially out of role due to AoD use by their family member. (It should be noted that the survey asks about days out of role and then asks how many of these days were due to AoD use – thus the latter is a subset of the former. The same applies to days partially out of role). This measure has previously been used in alcohol and other drug users (mean days out of role 3.2 (SD 5.7) and partially out of role 3.6 (SD 5.3) in the previous 30 days (Tait et al., 2014)).

For the AoD clients only, we also assessed their substance use with the alcohol, smoking and substance involvement screening test (ASSIST) (Humeniuk et al., 2008). In clinical use, the scores for individual types of substance (maximum 42) are used as a screening tool and as part of the subsequent treatment decision making process. The ASSIST allows a risk level for each drug to be categorised as low, moderate or high risk (high risk equates to probable dependence), which is used to assign moderate risk clients to receive a brief intervention and high risk clients to receive a more intensive treatment (Humeniuk et al., 2008). In this study, we also report the lifetime score (maximum 414 across all types of drug) and in particular the questions referencing use in the last three months of substance use (maximum score of 384 across all drug classes). We also asked about the quantity of alcohol consumed in the last seven days in terms of standard Australian drinks (10g alcohol).

2.5 Analyses

The baseline data are primarily presented as descriptive statistics with means and standard deviations (SD) with between group differences assessed with one way ANOVA or the Kruskal Wallis Test depending on the type of data. The follow-up data were analysed with generalized estimating equations given the correlated data structure using SPSS version 22. The Men's program and baseline values were used as the reference group for between group comparisons. Predictors of treatment satisfaction were evaluated with linear regression. The model contained demographics (age, gender) and treatment (number of individual sessions, number of group sessions, number of couple sessions and prior treatment at Holyoake) variables. The same approach was used to examine predictors of "successful" outcomes between baseline and six months. These were defined in terms of changes in K-10 scores and changes in last 3 month ASSIST scores.

To allow easy comparison with the more widely used 5 point self-esteem scale, scores on the 7 point scale were transformed to 5 point equivalents ($0.6666 * \text{self-esteem} + 0.3333$).

3.0 Results

3.1 Demographics of the Study Cohort

We recruited 220 people with 120 (55%) being male. Ages ranged from 18-81 years with the median being 38 years. Table 1 shows the demographic characteristics of those enrolled in the study, subdivided by program. Also shown are the types of treatment sessions that they attended. The mean number of treatment sessions was 6.3. Although Young Adults attended fewer than half the number of sessions compared with those in the Parent program, overall there were no significant between group differences in the number of session ($F_{2,215} = 2.2$, $p = .07$). The number of sessions was highly skewed with a median of 4 (inter-quartile range 1-10) sessions (mean 6.3, SD 6.3). There were also differences between the groups in the proportion who completed 12 or more sessions. This ranged from 6% in the Young Adults through to 39% in the Parents program – overall 21% completed at least 12 sessions. In subsequent, multivariate analysis, values of 1-12 were continuous with the remaining 40 (18%) truncated as 13 or more sessions.

In terms of treatment termination (rather than simply the number of sessions completed), with the exception of those in the Parents program, few participants completed a full program (overall 19%). A further 43% finished their treatment by mutual agreement. The third largest category was termination by clients, where the Men's, Women's and Young Adult programs had higher percentages (35%-61%) than the Parents or Relationships programs (21%-24%).

An Evaluation of Holyoake's Group Programs

Table 1: Participant characteristics and treatment

Program	Men's	Women's	Young Adults	Parents	Relationships	Overall
N	83	34	18	41	43	220
Age mean (SD)	36.7 (8.5)	38.5 (11.3)	21.2 (1.8)	57.2 (9.3)	41.6 (14.4)	40.5 (13.9)
Individual sessions mean (SD)	2.6 (3.1)	3.6 (3.3)	2.0 (1.5)	1.9 (2.1)	2.5 (2.3)	2.5 (2.8)
Group sessions mean (SD)	3.0 (4.2)	3.0 (3.9)	1.9 (2.8)	5.9 (6.8)	3.3 (5.5)	3.5 (5.0)
Couple sessions mean (SD)	0.0 (0.2)	0.0 (0.0)	0.1 (0.3)	0.8 (1.6)	0.1 (0.8)	0.2 (0.8)
Total sessions mean (SD)	5.6 (5.7)	6.6 (5.8)	4.1 (3.5)	8.6 (8.2)	6.0 (6.4)	6.3 (6.3)
Termination						
Completed	12 (14)	5 (15)	3 (17)	14 (34)	7 (16)	41 (19)
Mutual agreement	38 (45)	12 (35)	4 (22)	15 (37)	25 (58)	94 (43)
By staff	2 (2)	0 (0)	0 (0)	0 (0)	0 (0)	2 (1)
By client	29 (35)	14 (41)	11 (61)	10 (24)	9 (21)	73 (33)
Still active	3 (6)	3 (9)	0 (0)	2 (5)	2 (5)	10 (5)

3.2 Baseline Characteristics

3.2.1 Substance use

As shown in Table 2, the self-reported level of alcohol consumption was similar across the three groups ($F 0.843 (2,166)$, $p = 0.433$) but it should be noted that a greater proportion of those in the Women's program than the Men's or Young Adults reported alcohol as their primary drug of concern (59% v 42% v 6%). The groups did differ in terms of lifetime substance use ($F 7.875 (2,132)$, $p < .001$) and last three-month substance use ($F 6.854 (2,131)$, $p < 0.001$), with the Young Adults having higher scores than either of the other groups on the ASSIST measures.

An Evaluation of Holyoake's Group Programs

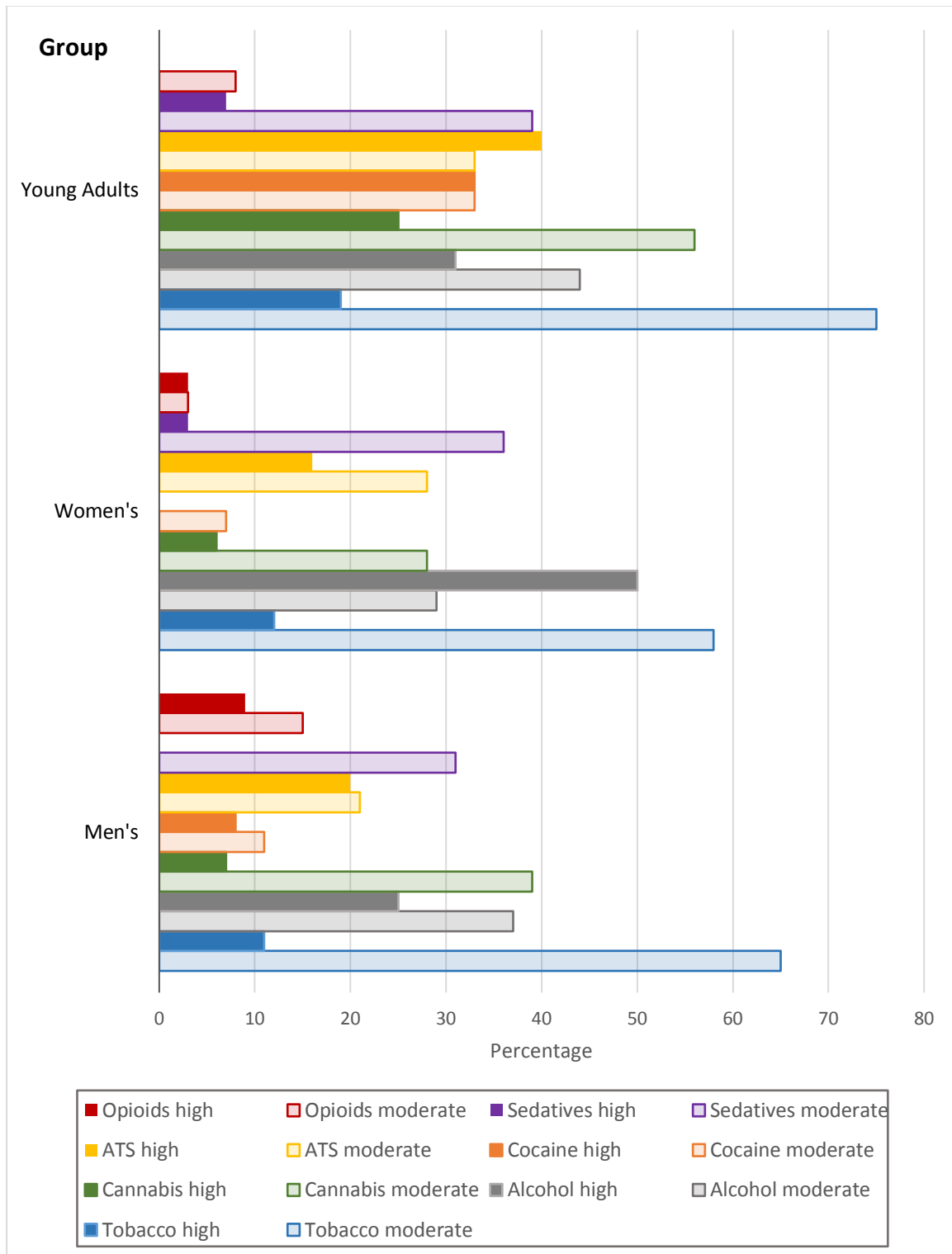
Table 2: Weekly alcohol use and ASSIST score

Program	Alcohol (standard drinks) Mean (SD)	ASSIST (lifetime) Mean (SD)	ASSIST (last 3 months) Mean (SD)
Men's	20.4 (29.7)	75.2 (40.2)	58.6 (36.0)
Women's	28.6 (32.7)	75.0 (35.3)	59.2 (32.4)
Young Adults	25.5 (26.8)	118.7 (61.5)	100.1 (56.3)
Overall	23.2 (30.1)	80.6 (44.4)	64.0 (40.4)

Figure 1 shows the ASSIST risk categories for the three programs. Notable differences between the groups are apparent. For example, in the Women's program, alcohol was the drug with the greatest proportion categorised as high risk (50%), whereas for the Young Adults, both amphetamine type stimulants (40%) and cocaine (33%) exceeded alcohol (31%). For those in the Men's program, the greatest proportion of high risk use was for alcohol (25%), then amphetamine type stimulants (19%) and opioids (9%).

An Evaluation of Holyoake's Group Programs

Figure 1: ASSIST risk categories (moderate or high) for individual drugs at baseline



ATS = amphetamine type stimulants.

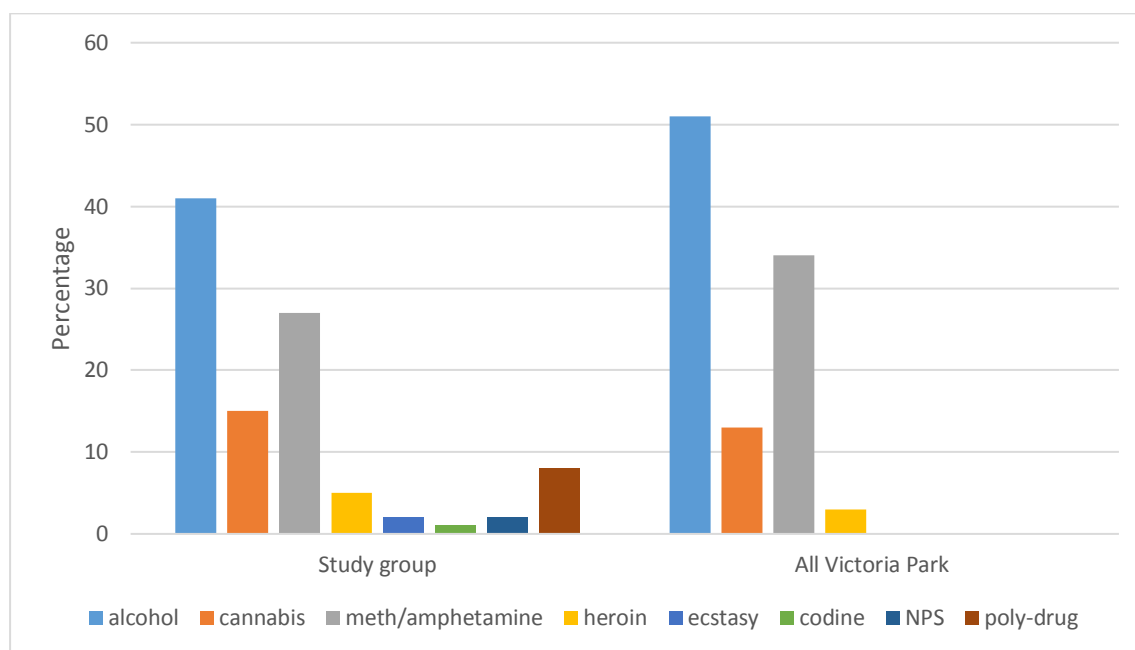
Due to the limited number categorised as high or moderate risk for inhalants (n=5), hallucinogens (n=7) and other drugs (n=7), these are not shown.

An Evaluation of Holyoake’s Group Programs

3.2.2 Primary drug of concern

Those in the alcohol and other drug treatment groups were asked about their primary drugs of concern. Figure 2 shows the study cohort and the overall Victoria Park client group for comparison. For both groups, alcohol, cannabis and meth/amphetamine were the most prevalent drugs used. It should be noted that the study group are a subset of the overall group, with the differences in the drugs reported probably due to how data were collected in study documentation versus client admission paperwork.

Figure 2: Primary drugs of concern



NPS = novel psychoactive substance

3.2.3 Psychosocial characteristics

Table 3: Mean scores on the four psychosocial measures sub-divided by program.

Program	K-10 mean (SD)	Wellbeing mean (SD)	Lubben mean (SD)	Self-esteem 7 mean (SD)	Self-esteem 5 mean (SD)
Men’s	25.9 (9.0)	52.5 (19.8)	12.1 (6.2)	4.1 (1.8)	3.0 (1.2)
Women’s	27.3 (7.4)	53.8 (21.9)	13.7 (6.1)	3.5 (1.8)	2.7 (1.2)
Young Adults	30.1 (5.1)	58.8 (14.1)	16.5 (5.1)	4.1 (1.5)	3.1 (1.0)
Parents	20.2 (7.7)	71.6 (15.7)	16.9 (4.5)	4.7 (1.6)	3.5 (1.0)
Relationships in Focus	23.0 (7.6)	61.0 (19.6)	16.3 (5.5)	4.2 (1.3)	3.1 (0.9)
Overall	24.8 (8.5)	58.5 (20.1)	14.5 (6.0)	4.1 (1.7)	3.1 (1.1)

Note: K-10 thresholds (20-24 = mild, 25-29 = moderate, 30-50 = severe distress): Wellbeing Australian normative range, 73.4-76.4: Lubben, social isolation <12: self-esteem 5, mean score 3.8

An Evaluation of Holyoake's Group Programs

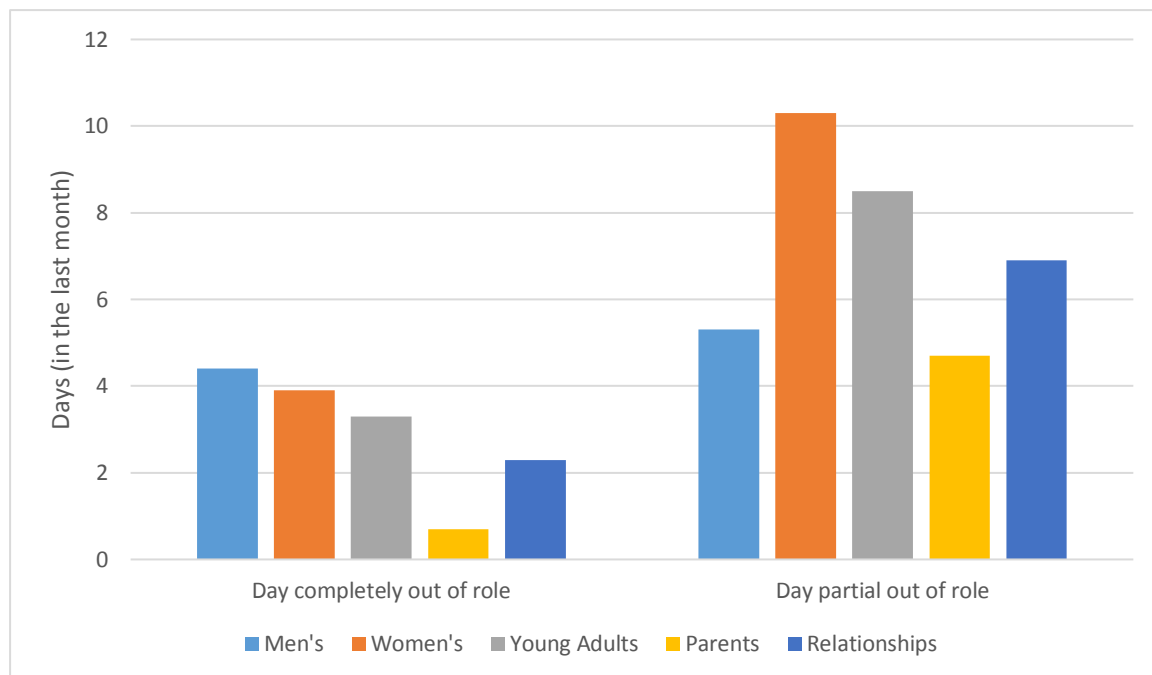
The mean K-10 scores of all substance using groups exceeded the threshold of 25 on the K-10 for moderate distress, and the Young Adults reached the criterion for severe distress (≥ 30) with significant variation between the groups ($F 7.171 (4,215) p < .001$). All of the groups reported lower levels of Wellbeing than typically reported by the Australian general population. In addition, there was significant variation between the groups with those in the Men's program having the lowest level of Wellbeing ($F 7.603 (4,211) p < .001$).

Although the means for each program all exceeded the threshold for social isolation (< 12), it was noted that nearly one third ($n = 67$) of participants fell below this threshold. There was also a significant between group difference in scores, with those in the Men's program having the smallest support networks ($F 7.356 (4,215) p < .001$). After converting the self-esteem scores from 7 to their 5 point equivalents, all the groups fell below typical mean values (3.8) but there were not significant group differences in self-esteem ($F 6.129 (4,197) p = .071$).

3.2.4 Functionality

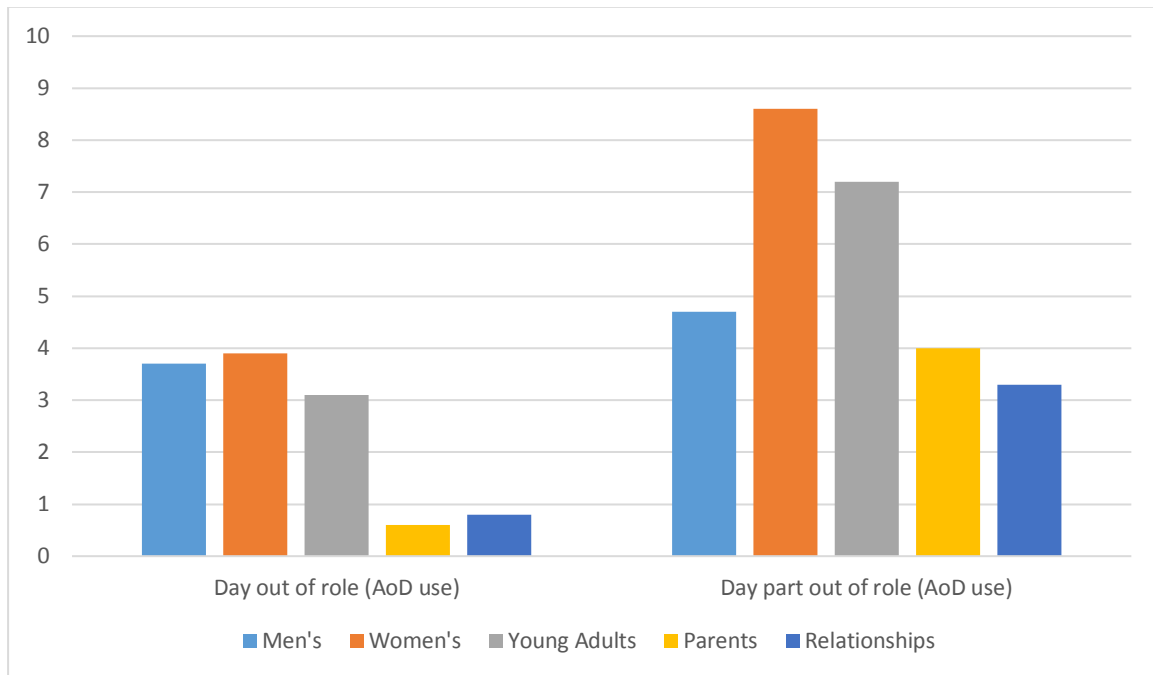
The number of days either completely or partially out of role in the previous 30 days is shown in figure 3A with the number of days where alcohol or drug use was responsible for this, shown in figure 3B. There were significant difference in the number of days that participant groups reported being completely out of role ($F 2.502 (4,197) p = 0.044$) with the Parents (0.7 days) having the fewest days impacted and the Men's program the most (4.4 days). Differences were not significant for partial days out of role ($F 2.407 (4,204) p = 0.051$).

Figure 3A: Days either partially or completely out of role



An Evaluation of Holyoake's Group Programs

Figure 3B: Days either partially or completely out of role due to alcohol or other drug use



NB Parents and Relationship programs attendees report on the impact of AoD use by others

Not surprisingly, Parents plus those in the Relationships program reported fewer days when they were completely ($F 3.38 (4,190) p = 0.011$) or partially ($F 2.676 (4,199) p = 0.033$) out of role due to alcohol or other drug use. Nevertheless, they did report some days when they were impacted by the substance use of family members, respectively 0.6 and 0.8 days completely and 4.0 and 3.3 days partially out of role (Figure 3B).

An Evaluation of Holyoake's Group Programs

3.3 Follow-up

3.3.1 Participation

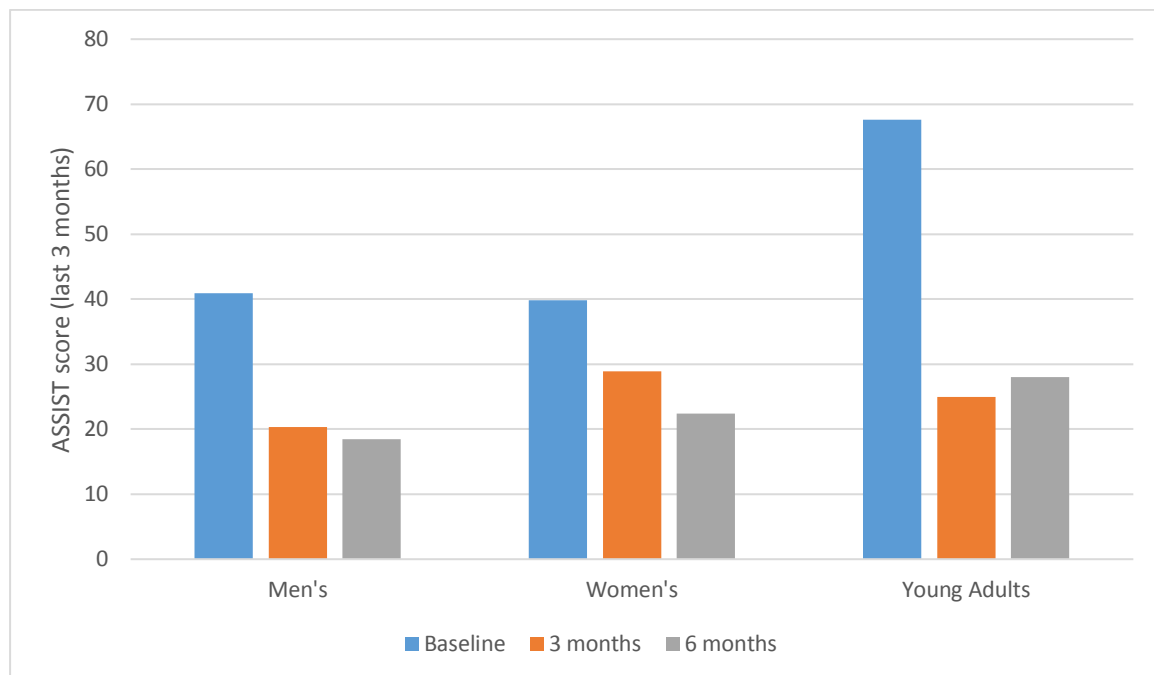
The loss of participants varied with time and by program. At three months 71 (32%) were interviewed with no significant differences between the groups participating (χ^2 8.00 (4) p = 0.092). At six months, 123 (56%) people were interviewed but with significant between group differences with the young adult group having the lowest level of participation (χ^2 21.10 (4) p < .001). Overall 132 (60%) people were interviewed at either three or six months.

Table 4: Number interviewed at three and six month or at either interview

Program	(baseline N)	3 months N (%)	6 months N (%)	Any interview N (%)
Men's	84	23 (27)	40 (48)	44 (52)
Women's	34	11 (32)	16 (47)	16 (47)
Young Adults	18	2 (11)	5 (28)	7 (39)
Parents	41	17 (42)	28 (63)	31 (76)
Relationships	43	18 (42)	34 (79)	34 (79)
Overall	220	71 (32)	123 (56)	132 (60)

3.3.2 Substance use

Figure 4: Recent substance use - last 3 months ASSIST score (estimated marginal means)

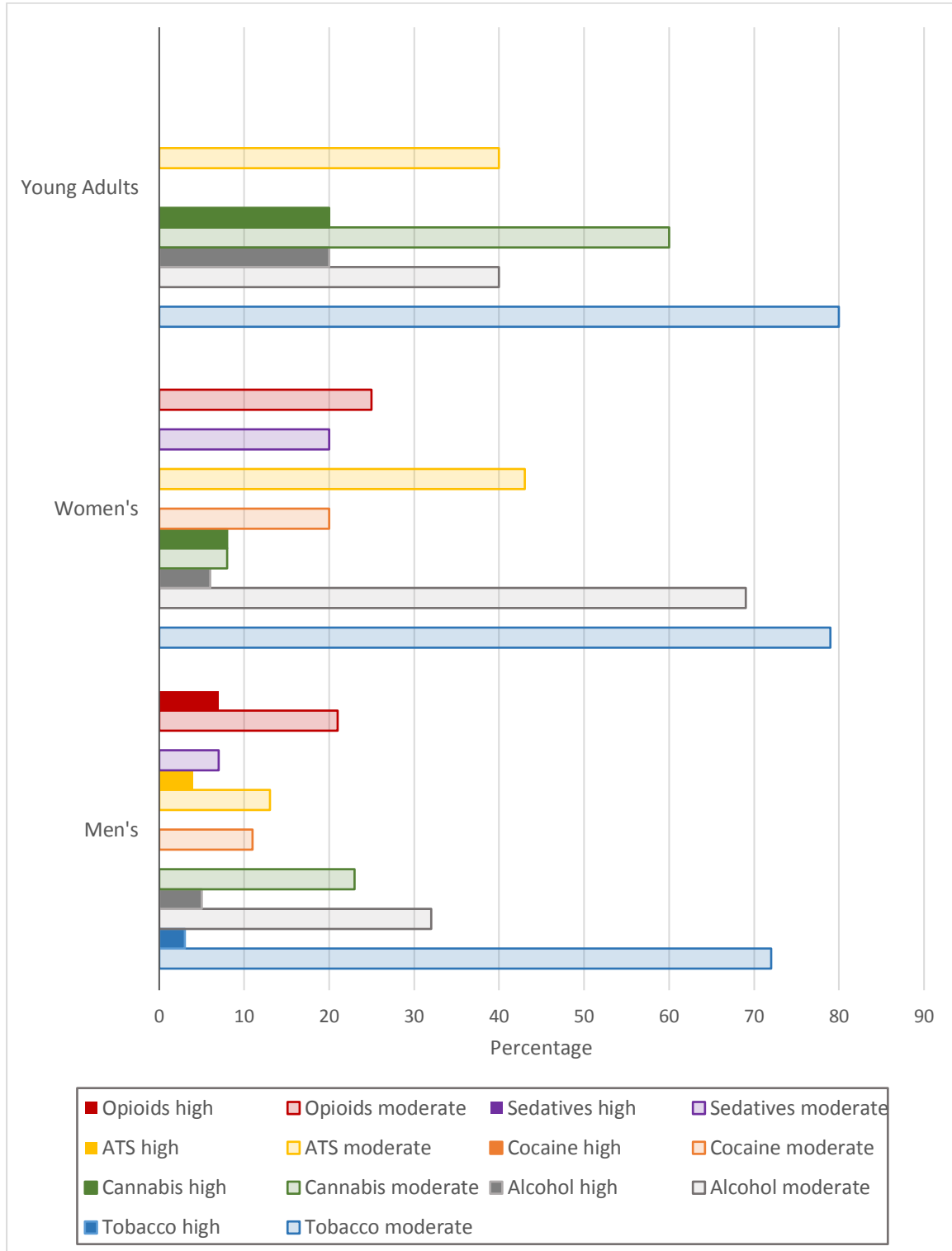


Overall there was a decline in recent substance use measured with the ASSIST between baseline and six months (Wald 47.69 (2) p < .001) and a significant effect of program (Wald 8.09 (2), p = 0.018). Those in the Young Adults program had significantly greater

An Evaluation of Holyoake's Group Programs

improvements than those in the Men's program by six months (Wald 10.65 (1) $p = .001$), controlling for the number of treatment sessions participants received (Figure 4). Overall, the mean total ASSIST scores improved by 33.7% between baseline and 6 months

Figure 5: ASSIST risk categories (moderate or high) for individual drugs at 6 months



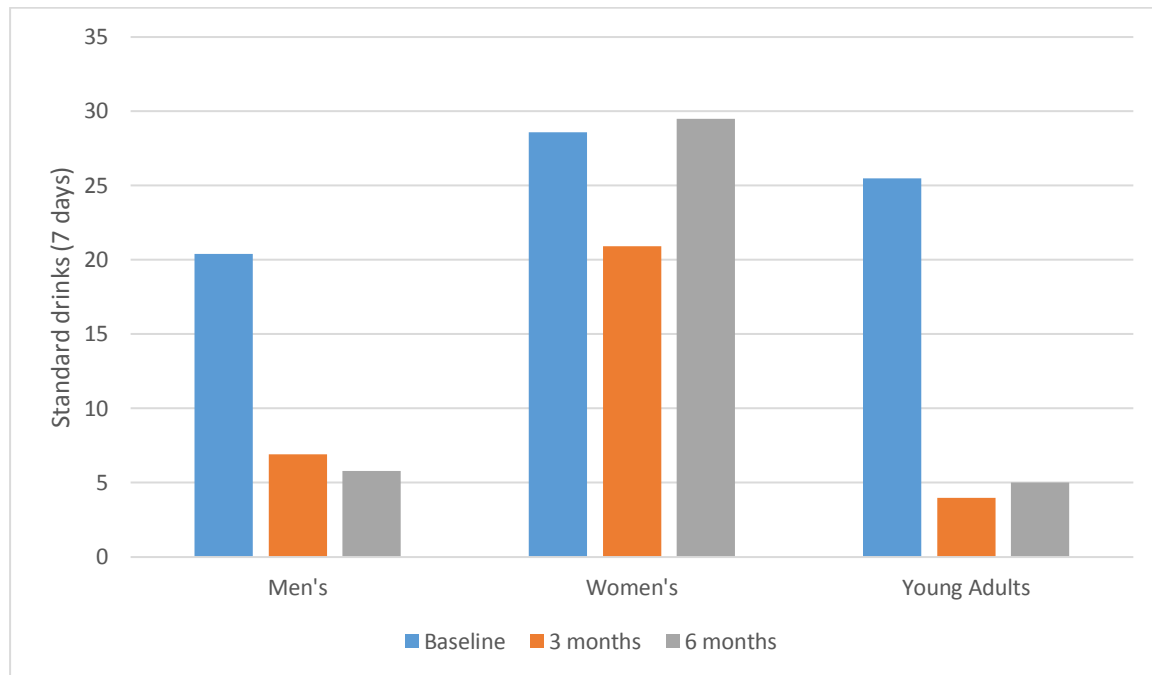
ATS = amphetamine type stimulants.

Due to the limited number categorised as high or moderate risk for inhalants (n=2), hallucinogens (n=2) and other drugs (n=0), these are not shown

An Evaluation of Holyoake's Group Programs

An inspection of Figure 5 compared with Figure 1 illustrates the changes in substance use over 6 months. Most notable is the decline in drug use categorised as high risk (or probably dependent) across the different drugs. This did result in an increase in those categorised as moderate risk for some substances. Thus for males, at baseline 65% were in the moderate risk category for tobacco and at 6 months the figure was 72%. However, this was accompanied by an 8% decline in those at high risk.

Figure 6: Alcohol use in the last 7 days (estimated marginal means)



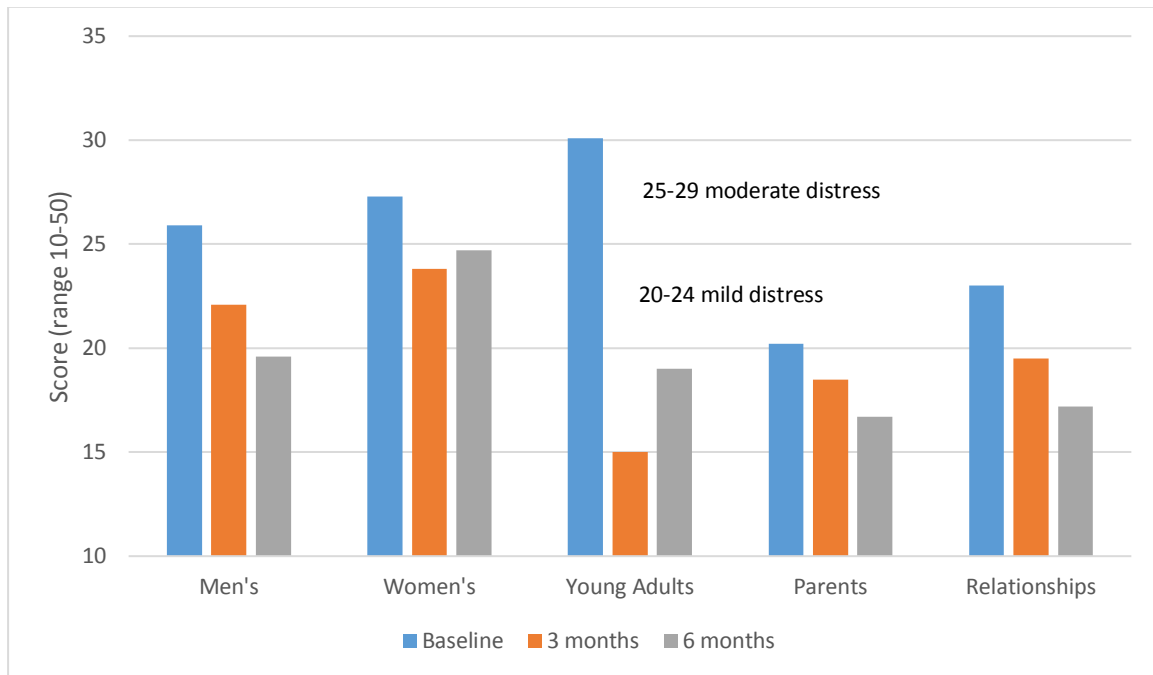
As shown in Figure 6, there were marked changes in alcohol use for those in the Men's and Young Adults program, with mean reductions of more than 14 and 20 standard drinks per week respectively. Overall, there was a significant change in alcohol consumed over time, (Wald 12.09 (2) $p = .002$), and by program (Wald 10.03 (2) $p = .007$) with the Women's program having higher levels of alcohol use than the Young Adults controlling for the number of treatment sessions participants received. As noted in section 3.2.1, a greater proportion of those in the Women's than Men's or Young Adults program had alcohol as their primary drug of concern. Nevertheless, the high level of use reported at 6 months is of concern.

3.3.3 Psychosocial outcomes

Overall, K-10 scores declined (i.e. improved mental health) significantly from baseline to six months (Wald 71.80 (2) $p < .001$) with a significant time by program interaction (Wald 55.77 (8) $p < .001$). Those in the Young Adults program at three months had significantly greater reductions in K-10 scores compared with the Men's program. Notably, the unadjusted scores at six months showed that all the groups bar those in the Women's program scored below the cut off for mild distress (20) and the Women's program participants scored below the moderate distress (25) threshold. Figure 7 shows the adjusted scores.

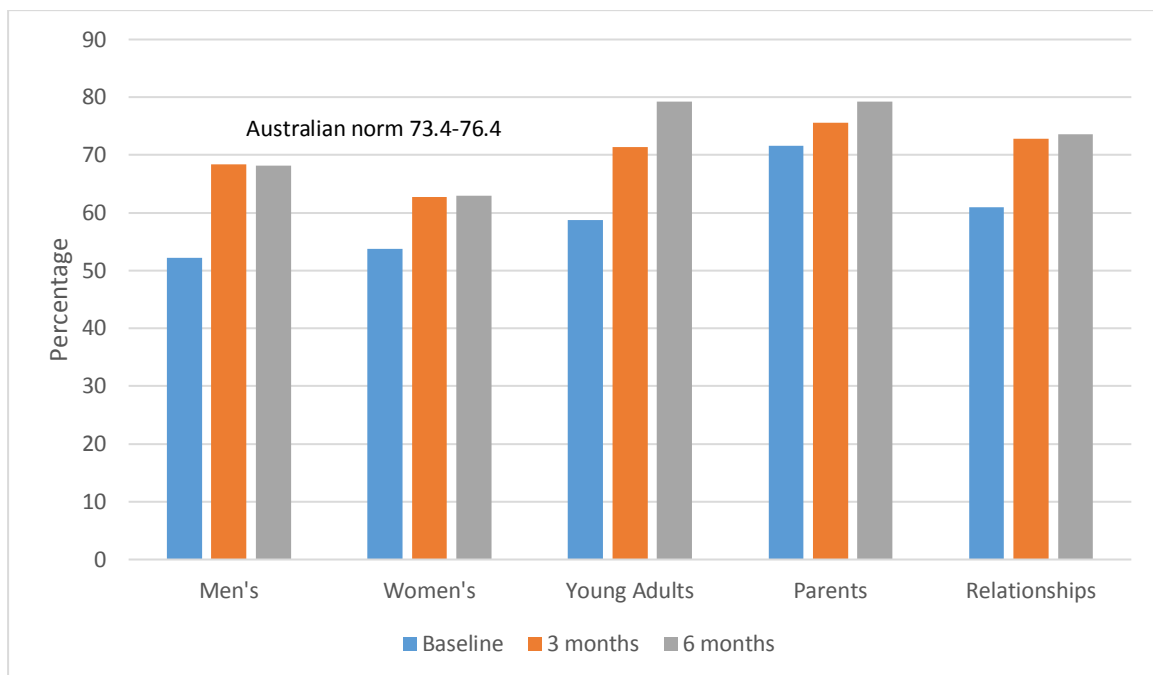
An Evaluation of Holyoake's Group Programs

Figure 7: Kessler 10 scores (estimated marginal means)



Lower scores = better outcomes: minimum score = 10

Figure 8: Personal Wellbeing Index (estimated marginal means)

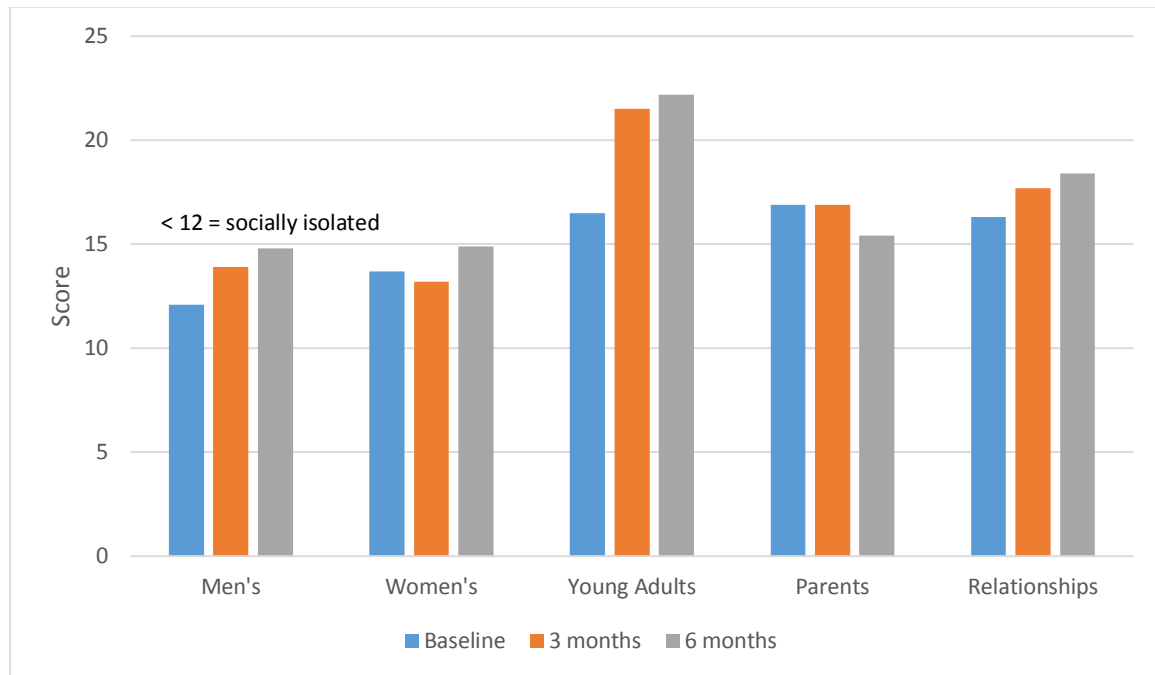


Higher scores = better outcomes

Overall, Personal Wellbeing improved with time (Wald 92.18 (2) $p < .001$) but there was also a significant program by time interaction (Wald 17.06 (8) $p = .030$). Those in the Parents program at three and six months had a smaller increase in Wellbeing than the Men's program (Wald 4.42 (1) $p = .036$ and Wald 5.06 (1) $p = .005$) (Figure 8). Nevertheless, their mean scores improved and exceeded the Australian norms at 6 months.

An Evaluation of Holyoake's Group Programs

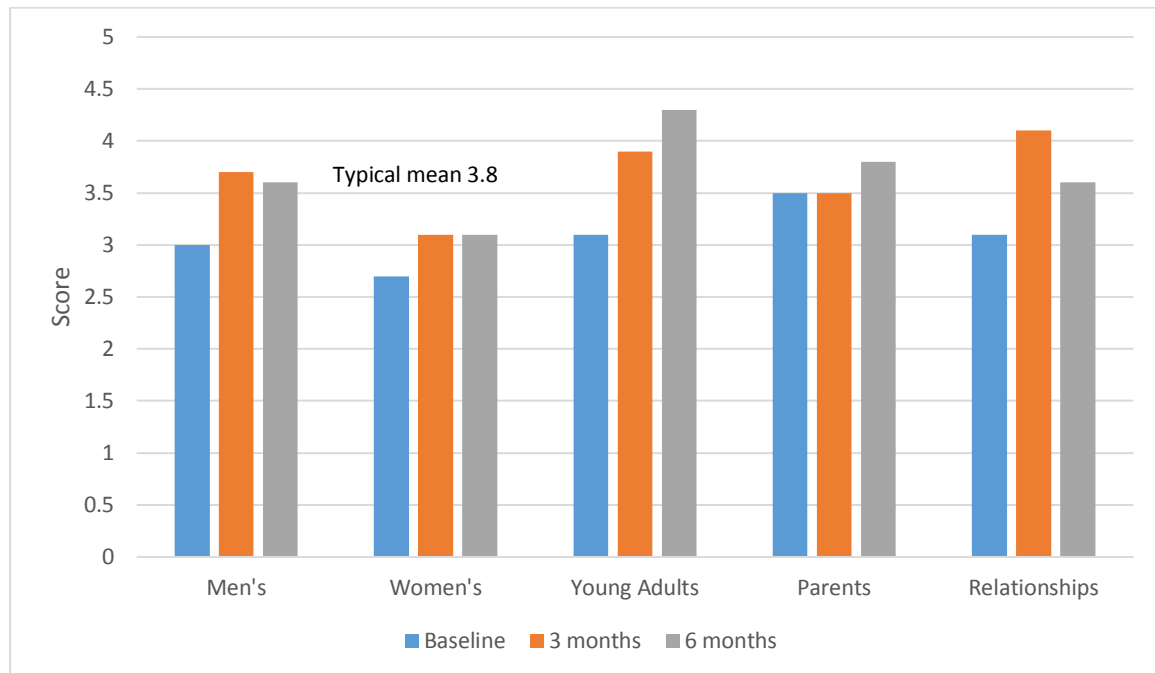
Figure 9: Lubben Social Networks Score (estimated marginal means)



Higher scores = better outcomes

The size of social support networks increased over the course of the study (Wald 10.75 (2) $p = .005$) but with a significant program by group interaction (Wald 18.3 (8) $p = .019$). The scores for the Men's program increased to six months while the Parents programs had lower support scores at six months (Wald 9.31 (1) $p = .003$) (Figure 9). At this time 18% (21/118) were classified as socially isolated.

Figure 10: Self-esteem transformed to 5 point scale (estimated marginal means)



Higher scores = better outcomes

An Evaluation of Holyoake's Group Programs

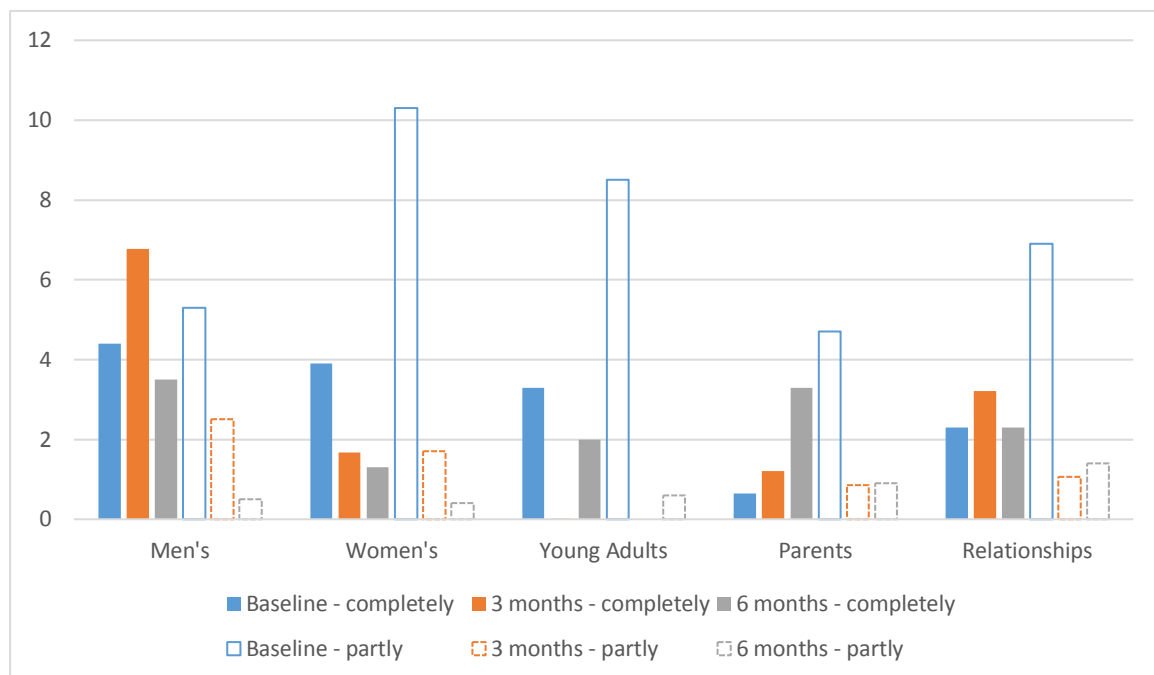
Overall self-esteem improved during the study period (Wald 39.4 (2) $p < .001$) but with a significant program by time interaction (Wald 29.1 (8) $p < .001$). The Men's program showed a smaller increase in self-esteem by six months than those in the Young Adults program (Wald 10.81 (1) $p = .001$) (Figure 10). Across the programs the mean self-esteem score was 3.6 (SD 1.2). Parenthetically, similar outcomes were found for the untransformed seven-point scale version of the measure.

3.3.4 Functionality

Figure 11A shows the number of days either completely (filled columns) or partially (outline columns) out of role in the last 30 days and Figure 11B shows the number of days completely (filled columns) or partially (outline columns) out of role due to AoD use.

There was a significant program by time interaction for the number of days completely out of role (Wald 28.8 (8) $p < .001$). While days out of role increased for the Men's program they declined for those in the Women's program by 3 months (Wald 3.86 (1) $p = .049$). The increase in days out of role for the Parents program was not statistically significant ($p = .068$) but is noteworthy. There was a significant reduction in the number of days partially out of role for all groups (Wald 78.8 (2) $p < .001$). For example, the estimated marginal mean for women fell from more than 10 days at baseline to less than 1 at six months, and for men it declined from 5 days to less than 1 day.

Figure 11A: Days completely or partially out of role (estimated marginal means)

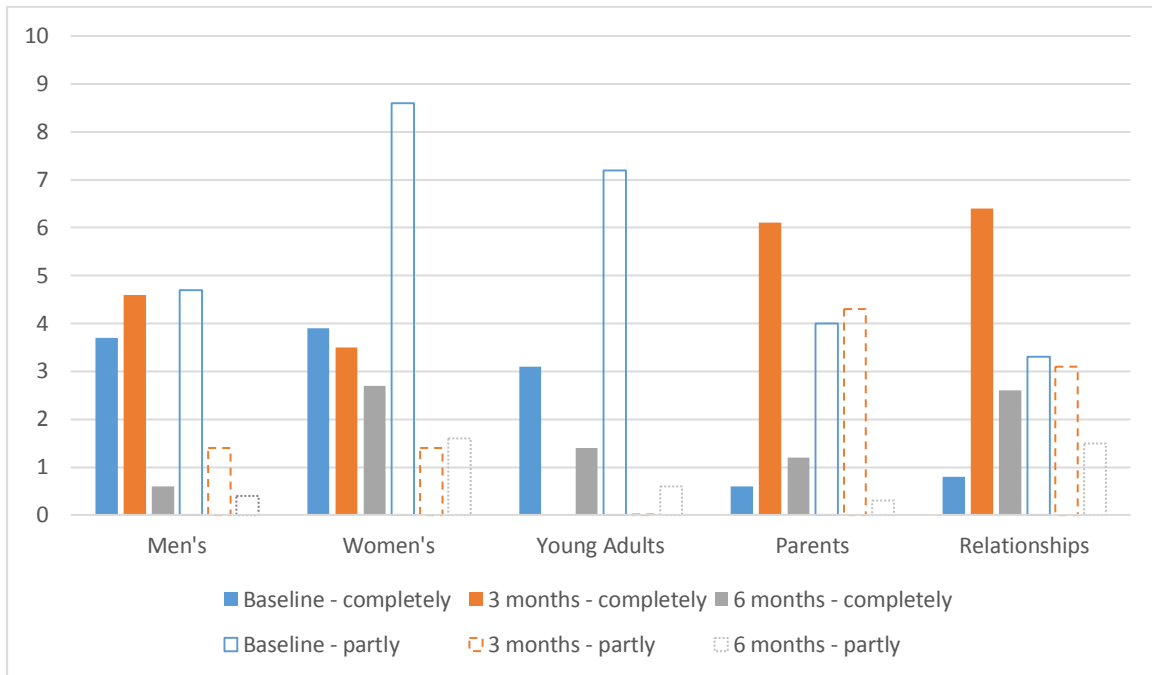


NB Parents and Relationship programs attendees report on the impact of AoD use by others

An Evaluation of Holyoake's Group Programs

With respect to days completely out of role due to AoD use (Figure 11B) there was a significant program by time interaction (Wald 63.1 (8) $p < .001$). For those in the Men's program, the estimated marginal mean days fell from 3.6 to under 1 day at six months. In contrast, those in the Relationships program had an increase from less than 1 day to 2.6 days (Wald 17.3 (1) $p < .001$) and the Parent program increased from less than 1 to 1.17 days (Wald 13.6 (1) $p < .001$), controlling for the number of treatment sessions. For days partially out of role due to AoD use, there was a reduction in partial days out of role over time (Wald 51.5 (2) $p < .001$) but also a program by time interaction (Wald 20.5 (8) $p = .008$). However, individual comparisons with the Men's program all exceeded the $p < .05$ threshold.

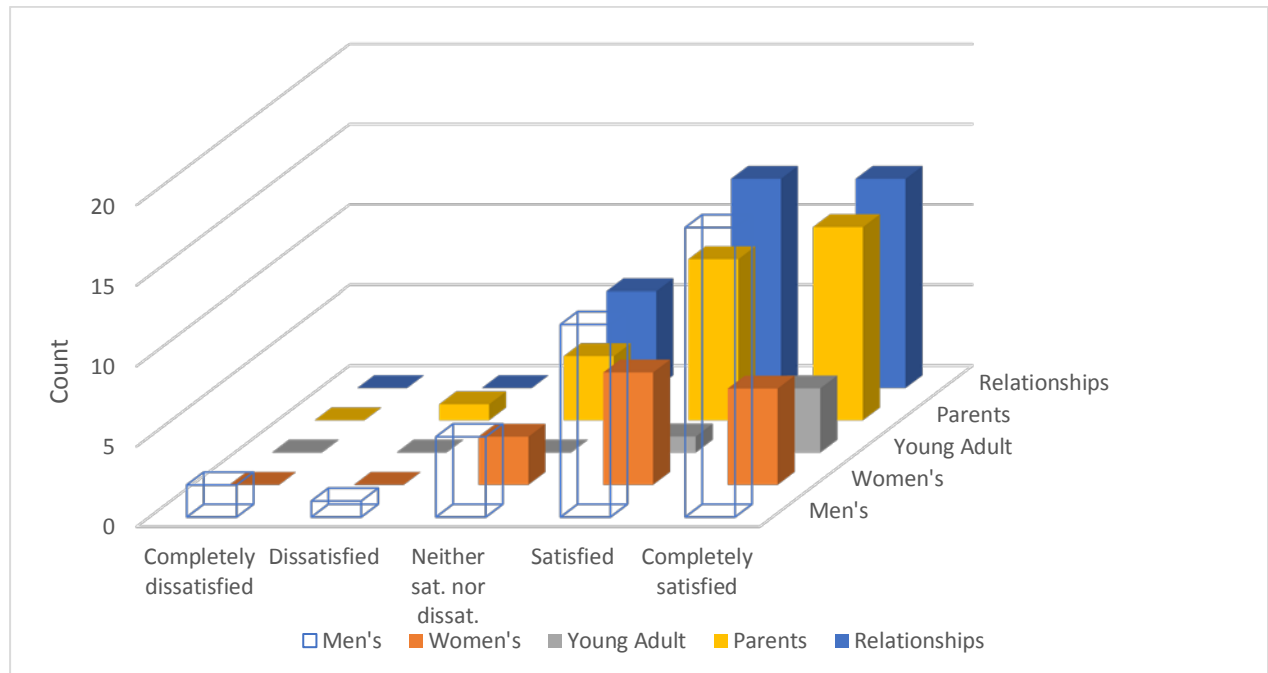
Figure 11B: Days completely or partly out of role due to alcohol or other drug use (estimated marginal means)



NB Parents and Relationship programs attendees report on the impact of AoD use by others

3.4 Satisfaction in Achieving Goals

Figure 12: Satisfaction in achieving goals



At six months, participants rated their satisfaction with Holyoake's help in achieving their goals (Figure 12). Overall, 81.3% of participants were either satisfied or completely satisfied with no significant difference between the groups in the rating (Kruskal Wallis 2.874 (4) $p = .579$)

3.4.1 Predictors of satisfaction

The predictors of treatment satisfaction were assessed using linear regression as described in section 2.5. Only the number of group sessions was a significant predictor of satisfaction (Beta 0.338, $p < .001$). This can be interpreted as either those who were more satisfied remained in contact and received more sessions or those who had more sessions had increased satisfaction.

3.5 Predictors of Treatment Outcomes

The same model was used to assess predictors of treatment success operationalised as change in K-10 scores and change in recent ASSIST scores. None of the variables was a significant predictor of outcome. However, there was a significant correlation between improved mental health (K-10) and improved (reduced consumption) ASSIST scores, Pearson's $r = 0.430$ $p = .001$.

3.6 Qualitative Feedback

As would be expected from the generally high satisfaction rating (see Figure 12) the majority of the feedback was very complementary and supportive of the services offered by Holyoake.

Their support is unbelievably helpful and telephone calls are returned very very quickly. It's a fantastic and safe place to be and very very confidential. I haven't been for quite a few weeks but I know that it is there if necessary - it's a lifeline

An Evaluation of Holyoake's Group Programs

*They're an amazing crew – so caring and gentle – unbelievably supportive
- I don't know how people would deal with this on their own*

*I can't speak highly enough of the service that they offer. I am repeating
the course and it is just marvellous, I learnt so much about myself and it has
given me such a lot to work on and I am learning so much*

*Holyoake is very professional and they hold a lot of seminars which are
well done and persuasive. They don't ridicule or judge, they just listen*

*I think they make you feel valued, you feel acknowledged, worthwhile, no
judgement calls. It's having a positive effect on me even though I can't
pinpoint exactly why. It's a support system that I desperately needed and it's
driven me to get more support. It's helping me think rather than letting
emotions overwhelm me.*

The feedback was over-whelming positive and thus, the negative comments below should be considered with this in mind. Nevertheless, there were a few comments with negative ratings which may provide indicators of systems or internal processes that can be improved.

*It didn't help - it made things worse for me personally - a bit of a trigger.
When I brought it to their attention - they promised a follow-up call but not
done, I was really upset but no-one followed up.*

*Need to follow up more. I went to one appointment & signed up for a
group but didn't go and never heard back from them. Would expect some
follow up from them to check if everything was ok*

*[Summary of comment] He attended a session; was advised that it would
be good if his partner attended a partner program. It seems that the
counsellor disclosed information to his partner that was given in confidence.
Therefore lost faith with Holyoake*

The remaining negative comments focused on the style of the interventions which may reflect individual differences in the participants or the nature of the relationship with a particular counsellor.

*I didn't fit in there - other guys had a lot more problems than me in groups
- everyone was mean to me. I didn't feel that I fitted in.*

I felt it was very preachy- I didn't get along with the counsellor

*I only did the initial consultation. I didn't feel it was right for me - the group
session - didn't like the idea*

4.0 Discussion

The study recruited participants from across all of Holyoake's group programs including both alcohol or other drug (AoD) using clients and family members who did not receive any AoD intervention. With some caveats, improvements were seen on a range of psychosocial outcomes and substance use measures. Clients generally reported high levels of satisfaction with Holyoake in achieving their goals, and provided largely supportive comments on the programs and organisation.

4.1 Substance Use Outcomes

The ASSIST provides a measure of recent substance use across all categories of illicit drugs and the misuse of pharmaceuticals. As such, it affords a convenient summary of progress across clients using different classes of illicit drugs or misusing pharmaceuticals. Statistically significant declines in ASSIST scores were found over the course of the study with a particularly large, though non-significant, change for those in the Young Adults program. The small sample of Young Adults means that their outcome on this measure and others should be treated with some caution. However, it was noted that their change in ASSIST scores was in the same direction as that shown by the other programs. Overall, the ASSIST scores improved by nearly 34% - in a development study for the ASSIST, brief interventions for a range of substances resulted in a 24% improvement at three months (Humeniuk et al., 2006).

The findings with respect to alcohol use were also positive, but with the caveat that no improvement was found for those in the Women's program. Nevertheless, the magnitude of change for the other programs was clinically important with, for example, a 14 standard drink reduction for the Men's program, placing the average scores at six months within the low-risk guideline (National Health and Medical Research Council, 2009). Women who enter treatment programs typically have greater socioeconomic risk factors than their male counterparts (e.g. lower educational and income levels, financial dependence on a partner, lower rates of employment, unstable housing), greater family responsibilities that make consistent attendance difficult and more complex presentations (e.g. concurrent mental health problems, trauma) (NADA, 2016). As such, women may benefit from measures to improve their continuity of care via assertive follow-up and outreach to mitigate some of the additional barriers to treatment that they often encounter (NADA, 2016). In noting this caveat with respect to alcohol consumption, it should be remembered that on the general substance use measure, women had similar outcomes to the men and young adult participants.

4.2 Psychosocial Outcomes

It is well established that comorbidity between mental health problems and substance use problems is prevalent and that this is an issue that complicates effective treatment (Kessler et al., 1996; Najt et al., 2011; Teesson et al., 2010). The presence of mental health disorders was not formally assessed in this study, but the K-10 provides a general measure of psychological distress. In terms of group means, each program group had moved to a lower classification level by the end of the study, be it from severe to moderate, moderate to mild or mild to low risk of distress. Baker et al. report (2012) that the literature on treating those with alcohol use disorders and common mental health disorders is limited. However, there is some evidence that psychological interventions such as motivational interviewing and

An Evaluation of Holyoake's Group Programs

cognitive behavioural therapy can improve outcomes (Baker et al., 2012). Therefore, the improvements in this cohort with generally moderate levels of distress, are consistent with the literature.

Wellbeing encompasses a number of factors including a person's satisfaction with their: health; relationships; standard of living; and future security (International Wellbeing Group, 2013). In doing so, Wellbeing provides a broad measure of the areas of a person's life that substance use treatment might hope to influence and improve beyond direct measures of substance use. As with the K-10, there was a general improvement in Wellbeing over the six months for the cohort.

Intuitively, social support networks would appear to be one of the harder outcomes to change as these require action from both the recipient of the program and those outside the program – that is, a family member or friend needs to respond to the client's attempt to build or rebuild a relationship. Definitions of substance use disorders include criteria such as, failure to fulfil home or work obligations, and reduced social and recreational activities. Thus, reductions in the quantity and quality of relationships are common, especially with family members (American Psychiatric Association, 2013; Lander et al., 2013). The Lubben scale assesses support from both family and friends (for example, how many people could they call on for help (Lubben et al., 2006)). It is not apparent whether participants were increasing social support within their families, among friends, or both. It was also noted that those in the Parents program had a reduction in social support by six months. One potential interpretation is that it could represent an improvement in their ability to cope with their AoD using family member, and therefore had less need of other supports. Yet, this positive interpretation should be contrasted with the increased days out of role due to AoD use by their family member (see Figure 11B).

Levels of self-esteem in general increased over the study period. Nevertheless, it should be noted that in most instances, the program means fell below the cited average of 3.8 (Robins et al., 2001) especially for those in the Women's program. Lower reported self-esteem by women has been found previously with this measure (Robins et al., 2001).

The Kessler days out of role index was developed to measure the impact of days lost from work due to psychiatric conditions, including substance use disorders. In an Australian sample, those with substance use disorders reported an average of 3.4 days lost out of the previous 30 days, with a greater number of days lost for those with comorbid affective or anxiety disorders (Andrews et al., 2002). However, the report does not specify how partial days were treated and it does not separate days lost resulting from AoD use versus other days lost. At baseline, the average for both the Men's and Women's program exceeded the 3.4 days reported by Andrews et al (2002). Furthermore, the days partially out of role are greater than the mean of 3.2 days reported by Tait et al (2014) albeit for those accessing an online intervention suggesting this cohort may have more severe substance use problems than the online cohort. The improvements shown for all the AoD client groups by six months is therefore most promising. Yet, as noted above, there was an increase in days out of role due to AoD use for those in the Parents program: the reasons for this are unclear.

4.3 Limitations

In considering the outcomes of the study, it is important to understand its limitations when interpreting the findings. The single most important factor is the lack of a control group, which means that improvements cannot be ascribed to the programs. For example, if the decision to enter treatment was due to a level of crisis, then some diminution of that crisis could have occurred with any program or even simply with the passage of time rather than the specific programs offered by Holyoake. Second, there was considerable attrition over the course of the study, with only 56% of participants providing data at six months compounded by the difference in follow-up between AoD clients, especially those in the Young Adults program, and other groups. It is thus likely that those who were re-interviewed are those for whom the programs were most successful. However, this should be considered in the context of the field, where levels of attrition are often substantial. A recent review reported "drop out" ranging from less than one percent to 85% (Brorson et al., 2013). The third issue is the reliance on self-report data and screening tools. While this is a minor consideration, compared with the first two concerns, a full diagnosis interview would be preferable. Nevertheless, given that follow-up was conducted by researchers external to the treatment process, the potential for reporting biases is reduced.

The study only collected information on a limited range of risk factors or prognostic indicators, for example education and income levels were not collected, and similarly, clinical indications such as mental health diagnoses or early trauma were not available. Thus, it is unsurprising that predictors of treatment success were not found.

4.4 Future Directions

As noted above, the attrition of participants hinders the interpretation of the outcomes, in particular if those remaining in the study were those who benefited most from the programs. If this process was to be repeated, obtaining consent to use the Western Australian Data Linkage System would provide an unbiased outcome measure, at least of more severe outcomes, namely those requiring emergency department treatment or hospital admission.

The study had access to information on the number and type of sessions (i.e. individual, group or couple) that clients attended at Holyoake. While recognising that counsellors may refer clients to alternative services or the therapeutic process may encourage clients to seek other forms of help, such as general practice consultations, the study did not collect data on these other types of intervention. This continuum of care could be an important factor in explaining improved outcomes.

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An Evaluation of Holyoake's Group Programs

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Holyoake Model

Philosophical Principles



Therapeutic Group Process



Theoretical Underpinnings

Client-centered approach	Stress-coping model
Systems theory	Rational emotive cognitive behaviour therapy
Social learning theory	Existential perspective
Stages of change model	Motivational interviewing



How we apply our Approach:

We work within our 4 principles: self-responsibility, acceptance & respect, person centred, and peer inspiration.

The Person, the Counsellor and Evidence Based Practice are central to our approach:

- Person - brings their uniqueness
- Counsellor - sees the person and their uniqueness
- Evidence Based Practice - offers proven ways to make a positive difference

The Person, the Counsellor and Evidence Based Practice interact with and inform each other:

- Person and Counsellor - people working together
- Person and Evidence Based Practice - the person informs the best practice option
- Counsellor and Evidence Based Practice - the counsellor applies best practice.

Evidence Based Practice:

Holyoake draws upon a wide range of evidence based practice. We continually review and renew the best ways of working. Some of the most significant include:

- Systems Theory • Harm Minimisation
- Social Learning Theory • Stages of Change
- Motivational Interviewing • Brief Intervention
- Cognitive Behavioural Therapy



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