

MONOGRAPH 02



THE EARLY IMPACT OF INVOLVEMENT IN NARCOTICS ANONYMOUS SELF-HELP GROUPS

**A report from the Role of Self-Help Groups in
Drug Treatment Research Project**

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The early impact of involvement in Narcotics Anonymous self-help groups. A report from the Role of Self-Help Groups in Drug Treatment Research Project

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EXECUTIVE SUMMARY

Harmful use of alcohol and other drugs has been identified as a significant source of preventable cost for our society. Preventing and appropriately treating harmful drug use are therefore important priorities for both policy and program development and represent a continuing challenge to government at all levels. Although self-help groups have long been acknowledged as a useful adjunct to formal drug treatment services, there has been little research into drug user self-help groups or their relationship to drug treatment services. The main self-help group servicing drug users in Victoria at the time of this study was Narcotics Anonymous (NA). In 1995, there were 64 NA meetings in Victoria and active participation in NA Victoria was estimated at around 180 (representing less than 6% of registered drug treatment clients). The expectation of growth in NA, together with a large number of drug users who had never previously participated, provided a unique opportunity to study the impact of NA membership.

Study aims

The present study focused on the experience of new NA members with the aim of investigating changes associated with the initial period of participation in self-help groups. Group entry and early initiation experiences were considered important to study, as they influence later decisions to continue or discontinue group involvement and, thus, impact group capacity for development and growth. Early change experiences may influence a member's decision to stay in a self-help group and also impact on their subsequent progress. Three main areas were identified as relevant: the characteristics of newer members entering Victorian self-help groups, the early experiences of self-help members, and the impact of self-help involvement on drug use and other behaviours.

Methodology

From June 1994 through to May 1995, 91 people who had recently joined NA self-help groups were recruited into the study and interviewed. Respondents were then briefly recontacted at three monthly intervals and 62 (68%) of the original participants completed a second interview, an average of 12.8 months after their first interview. The process of tracking and reinterviewing was completed in July 1996.

The present report used two methods to analyse the early impact of self-help group attendance. A first set of analyses examined findings from the 'baseline' interview relevant to initial participation in self-help groups, the patterns of early attendance in these groups, characteristics of newer members, and factors associated with more stable (at least weekly) group attendance. A second series of analyses used data from the subsequent 12 month follow-up to explore the characteristics of members who had maintained stable weekly attendance through to follow-up.

Key findings

The initially recruited sample provided a good match to available information on NA with respect to gender distribution (37% were female) and the geographic distribution of group attendance (58% reported main meetings in the inner urban area). The sample may have been older than other NA groups, as the median age of respondents was 31 years. The sample demonstrated a disadvantaged educational and economic profile. Illicit drug use was reasonably common among those interviewed; however, problems with alcohol use frequently co-occurred with other drug use. For the majority of this sample, first regular NA involvement had occurred less than a year prior to their first interview. Retrospective accounts suggested that those having spent longer periods in stable group attendance prior to the first interview demonstrated lower rates of treatment, alcohol and drug use, illicit income and sickness benefits in the three months prior to interview. Evidence confirmed a strong link between involvement in self-help and use of formal treatment services (other than methadone); 86 per cent had used a treatment service prior to their first entry to a self-help group.

The 12 month follow-up provided further evidence associating stable (at least weekly) self-help participation with better outcomes. Over half of those who were reinterviewed (58%) had maintained at least weekly self-help attendance for 12 months after their first interview. On the assumption that those lost to follow-up did not maintain stable group attendance, retention through to 12 months of stable weekly attendance occurred in 40 per cent of cases. Multi-variate regression analysis suggested that the two most significant factors predicting longer subsequent periods of stable self-help attendance were: (i) higher levels of previous NA service work, and (ii) more years of secondary school education. Stable group attendance was associated with considerable progress in NA service positions (eg chairing a meeting, helping in service positions, being sponsored, sponsoring others), step work (completing Steps 3 to 10) and improvements in social support (perceived friendship benefits, less social isolation, finding a spouse or partner). However, one of the most prominent changes was an approximate four-fold reduction in drug use (less hazardous alcohol use and less marijuana use).

Conclusion

The present study is the first longitudinal follow-up to investigate the impact of NA self-help groups on members recruited directly from within these groups. Follow-up of new members revealed that 40 per cent maintained at least weekly self-help attendance over a 12-month period, and this level of self-help attendance demonstrated a number of advantages including a four-fold reduction in alcohol and drug use and improvements in social support. Despite the apparent benefits revealed in both the present study and in previous research, NA groups did not appear to be well supported in Victoria at the time. During the period studied, NA groups served a very small proportion of the population then receiving illicit drug treatment in Victoria. Future investigation could usefully examine the barriers to NA participation in Victoria. Evidence from the present study suggests that important drug treatment advances may be achievable by more closely monitoring the extent to which drug treatment services in Victoria link their clients into self-help groups.

INTRODUCTION¹

Harmful use of alcohol and other drugs is a significant source of preventable cost for our society (Collins & Lapsley, 1991). Prevention efforts face difficulties while individual and community levels of harmful drug use remain high. For this reason, appropriately treating harmful drug use is an important priority within efforts to prevent drug use problems. The provision of effective treatments is hampered by costs, but also by a lack of knowledge regarding the effectiveness of different treatment options. The role of self-help groups in supporting treatment has been acknowledged in national quality assurance documents and reviews (Mattick & Hall, 1993; Gowing et al., 2001), yet few researchers have studied self-help groups and most work in this area has focused on Alcoholics Anonymous (AA). Available evidence links AA with reductions in alcohol-related harm, and studies that have been completed suggest self-help groups may also help to reduce drug-related harm.

The role of self-help groups in supporting treatment

As there have been few studies examining self-help groups, the extent of congruence between the objectives of such groups and treatment agencies is unclear. Following Katz and Bender's (1976) definition, self-help groups (also known as mutual aid groups) can be seen to encompass both support and advocacy roles.

The research presented in this report focuses particularly upon groups working mainly with primary clients (rather than those they affect) who have a problem with illicit drugs. It should be noted that peer-based user groups have played an important role in harm reduction practices such as needle and syringe exchanges, condom distribution and information dissemination (Grund et al., 1992). The primary concern in the present report, however, is with self-help groups either as primary treatment or as support for recovery.

There is now a growing body of research evidence to support participation in self-help groups as a means of alleviating drug-related harm. Most of this evidence has been based on research examining Alcoholics Anonymous (AA). Available evidence is indirect, coming both from an important review of research evidence (Emrick, 1987) and epidemiological investigations (Mann et al., 1991; Smart & Mann, 1990; Smart, Mann & Anglin, 1989). It should be noted that questions concerning the relevance of this research to other forms of self-help treatment have yet to be explored.

Although there has now been some research examining AA, there are fewer studies relevant to other drug user self-help groups, including Narcotics Anonymous (NA) (see Mattick & Hall, 1993). In 1993, NA published brief details of a survey of members attending groups in the United States. In another UK study, Christo and Franey (1995) followed a group of 101 NA participants over six months. Attendance at NA was found to be strongly predicted by less positive attitudes to the use of alcohol. Higher rates of alcohol use prior to entry to NA predicted longer periods of stay. NA attendance was found to associate with lower rates of drug use.

¹ The following material has been modified from Toumbourou and Hamilton (1994) and Toumbourou et al. (1996).

Study context

At the time of initiating the present study, debate regarding the treatment approaches to be supported by public funds seemed narrowly restricted to those options that had been more carefully evaluated. It appeared that self-help groups ran the danger of being rejected as a component of the formal treatment response, prior to receiving a 'fair trial'. It would be incorrect, however, to suggest our interest in exploring drug user self-help groups stemmed simply from our devotion to answering research questions. The previous experiences and interests of our research team were important considerations.

Members of our team had become interested in self-help approaches through experience in policy development, clinical work and evaluation research. An evaluation study examining the Odyssey House therapeutic community had stimulated an interest in the potential of social interventions (Toumbourou et al., 1995). Perhaps most pertinent was that we had previous positive experiences of working with members of self-help groups (Toumbourou, Hamilton & Smith, 1994).

The present study focused on the early experiences of members entering NA self-help groups. Group entry and early initiation experiences were considered important to study, as they influence later decisions to continue or discontinue group involvement and, thus, impact group capacity for development and growth. Early change experiences may influence a member's decision to stay in a self-help group and also impact on their subsequent progress.

Defining self-help groups

Self-help groups are distinguished by their emphasis on mutual help rather than professional assistance in addressing members' common problems or concerns. In designing the present study, few details regarding the range of relevant self-help groups operating in Victoria were available. Hawkins' (1980) description was used as a beginning point to define drug user self-help groups (see list below).

Ten characteristics of drug self-help groups

1. Participation in the groups is voluntary.
2. Members share a common drug use problem.
3. The primary purpose of meeting together is for members to deal with their shared problem.
4. Members provide help and support to each other.
5. The help and support process involves face-to-face interaction.
6. Members are responsible for and have control of the group.
7. Open sharing of information occurs in the group (ie there is no censorship of discussion).
8. The group performs an advocacy function.
9. The group provides a formal explanation or ideology concerning the members' shared problem.
10. The group is not professionally supported.

(Based on Hawkins, 1980)

The main interest in the present study was groups having, to a greater extent, the above characteristics. Identification of relevant groups began by using informal connections with people involved in drug user self-help groups. A preliminary listing of groups was then extended through a more systematic survey of service providers (Woff et al., 1996). Through the above activities, it became clear that there were few groups in Victoria fitting the above description other than NA.

Narcotics Anonymous (NA)

Narcotics Anonymous (NA) is an international, community-based association of recovering drug addicts that developed out of the Alcoholics Anonymous (AA) movement in the United States. After formally adapting the AA model in 1953, the movement has grown into an international organisation with more than 30,000 weekly meetings in 109 countries in 2002. NA states that one of the keys to its success is the 'therapeutic value' of addicts working with other addicts.

Membership is open to any drug addict, regardless of the particular drug or combination of drugs used ... Members share their successes and challenges in overcoming active addiction and living drug-free productive lives through application of the principles contained within the Twelve Steps and Twelve Traditions of NA. The core of the NA recovery program is the Twelve Steps, which include admitting there is a problem, seeking help, engaging in a thorough self-examination, confidential self-disclosure, making amends for harm done, and helping drug addicts who want to recover. Central to the program is an emphasis on what is referred to as a 'spiritual awakening', emphasising its practical value, not its philosophical or metaphysical import.²

NA is based on the belief that addiction is a disease that can happen to anyone and that it is possible to overcome the desire to use drugs with the help of the 12 Steps of Narcotics Anonymous and the fellowship of recovering addicts. The 12 Steps are used by participants on a daily basis to help them overcome their drug addiction. (See Appendix 2 – The 12 Steps of Narcotics Anonymous.)

NA in Victoria

NA was initiated in Victoria in May 1987. Meetings have been subject to two main periods of growth in Victoria: one from 1987 to 1988, the other from 1992 to 1994. Each of these periods of growth has been followed by periods of relative stabilisation. In 1995, there were 64 NA meetings in Victoria. Each year all current NA members aim to participate in an annual, statewide convention. In 1995, 183 people attended this convention in Victoria (O'Brien, 1998, p158). The small size of NA in Victoria suggested that in 1995 only a small percentage (about 6%) of registered drug treatment users in Victoria were involved in self-help groups. At the time of initiating the present study, we anticipated a unique opportunity to study the impact of NA membership. Victoria had a large number of drug users who had never previously participated in NA, yet these groups were expected to continue their steady growth.

² Source: NA World Services website at: <http://www.na.org/berbull.htm>

Study aims

This report aims to present information relevant to three areas:

1. The characteristics of newer members entering Victorian self-help groups.
2. The early experiences of self-help members.
3. The impact of self-help involvement on drug use and other behaviours.

Two analyses were conducted to investigate these issues. A first set of analyses examined findings from a first 'baseline' interview with members who had recently entered self-help groups. A second series of analyses used data from a subsequent 12 month follow-up study to explore the characteristics of members who had maintained weekly attendance through to the 12 month follow-up.

METHODS

The present study is the first longitudinal follow-up to investigate the impact of NA self-help groups on members recruited directly from within these groups. New members entering Victorian self-help groups were surveyed; members were interviewed if they had entered groups between three and 12 months prior. The study formed the first stage in a one year follow-up investigation. An advisory committee including self-help members assisted with the study. Measures examined behaviours (such as drug use) and other factors important to group members (such as spirituality and social support). Ninety-one newer self-help members were interviewed.

Background

Armed with a sense of curiosity and the conviction that there were important unanswered questions concerning drug user self-help groups, the study team made initial attempts to contact members. It became obvious, at an early stage, that there were few available guidelines governing the conduct of research with self-help groups.

The need for diverse research methodology is now widely acknowledged. The importance of descriptive, contextual and qualitative research is no more apparent than in the case of research into the subcultural practices associated with drug user self-help groups. A number of descriptive studies were conducted by members associated with the present research program (Keenan et al., 1996; Woff et al., 1996). The present survey emerged out of the quantitative evaluation elements of a broader self-help research program.

Attempts to identify an appropriate population to sample were governed by a number of considerations. To associate changes with self-help participation, it was considered necessary to select a population likely to evidence meaningful variation in their patterns of self-help attendance across the one year period to be observed. Having little in the way of descriptive observation, both the judgment of self-help group members and the previous experience of researchers with therapeutic communities were used to develop a population definition. In early contact with the self-help groups, new members were observed being advised to attend 'ninety meetings in ninety days'. Such advice suggested the three month point as an approximation to a minimum period for the emergence of group attachments and impacts. Earlier work with therapeutic communities had suggested three months as a minimum period for noticeable differences in outcome (Simpson & Sells, 1982).

The intention was to select a population such that an adequate number of respondents would be identifiable at a 12 month follow-up to provide a contrast between the experience of less regular or lapsed self-help attenders and more regular attenders. Observation of retention in therapeutic communities demonstrated that the likelihood of remaining for a year in a program could be most clearly predicted by examining the time members had previously spent in a program. We 'guesstimated' that by setting a criteria of at least six months previous self-help involvement, those entered into the sample would divide reasonably evenly between stable regular group attenders and 'lapsing' or less regular attenders through the period of the 12 month follow-up observation. These theoretical considerations were somewhat swamped by practical concerns when, early in the study, slow recruitment problems were experienced. To meet deadlines, more flexible criteria were adopted extending the maximum period of previous self-help involvement for the sample to 12 months.

SECTION 2

In designing the first wave survey, a primary concern was to set a baseline with which to associate change with different patterns of self-help attendance at the 12 month follow-up. In addition to yielding such information, it was also reasoned that the survey provided an opportunity to explore, through retrospective enquiry, some of the factors associated with first entry to self-help groups. Previous experience utilising retrospective recall suggested that reports were reasonably reliable where recall was restricted to more central life domains, where the level of information requested was not overly detailed and where respondents were facilitated to use appropriate recall strategies (Toumbourou et al., 1995).

Self-Help Research Advisory Group

An important research step was the initiation of an advisory committee composed of a mixture of people having interests in both self-help groups and research. Members of the committee with more active experience of self-help groups provided important information relevant to the development of research procedures, the selection of measures, the conduct of the study and the impact of the research on self-help members.

Sample recruitment procedure

The protocol used for approaching self-help group members is outlined below.

Protocol for approaching self-help group members	
Step 1	An advisory committee was established – conceived as a partnership between people interested in research and self-help groups (Toumbourou & Hamilton, 1994).
Step 2	Advisory committee members provided advice regarding the culture of self-help groups, procedures for approaching groups and feedback regarding reactions to the research.
Step 3	A multi-lead approach was initiated to contact self-help group members – members were approached through treatment agencies, by other self-help group members, through invitations from those previously interviewed and through announcements at public forums.
Step 4	Where consent to interview was provided, self-help group members were asked screening questions regarding their length of involvement in self-help (between three and 12 months of previous involvement). Group members fitting criteria were asked to sign a University of Melbourne consent form and complete the interview.

Measures

Measures were selected to investigate dominant public health concerns but efforts were also made to include measures relevant to the culture and ethos of the groups. Questioning needed to be of intrinsic interest to participants in order to ensure the informal reputation of the study and, hence, an adequate response. In addition, we also wanted the study to be acceptable among research audiences. Some of the behavioural measures were selected to correspond with previous research (Toumbourou et al., 1995). To provide comparison against other Australian drug treatment settings, sub-scales were selected from an Australian instrument – the Opiate Treatment Index (Darke et al., 1991).

Questions explored demographic details, history of involvement with self-help and other groups, the process of coming to enter a self-help group, subjective observations about participation in the groups, current and previous treatment experiences, drug use, employment history, criminal involvement, social and psychological variables, and social support measures. Members of the advisory committee advocated the importance of including additional measures examining outcomes valued by self-help members. Interaction within the advisory committee led to the development of a new measure examining spirituality among group members. On the advice of members with experience in self-help groups, the measure of Spirituality focused on a range of issues related to personal development.

Development of the Spirituality measure began with advisory committee members and other self-help group members describing their own experiences relevant to the concept of spirituality. From a long list of descriptive statements yielded through this process, a final list of 27 items was selected for inclusion on the questionnaire. Using a seven-point scale ranging from 'Strongly agree' to 'Strongly disagree', respondents were asked to indicate their agreement with each statement. To encourage respondents to consider the attitudes they were having more trouble integrating into actions, a further rating task for each item asked how '... important this issue is in your everyday life'. A seven-point scale ranging from 'Very important' to 'Not important' was used to record responses to this question.

Questions also investigated factors associated with social support and social network involvement. A number of domains were investigated relevant to social support, using instruments that had been developed by Havassy, Hall and Wasserman (1991) and Maton (1988). Three measures examined dimensions relevant to perceived social support. A thirteen-item index examined perceived emotional support. This index was developed by Havassy et al. (1991) from the Sarason et al. (1983) Social Support Index. An eight-item index examined perceptions of the availability of tangible support and was developed from a measure by Cohen et al. (1985). A five-item index examined negative social support and was based on the Lehman et al. (1983, cited in Havassy et al., 1991) measure. Each of the items in these scales used a six-point response scale.³

Nineteen items from Maton (1988 & 1989) were included in the questionnaire to measure four domains relevant to assessment of experience in self-help groups (based on Maton's Group Appraisal measures). Scales measured support received, friendship, benefits of group participation and satisfaction with the groups. Originally it had also been intended to measure support provided, using another of Maton's scales, but – due to a clerical oversight – these items were left off the final questionnaire.

³ We wish to acknowledge the support of Dr Barbara Havassy and colleagues and Dr Maton who kindly agreed to provide copies of their measures.

SECTION 2

Maton's *Support received* scale consisted of four items measuring the perception that adequate help and support were offered at meetings (eg 'members regularly reach out and provide emotional support to me'). The five-item *Friendships* scale evaluated the closeness ('intimacy', 'likely to continue') of friendships developed in the groups (eg 'I have developed a close friendship with another group member'). Maton's four-item *Group benefits* scale examined evaluations of benefits accruing through group participation (eg 'there have been extensive benefits for me stemming from my involvement in the groups'). The five-item *Group satisfaction* scale evaluated members' perceptions of the comparative functioning of the group (eg 'I think this group is probably among the most effective of its kind'). Items were presented using a five-point response scale with extremes reading 'Not at all accurate' and 'Completely accurate'.

Use of retrospective timeline

Retrospective recall over the previous 18 months was facilitated using an adaptation of the retrospective timeline procedure (Sobell & Sobell, 1981). The apparatus for this procedure consisted of an A4 chart with rows representing each of the previous 18 months. Four sets of columns segmented these rows and were headed from left to right: 'Self-help', 'Employment (income)', 'Legal circumstances' and 'Drug use'. The drug use column was further partitioned into columns measuring particular types of drug use. The drugs examined were heroin, amphetamines, tranquillisers, marijuana, cocaine, methadone, other opiates, tobacco and alcohol. For each of these drugs, and for the column examining self-help attendance, respondents were asked to estimate the frequency of their involvement (Figure 1). Further questions examined the amount of alcohol used, whether binge drinking had occurred and whether drinking had become a problem during particular periods. A further question asked whether any injecting of illicit drugs had occurred in particular periods.

Subject	Date	Life event	Self-help	Heroin
1	3/2/94	Relationship starts	9	9
1	1/4/94	Relapse	9	4
1	12/5/94	Doctor's referral	4	9

Frequency response options

1. More than once daily
2. Once daily
3. 5–6 times/week
4. 3–4 times/week
5. 1–2 times/week
6. 2–3 times/month
7. Once a month
8. Less than monthly
9. Not at all

Figure 1: Example of retrospective timeline chart

Retrospective charting began with respondents being asked to report events that immediately came to mind concerning the previous 18 months. This procedure attempted to elicit more accurate historical information by, initially, establishing easily recalled 'anchor points' (eg birth dates of children, dates of entry to treatment agencies). Questions were then asked in each of the main domains as relevant either to the immediacy of their recall by the respondent or in the order they were listed in the interview.

Interviews

Initial interviews were conducted between May 1994 and April 1995 by a team of researchers, each with graduate level qualifications in the social sciences. The median interview time was two hours with 87 per cent of interviews taking under two and a half hours. Respondents were paid \$25 for their time and any travel expenses incurred.

Sample

At the end of the study, 91 people had been interviewed. Of these, 37 per cent were female. The median age of those interviewed was 31. In general, those interviewed demonstrated a disadvantaged educational profile; 48 per cent had not completed year 11 and 74 per cent had not completed year 12. A small minority (15%) had, however, completed a tertiary qualification.

SECTION 2

RESULTS

Demographics

With respect to gender and the geographic distribution of group attendance, the sample appeared to be well matched to available information relevant to NA. The sample may, however, have been older than other NA members. The sample demonstrated a disadvantaged educational and economic profile.

In 1993, Narcotics Anonymous published brief details of a survey of over 5,000 members attending NA self-help groups in the United States. Comparison of age and sex characteristics of the US survey respondents with those of the Victorian sample examined in this study are shown in Table 1.

Table 1: Age and sex characteristics compared to US survey of NA attendance (1993)

	Victorian survey (N=91) %	NA (1993) (N=5,000*) %
Age at interview (in years)		
Under 20	2	11
Between 20 and 30	35	37
Between 30 and 45	56	48
Over 45	7	4**
Sex		
Female	37	36
Male	63	64 ns

**p<0.05

ns = not significant

There were no differences between the Victorian sample and the US survey of NA attendance (1993) with respect to sex. There were fewer respondents under 20 and more between 30 and 45 in the present sample compared to the US survey ($X^2_{(3, N=5091)}=9.15$, two-tailed $p=0.03$). The age distribution in the present survey also suggested a somewhat older group compared to that observed in a previous survey of Victorian self-help members (Toumbourou, Hamilton & Smith, 1994).

A number of questions examined respondents' physical and social conditions. Respondents were asked: 'Is the house you are living in owned by you, being bought by you, rented?' Around two-thirds (66%) were renting. A small minority (19%) were, however, home owners. A further group (15%) were living in residential rehabilitation programs or with parents.

SECTION 3

Almost half of those interviewed (45%) reported they were not in a relationship at the time of interview. A further 21 per cent reported they were in a relationship but not living together. Around one-quarter reported being either married or living in a de facto relationship (25%). Fifty per cent of respondents indicated they had children.

Those interviewed were predominantly Australian born (82%), with the majority of others being from Britain. Apart from respondents born in the United Kingdom (11%), New Zealand (2%) and the United States of America (1%), the only other countries represented were Germany, New Guinea and Poland (each 1%).

Over half (58%) of the 84 respondents to this question reported their gross income in the last financial year to be \$8,000 or less and 79 per cent were earning \$16,000 or less.

Self-help attendance

Various methods of measuring self-help attendance were examined. Regular self-help attendance on at least a weekly basis was found to associate most strongly with lower rates of drug use compared to other measures of self-help involvement. Evidence confirmed a strong association between involvement in self-help and use of formal treatment services. Involvement in non-methadone treatment services had steadily increased over the 18 months prior to interview. Sampled Narcotics Anonymous (NA) members demonstrated a high rate of co-involvement with Alcoholics Anonymous (AA). The location of meetings attended by respondents were similar to those published by NA – 38 per cent of home groups were in the inner urban area. Convenience and accessibility were reported to be dominant reasons for attending particular meetings. Initiation into service work is an important aspect of self-help involvement. NA service role functions commonly reported by this sample of newer members included having been asked to share, helping at a meeting, having worked on Step 1 and having shared at a meeting. A relatively small proportion reported having sponsored someone or having initiated Step 5.

First experiences with self-help

A brief screening procedure had been used to select 'newer' recruits to self-help groups. In general, members of the sample had become involved with self-help groups within the past three to 12 months. However, for a number of those surveyed, a first experience with the groups had occurred many years earlier. Those first attending in more distant years tended to not have been extensively involved in the groups after their first visit.

To examine earlier involvements in self-help groups, respondents were asked: 'When was the first time you ever sat through a self-help meeting for your own drug/alcohol use?' For over half of the sample (52%), their first involvement in self-help groups had occurred within the previous 18 months. For a number of those interviewed, a fairly long period had elapsed between the interview and their first self-help group attendance, with the longest reported period being 22 years. Generally, those attending their first self-help meeting in the more distant past had not become regular attenders at that time.

For most of those interviewed, the first self-help group they attended was an NA group (48%). For a further large group (41%), the first group attended was an AA group. Few (3%) reported having attended groups other than these. Those who had first entered self-help groups in distant years were just as likely as recent entrants to report AA was their first experience of a self-help group.

Respondents were asked why they had attended their first self-help group. The main referral source mentioned by respondents was examined (Table 2).

Table 2: Main source of referral for first self-help meeting

	Victorian survey (N=91) %
Main referral source	
Agency or professional	57
Friend/family	27
Self	9
NA or AA publicity	7

For the majority of those surveyed (57%), an agency or professional had been the main factor mentioned with respect to their first attendance. In most cases, attendance had been a compulsory condition of a treatment agency. Other referring professionals included general practitioners, the police, nurses and counsellors. Although compulsory attendance was a common way in which members first attended self-help meetings, frequent mention was made of being at a stage where attending the groups 'made sense'. For many, the encouragement to attend came from a family member or a friend. A smaller number mentioned entering the groups out of curiosity. For a small number, actions by self-help group members were reported to have been directly responsible for their first entry into the groups. In this regard were mentioned: 'NA being discussed in a radio show', 'advertising by NA' and (most commonly) members encouraging people to attend.

The present figures can be compared to figures distributed by Narcotics Anonymous (1993), where 71 per cent reported having found NA through institutions or professional contacts and 24 per cent were introduced through another member.

Patterns of self-help attendance

At the time of survey, 50 per cent of respondents reported that they were currently attending at least five meetings per week. The frequency of current meeting attendance in the present survey was comparable to that reported by NA (1993) respondents, 50 per cent of whom reported attending at least four meetings per week.

Using the retrospective chart, respondents were asked to describe how their activities in a range of areas had changed over the 18 months prior to the interview. Information obtained using the chart was recoded to examine the number of days spent in various activities across six periods, each of three months (90 days). Information on the full period of 18 months was available in 93 per cent of cases. As all subjects could provide information for the majority of the period 15–18 months prior to interview, details were imputed from available details for the seven per cent with missing days in this period.

In designing the study, the intention had been to obtain a sample of 'newer' group members. It had been hoped to explore factors influencing both initial attendance and retention in the groups. The study also aimed to examine experiences associated with the early period of involvement in the groups. In general, the survey strategy appeared to have been successful in yielding a sample of relatively new members. Only three per cent of respondents reported having attended any self-help groups six to nine months prior to the interview. In the period nine months prior, less than two per cent of the sample reported any attendance.

SECTION 3

In the period between three and six months prior to the interview, only 24 per cent of the sample had been attending any self-help groups. The majority of these had attended for less than 15 of the 90 days in this period. In the three months prior to the interview, there was some variation in the reported frequency of attendance in self-help groups. Around 20 per cent attended a self-help group on most days (46 days or more). A third (33%) attended 37 days or more. The median attendance was 19 days. Around one-third (34%) attended groups for 14 or less of the 90 days examined.

An attempt was made to examine self-help involvement on the basis of the number of meetings attended within a given period. This attempt followed the common advice given to newer NA members to attend 'ninety meetings in ninety days'. Inspection of new member profiles revealed there were a minority who had attended at this frequency throughout either the three months prior to interview (7%) or in the period immediately following their first entry into self-help (15%).

Various methods of summarising patterns of self-help attendance were considered. Three different indices were prepared, each summarising the pattern of self-help attendance over the three months prior to interview in a slightly different way. The first index was based on an estimation of the number of self-help meetings that had been attended. The second examined the number of days on which one or more meetings had been attended, and the third examined the period of time during which stable (at least weekly) group attendance had been maintained. To explore the measurement implications of the above indices, associations were conducted with measures of group attachment and behavioural outcomes relevant to treatment. To examine domains relevant to group attachment, the measures developed by Maton (1988, 1989) were examined. Pearson correlation statistics were used to assess associations. Table 3 presents the results of these analyses.

Table 3: Correlation between three different self-help attendance indices and behaviours and attitudes prior to interview

	Victorian survey (N=91) %		
Domain measured	Index of self-help attendance (for 3 months prior to interview)		
	Estimated number of meetings attended	Number of days attended meetings	Period attending meetings at least weekly
Behaviours (for 3 months prior to interview)			
Days hazardous alcohol use	-0.03 ns	-0.22**	-0.49*****
Days injecting	-0.07 ns	-0.29***	-0.46*****
Days marijuana use (log)	-0.11 ns	-0.19*	-0.43*****
Days heroin use (log)	-0.12 ns	-0.25**	-0.41*****
Current attitudes to self- help (Maton's Group Appraisal measures)			
Group benefits	+0.22**	+0.35****	+0.18*
Group satisfaction	+0.18*	+0.23**	+0.11 ns
Friendships	+0.19*	+0.29***	+0.22**

*p<0.1, **p<0.05, ***p<0.01, ****p<0.001, *****p<0.0001

ns = not significant

The first observation made following examination of the correlations in Table 3 was that each of the three measures provided somewhat different information. With respect to the behavioural indices used, the largest correlations were observed for the index examining the period of more regular attendance in the groups. When, however, measures examined attitude dimensions relevant to the evaluation of the groups, the number of days attending self-help appeared to provide the more impressive correlations. For each of the domains, the index estimating the number of meetings attended provided the weakest correlations. The associations between stable (at least weekly) self-help attendance and behavioural measures are explored later in this report.

Co-involvement in self-help groups

There was a very considerable cross-involvement with self-help groups associated with alcohol use. Almost all survey respondents reported also attending Alcoholics Anonymous (AA), and this finding could be related to a relatively high level of reporting of alcohol problems by respondents. At the time of interview, respondents were asked: 'At the moment (say, over the last month), how many different self-help meetings **of any type** do you go to? Are they all the one type (eg two NA meetings **or** one NA and one AA)?' (Table 4).

The majority of respondents tended to be involved with NA groups (96%), but 52 per cent were attending another group in conjunction with their involvement in NA and, in the majority of cases, the other group was AA.

Table 4: Type of self-help groups currently attended

	Victorian survey (N=91) %
Type of self-help attended (in previous month)	
NA only	44
NA & other	52
AA only	4

In 87 per cent of the 47 cases reporting attendance at another group, AA was among the other groups mentioned. Other groups attended included the Understanding and Support Society, Alcoholics Victorious, Women for Sobriety, Common Ground (a self-help after-care program auspiced by the Windana treatment service), Overeaters Anonymous and Gamblers Anonymous.

Meeting locations

Respondents were asked to provide details regarding each of the groups they were currently attending. Inspection revealed a reasonable spread of attendance across Victorian regions. Respondents were also asked: 'Do you have a group that you consider to be a home group?'

The majority of respondents (84%) replied they did.

SECTION 3

Table 5: Main location of groups and reported 'home group' compared to NA meeting list for Victoria

	Victorian survey (N=91)		NA groups meeting list (N=64)
	Main meetings (N ₁ =87) %	Home group (N ₂ =76) %	NA meetings (N ₃ =64) %
Meeting location			
City	21	5	16
Inner urban	37	33	30
Suburban	18	38	25
Non-metropolitan	23 ns	24 ns	29

N₁ = number of respondents from present survey listing a main meeting

N₂ = number of respondents from present survey listing a home group

N₃ = number of groups from Victorian NA groups meeting lists

ns = not significant

Although 21 per cent had been mainly attending groups in the city, few (5%) stated these groups were their home group. Statistical testing revealed no significant differences between the distributions for either the main location of meetings attended or home groups when comparisons were made against NA published groups meeting list. Findings suggested the sampling strategy had yielded an adequate geographic spread of the target population.

Respondents were asked why they had selected the particular groups they had mentioned. A variety of reasons were given for attending selected groups. Dominant themes among respondents were factors associated with convenience and accessibility. Meetings that were 'close' to home or convenient for transport were often preferred. For many, it was the presence of particular people (eg 'older cleaner members'), familiar people or the perception of relating to the characteristics of those present (eg 'older people', 'women' or 'a maturity I can bring to it'). For others, qualities of particular meetings were sought. Some respondents described meetings they considered placed special emphasis on areas such as 'spirituality', 'a positive message of recovery' or 'honesty'. While some sought small groups ('the closeness forces me to be more honest'), others preferred large meetings ('where there is less focus on me' or, in another case, 'diversity of people ... and ... information'). In other cases, reasons for attending were more emotional and experiential – described variously as 'the vibe', 'feeling comfortable' or because 'it's helping me stay clean'.

Service in self-help groups

Initiation into service work is an important aspect of self-help involvement. Respondents were asked: 'During any of your involvement with self-help/NA over this period of time that we have charted, what sort of roles have you played in the groups – specifically, have you ever done any of the following?' Respondents were then provided with the options presented in Table 6.

Table 6: Early service role induction in NA

Service role induction in NA	Victorian survey (N=91)		
	Yes %	For those who answered 'yes'	
		Median days to event from first time in self- help	First time was within last 6 months %
Service roles played in self-help groups			
Served as secretary	29	90	77
Chaired a meeting	50	128	62
Helped in a service position (eg as a committee member)	35	98	59
Helped at a meeting (ie tea person, washed dishes, drove people to a meeting, talked to a new person, set up a meeting, cleaned up after a meeting)	90	165	54
Had someone sponsor you	45	121	63
Sponsored someone else	8	329	43
Been asked to share in a meeting	97	196	48
Shared in a meeting	86	201	47
Step 1	87	153	56
Step 2	76	122	59
Step 3	56	101	61
Step 4	23	147	62
Step 5	15	162	50

More commonly reported roles included having been asked to share, helping at a meeting, having worked on Step 1 and having shared at a meeting. A relatively small proportion reported having sponsored someone or having initiated Step 5. The median period elapsing since completion of the less frequently reported roles demonstrated that the majority had first completed tasks such as serving as secretary (77%), chairing meetings (62%), helping in a service position (59%), being sponsored (63%) or working on Steps 1–5 within the last six months. Not surprisingly, the proportion reporting having first worked steps reduced for the higher steps.

There was some evidence for selectivity into group roles. Although only 29 per cent had served as secretary, this had occurred relatively quickly (median 90 days or three months) for those selected into such positions. Though half reported chairing a meeting, a longer period of around four months (median 128 days) was reported from first group involvement to this stage for most respondents.

Use of alcohol and drug services

Evidence confirmed a strong association between involvement in self-help and use of formal, non-methadone treatment services. Prior to their first entry to a self-help group, 86 per cent reported they had used a treatment service. Involvement in self-help appeared to fit within a context of increasing, non-methadone treatment involvement occurring over the 18 months prior to interview. Relatively low rates of methadone treatment involvement were reported.

Prior to the present research, questions had been raised as to whether there were self-help members who were not involved in treatment programs. Questioning revealed few self-help members had not used treatment services and the majority had used treatment programs prior to attending self-help. Respondents were asked: 'Have you ever used a drug or alcohol service (other than attending a self-help group)?' The majority (92%) reported they had used one or more drug or alcohol services prior to the interview. Further investigation revealed that 86 per cent had used a treatment service prior to the date of their first entry to a self-help group.

One question of interest to the present study concerned the history of coming to be involved with self-help and treatment programs. Figure 2 presents details of retrospective reports of involvement in self-help groups, methadone programs and other treatment programs across six periods, each of three months (data for Figure 2 are presented in Appendix 1, Table A1).

Examination of the retrospective chart information in Figure 2 revealed two important trends. First, although the number involved in methadone programs in Victoria in 1995 was larger than the number in all other forms of treatment, the present sample reported relatively low methadone involvement. Rates of methadone involvement remained stable between seven and 12 per cent across the periods examined. Second, a progressive increase in levels of overall treatment involvement (note: 'Any treatment' in the graph includes methadone) was observed throughout the 18 month period examined. Findings suggested that involvement in self-help fitted within a context of increasing, non-methadone treatment involvement.

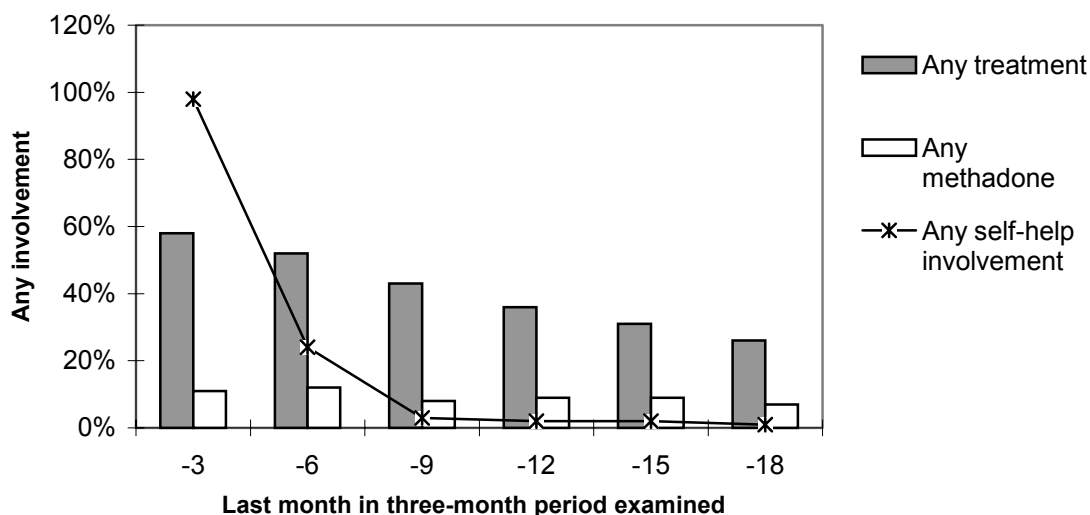


Figure 2: Changes in treatment and self-help involvement across six three-month periods prior to interview

Drug use and related behaviours

Self-help members reported a low rate of other drug use in the period prior to the interview. Drug use had demonstrated a steady decline in the 18 months prior to interview, with more dramatic reductions associated with the recent period where self-help involvement had increased. Tobacco use remained prevalent across all periods examined. Alcohol problems were the most common drug use issues, with 88 per cent of respondents reporting having experienced a problem in this area. Other drugs frequently reported in relation to problems experienced included amphetamines (80%), marijuana (77%), tobacco (73%), heroin (69%) and tranquillisers (65%). The period of increased involvement in self-help groups was associated with changes in sources of income support.

Using the Opiate Treatment Index (OTI) procedure, respondents were asked about their current drug and alcohol use. Apart from tobacco, few were current drug users. Hence, Table 7 reports percentages for any drug involvement, rather than OTI Drug Use scale scores.

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Table 7: Current drug use

	Victorian survey (N=91)
Drug type	Current use %
Alcohol	7
Amphetamines	1
Heroin	4
Other opiates	3
Marijuana	7
Tobacco	92
Tranquillisers	5

Tobacco use was widespread. However, self-help members reported a low rate of other drug use in the period prior to the interview.

Chronology of drug-related life events

Questioning attempted to identify a history of drug use. Respondents reported details of the age of first occurrence of particular drug-related events, such as first drug use, first problematic drug use, first conviction and first experience of treatment. These details were compared against those for a previously studied sample of residential clients attending the Odyssey House program in Victoria. The Odyssey House program was used as a basis for comparison, as it was also a drug-free alternative for the treatment of illicit drug use problems and had been the subject of a previous investigation examining client characteristics, treatment processes and treatment outcomes (Toumbourou, Hamilton & Fallon, 1998).

Table 8: Age (in years) of first drug behaviour, offence and treatment. Self-help respondents compared to Odyssey House residents

	Victorian survey (N=91)		Odyssey House therapeutic community (1984–88) ^a	
First drug-related event	Age first		Age first	
	Mean ± 95% CI	(%N)	Mean ± 95% CI	(%N)
Tobacco use	13.0 ± 0.7	(100)	na	
Alcohol use	13.8 ± 0.7	(98)	14.6 ± 0.5	(87)
Marijuana use	15.6 ± 0.8*	(89)	15.8 ± 0.5	(97)
Amphetamine use	18.8 ± 0.8	(89)	19.6 ± 0.8	(81)
Tranquilliser use	19.8 ± 1.3*	(93)	19.6 ± 0.8	(69)
Conviction	20.1 ± 1.5	(78)	18.8 ± 0.6	(75)
Heroin use	20.6 ± 1.0	(85)	19.5 ± 0.7	(93)
Tobacco problem	22.3 ± 1.9	(73)	na	
Heroin problem	24.1 ± 1.6	(69)	20.3 ± 0.5	
Alcohol problem	24.5 ± 1.9	(88)	17.0 ± 0.6	
Marijuana problem	24.6 ± 1.9	(77)	16.8 ± 0.5	
Amphetamine problem	24.6 ± 1.5	(80)	20.9 ± 0.7	
First treatment entry	26.1 ± 1.7	(90)	23.7 ± 0.6	(67)
Tranquilliser problem	27.6 ± 2.3	(65)	21.6 ± 0.9	

*Note: these variables were not normally distributed. The modal age for marijuana use in the self-help sample was 13. The reported age of first tranquilliser use demonstrated a broad range and a bimodal distribution. Modal ages of first use of tranquillisers were 17 and 25. These differences may have been associated with different interpretations of the question, with some emphasising 'first non-medical use'.

na = not available

^a First drug use from Odyssey clinical records 'Age first use' (N=165–7). Problems calculated from induction records 'Age at induction' – 'Duration of problem' (N=115–332).

The average age of first tobacco use for the self-help sample was 13, with all respondents having tried tobacco. Major problem areas for the self-help respondents were alcohol and amphetamines. Respondents reported alcohol problems to be the most common drug use issue, with 88 per cent reporting having experienced a problem with their alcohol use at some stage in the past. Other drugs frequently reported in relation to problems experienced included amphetamines (80%), marijuana (77%), tobacco (73%), heroin (69%) and tranquillisers (65%).

Age of first use of drugs appeared to be similar across the two drug treatment samples. Comparison suggested residents of the Odyssey House therapeutic community demonstrated similar overall rates of convictions. Odyssey residents tended to be younger, however, at the time of their first conviction. Odyssey residents also tended to report problems with illicit drug use at a younger age, perhaps reflecting problems with the law. At the time of their first program entry, fewer of the Odyssey sample reported previous treatment involvement. However, the average age of first treatment was lower for the Odyssey residents compared to the Victorian self-help sample.

Drug use and self-help involvement in the 18 months prior to interview

Drug use in the months prior to interview was examined. Figure 3 presents retrospective chart information for reported frequency of involvement in various types of drug use through the 18 months prior to interview (data for Figure 3 are presented in Appendix 1, Table A2).

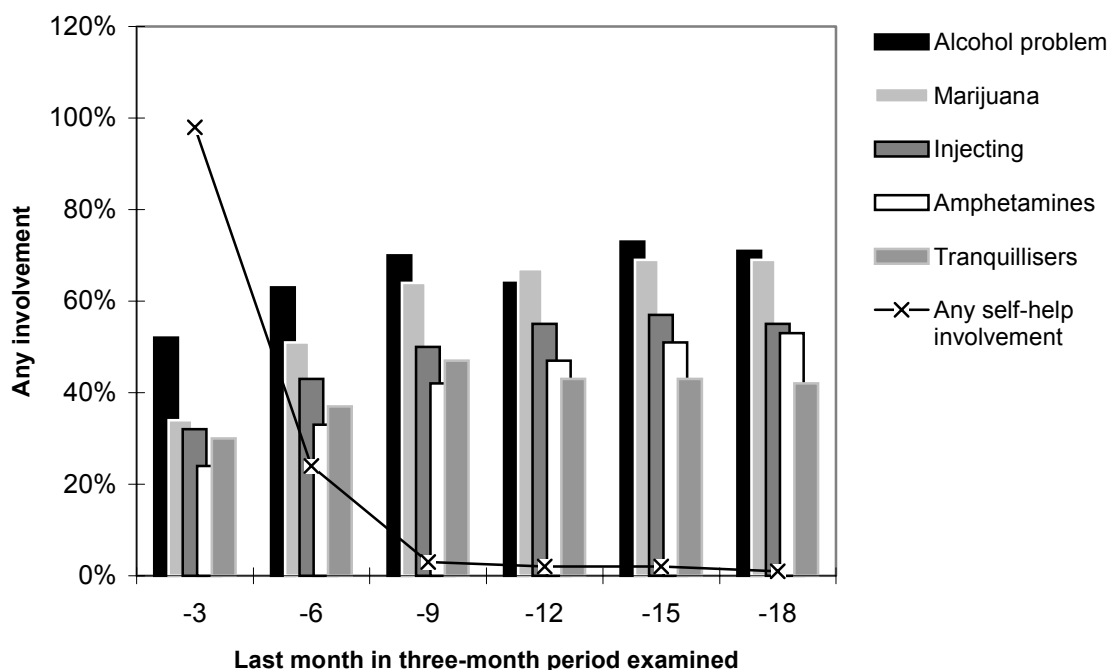


Figure 3: Changes in drug use and self-help involvement across six three-month periods prior to interview

Inspection of Figure 3 suggested an overall trend for rates of drug use to have steadily reduced through the 18 months prior to interview. Drugs demonstrating most change were marijuana (reducing from 68% involvement 15–18 months prior down to 36% in the three months before the interview), amphetamines (51% to 24%), tranquillisers (43% to 30%) and cocaine (17% to 3%). Heroin use demonstrated little change through the period observed and other opiate use demonstrated a modest reduction. For many of the drugs examined, a period of greater reduction co-occurred with increasing self-help involvement, suggesting a positive association between the two activities.

Tobacco use remained very prevalent and stable across each of the periods (96–98%). An index measuring reports of alcohol problems was constructed by aggregating reports of any alcohol consumption above the National Health and Medical Research Council (1992) guidelines for hazardous use or periods of self-reported problems with alcohol use. Prior to the period of increasing involvement in self-help groups, alcohol problems were reported by between 60 per cent and 67 per cent of the sample, depending on the period examined. This had reduced somewhat to 49 per cent in the months of greatest involvement in the groups. Injecting drug use demonstrated a reasonably clear decline in association with involvement in the groups.

Income sources and crime

Data were further explored to examine trends in the sources of income in the months prior to interview. Figure 4 presents retrospective chart information for reports of various forms of income sources through the 18 months prior to interview (data for Figure 4 are presented in Appendix 1, Table A3).

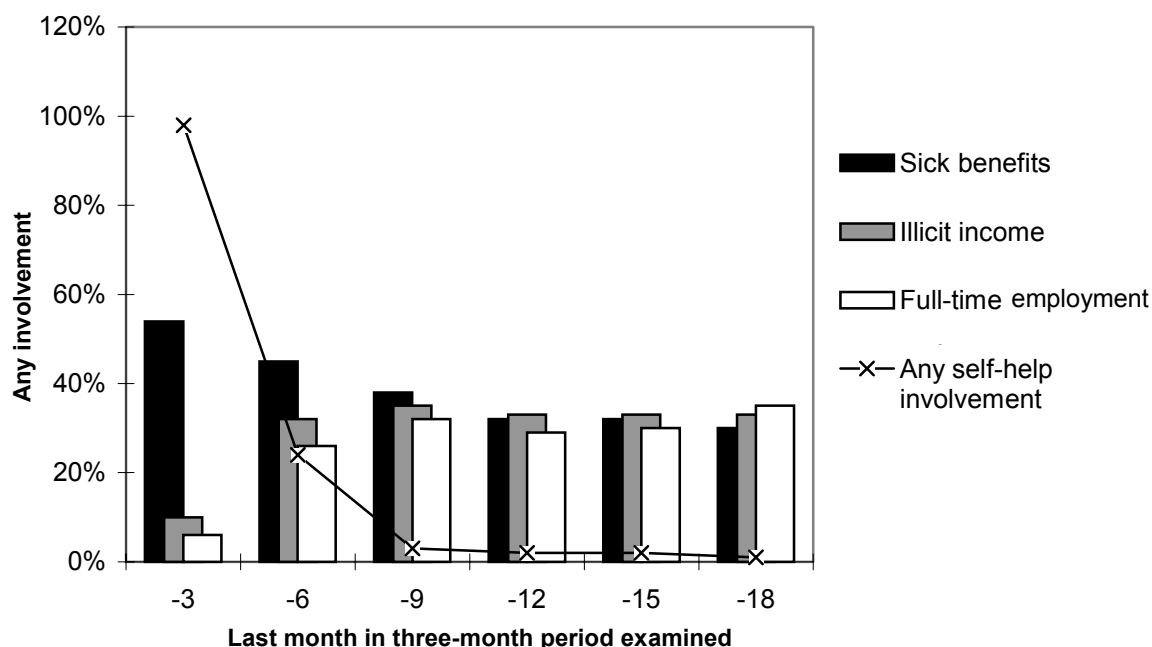


Figure 4: Changes in sources of income support and self-help involvement across six three-month periods prior to interview

Inspection of Figure 4 suggested the period of increased involvement in self-help groups had been associated with a decrease in both illicit income and full-time employment. These forms of support appeared to have been replaced with an increasing reliance on sickness benefits.

Rates of dependence on unemployment, supporting parent and disability benefits were stable across the period at 15–17 per cent, 10 per cent and seven per cent respectively. Incarceration rates were low, with between 0 and six per cent incarcerated, depending on the period examined.

Respondents were asked: 'Have you ever been **convicted** of a crime?' and 78 per cent responded 'Yes'. The age of first conviction ranged considerably, with over a quarter (26%) having been convicted at or before age 16. Thirty per cent of respondents reported having been convicted at least once through the 18 months prior to the interview. Respondents were asked: 'Did any of the acts that you were convicted for have anything to do with using? Were they with friends that use, or were they somehow connected to using?' Of the 78 respondents to this question, 55 (71%) answered 'Yes'.

Health

In general, the sample demonstrated a high rate of physical health problems. Neurological conditions were common, as were cardio-respiratory difficulties. Reports of psychiatric conditions were common, with around half the sample evidencing symptoms severe enough to be diagnosed by a general practitioner.

Physical health

As part of the Opiate Treatment Index (OTI) procedure, respondents were asked to complete a physical health check list. Table 9 presents findings for health sub-scales.

Table 9: Physical health status of self-help respondents

		Victorian survey (N=91)
Health sub-scales	Number of items	One or more problems %
General health problems	14	88
Injection related problems	5	10
Cardio-respiratory	9	79
Genito-urinary	4	24
Gynaecological (for women only, with reference to the last few months)	2	33 (of women)
Musculoskeletal	3	61
Neurological	9	87
Gastrointestinal	5	50
		Mean symptoms (SD)
Total	51	11.4 (7.3)

In general, the sample demonstrated a high rate of physical health problems. Most of those sampled indicated they had at least one general health problem (median 3). Most (79%) had at least one cardio-respiratory difficulty (median 3) and/or neurological condition (87% at least one symptom, median number of symptoms was 1). The high rate of respiratory problems was noteworthy, given the prevalence of smoking evidenced in the sample.

Mental health

To investigate the mental health of those involved in the self-help groups, the 28-item version of the General Health Questionnaire (GHQ) was administered (Goldberg & Williams, 1988). This version of the GHQ provided information relating to four scales of mental health and, in addition, provided a global psychiatric health index. The global index was conceived as a measure of the likelihood an individual would be diagnosed by a generalist service provider (such as a general practitioner) to be suffering from a psychiatric illness. Table 10 reports on the findings for the GHQ.

Table 10: GHQ scores for self-help respondents

	Victorian survey (N=91)
GHQ scale	Mean (SD)
Somatic	12.9 (4.2)
Anxiety	14.6 (4.5)
Social	11.6 (3.6)
Depression	10.7 (4.2)
	%
Global (4<GHQ)	51

Based on the self-reports of respondents, there appeared to be a relatively high prevalence of psychiatric symptoms. About half the respondents (51%) reported a level of symptoms above the cut-off for case identification (greater than four symptoms).

Attachment to self-help beliefs

An existing scale was used to evaluate respondents' perceptions of the support they received from NA groups. Evaluations were low compared to those previously reported for a US Overeaters Anonymous group; however, this finding related to the NA sample being new to the groups. Items designed to measure spirituality were analysed, and revealed three factors labelled *Acceptance*, *External spirituality* and *Honesty*.

In line with the focus on the processes surrounding group induction, questioning explored a number of domains relevant to members' attitudes toward the NA groups. A first set of questions explored Maton's Group Appraisal measures of perceived support from self-help groups. In his work, Maton differentiated three types of self-help groups: 'those focusing on a time delimited or life transitional stress (eg divorce); those focusing on a long-term or chronic life stress (eg parents of the retarded); and those focusing on addictions or problems of behavioural control (eg alcoholism)' (Maton, 1988, p57). Maton's definition would tend to regard groups such as Overeaters Anonymous and Narcotics Anonymous as similar in their focus on addiction. In Table 11, scores on Maton's measures were compared for members from two separate surveys of self-help groups based on the 12 Step model of addiction.

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Table 11: Perceived support experienced within self-help groups. NA self-help respondents compared to US sample of people attending Overeaters Anonymous (OA) groups (scales from Maton, 1988)

	Narcotics Anonymous Victorian survey (N=89)	Overeaters Anonymous US survey (N=53)
Maton's Group Appraisal measures	Mean (SD)	Mean (SD)
Support received	15.0 (4.2)	20.7*** (3.1)
Friendships	14.5 (5.0)	18.1*** (4.7)
Group benefits	21.3 (4.5)	21.8 ns (3.4)
Group satisfaction	18.9 (5.4)	20.6* (3.9)

*p<0.05, ***p<0.001

ns = not significant

Respondents tended to evaluate the NA groups to be lower with respect to *Support received*, *Friendships* and *Group satisfaction* compared to the US sample of people attending Overeaters Anonymous (OA) groups. Maton's (1989) data demonstrated his OA sample was among the most satisfied of the self-help attenders he surveyed. The above differences may suggest more that the OA members were extremely satisfied rather than that NA members were not. It should also be noted that the OA group surveyed had spent an average of 36 months attending groups prior to survey. This may also have explained higher scores on some measures such as *Group benefits* in the OA group. There was some evidence in the present survey supporting the view that group evaluations improved with length of experience with the group. Those with longer periods of regular attendance in NA rated themselves significantly higher on the *Friendships* and *Group benefits* scales (Table 19).

Spirituality

At the time of initiating the present research, few previous studies had investigated the beliefs around spirituality that are regarded as important by self-help members. In developing a Spirituality measure for the present study, the original intention had been to develop a discrepancy score based on the difference between agreement and importance ratings for each of the Spirituality items (see section two, Methods – Measures). Responses demonstrated, however, a strong correlation between agreement and importance ratings, but agreement responses generally exhibited more normal distributions.

Twenty-seven items considered to measure aspects of spirituality were yielded through contact with self-help members and included in the interview. At the end of data collection, standard procedures for scale construction were utilised. Inspection of item distributions for the agreement ratings led to the rejection of three items on the basis that responses were not-normally distributed, skewness or kurtosis above 1.5. The remaining twenty-four items were subjected to a principal components factor analysis using varimax rotation. Inspection of eigenvalues using the scree-test suggested a three-factor solution explaining 51 per cent of the variance. The first factor, composed of five items, explained 28 per cent of the variance and was labelled *Acceptance*. The second factor, composed of four items and explaining 14 per cent of the variance, was labelled *External spirituality*. The third factor, composed of two items, explained nine per cent of the variance and was labelled *Honesty*. Table 12 presents details of items and loading for the three factors identified, together with means and standard deviations for each of the three scales formed.

Table 12: Spirituality scale scores

Item	Victorian survey (N=91)		
	Acceptance	External spirituality	Honesty
I accept myself as I am	0.77		
I've set specific goals to achieve in life	0.55		
I feel a sense of wholeness	0.69		
I forgive others	0.77		
I accept other's choices for themselves, even when they differ from what I would choose for them	0.60		
Spirituality is not merely personal ... it is something greater than myself		0.67	
I help others		0.59	
Prayer is part of my regular activities		0.86	
I am a spiritual person		0.87	
I'm honest with myself			0.61
I'm honest in my relationship with other people			0.68
Variance	28%	14%	9%
Mean (SD)	25.0 (6.6)	21.9 (5.9)	10.8 (2.5)

The finding of major factors associated with *Acceptance* and *Honesty* fitted with qualitative observations. Describing a professional worker's experience entering self-help groups, Keenan et al. (1996) commented on the NA groups' emphasis on acceptance of others and the sharing of private experience. Reference within the 12 Step model to 'God' and a 'Higher Power' were both congruent with a group belief emphasising external spiritual support.

Social support

Members entering self-help groups tended to have smaller social networks than have been reported in observations of other populations; however, few clear cases of totally isolated social networks were evident. Few members appeared to be under overt pressure from their social network to continue drug use. There were, however, many people with drug users in their close social networks.

It is frequently suggested that self-help groups play an important role in facilitating social support. However, few studies have previously examined this issue. In the present study, questioning explored a variety of social support dimensions, including social network details.

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Social support scales

A first set of analyses explored scores on three scales designed to measure three aspects of social support: *Emotional support*, *Tangible support* and *Negative social support* (Table 13).

Table 13: Perceived social support (scales from Havassy et al., 1991)

	Victorian survey (N=91)
Perceived social support	Mean (SD)
Emotional support	62.9 (11.7)
Tangible support	36.6 (10.0)
Negative social support	17.8 (5.5)

Comparison revealed little association between evaluations of social support and retrospective accounts of self-help involvement.

Social networks

Respondents were asked a number of questions relevant to their social networks. An initial question asked: 'Would you say that, at the moment (say, in the last month), you are socialising mainly or exclusively with people from your self-help group?' The majority of respondents (65%) claimed they were only (13%) or mainly (52%) socialising with self-help group members, 23 per cent stated equally with self-help members and people outside the group, and nine per cent and three per cent stated they were mainly or only socialising with people outside the group.

Respondents were asked about any social or community groups they might be active in. Active was defined as 'going to meetings or taking part in group activities'. A list of group types were then presented. Participation in groups such as religious services stipulated as a condition of treatment participation were excluded. Fifty per cent described themselves to be active in one or more types of social or community groups.

A number of questions examined the nature of social networks. In general, those interviewed appeared to be reasonably well integrated into social networks. Only four (4%) reported not having a spouse, partner, household member, best friend, or friend or relative they felt close to and contacted regularly.

Table 14: Membership within close social network

	Victorian survey (N=91)
Close social network membership	Yes %
Has a spouse, partner, household member or best friend	92
Spouse or partner	54
One or more household members	43
Best friend	62
Close relatives or friends contacted monthly or more	90
Close relatives contacted monthly or more	60
Close friends contacted monthly or more	74

Investigation confirmed that members entering self-help groups tended to have smaller networks than have been reported in observations of other populations. Reports demonstrated, however, few clear cases of totally isolated social networks. Most respondents were in contact with at least one relative or friend. The median number of close relatives or friends contacted monthly or more was two.

To further explore social network connections, the total number of people that respondents reported to have some contact with were examined. The number of household members, close relationships (spouse and/or best friend), and friends and relatives were summed. The average number reported in the network was seven (median 5). This was a surprisingly small number. Although the method of calculation was slightly different, the total number was well below 24 – the number reported by Hawkins (1980) for non-drug-using populations.

Contact with people who use drugs may be one mechanism leading to drug involvement. Respondents were asked about the influence of members in their 'inner social circle' (eg lovers and housemates) on drug use and attendance at NA (Table 15).

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Table 15: Drug-related influence of spouse/partner, household member, non-live-in partner or best friend

	Victorian survey (N=91)
One or more from your spouse/partner, household member, non-live-in partner or best friend ...	Yes %
Use your problem drug – sometimes, often or all the time	31
Somewhat or strongly encourage you to use your problem drug	7
Somewhat or strongly discourage your use of your problem drug	86
Are somewhat or strongly supportive about you quitting using your problem drug	86
Are somewhat or strongly against you quitting using your problem drug	3
Are somewhat or strongly supportive of your being involved in the fellowship	79
Are somewhat or strongly against your being involved in the fellowship	10

The above information suggested there were few of those interviewed who were not receiving support to quit their problem drug use from their close social community. Around 80 per cent or more were subject to encouragement not to use drugs and to be involved in the NA fellowship. Table 16 further explores drug-related influences among an ‘outer social circle’ of close friends and relatives.

Table 16: Drug-related influences of friends or relatives you feel at ease with, can talk to about private matters and can call on for help

	Victorian survey (N=91)
One or more friends or relatives ...	Yes %
Use your problem drug	40
Encourage you to continue using your problem drug	3
Are supportive now about you quitting using your problem drug	89
Encourage you to continue your involvement in the fellowship	84
Encourage you to stop your involvement in the fellowship	6

The above information suggested there were few people exposed to direct encouragement to continue drug use. A considerable number were, however, exposed to people using their problem drug. Table 17 further explores the use of the respondent’s problem drug within the close social network.

Table 17: Use of problem drug within close social network

	Victorian survey (N=91)
Uses your problem drug	Yes %
Spouse or partner	11
One or more household members	9
Best friend	19
One or more close relatives	22
One or more close friends	29

In addition, 28 per cent stated there were acquaintances they expected to see in the future 'who might make it difficult ... to keep from using your problem drug'.

Although the above data suggests there was a relatively high number of respondents exposed to one or more members of their social network who were using their problem drug, this was partly explained by the relative size of their friendship networks. There were 84 per cent with either a close relative or friend not using their problem drug (median 2), 54 per cent reported one or more close relatives not using, and 68 per cent reported one or more close friends not using their problem drug.

Cross-sectional associations with regular self-help attendance

To assess possible self-help impacts, a subsample of 80 respondents was identified on the basis of their recent and stable membership in self-help. This sample was divided on the basis of how long they had been weekly (or more regular) self-help attenders prior to their first interview. Analyses were conducted to explore relationships between various periods of regular exposure to self-help. Longer periods of regular self-help attendance were significantly associated with: completion of service roles (eg chairing meetings, helping in service positions); acceptance of beliefs associated with external spirituality; perception of friendships and benefits having been gained through the groups; involvement in a larger range of community and social activities; and more frequent reports of close friends being contacted monthly or more often, close friends not using the respondent's problem drug, having others in one's household, and having other householders who encouraged quitting.

The above sections present details relevant to the characteristics of new members entering Victorian self-help groups. In what follows, associations are presented between self-help involvement and the range of variables measured at the first interview.

One option available for cross-sectional analyses was to compare respondents on the basis of the amount of time they had spent in regular self-help meeting attendance prior to the interview. As there were people in the sample who had previous histories of self-help involvement, an attempt was made to isolate a group who were unambiguously in the process of early exposure to the self-help group experience.

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Examination of retrospective reports, recorded at the first interview, revealed a core of 80 respondents who seemed to fit this description. These 80 respondents reported:

- their first regular attendance in the groups had occurred in the 12 months prior to the interview
- from either this date, or a date shortly after, their involvement in the groups had increased to weekly or more regular attendance
- weekly or more regular attendance demonstrated stability through to the date of interview

This left a residual of 11 respondents departing from this profile. In most of these cases, self-help groups had been attended on a weekly (or more regular) basis at some point in the past, but this had either occurred prior to the 18 month period examined and/or had not been maintained on a stable basis. In a smaller number of cases, involvement had remained irregular for a substantial period.

Further examination revealed the group of 80 'first timers' could be subclassified according to the length of time they had spent attending self-help meetings at a weekly or higher frequency prior to interview. The sample was divided into three groups of respondents attending weekly or more frequently for various lengths of time over the period from their first major involvement in the self-help groups to the time of interview: under three months (n=28), from three to less than six months (n=23), and for six months or more (n=29).

The period that had elapsed since the date of the first entry of these people into self-help was examined. In all but one case, the interview provided three months of information relevant to the period before their first entry into the groups. Over one-and-a-half months of information was available for this respondent, enabling behaviours in the three months prior to self-help entry to be imputed.

Length of regular self-help attendance prior to first interview and demographic factors

Analyses were conducted to explore for associations between self-help attendance and demographic factors. Involvement in self-help groups was cross-tabulated against a range of demographic factors including: age at interview, age at entry to self-help, sex, level of secondary school education attained (year 11 or above), ownership or purchase of a home, gross annual income (\$8,000 or less), relationship status, marital status (divorced or separated), and number of children. Those either purchasing or owning a house were among the more consistent attenders of the groups. Of the 15 respondents reporting this house status, 80 per cent reported they had attended self-help groups on 'at least a weekly' basis for six months or more. In comparison, only 20 per cent of those outside this house status reported such consistent self-help attendance ($\chi^2_{(2, N=80)}=15.4$, two-tailed $p=0.001$). The other demographic factors that were measured did not significantly associate with stable self-help attendance.

Length of regular self-help attendance prior to first interview and group role induction

Group theory posits the attainment of roles and status as an important marker for the development of group attachments. The integration of members into organisational roles within self-help groups, and the relationship of this process to the period of stable attendance in the groups, was examined. The question was posed: 'Were stable attenders entered into roles after a set period of time, or on the basis of other markers of their progress and maturity?' Cross-tabulations were conducted exploring the association between indicators of service role integration in the groups and the period of stable (at least weekly) meeting attendance (Table 18).

Table 18: Associations between length of stable self-help involvement prior to first interview and service roles played in self-help groups

Service roles played	Victorian survey (N=91)			
	Period of at least weekly self-help attendance			
	Unstable (n=11) %	<3 months (n=28) %	3–6 months (n=23) %	6+ months (n=29) %
Served as secretary	19	14	39	38*
Chaired a meeting	55	29	45	72***
Helped in a service position (eg as a committee member)	45	14	30	55***
Helped at a meeting (ie tea person, washed dishes, drove people to a meeting, talked to a new person, set up a meeting, cleaned up after a meeting)	100	89	78	97 ns
Had someone sponsor you	55	29	43	61*
Sponsored someone else	18	4	13	3 ns
Been asked to share in a meeting	100	100	91	97 ns
Shared in a meeting	100	79	74	97*
Step 1	100	86	87	83 ns
Step 2	91	75	78	69 ns
Step 3	82	43	61	55 ns
Step 4	45	11	22	28 ns
Step 5	36	7	4	24*

Chi-square comparisons exclude unstable attending group *p<0.1, **p<0.05, ***p<0.01, ****p<0.001, *****p<0.0001

ns = not significant

Two items demonstrated a significant Chi-square association with period of regular self-help attendance. Chairing meetings and helping in service positions were more common with longer periods of attendance. As the sample size was relatively small, it is important to be alert to low power considerations. There were a number of not quite significant trends evident that should be examined in future studies. The unstable attending group were less likely to have acted as secretary, but were more likely to report having initiated Steps 4 or 5.

In a further set of analyses, associations between beliefs relevant to self-help group attachment and regular self-help involvement were examined. The scales designed to measure Spirituality and Maton's Group Appraisal measures were examined in these analyses (Table 19).

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Table 19: Associations between length of stable self-help involvement prior to first interview and acceptance of group norms and beliefs

	Victorian survey (N=91)			
Beliefs	Period of at least weekly self-help attendance			
	Unstable (n=11) Mean (SD)	<3 months (n=28) Mean (SD)	3–6 months (n=23) Mean (SD)	6+ months (n=29) Mean (SD)
Spirituality				
Acceptance	26.8 (7.1)	22.5 (6.7)	25.3 (6.9)	26.3 (5.8)*
External spirituality	23.7 (5.9)	19.6 (6.2)	21.3 (6.7)	23.6 (4.1)**
Honesty	11.5 (1.9)	11.0 (2.3)	10.2 (2.7)	10.7 (2.7) ns
Total 3 factors	62.0 (9.9)	53.1 (11.1)	56.9 (12.4)	60.3 (9.1)*
Maton's Group Appraisal measures				
Support received	15.5 (3.8)	13.9 (4.7)	15.5 (4.7)	15.4 (3.4) ns
Friendships	15.1 (4.4)	11.8 (4.0)	13.6 (4.3)	16.3 (3.5)****
Group benefits	22.5 (4.6)	19.0 (5.1)	21.8 (4.6)	22.6 (2.8)***
Group satisfaction	18.8 (6.3)	17.5 (5.9)	18.8 (4.3)	19.9 (4.7) ns

Chi-square comparisons exclude unstable attending group *p<0.1, **p<0.05, ***p<0.01, ****p<0.001, *****p<0.0001
ns = not significant

Longer periods of stable group attendance were associated with significantly more agreement on the *External spirituality* factor. There was a trend for longer periods of involvement to be associated with the *Acceptance* factor and with the aggregate measure of Spirituality. Unstable attenders appeared similar to longer term regular attenders on the spirituality scales.

Two of the four self-help Group Appraisal measures developed by Maton demonstrated significant associations with longer periods of regular self-help attendance. Longer periods of regular attendance were associated with higher scores on the *Friendships* scale and on the *Group benefits* scale. Unstable attenders also appeared similar to longer term regular attenders on the Maton scales.

Length of regular self-help attendance prior to first interview and social support

Associations between periods of stable self-help attendance and other social involvements were examined. In the first analysis reported in Table 20, the association between stable (at least weekly) self-help involvement and participation in other community and social groups (eg recreational groups, church, political groups, unions) was examined.

Table 20: Associations between length of stable self-help involvement prior to first interview and involvement in social and community groups

	Victorian survey (N=91)			
Involvement in social and community groups (number active in)	Period of at least weekly self-help attendance			
	Unstable (n=11) %	<3 months (n=28) %	3–6 months (n=23) %	6+ months (n=29) %
0	46	71	52	28
1	18	18	26	31
2+	36	11	22	41

Active involvement in community and social groups was found to be associated with length of stable self-help involvement ($\chi^2_{(N=80, 4 \text{ df})}=12.0, p=0.02, 2\text{-tailed}$). Longer periods of self-help involvement were associated with higher rates of attending one and more than one different types of social and/or community groups. A high proportion of longer term members were involved in multiple group types. Unstable group members appeared similar in profile to the longer term members on this measure.

Table 21 presents associations between length of stable (at least weekly) self-help involvement and a variety of social network measures.

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Table 21: Associations between length of stable self-help involvement prior to first interview and social network involvement

	Victorian survey (N=91)			
Social network involvement	Period of at least weekly self-help attendance			
	Unstable (n=11) %	<3 months (n=28) %	3–6 months (n=23) %	6+ months (n=29) %
Social network				
Spouse or partner	64	50	52	55 ns
One or more in household	18	43	26	66**
Best friend	64	50	57	76 ns
Spouse, partner, household member or best friend	91	89	91	97 ns
Uses your problem drug				
Spouse or partner	9	11	13	10 ns
Household member	0	11	4	14 ns
Best friend	18	7	22	28*
Spouse, partner, household member or best friend	27	25	30	38 ns
One or more close relatives	0	18	22	36 ns
One or more close friends	27	32	26	29 ns
One or more close relatives or friends	27	36	39	50 ns
Doesn't use your problem drug				
One or more close relatives	82	54	48	48 ns
One or more close friends	83	43	74	83***
Encourages use of your problem drug				
Spouse, partner, household member or best friend	9	7	9	3 ns
One or more close friends or relatives	0	7	4	0 ns

Chi-square comparisons exclude unstable attending group *p<0.1, **p<0.05, ***p<0.01, ****p<0.001, *****p<0.0001
ns = not significant

Table 21 (cont.): Associations between length of stable self-help involvement prior to first interview and social network involvement

Social network involvement (cont.)	Period of at least weekly self-help attendance			
	Unstable (n=11) %	<3 months (n=28) %	3–6 months (n=23) %	6+ months (n=29) %
Discourages use of your problem drug				
Spouse, partner, household member or best friend	91	82	78	93 ns
Encourages you to quit use of your problem drug				
Spouse	55	50	52	55 ns
Household member	9	32	17	55**
Best friend	55	50	52	76*
Spouse, partner, household member or best friend	82	79	83	97*
Contacted monthly or more often				
One or more close relatives	64	61	57	61 ns
One or more close friends	82	54	74	93****
Other				
Expects to see an acquaintance in the future who might make it difficult to keep from using problem drug	18	29	35	24 ns

Chi-square comparisons exclude unstable attending group *p<0.1, **p<0.05, ***p<0.01, ****p<0.001, *****p<0.0001

ns = not significant

Longer periods of regular self-help involvement were strongly associated with reports of close friends being contacted monthly or more frequently and with close friends not using the respondent's problem drug. Significant associations were also observed between stable self-help involvement and having others in one's household and/or household members who encourage quitting. Unstable self-help attenders appeared to have relatively high levels of social support.

Length of regular self-help attendance prior to first interview and health

Further analyses reported in Table 22 explored associations between periods of stable self-help involvement and health.

Table 22: Associations between length of stable self-help involvement prior to first interview and health

Health scales	Victorian survey (N=91)			
	Period of at least weekly self-help attendance			
	Unstable (n=11)	<3 months (n=28)	3–6 months (n=23)	6+ months (n=29)
GHQ Mental Health				
Somatic	12.3	13.5	13.2	12.3 ns
Anxiety	12.4	15.0	13.9	14.6 ns
Social	11.0	11.0	12.6	11.6 ns
Depression	8.9	10.4	11.3	11.2 ns
Global (4<GHQ)	18%	64%	65%	38%
OTI Physical Health				
Total physical symptoms	8.2	14.4	10.1	10.8*

*Significant trend p=0.08

ns = not significant

On the GHQ sub-scales, there appeared to be little difference in the samples reporting stable attendance for different periods. There was a trend for those regularly involved for longer than six months to show less global severity of symptoms on the GHQ, and for those involved for more than three months to show improvements on the OTI Physical Health scale. The unstable attendance group evidenced fewer health problems.

Length of regular self-help attendance prior to first interview and drug-related behaviours

Those who had spent longer periods in stable group attendance prior to first interview demonstrated lower rates of treatment, alcohol and drug use, illicit income and receipt of sickness benefits in the three months prior to interview. These differences appeared to be explained by two factors: (i) those who had been less involved in injecting and heroin use before entering self-help were more likely to stay in self-help, and (ii) improvements made while involved in self-help. Analyses suggested that improvements were mostly associated with time spent in regular self-help attendance rather than through step or service work activities. Having initiated work on Step 4 was, however, associated with particularly low rates of alcohol use.

An important set of analyses explored associations between periods of regular self-help involvement and drug-related behaviours (Table 23).

Table 23: Associations between length of stable self-help involvement prior to first interview and drug-related behaviours in the three months prior to interview

Behaviours in 3 months prior to interview	Victorian survey (N=91)			
	Period of at least weekly self-help attendance			
	Unstable (n=11) %	<3 months (n=28) %	3–6 months (n=23) %	6+ months (n=29) %
Any treatment use	45	86	57	38****
Any methadone use	0	25	9	3**
Any heroin use	18	46	22	10****
Any amphetamine use	27	46	4	7****
Any tranquilliser use	45	39	13	17*
Any marijuana use	36	54	22	24**
Any cocaine use	9	4	0	3 ns
Any other opiate use	18	7	13	17 ns
Any problem alcohol use ^a	55	71	22	14****
Any injecting	27	61	22	14****
Injecting and alcohol use ^a	27	46	13	3****
Any tobacco use	100	96	96	100 ns
Any illicit income	18	36	4	17**
Any jail	0	0	0	0 ns
Any full-time employment	9	19	18	14 ns
Any sickness benefits	45	74	64	31***
Any disability pension	9	4	5	14 ns
Any supporting parent benefit	0	7	18	10 ns
Any unemployment benefit	36	11	18	7 ns

Chi-square comparisons exclude unstable attending group *p<0.1, **p<0.05, ***p<0.01, ****p<0.001, *****p<0.0001

ns = not significant

^aNote: these figures demonstrate slightly reduced levels of problematic alcohol use compared to rates reported in Toumbourou et al. (1996), where missing alcohol data were not imputed but were assumed to have been problematic.

The analysis presented in Table 23 demonstrated that length of stable attendance in the groups was associated with lower rates on a range of domains related to alcohol use and illicit drug use. In the three months prior to interview, those having spent longer periods in stable group attendance demonstrated lower rates of treatment, methadone use, heroin use, amphetamine use, marijuana use, problematic alcohol use (defined as hazardous levels of alcohol consumption on National Health and Medical Research Council 1992 criteria and/or alcohol consumption evaluated as problematic), injecting, and injecting while also experiencing problems with alcohol use. Lower rates of illicit income and receipt of sickness benefits were also associated with longer periods of stable self-help attendance.

Further exploration of patterns of alcohol consumption was conducted, but these results are not reported in the table above. Reports of alcohol consumption at a daily or higher rate were examined on the assumption that such patterns might index problems with alcohol dependency. Those attending groups in an unstable pattern more frequently reported having drunk daily at some point over the three months prior to interview (36%), compared to the three groups varying

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as to their length of at least weekly attendance (<3 months, 19%; 3–6 months, 9%; 6+ months, 7%). These differences approached significance ($p=0.08$). Although not significant, it was of interest that – in the three months prior to interview – none of the unstable attenders were able to report any period of alcohol use that was either within safe drinking guidelines or (where quantity could not be estimated) was self-rated as non-problematic. In contrast, the regularly attending groups each reported at least some period of having drunk alcohol in a non-problematic way (<3 months, 11%; 3–6 months, 9%; 6+ months, 14%).

The trends presented in Table 23 clearly demonstrated an association between longer periods of stable (at least weekly) participation in self-help groups and lower rates of drug use, treatment, illicit income and income support. It was unclear from such associations, however, whether differences between the groups were due to pre-existing differences prior to self-help entry or to behaviour change following entry to the groups. Through the retrospective interview technique, data relevant to these questions were available for a subgroup who had: (i) entered self-help groups through the observed chart period, and (ii) maintained stable attendance long enough for self-help to have had some impact on their behaviour. Tables 24 and 25 present data relevant to the impact of stable (at least weekly) self-help attendance across the first three months of involvement.

Table 24: Three-month impact of stable (at least weekly) self-help attendance on income. Comparing three months before first-ever self-help attendance with first three months of at least weekly attendance

	Victorian survey (N=91)		
Period of at least weekly self-help attendance (at time of interview)	3 months before and after first self-help		
	Before %	After ^a %	Significance of effects ^b
Any illicit income			
<3 months	39	–	time*****
3–6 months	48	4	sample ns
6+ months	36 ns	21*	interaction**
Any full-time employment			
<3 months	19	–	time ns
3–6 months	32	18	sample ns
6+ months	32 ns	24 ns	interaction ns
Any sickness benefits			
<3 months	67	–	time ns
3–6 months	45	55	sample*
6+ months	25***	28**	interaction ns
Any supporting parents benefits			
<3 months	7	–	time ns
3–6 months	18	18	sample ns
6+ months	7 ns	10 ns	interaction ns
Any unemployment benefits			
<3 months	11	–	time ns
3–6 months	14	14	sample ns
6+ months	7 ns	7 ns	interaction ns

^a Eliminating group with less than three months stable self-help participation from first entry to self-help to interview.

^b Effect estimates based on repeated measures weighted-least squares partitioning (SAS Proc CATMOD). Testing main effects for Time (three months before compared to three months after first self-help) and for Sample (comparing longer stayers, 6+ months, with shorter stayers, 3–6 months) and for the interaction effect of Time versus Sample, *p<0.1, **p<0.05, ***p<0.01, ****p<0.001, *****p<0.0001

ns = not significant

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Table 25: Three-month impact of stable (at least weekly) self-help attendance on drug use. Comparing three months before first-ever self-help attendance with first three months of at least weekly attendance

	Victorian survey (N=91)		
Period of at least weekly self-help attendance (at time of interview)	3 months before and after first self-help		
	Before %	After ^a %	Significance of effects ^b
Any treatment			
<3 months	11	–	time*
3–6 months	4	13	sample ns
6+ months	0 ns	0**	interaction ns
Any methadone use			
<3 months	25	–	time ns
3–6 months	17	13	sample ns
6+ months	0**	3 ns	interaction ns
Any heroin use			
<3 months	54	–	time****
3–6 months	48	22	sample**
6+ months	14***	7 ns	interaction*
Any amphetamine use			
<3 months	46	–	time****
3–6 months	43	4	sample ns
6+ months	39 ns	14 ns	interaction ns
Any tranquilliser use			
<3 months	39	–	time****
3–6 months	57	22	sample ns
6+ months	52 ns	17 ns	interaction ns
Any marijuana use			
<3 months	61	–	time****
3–6 months	70	22	sample ns
6+ months	71 ns	41 ns	interaction ns

^a Eliminating group with less than three months stable self-help participation from first entry to self-help to interview.

^b Effect estimates based on repeated measures weighted-least squares partitioning (SAS Proc CATMOD). Testing main effects for Time (three months before compared to three months after first self-help) and for Sample (comparing longer stayers, 6+ months, with shorter stayers, 3–6 months) and for the interaction effect of Time versus Sample, *p<0.1, **p <0.05, ***p<0.01, ****p<0.001, *****p<0.0001

^c Note: these figures demonstrate slightly reduced levels of problematic alcohol use compared to rates reported in Toumbourou et al. (1996), where missing alcohol data were not imputed but were assumed as problematic.

ns = not significant

Table 25 (cont): Three-month impact of stable (at least weekly) self-help attendance on drug use. Comparing three months before first-ever self-help attendance with first three months of at least weekly attendance

Period of at least weekly self-help attendance (at time of interview)	3 months before and after first self-help		
	Before %	After ^a %	Significance of effects ^b
Any other opiate use			
<3 months	7	–	time**
3–6 months	30	9	sample ns
6+ months	29*	17 ns	interaction ns
Any problem alcohol use^c			
<3 months	79	–	time*****
3–6 months	83	22	sample ns
6+ months	66 ns	34 ns	interaction*
Any injecting			
<3 months	64	–	time*****
3–6 months	61	22	sample ns
6+ months	32**	21 ns	interaction**
Any problems with alcohol and injecting^c			
<3 months	50	–	time****
3–6 months	48	9	sample*
6+ months	21**	7 ns	interaction*
Any tobacco use			
<3 months	96	–	time ns
3–6 months	96	96	sample ns
6+ months	93 ns	97 ns	interaction ns

^a Eliminating group with less than three months stable self-help participation from first entry to self-help to interview.

^b Effect estimates based on repeated measures weighted-least squares partitioning (SAS Proc CATMOD). Testing main effects for Time (three months before compared to three months after first self-help) and for Sample (comparing longer stayers, 6+ months, with shorter stayers, 3–6 months) and for the interaction effect of Time versus Sample, *p<0.1, **p<0.05, ***p<0.01, ****p<0.001, *****p<0.0001

^c Note: these figures demonstrate slightly reduced levels of problematic alcohol use compared to rates reported in Toumbourou et al. (1996), where missing alcohol data were not imputed but were assumed as problematic.

ns = not significant

Analyses of the temporal change in behaviours (Tables 24 and 25) provided support for two important processes relevant to the observations in Table 23 associating lower drug use with longer periods of stable self-help attendance. On one hand, there was evidence for selective retention, with differences observed in the three months prior to first self-help attendance on a variety of measures relevant to illicit drug use. On most domains, those who had maintained stable attendance for six months or more prior to interview appeared to have been less involved in injecting and heroin use in the pre-attendance period, compared to the two groups attending for less than six months. Receipt of sickness benefits and methadone use demonstrated linearly decreasing pre-attendance rates in association with higher periods of subsequent self-help involvement. Although not significant in the three months prior to first self-help entry, there was a trend for shorter periods of subsequent self-help attendance to have been preceded by higher levels of treatment involvement. Another non-significant trend was observed for illicit drug use other than heroin. Those who, at the time of interview, had spent less than three months in regular group attendance reported less use of opiates other than heroin

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or methadone. These findings suggested some grounds for expecting those participating in injecting drug use prior to self-help involvement to be less likely to maintain stable attendance.

On the other hand, there was evidence for behaviour to improve in the first three months of stable involvement in self-help for both of the two subsamples examined. Comparing behaviours in the three months prior to first self-help attendance with the first three months of stable attendance, decreasing involvement was noted for a number of areas of drug use. Decreases were evident for problematic alcohol use, for problematic alcohol use concurrent with injecting, and for a range of illicit drug use (including use of heroin, amphetamines, tranquillisers and marijuana).

Previous observers have suggested the possibility that involvement in 12 Step programs may be associated with more severe relapses, where relapses occur. Emrick (1987), for example, has observed that the group teachings relating to powerlessness over addiction may result in expectancies for more problematic patterns of use. Little evidence was found to support these processes in the present sample. Patterns of alcohol use for recent entrants who had attended groups at least weekly for three months or more were observed. In the three months prior to group entry, 12 per cent of the 41 respondents who drank alcohol reported at least one period of non-problematic alcohol use. This proportion increased to 18 per cent for the diminished group of 17 who drank at some stage in their first three months of regular group involvement.

Regular self-help attendance versus group involvement

Previous research has suggested that particular improvements may be associated with indicators of self-help involvement such as step work and sponsoring (Emrick, 1987). Examination of the range of past three-month behaviours (described in Table 23) revealed many were associated with service and step work. As service roles and step work were themselves associated with stable self-help attendance, a statistical procedure was used to separate the independent effects of each of these domains. The SAS procedure CATMOD (used for categorical data modelling) was used to partition the effects of the three divisions of stable group involvement from the effects of service and step work. Both the separate contribution of each of these domains and their interactive contribution were examined.

Analyses revealed that improved functioning in the three months prior to the interview was, in general, best described by the previous time spent in at least weekly group attendance. Initiating service work did not add significant benefits, once the effect of regular group attendance was taken into consideration. This general conclusion was, however, not sustained in the case of those initiating work on Step 4. On a number of analyses, those reporting the initiation of Step 4 work demonstrated either main or interaction effects associated with step work and period of regular self-help attendance. Table 26 presents details of this interaction for variables measuring any treatment involvement and any hazardous alcohol use.

Table 26: Association of stable self-help attendance and Step 4 initiation with treatment and hazardous alcohol use in the three months prior to interview

Period of at least weekly self-help attendance	Initiated Step 4 (n=13) %	Not initiated Step 4 (n=39) %
Any treatment in previous 3 months		
3–6 months	0	72
6+ months	13	48
Any hazardous alcohol use in previous 3 months		
3–6 months	0	28
6+ months	0	19

Initiating Step 4 was associated with an absence of hazardous alcohol use and little treatment involvement in the three months prior to interview. Further analysis suggested the advantage for Step 4 members was not easily explained on the basis of pre-existing differences between respondents. This possibility was investigated, as it was reasoned that the reduced alcohol use associated with Step 4 may have been due to members with lower levels of initial alcohol use becoming ready to do step work before other members. To investigate this possibility, retrospective reports of behaviours in the three months prior to first entry to self-help groups were examined. Chi-square analyses revealed no significant differences between rates of treatment use or hazardous alcohol use comparing subsequent Step 4 initiates with non-initiates in the three months prior to their first exposure to self-help groups.

Domain interrelationships at the first interview

Many of the domains revealing differences between the self-help attendance subsamples were themselves interrelated. A two-step procedure was used to: (i) identify interrelationships between measures, and (ii) specify predictors of the self-help attendance subgroups. At the first step, factor analysis was used to establish linear relationships between measures. At the second step, discriminant analysis was used to establish which of the major factors differentiated length of stable group attendance.

A factor analysis was conducted using a range of variables. Demographic variables included age at interview, sex and home-ownership. Three perceived social support scales measured *Emotional support*, *Tangible support* and *Negative social support*. Items measuring the number of friends contacted monthly and number of active community group involvements were each included to index social network involvements. To measure perceptions and beliefs associated with self-help, two of Maton's Group Appraisal measures were included (*Friendship support* and *Group benefits*) as were the three Spirituality measures (*External spirituality*, *Acceptance* and *Honesty*). To provide measures of health, the GHQ Mental Health and the OTI Physical Health scales were included. Behaviour was measured by the number of days over the three months prior to interview that participants were involved in the following activities – receiving sickness benefits, participating in a drug or alcohol treatment program, injecting illicit drugs, using marijuana, and consuming alcohol problematically (hazardously). Non-normal scales were log transformed.

Scree criteria suggested a six-factor solution explaining 61 per cent of the variance. Varimax rotated factor loadings above 0.40 and factor names are reported in Table 27.

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Table 27: Factor structure for newer self-help member first interview survey data

	Victorian survey (N=91)					
	Factor					
	1	2	3	4	5	6
Scale	Alcohol & drugs	Social support	Support needs	Health problems	Home-ownership	Group spirituality
Days hazardous alcohol use	0.74					
Days injecting	0.71					
Days marijuana use	0.62					
Male	0.58					
Convicted by age 16	0.60		-0.41			
Emotional support		0.80				
Tangible support		0.70				
Negative social support		-0.66				
Maton Friendships		0.43				
Maton Group benefits		0.47				
Days in receipt of sickness benefit	0.51		0.53			
Days in treatment			0.79			
Number of groups			-0.58			
External spirituality			-0.50			
OTI Physical Health				0.78		
GHQ Mental Health				0.70		
Age at interview				-0.54	0.61	
Home-ownership					0.77	
Monthly friends		0.47			0.56	
Honesty (Spirituality)						0.80
Acceptance (Spirituality)						0.52
Variance explained	21%	11%	9%	8%	6%	6%

Findings revealed a first factor explaining 21 per cent of the variance interpreted as an alcohol and drug factor. Days using alcohol hazardously, injecting, and using marijuana loaded positively on this factor. Positive loadings were also found on this factor with convictions prior to age 16, males, and receipt of sickness benefits. The second factor explained 11 per cent of the variance and was labelled 'Social support'. Items loading on this factor included monthly contact with friends, the three perceived social support scales (*Emotional*, *Tangible* and *Negative social support*) and the two Maton Group Appraisal measures (*Friendships* and *Group benefits*). The third factor was interpreted to refer to social support needs and explained nine per cent of the variance. Number of days in treatment and on sickness benefits loaded positively on this factor. More active community group involvements and higher acceptance of external spirituality were both negative indicators for this factor. Having been convicted prior to age 16 was negatively associated with this scale.

A fourth factor was labelled 'Health problems' and accounted for eight per cent of variance. Positive loadings were found on this factor with physical and mental health symptoms. Age at interview was negatively associated with this factor. The two final factors each explained six per cent of the variance. The first of these was associated with home-ownership. Monthly contact with friends and age at interview were each positively associated with this factor. The final factor was labelled 'Group spirituality' and was positively associated with both the *Honesty* and *Acceptance* spirituality scales.

The findings from the factor analysis helped to define interrelationships between variables that had been found in the earlier analyses presented in this report to associate with involvement in self-help. Step-wise discriminant analysis was used to identify a sub-set of factors that best predicted the separation between the four self-help attendance groups. Five factors were identified through the step-wise procedure. These were, in order of their inclusion: Global alcohol and drug use (21% variance in the discriminant function), Home-ownership (15%), Maton *Friendships* (13%), Global health (8%), Number of community group involvements (7%).

Longitudinal associations with self-help participation

To further assess the impact of self-help involvement, participants were invited to complete a second follow-up interview 12 months after the first. Sixty-two of the original sample of 91 (68%) were successfully located and reinterviewed. Different measures of self-help participation were examined for their association with variables measured at the first interview or at reinterview, and the length of time in stable (at least weekly) group attendance was confirmed to be an important behavioural predictor. Stable attendance in the groups was found to be predicted by service work, and to lead to progress in service and step work. Belief in external spirituality and perception of group benefits predicted stable self-help attendance, and friendship benefits improved across both groups but showed greater increase for those who maintained stable attendance. However, few social support domains predicted stable attendance in self-help. 'Stable attendance' members tended to maintain or improve social support through to follow-up, while 'unstable attendance' members experienced reductions in support. Stable weekly involvement in self-help groups was strongly associated with reduced drug use at follow-up and was related to a small reduction in health problems. Reductions in drug use (hazardous alcohol use or injecting drug use) from the first interview to the second interview led to improvements in social support, while continuing drug use over the same period led to reduced social support.

Respondents were invited for a second interview after 12 months had elapsed. Tracking procedures through the 12 month follow-up period included recontact phone calls at three to six month intervals. During these phone recontacts, participants were interviewed regarding their recent frequency of self-help attendance.

Tracking, locating and interviewing were conducted by a graduate-qualified social worker. Interviews were conducted at a site agreeable to respondents. A payment of \$25 was provided to offset expenses and any inconvenience associated with interviews. At the completion of tracking and locating procedures, 62 people (68% of the target sample) had been interviewed. Of those not interviewed, two were dead (confirmed by death certificates), two had refused reinterview and 26 could not be located and/or interviewed within the resources available to the study.

The information obtained at the second interview supported the reliability of the retrospective interview technique. Reported behaviours in the three month period prior to the first interview were obtained both at the first interview and at reinterview, demonstrating considerable reliability for over 12 months of retrospective recall. Reports were highly correlated for the time spent in stable (at least weekly) self-help attendance (Pearson correlation: $r=0.82$, $n=55$, $p=0.0001$), injecting drugs ($r=0.67$, $n=61$, $p=0.0001$), using alcohol problematically ($r=0.67$, $n=60$, $p=0.0001$), and using

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marijuana ($r=0.71$, $n=59$, $p=0.0001$). Table A4 in Appendix 1 presents information on the reliability analyses. Checking of responses against official methadone records further supported the validity of responses. Self-reported use of methadone prior to the first interview was highly correlated with officially recorded methadone program enrolment ($r=0.68$, $n=57$, $p<0.0001$).

Analyses revealed few baseline differences between those who were reinterviewed and those who were not. Table 28 presents comparative baseline information for the reinterviewed and not reinterviewed samples.⁴

Table 28: Baseline characteristics of respondents not reinterviewed and reinterviewed

Measures	Not reinterviewed (n=29)	Reinterviewed (n=62)	
	Percentages (95% CI)		Significance
Female	28 (10, 45)	42 (29, 55)	ns
Home owner or purchaser	10 (0, 22)	23 (12, 33)	ns
Previous problem with alcohol	83 (68, 97)	90 (83, 98)	ns
Previous problem with heroin	66 (47, 84)	71 (59, 83)	ns
Treatment past six months	69 (51, 87)	68 (56, 80)	ns
	Mean (95% CI)		
Age in years	32.7 (29.5, 35.8)	33.4 (31.3, 35.5)	ns
School years completed	10.3 (9.8, 10.8)	10.6 (10.3, 10.9)	ns
Years since first problem with alcohol ¹	5.3 (3.2, 7.4)	8.8 (6.4, 11.3)	$p=0.07$
Years since first problem with heroin ¹	4.4 (2.4, 6.5)	6.3 (4.7, 8.0)	ns
GHQ Mental Health symptoms	5.8 (4.2, 7.4)	5.5 (4.1, 7.0)	ns
Number of self-help service roles	1.3 (0.7, 1.8)	1.9 (1.5, 2.3)	$p=0.04$
Highest step completed	2.3 (1.5, 3.1)	3.8 (3.0, 4.7)	$p=0.01$
Months of at least weekly self-help attendance	4.6 (2.7, 6.4)	5.1 (3.9, 6.2)	ns

¹ For those not reporting problems, number of years was coded as zero.

ns = not significant ($p>0.12$)

In general, data from the first interview revealed no significant differences (two-tailed $p<0.05$), comparing the characteristics of the reinterviewed and non-reinterviewed respondents across a range of domains. There were no differences on variables examining age, sex, general health, mental health (GHQ), number of service groups attended, number of close friends, attitudes to spirituality, days in the three months prior to first interview involved in stable self-help attendance, treatment, heroin use, hazardous alcohol use, marijuana use, injecting, full-time employment, and receipt of sickness benefits and unemployment benefits. However, the reinterviewed sample reported slightly higher self-help participation (service role involvement and step work) prior to the first interview ($p<0.05$) and tended to report a greater number of years since first experiencing an alcohol problem ($p=0.07$).

⁴ The data in Tables 28 and 29 have been presented previously by Toumbourou et al. (2002).

Relationships with self-help participation through the 12 month follow-up period

Three indicators of self-help participation were measured over the 12 months prior to follow-up: service role involvement, highest step completed, and the number of months spent attending self-help on at least a weekly basis. Service role involvement was indexed by counting participation in five service roles within the 12 month periods prior to each interview. The five service roles examined were: serving as group secretary, chairing a meeting, helping in other service positions (eg committee work), sponsoring others or being personally sponsored. Participation in step work was indexed by the highest step completed in each 12 month interview period. Table 29 presents Pearson correlations between the three indicators of self-help participation and a range of behavioural and demographic variables measured both at the first interview and at the 12 month reinterview.

Table 29: Pearson correlations with self-help participation measured through the 12 months prior to follow-up

	Self-help participation through the 12 months prior to follow-up		
	Number of service roles	Highest step completed	Months of at least weekly attendance
First interview measures			
Baseline participation	0.52***	0.32*	0.03
Female	0.00	0.07	-0.04
Age in years	-0.06	-0.16	0.01
School years completed	0.29*	0.09	0.42***
Home owner or purchaser	0.02	-0.08	0.13
Previous stable self-help	-0.02	-0.07	-0.06
Hazardous alcohol use ^a	0.00	-0.02	-0.04
Injecting drug use ^a	0.13	-0.02	0.06
Marijuana use ^a	-0.14	-0.06	-0.19
Treatment ^a	-0.38**	-0.25*	-0.28*
Full-time employment ^a	-0.04	-0.02	0.08
Crime (illicit income, incarcerations) ^a	0.20 [#]	0.04	0.04
Emotional social support	-0.21 [#]	-0.20 [#]	-0.15
Tangible social support	0.05	0.00	0.03
Social stress	0.01	0.07	0.07
Number in close social network	-0.09	0.07	-0.03
GHQ Mental Health symptoms	-0.02	0.05	-0.06

= effect approached significance (0.05 < p < 0.12), *p < 0.05, **p < 0.01, ***p < 0.001

^a Measured across the six months prior to first interview and reinterview.

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Table 29 (cont): Pearson correlations with self-help participation measured through the 12 months prior to follow-up

	Self-help participation through the 12 months prior to follow-up		
	Number of service roles	Highest step completed	Months of at least weekly attendance
Reinterview measures			
Hazardous alcohol use ^a	-0.43***	-0.33*	-0.55***
Injecting drug use ^a	-0.20	-0.11	-0.19
Marijuana use ^a	-0.24 [#]	-0.24 [#]	-.38**
Treatment ^a	0.14	0.19	0.02
Full-time employment ^a	0.23 [#]	0.06	0.28*
Crime (illicit income, incarcerations) ^a	-0.05	0.07	-0.20 [#]
Emotional social support	0.37**	0.33**	0.39**
Tangible social support	0.06	0.19	0.11
Social stress	-0.18	-0.38**	-0.20
Number in close social network	0.33**	0.14	0.22 [#]
GHQ Mental Health symptoms	-0.13	-0.09	-0.17

= effect approached significance (0.05<p<0.12), *p<0.05, **p<0.01, ***p<0.001

^a Measured across the six months prior to first interview and reinterview.

In general, few of the first interview measures were associated with subsequent self-help participation. With the exception of stable self-help attendance, each of the first interview (baseline) measures of self-help participation significantly predicted the corresponding measures of participation in the follow-up period. Higher levels of secondary school education predicted service role involvement and longer periods in stable meeting attendance. Lower prior involvement in treatment services predicted each of the three measures of subsequent self-help participation.

Higher self-help participation through the 12 month follow-up was associated with lower levels of hazardous alcohol use. Stable meeting attendance was associated with less marijuana use. There were no significant associations between any of the measures of self-help participation and injecting drug use. Stable meeting attendance was associated with longer periods in full-time employment. Self-help participation was associated with a number of the social support variables measured at follow-up. Each of the participation measures was associated with higher emotional social support. Higher levels of step work were associated with less social stress. Service work was associated with a larger social network. Self-help participation was not associated with changes in mental health symptoms.

An important rationale for studying self-help groups is to establish whether participation in such groups is likely to be effective in supporting recovery from drug use problems. Of the three self-help participation measures examined in the present study, the highest correlations with reductions in hazardous alcohol use and marijuana use were found for stable meeting attendance. This supported the cross-sectional findings from the first interview (Table 3), where regular group attendance on at least a weekly basis was found to be a particularly strong indicator of behavioural improvements in drug use.

Multivariate step-wise regression with backwards elimination was used to select unique predictors of stable self-help participation from the significant associations identified in Table 29, yielding a model with two predictors. Longer subsequent periods of regular self-help attendance were significantly predicted by higher levels of previous service work, and more years of secondary school education ($F_{(2,59)}=13.59, p<0.0001, \text{Adjusted } R^2=0.29$).

Throughout the 12 months prior to the second interview, 36 respondents (58%) were found to have continued to participate in self-help groups on at least a weekly basis. This group were contrasted with a group of 26 (42%) who had maintained less stable involvement (median five months of at least weekly self-help attendance; ranging from no weekly attendance for four respondents to 11 months of at least weekly attendance for three respondents).

Regular self-help attendance through the 12 month follow-up period and group service role induction

Measures of service role involvement and step work demonstrated increases from the first interview through to the follow-up. Among those retained to follow-up, the average on the index of service role involvement increased from 1.9 prior to first interview to 2.7 prior to reinterview ($t=4.2$, $p<0.0001$). The average for the highest step completed increased from 3.8 to 6.1 ($t=3.9$, $p<0.001$).

A first set of analyses examined the performance of service and step work in the two interview periods for respondents varying in the stability of their self-help meeting attendance through the 12 month follow-up period. Table 30 presents responses for the first interview and for the second interview 12 months later. In Table 30 and in the tables that follow, first interview responses for those who were subsequently lost to follow-up are also provided to enable comparison with those who were retained in the study.

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Table 30: Participation in self-help service and step work. Comparing stable (at least weekly) self-help attenders with others at baseline (first interview) and 12 month follow-up (second interview)

Service and step work performed in the periods specified	Lost to follow-up (n=29)	Unstable self-help (n=26)	Stable self-help (n=36)	Unstable self-help (n=26)	Stable self-help (n=36)
	Prior to first interview %			Prior to second interview %	
Served as secretary	21	19	42*	35	56*
Chaired a meeting	38	38	69**	50	94***
Helped in a service position (eg as a committee member)	31	19	50**	31	67***
Helped at a meeting (ie tea person, washed dishes, drove people to a meeting, talked to a new person, set up a meeting, cleaned up after a meeting)	83	92	92	69	94***
Had someone sponsor you	31	31	69***	54	81**
Sponsored someone else	7	4	14	8	44***
Been asked to share in a meeting	97	96	97	81	100***
Shared in a meeting	79	81	94	69	94***
Step 1	79	88	92	77	97**
Step 2	59	77	89**	65	94***
Step 3	41	46	78***	58	94***
Step 4	17	19	33	38	69**
Step 5	10	15	17	27	53**
Step 6	5	12	8	15	44**
Step 7	0	12	8	15	44**
Step 8	0	12	6	12	36**
Step 9	0	15	6*	12	33**
Step 10	3	12	3	8	39***
Step 11	0	12	3*	19	39*
Step 12	0	15	8*	23	39

Chi-square comparisons *p<0.1, **p<0.05, ***p<0.01, ****p<0.001, *****p<0.0001

Shaded columns = first interview

The above analysis tested, firstly, whether there were differences between the three identified samples ('lost to follow-up', 'reinterviewed unstable attenders' and 'reinterviewed stable attenders') in their participation in service or step work in the period prior to their first interview. Chi-square comparisons indicated a number of differences between the three groups, suggesting that involvement in service or step work prior to the first interview was predictive of later stable self-help attendance. Those who had chaired a meeting, helped in a service position, had someone sponsor them or completed Steps 2 or 3 were more likely to maintain stable self-help attendance through the subsequent 12 months to

follow-up. In general, those who were not located and reinterviewed at the follow-up were similar to the unstable attenders in their patterns of service and step work prior to the first interview.

A second set of Chi-square comparisons examined whether there were differences in patterns of service or step work between those who had been more stable self-help attenders prior to the second interview. These analyses revealed the more stable attenders continued to make considerable progress in completing service and step work. Although there was some increase in reports of participating in service work for unstable attenders, there was little advancement in their completion of step work.

In a further set of analyses, beliefs relevant to self-help attachment and regular self-help involvement were examined for their association with continuation of stable (at least weekly) involvement in self-help. The scales that had been designed to measure Spirituality and Maton's Group Appraisal measures were utilised in these analyses (Table 31). To assist comparison across time, spirituality scores were T-score adjusted, so that 50 equated with the average score and 10 the standard deviation on each scale for the total sample at first interview.

Table 31: Acceptance of group norms and beliefs. Comparing stable (at least weekly) self-help attenders with others at baseline (first interview) and 12 month follow-up (second interview)

Endorsement of self-help beliefs in the periods specified	Lost to follow-up (n=29)	Unstable self-help (n=26)	Stable self-help (n=36)	Unstable self-help (n=26)	Stable self-help (n=36)
	Prior to first interview			Prior to second interview	
	Mean (95% CI)	Mean (95% CI)	Mean (95% CI)	Mean (95% CI)	Mean (95% CI)
Spirituality^a					
Acceptance	51 (47, 55)	47 (42, 51)	52 (49, 55)	48 (45, 52)	51 (48, 53)
External spirituality	47 (42, 51)	48 (44, 52)	54 (51, 56)***	45 (41, 50)	53 (51, 56)****
Honesty	49 (45, 52)	47 (42, 52)	53 (51, 56)**	46 (39, 53)	49 (47, 52)
Total of the 3 Spirituality factors	48 (44, 52)	47 (42, 52)	54 (51, 56)**	46 (41, 50)	52 (50, 55)***
Maton's Group Attachment measures					
Support rec'd	14.8 (13.3, 16.4)	14.7 (12.9, 16.5)	15.4 (14.0, 16.8)	13.1 (11.4, 14.7)	15.1 (13.8, 16.4)**
Friendships	13.2 (11.4, 15.0)	13.8 (12.2, 15.5)	15.1 (13.7, 16.5)	16.5 (14.0, 18.9)	20.4 (19.0, 21.8)***
Group benefits	20.9 (18.9, 22.8)	20.0 (17.9, 22.0)	22.7 (21.6, 23.7)***	18.9 (16.6, 21.2)	22.2 (20.9, 23.6)***
Group satisfaction	17.7 (15.7, 19.8)	18.5 (16.1, 20.9)	19.8 (18.3, 21.3)	14.8 (12.7, 16.9)	18.2 (16.5, 19.8)***

^a Spirituality scores have been T-score adjusted, so that 50 represents the Mean and 10 the Standard Deviation (SD) on each scale for the total sample at first interview.

*p<0.1, **p<0.05, ***p<0.01, ****p<0.001

Shaded columns = first interview

The analyses for the data in Table 31 tested whether differences in beliefs measured at the first interview predicted the three follow-up groups ('lost to follow-up', 'reinterviewed unstable attenders' and 'reinterviewed stable attenders'). Analysis of variance demonstrated significant differences for a number of the Spiritual belief factors and for the

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perceived *Group benefits* variable. Reinterviewed stable attenders scored higher at the first interview on the *External spirituality*, *Honesty* and combined Spirituality measures. The reinterviewed stable attenders also tended to perceive the groups as more beneficial at the first interview. Those not reinterviewed and the reinterviewed unstable attenders appeared very similar on the belief measures at the first interview.

A second set of analyses explored differences at the 12 month follow-up between the stable and less stable self-help attenders. In general, the stable attenders continued to score higher on the Spirituality measures and to perceive the groups more favourably at reinterview. Inspection of changes over time suggested the differences in Spirituality scores at reinterview mostly reflected a continuation of differences apparent at the first interview. The one exception was a trend for the stable attenders to score lower on the *Honesty* scale at reinterview. Inspection of changes over time demonstrated that the less stable attenders tended to regard the groups less favourably over time with respect to *Support received* and *Group satisfaction*. Perception of *Group benefits* tended to remain stable over time for both groups. Stable and less stable attenders tended to increase their evaluation of *Friendships* from the groups, with this trend being most prominent for the stable attenders.

Regular self-help attendance through the 12 months prior to second interview and social support

Associations between regular (at least weekly) self-help attendance prior to the second interview and social involvements were examined. In the first analysis, reported in Table 32, the association between regular weekly self-help involvement prior to the second interview and participation in community and social groups (eg recreational groups, church, political groups, unions) was examined.

Table 32: Involvement in social and community groups. Comparing stable (at least weekly) self-help attenders with others at baseline (first interview) and 12 month follow-up (second interview)

Number of types of community and social groups active in during the periods specified	Lost to follow-up (n=29)	Unstable self-help (n=26)	Stable self-help (n=36)	Unstable self-help (n=26)	Stable self-help (n=36)
	Prior to first interview %			Prior to second interview %	
0	55	58	39	35	33
1	17	19	33	38	36
2+	28	23	28	27	31

Shaded columns = first interview

Those lost to follow-up and the unstable self-help attenders had been less involved in social and community groups, while the reinterviewed, stable weekly self-help participants had been slightly more involved in social and community groups at the first interview. Chi-square analysis revealed that these differences were not significant. Inspection suggested there had been an increase in social and community group participation for the unstable self-help attenders, while participation remained high for the stable attenders through to the 12 month follow-up.

Table 33 presents associations between stable self-help attendance in the 12 months prior to follow-up and a variety of social network measures. In general, differences in social network involvements at the first interview did not predict subsequent differences in follow-up status. The exception to this general trend was that those who had been stable self-help members through to reinterview were more likely to have reported close relatives using their problem drug prior to the first interview. This finding suggested that those with family backgrounds involving drug problems (or perhaps experience with NA or AA) may have been more likely to maintain stable NA membership.

Table 33: Social network involvement. Comparing stable (at least weekly) self-help attenders with others at baseline (first interview) and 12 month follow-up (second interview)

Social network involvement in the periods specified	Lost to follow-up (n=29)	Unstable self-help (n=26)	Stable self-help (n=36)	Unstable self-help (n=26)	Stable self-help (n=36)
	Prior to first interview %			Prior to second interview %	
Emotional support					
Low	34	30	33	54	22
Moderate	28	35	28	23	36
High	38	35	39	23	42**
Tangible support					
Low	34	42	22	54	33
Moderate	31	35	36	27	22
High	35	23	42	19	44*
Negative social support					
Low	31	35	42	23	33
Moderate	24	42	28	35	33
High	35	23	30	42	33
Social network					
Spouse or partner	55	46	58	42	75***
One or more in household	34	38	53	46	39
Best friend	62	69	56	58	58
Spouse, partner, household member or best friend	90	92	94	88	94
Less than six in close social network	66	58	64	73	33***
Uses your problem drug					
Spouse or partner uses problem drug	3	8	19*	19	25
Household member uses problem drug	10	12	5	12	6
Best friend uses problem drug	14	23	19	50	50
Spouse, partner, household member or best friend use problem drug	21	42	31	38	33
One or more close relatives use problem drug	10	16	36**	4	22**
One or more close friends use problem drug	31	20	33	19	28
One or more close relatives or friends use problem drug	38	32	47	19	36

*p<0.1, **p<0.05, ***p<0.01, ****p<0.001

Shaded columns = first interview

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Table 33 (cont): Social network involvement. Comparing stable (at least weekly) self-help attenders with others at baseline (first interview) and 12 month follow-up (second interview)

Social network involvement in the periods specified	Lost to follow-up (n=29)	Unstable self-help (n=26)	Stable self-help (n=36)	Unstable self-help (n=26)	Stable self-help (n=36)
	Prior to first interview %			Prior to second interview %	
Doesn't use your problem drug					
One or more close relatives don't use your problem drug	55	65	44	54	50
One or more close friends don't use your problem drug	62	62	78	65	81
Encourages/discourages use of your problem drug					
Spouse, partner, household member or best friend encourages use of your problem drug	7	8	6	0	0
One or more close friends or relatives encourage use of your problem drug	0	4	6	4	0
Spouse, partner, household member or best friend discourages use of your problem drug	86	84	86	77	83
Encourages you to quit use of your problem drug					
Spouse or partner encourages you to quit	55	46	56	35	50
Household member encourages you to quit	24	23	47*	27	28
Best friend encourages you to quit	66	65	50	38	39
Spouse, partner, household member or best friend encourages you to quit use of your problem drug	86	81	89	65	67

*p<0.1, **p<0.05, ***p<0.01, ****p<0.001

Shaded columns = first interview

Table 33 (cont): Social network involvement. Comparing stable (at least weekly) self-help attenders with others at baseline (first interview) and 12 month follow-up (second interview)

Social network involvement in the periods specified	Lost to follow-up (n=29)	Unstable self-help (n=26)	Stable self-help (n=36)	Unstable self-help (n=26)	Stable self-help (n=36)
	Prior to first interview %			Prior to second interview %	
Encourages/discourages your involvement in NA					
Spouse, partner, household member or best friend encourages your involvement in NA	76	73	86	50	89****
One or more close friends or relatives encourage your involvement in NA	76	84	92	50	89****
Spouse, partner, household member or best friend discourages your involvement in NA	3	12	14	4	8
Contacted monthly or more often					
One or more close relations contacted monthly or more	52	72	58	58	61
One or more close friends contacted monthly or more	76	64	81	73	89
Other					
Expects to see an acquaintance in the future who might make it difficult to keep from using problem drug	17	27	36	62	47

*p<0.1, **p<0.05, ***p<0.01, ****p<0.001

Shaded columns = first interview

At reinterview, significant differences were demonstrated on a number of social support domains. Those maintaining stable (at least weekly) self-help attendance through the 12 months prior to reinterview were more likely to experience higher levels of emotional support, to have six or more close social contacts, to report having a spouse or partner, and to report that their spouse, partner, household member, best friend, or close friends and relatives encouraged their involvement in NA. The less stable attenders demonstrated reductions in emotional support and more reported being isolated (having fewer than six close social contacts).

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Regular self-help attendance through the 12 months prior to second interview and health

Further analyses reported in Table 34 explored associations between regular weekly self-help attendance and variables measuring aspects of health.

Table 34: Health status. Comparing stable (at least weekly) self-help attenders with others at baseline (first interview) and 12 month follow-up (second interview)

Health measures in the periods specified	Lost to follow-up (n=29)	Unstable self-help (n=26)	Stable self-help (n=36)	Unstable self-help (n=26)	Stable self-help (n=36)
	Prior to first interview			Prior to second interview	
GHQ Mental Health					
Total GHQ symptoms ^a	6 (4, 7)	5 (4, 7)	6 (3, 8)	5 (3, 7)	5 (2, 7)
Percentage high (4<GHQ) ^b	48% (29, 68)	58% (37, 78)	48% (31, 66)	38% (18, 59)	28% (12, 43)
OTI Physical Health					
Total health problems ^a	12 (9, 15)	11 (8, 14)	11 (8, 14)	10 (7, 13)	8 (5, 10)

^a Mean (95% CI)

^b Percentage (95% CI)

Shaded columns = first interview

Findings suggested that health status was unrelated to attendance in self-help groups. Differences in health status at the first interview were not found to predict subsequent differences in follow-up group status. Stable weekly self-help involvement over the 12 months prior to follow-up was not found to predict improvements in health status. However, significant reductions were observed in both the stable and unstable self-help attendance groups in the percentage reporting elevated symptoms on the General Health Questionnaire (GHQ). There was a trend for reductions in total health problems to be greater for the stable attenders.

Regular self-help attendance through the 12 months prior to second interview and drug-related behaviours

An important set of analyses explored associations between stable (at least weekly) self-help involvement and alcohol and drug use (Table 35).

Table 35: Patterns of drug use in the past six months. Comparing stable (at least weekly) self-help attenders with others at baseline (first interview) and 12 month follow-up (second interview)

Drug use over the previous six months	Lost to follow-up (n=29) %	Unstable self-help (n=26) %	Stable self-help (n=36) %	χ^2	Unstable self-help (n=26) %	Stable self-help (n=36) %	χ^2
	First interview				Second interview		
Type of drug							
Marijuana use	72	54	47	4.3*	46	11	9.7***
Hazardous alcohol use	72	69	64	0.6	54	11	13.4****
Injecting	52	46	39	1.1	40	11	7.0***
Hazardous alcohol use or injecting	79	81	72	0.8	65	17	15.4****

*p<0.1, **p<0.05, ***p<0.01, ****p<0.001, *****p<0.0001

Shaded columns = first interview

Chi-square analysis of the data presented in Table 35 demonstrated that there were no significant differences in alcohol or drug use at the first interview between the three groups ('lost to follow-up', 'reinterviewed unstable attenders' and 'reinterviewed stable attenders'), although differences in marijuana use approached significance. Analyses demonstrated that reductions in domains related to alcohol use and illicit drug use were associated with stable weekly self-help involvement in the 12 months prior to reinterview. The trends presented in Table 35 associating stable self-help group exposure with reduced drug use confirmed those observed through the retrospective analyses conducted with the first interview data.

Relationships between social support and changes in drug use

To further investigate relationships with drug use (hazardous alcohol use or injecting), respondents were grouped according to changes in their reported drug use from the six months prior to the first interview through to the six months prior to reinterview. Of those reinterviewed, 13 (21%) were not engaged in any drug use in either period ('non-drug-users'), 26 (42%) had reduced their drug use ('reduced use') moving from drug use to no drug use across the two periods, and 23 (37%) were using drugs prior to reinterview ('drug users'). There were only three respondents who were not using drugs prior to the first interview who had relapsed to drug use prior to reinterview; hence, it was not possible to investigate the effects of relapse in the present study. Relationships between each of the social support domains and the three drug use change groups were examined, and a summary of significant findings is presented in Table 36.

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Table 36: Relationship between social support at first and second interview and changes in drug use (involvement in hazardous alcohol use or injecting)

	Lost to follow-up (n=29)	Non-drug-users No drug use T1 No drug use T2 (n=13)		Reduced use Drug use T1 No drug use T2 (n=26)		Drug users Drug use T1 Drug use T2 (n=23)		Statistical significance ^a	
		Interview time							
Social support in the period specified	1st %	1st %	2nd %	1st %	2nd %	1st %	2nd %	1st	2nd
Low emotional support	34	15	31	42	15	30	61	ns	**
Low tangible support	34	0	23	27	35	52	61	ns	*
High social stress	45	31	53	35	15	17	52	ns	ns
Isolated – less than six in close social network	31	15	15	23	12	39	43	ns	****
Active in one or more social or community groups	45	92	77	54	62	30	65	***	ns
One or more relatives contacted monthly	52	38	62	84	69	57	48	**	ns
One or more friends contacted monthly	76	92	92	64	100	74	57	ns	****
One or more friends or relatives contacted monthly	86	92	92	92	100	91	70	ns	***
One or more relatives use problem drug	10	15	15	40	19	22	9	*	ns

^a ns = not significant, *p<0.1, **p<0.05, ***p<0.01, ****p<0.001, *****p<0.0001

Shaded columns = first interview

Table 36 (cont): Relationship between social support at first and second interview and changes in drug use (involvement in hazardous alcohol use or injecting)

	Lost to follow-up (n=29)	Non-drug-users No drug use T1 No drug use T2 (n=13)		Reduced use Drug use T1 No drug use T2 (n=26)		Drug users Drug use T1 Drug use T2 (n=23)		Statistical significance ^a	
		Interview time							
Social support in the period specified	1st %	1st %	2nd %	1st %	2nd %	1st %	2nd %	1st	2nd
One or more friends don't use problem drug	62	92	85	62	88	70	52	ns	***
One or more friends or relatives don't use problem drug	83	92	85	77	96	87	65	ns	**
Friends or relatives encourage you to quit problem drug	86	92	77	92	96	87	70	ns	**
Has a spouse or partner	55	54	69	62	73	43	43	ns	*
Partner or lover is in NA	28	38	54	38	42	9	17	*	*
Friends or relatives encourage NA attendance	76	92	77	88	100	87	39	ns	*****

^a ns = not significant, *p<0.1, **p<0.05, ***p<0.01, ****p<0.001, *****p<0.0001

Shaded columns = first interview

The shaded columns in Table 36 present information from the first interview. Examining the first row in this table, it can be observed that 34 per cent of those who were subsequently lost to follow-up were in the lowest third on the *Emotional support* scale at the first interview. This level of low emotional support was not significantly different compared to the three groups who were subsequently followed-up. In fact, as previously stated, there were no clear differences at the first interview between those subsequently lost to follow-up and those who were successfully followed up. Relationships between each of the social support domains and the three drug use change groups were examined using Chi-square testing (significance levels for these tests are presented in the last two columns). At the first interview, there were few social support domains that predicted subsequent drug use change groups. Reports of having been active in one or more social or community groups at the first interview were more commonly observed among those who remained non-drug-users in both interviews (92% were active at the first interview). In contrast, drug users at reinterview were less frequently involved in social or community groups at the first interview (30% active at first interview). There was a trend at the first interview for those remaining drug free to less frequently report a close relative being contacted monthly, while those who recovered from drug use more frequently reported such a relative (p<0.05). There was a non-significant trend for those who recovered from drug use to have had a relative who used their problem drug at the first interview (p<0.1).

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As many of the social support domains were related, regression analyses were used to define a more limited set of domains associated with changes in drug use. In the first logistic regression analysis, social support factors measured at the first interview were used to predict hazardous alcohol use or injecting in the six months prior to reinterview. As the non-drug-using and the reducing drug use groups tended to be similar with respect to their social support at the first interview and at reinterview, these groups were combined to form one group. Logistic regression analyses demonstrated that only one factor was significant after adjusting for other social support factors. Those who had been active in one or more social or community groups at the first interview were less likely to engage in hazardous alcohol use or injecting in the six months prior to reinterview (Odds Ratio (OR) 0.2, 95% Confidence Interval (95% CI) 0.07, 0.7).

As is evident from Table 36, those using drugs prior to reinterview appeared different on a range of support domains at the follow-up interview. They were lower in emotional support and more frequently isolated. They tended to report less favourable support from their close friends and relatives. Examining access to at least one close friend or relative, drug users were less likely to report contact on at least a monthly basis, less likely to report friends or relatives did not use their problem drug, and more likely to report these people did not encourage involvement in NA. There was also a trend for fewer drug users to have a spouse or partner, or to have a spouse or partner in NA.

Adjusted logistic regression analysis revealed that there were two of the social support domains measured at reinterview that were significantly associated with engaging in hazardous alcohol use or injecting in the six months prior to reinterview. Drug use at reinterview was associated with a social network size of five or less (Adjusted Odds Ratio (Adj OR) 8.1, 95% CI 2.2, 30.6) and a low score (raw score below 59) on the *Emotional support* scale (Adj OR 4.0, 95% CI 1.1, 14.4).

The information presented above thus provided no clear evidence that changes in social support preceded changes in drug use. However, there was evidence that changes in drug use were associated with subsequent changes in social support. Reductions in drug use were associated with increasing social support, and maintaining drug use was associated with decreased social support. The small group who remained non-drug-users were very high in social support at the first interview and this dropped slightly toward average levels on some measures, including emotional and tangible support, at the second interview. Note, however, that the size of this group was small; hence, these changes were not significant.

Relationships between self-help, social support and drug use

Information presented above suggested that changes in drug use were associated with changes in social support. Earlier analyses also demonstrated that both reductions in drug use and increased social support were associated with stable self-help involvement. The analyses that follow used logistic regression to examine the association of both changes in drug use and self-help participation in predicting improvements in social support. Two separate analyses were conducted: the first predicting social isolation, the second low emotional support. The independent variables were *Drug use prior to reinterview*, *Stable self-help involvement* and *Social support* at the first interview. These analyses suggested that the most important influence on social support at reinterview was drug use. The odds of social isolation at reinterview was elevated by social isolation at the first interview (Adj OR 4.7, 95% CI 1.2, 18.7) and, more prominently, by drug use prior to reinterview (Adj OR 30.4, 95% CI 7.3, 126.0). Once these factors were entered, the effect of stable self-help involvement was no longer significant. The odds of low emotional support at reinterview were elevated by drug use at reinterview (OR 11.7, 95% CI 3.8, 35.6). Neither the effect of emotional support at the first interview nor stable self-help attendance were significant, once drug use was entered as a predictor. Figure 5 presents relationships between changes in social networks, stable self-help attendance and drug use.

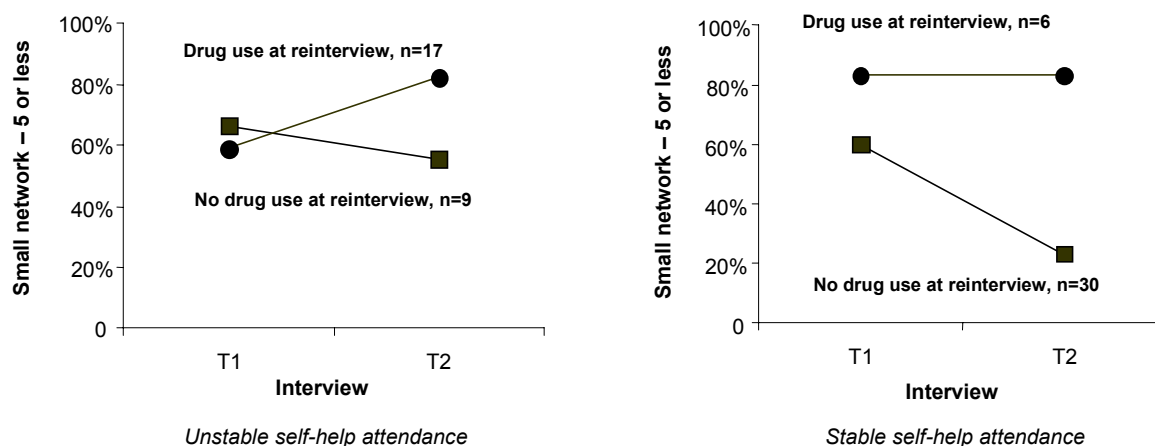


Figure 5: Changes in social networks by drug use and stability of self-help attendance

Inspection of Figure 5 suggested a trend toward reduced social isolation for those with no drug use prior to reinterview. This trend was apparent for non-drug-users whether or not they were stable self-help members. For the small group of stable self-help members who continued to use drugs prior to reinterview, rates of social isolation remained high to reinterview. Changes in emotional support demonstrated a similar pattern.

Multivariate prediction of stable (at least weekly) attendance in self-help through the 12 months prior to follow-up

Analyses reported in the earlier section of this report indicated that a range of variables measured at the first interview were significant predictors of stable self-help attendance in the 12 months following the first interview. The independent predictors of stable self-help attendance were: performance of service work in self-help (served as secretary, chaired a meeting, helped in a service position, being sponsored), completion of step work (completed Step 2 or 3), group beliefs (external spirituality, perception of group benefits), use of problem drug by one or more close relatives, and marijuana use. Multivariate regression was used to determine which of the above variables predicted stable attendance, after controlling for their interrelationship. Two significant and independent predictors were found and these were: (i) having chaired a meeting, and (ii) being sponsored prior to first interview.

Multivariate prediction of behavioural outcomes at follow-up

A series of multivariate logistic regression analyses were completed to assess the unique relationship between self-help participation and behaviours in the six months prior to reinterview, after controlling for relevant outcome modifiers. Table 37 summarises findings for these analyses. In overview, stable self-help attendance accounted for reductions in hazardous alcohol use and crime, after controlling for a range of relevant outcome predictors. Although stable self-help attendance was associated with reductions in injecting drug use and increases in full-time employment, these relationships failed to maintain significance after other predictors were entered into multivariate regression analyses. The failure to find a unique effect for self-help participation on injecting drug use was related to problems of low power due both to low levels of injecting drug use and the small sample size.

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Table 37: Multivariate regression predicting outcomes prior to reinterview

Predictor variables	Outcomes			
	Hazardous alcohol use	Injecting drug use	Crime	Full-time employment
Female	0.10 (0.02 0.75)*	0.24 (0.04 1.42)	0.23 (0.05 1.21)	0.11 (0.01 0.88)*
School years completed	0.36 (0.14 0.92)*	0.43 (0.19 0.98)*	1.58 (0.73 3.43)	1.39 (0.61 3.15)*
General health symptoms	1.12 (0.95 1.32)	1.11 (0.96 1.28)	1.11 (0.98 1.26)	0.78 (0.61 0.99)*
T1 Baseline	2.47 (0.32 19.28)	2.17 (0.44 10.62)	5.98 (1.03 34.52)*	8.64 (1.35 55.10)*
T1 Chaired or sponsored	0.35 (0.05 2.48)	0.80 (0.13 4.84)	1.00 (0.18 5.51)	3.99 (0.53 30.22)
T2 Treatment	6.48 (0.52 81.50)	9.19 (0.62 135.6)	0.73 (0.14 3.84)	0.28 (0.05 1.47)
T2 Stable self-help	0.14 (0.02 0.98)*	0.22 (0.03 1.43)	0.14 (0.03 0.79)*	1.26 (0.20 8.00)
R ²	49.30	36.83	27.08	41.04
X ²	36.49	24.01	19.55	26.71
Hierarchical inclusion				
T2 stable self-help				
R ² change	5.79	4.11	7.95	0.09
X ² change	4.29*	2.68	5.74*	0.06

*p<0.05 with d.f.=1

Note: bold figures indicate those that are significant in this table

DISCUSSION

The survey reported here represents one of the first attempts to study self-help groups for illicit drug users and is the first study to recruit members directly from within groups. In Victoria, the main type of self-help group available for illicit drug users through the period examined in this study was the Narcotics Anonymous (NA) fellowship. For this reason, the present survey came to focus particularly on NA groups. The target population were defined as members who had been previously involved for more than three months (but not more than 12 months) in Victorian drug user self-help groups. Brief screening criteria enabled this definition to be met for the majority of those surveyed, though there were a number with self-help experiences outside these periods. Comparison against available data suggested the present sample was broadly representative; however, sampling may have underrepresented younger NA members.

The study focused particularly on factors associated with the early period of involvement in self-help groups. In 1995, there were 64 NA meetings in Victoria. NA membership in Victoria was relatively small during the study period, with 183 attending the annual statewide meeting in 1995 (O'Brien, 1998, p158), an event which all current members aim to participate in. It was believed that the sample participating in the present study represented a large proportion of the new members entering the Victorian NA fellowship through the study recruitment period. From June 1994 through to May 1995, 91 people who had recently joined NA groups were recruited into the study and interviewed. Respondents were then briefly recontacted at three monthly intervals, and 62 (68%) completed a second interview an average of 12.8 months after their first interview.

The characteristics of newer NA self-help members in Victoria

One aim of the present study was to profile newer group members. The sample demonstrated a disadvantaged educational and economic profile, with 48 per cent having left school without year 11 and 58 per cent earning less than \$8,000 per annum. Against this general trend was a subgroup of respondents in the process of home purchasing. Home purchasers were frequently among the longer term, regular self-help attenders.

Illicit drug use was reasonably common among those interviewed; however, problems with alcohol use frequently co-occurred with other drug use. Alcohol problems were the most common drug use issues reported, with 88 per cent indicating they had experienced a problem with their alcohol use at some stage in the past. Other drugs frequently reported in relation to problems experienced included amphetamines (80%), marijuana (77%), tobacco (73%), heroin (69%) and tranquillisers (65%). Evidence presented in Table 25 suggested that in cross-sectional analyses at the first interview heroin users and injecting drug users were less likely to have remained stable self-help attenders for six months or longer.

A questionnaire designed to measure spirituality was developed in consultation with self-help members. Factor analysis suggested three factors, which were labelled *Acceptance*, *External spirituality* and *Honesty*. Evidence suggested the external spirituality factors (eg prayer, spirituality 'not just personal') predicted stable group involvement.

When compared to the more general population, there was evidence that those sampled had small social networks. However, few members were found to be completely isolated in their social networks. Few members appeared to be under overt pressure from their social network to continue drug use. There were, however, many people with drug users in their close social networks.

Entry into and early experiences with self-help

One aim of the present study was to examine the pattern of early attendance in self-help groups. Although most respondents (96%) were attending NA groups, a high level of overlap between participation in these groups and attendance in other self-help groups (particularly AA) was observed. Some 41 per cent of respondents had been first introduced to self-help groups through attendance at an AA meeting and, at the time of the interview, 52 per cent were attending other self-help groups – again, these were mainly AA groups.

Reasons given for attendance at self-help groups varied, with issues associated with access being particularly emphasised. Access issues were among the factors mentioned by professionals in an earlier study, where professionals' reasons for referring to self-help were investigated (Woff et al., 1996). In the present study, most of the surveyed members (84%) were able to name a designated home group. For many, regular meeting attendance was centred on convenient sites such as the inner city, but their home group was located nearer to their place of residence.

Common advice given to new NA members has been to attend 'ninety meetings in ninety days'. Examination suggested only a small proportion (15%) attended in this pattern in the three months following their first introduction to the groups. Investigation of patterns of self-help attendance suggested that benefits in the form of behavioural changes were particularly associated with longer periods of at least weekly attendance. It was noted, however, that attendance measured in terms of the number of days attending groups in a given period was associated with other perceived group benefits, such as developing friendships (Table 3). These trends remain to be more systematically investigated in future research.

Findings supported the view that there was a strong relationship between the self-help groups and non-methadone treatment services. Reported reasons for first participating in self-help suggested the majority of new members (57%) entered the groups following the direction and advice of treatment professionals. Prior to the present study, it was unclear how many self-help members were not involved with formal treatment services. The findings demonstrated that only a small minority of respondents (8%) had never entered a treatment program at the time of their first interview for this study. Evidence suggested this high level of involvement in treatment programs was supported by the group culture. Attendance in the groups was associated with a trend toward increasing involvement in formal treatment (Figure 2). Despite this generally important link between self-help groups and formal treatment, there were relatively few self-help members involved with methadone programs. Although methadone was the major treatment option available in Victoria, only around one in ten of those sampled reported any involvement in methadone programs. The total enrolment of NA in 1995 represented only six per cent of registered drug treatment clients; in other words, 94 per cent of clients in Victoria were not involved in NA.

The present study provided information relevant to the experiences of members with their early induction into self-help groups. Respondents reported they had engaged in a variety of service roles within groups. The roles that were engaged in by the new members provide some insight into the more central aspects of the group induction experience. In agreement with the observations of Keenan et al. (1996), the act of sharing private experiences in groups appeared to represent a common group induction experience. Being asked to share and having shared at a meeting were among the most commonly reported group experiences of newer members. Other commonly reported experiences included helping at a meeting and working on Step 1.

The early impact of self-help participation

The present study investigated the impact of self-help participation on attitudes, behaviours and social support. Two methods were used to analyse the impact of self-help attendance. A first set of analyses examined differences at the first interview for subgroups that varied in the amount of stable self-help attendance they had experienced. A second set of analyses examined changes through a 12 month follow-up. There were considerable similarities in the findings for these separate analyses.

Retrospective reports from the first interview were used to assess the early impact of first experiences with self-help groups. Respondents provided retrospective descriptions of their attendance at self-help up until the first interview, and this information was used to identify subgroups who differed in the number of months they had maintained at least weekly attendance in self-help groups prior to interview. Members who had maintained at least weekly self-help attendance for six months or longer were more likely to have performed significant service roles within the NA groups. They were more likely to report they had chaired a meeting or helped in a service position. They were also more likely to endorse beliefs in external spirituality. Longer periods of regular self-help attendance were also significantly associated with a range of social support indicators, including:

- the perception of friendships and benefits having been gained through the groups
- involvement in a larger range of community and social activities
- more frequent reports of close friends being contacted monthly or more often
- close friends not using the respondent's problem drug
- having others in one's household
- having other householders who encouraged quitting

In many cases, it was unclear if the above differences were the cause or effect of self-help involvement. Responses did suggest, however, that members experienced friendship benefits arising through their participation in the groups. Friendship benefits were demonstrated after three or more months of regular self-help attendance.

Those having spent longer periods in stable group attendance prior to the first interview demonstrated lower rates of treatment, alcohol and drug use, illicit income and sickness benefits in the three months prior to interview. These characteristics of the stable group attenders may have been due to them having less serious drug use problems prior to their first entry to self-help. To explore this possibility, retrospective information collected at the first interview was examined. It was established that first interview differences could be explained by two factors:

1. Those who had been less involved in injecting and heroin use before entering self-help being more likely to maintain self-help attendance.
2. Improvements made while involved in self-help.

Analyses suggested that improvements were best explained by longer periods spent in at least weekly self-help attendance. The possibility that improvements may have been explained by regular attenders becoming involved in step or service work was also examined. Having initiated work on Step 4 prior to the first interview did appear to be associated with benefits above those associated with regular group involvement, but other service work didn't demonstrate this type of association.

To further investigate the impact of self-help attendance, a follow-up interview was conducted after 12 months and 62 of the original sample participated in this study. Those who completed the 12 month follow-up interview reported on their self-help involvement and drug use over the period from the first interview. Thirty-six of those who were reinterviewed (58%) had maintained at least weekly self-help attendance for 12 months after their first interview, and the characteristics of this group were contrasted with those who had not maintained such stable attendance. A range of factors from the first interview were found to predict subsequent stable self-help attendance. Predictors of stable attendance included years of secondary school education, performance of role functions in self-help (served as secretary, chaired a meeting, helped in a service position, being sponsored), completion of step work (completing Step 2 or 3), endorsement of group beliefs (external spirituality, perception of group benefits), and having one or more close relatives who had used the respondent's problem drug. Regression analysis suggested the two most important of the above predictors were higher levels of previous service work and more years of secondary school education.

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Analyses were also conducted to establish whether there were any improvements for the stable attendance group after 12 months that were not evident at the first interview. These analyses suggested stable group attendance was associated with considerable progress in service work (chairing a meeting, helping in service positions, being sponsored, sponsoring others) and step work (completing Steps 3 to 10), and with improvements in social support (perceived friendship benefits, less social isolation, finding a spouse or partner). One of the most prominent changes was an approximate four-fold reduction in drug use, particularly less hazardous alcohol use and marijuana use. Although there was evidence that stable self-help attendance was associated with reductions in injecting drug use, this association was no longer significant after controlling for other outcome moderators.

The findings from the follow-up study supported and extended those from the retrospective analysis using the first interview data. Integrating findings from both analyses, it appeared that there was an intimate relationship between stable group attendance and involvement in step and service work. Involvement in particular service roles (chairing or being sponsored) in the six to 12 months after entering the groups was a strong predictor of subsequent stable involvement in the groups. However, maintaining stable attendance in the groups also increased the likelihood of being involved in not just these areas, but also in other step and service work.

Findings from both the retrospective analysis and the follow-up study demonstrated that stable involvement in the groups was strongly related to decreased drug use. There was evidence from the retrospective study that the association between length of stable group involvement and reduced drug use was partly explained by heroin users and injecting drug users being less likely to remain in the groups. However, findings from the follow-up study confirmed those from the retrospective analysis in showing that there was also a reduction in hazardous alcohol and marijuana use over time for members who maintained at least weekly group attendance. It was not possible to identify a single aspect of group involvement that increased the tendency to reduce drug use; however, there was some suggestion from the retrospective analysis that those engaged in Step 4 tended to abstain more completely from alcohol.

The present study was designed to improve understanding of the relationship between social support, self-help involvement and drug use. At entry to the groups, self-help participants tended to lack social support; however, few were completely isolated. The follow-up study confirmed the conclusions from the retrospective analysis demonstrating that an increase in many social support domains was associated with stable self-help attendance. Those maintaining at least weekly self-help attendance through the 12 months prior to reinterview tended to maintain higher levels of emotional support, and a high proportion continued to report that their spouse, partner, household member, best friend, or close friends and relatives encouraged their involvement in NA. This group also demonstrated an increase in spouse or partner relationships, and their ratings on the Maton Group Appraisal scales suggested that friendships improved over the follow-up period. In contrast, those that had not maintained stable self-help attendance experienced few improvements in social support and, in some areas such as emotional support and social isolation, deteriorations were evident.

The finding that stable self-help involvement was associated with improvements in both social support and reductions in drug use led to questioning as to whether the improvements in social support through the groups explained the reductions in drug use. Analysis of change groups enabled individuals who had reduced their drug use over the follow-up to be contrasted with others who were using drugs at follow-up. These comparisons suggested that reductions in social support tended to be most strongly associated with maintaining drug use, and that those who reduced their drug use benefited most from increased social support. A final analysis confirmed that this contingent relationship between social support and drug use applied both to those who maintained stable self-help involvement and others who had not.

Integrating all of the findings, it appeared that new self-help members enjoyed an improvement in friendships relatively early in their involvement with the groups. The benefits from these new friendships tended to increase with stable involvement in the groups. Over the 12 month follow-up period, stable attenders also evidenced an increase in the development of couple or spouse/partner relationships. Each of these benefits appeared to be contingent, however, on avoiding drug use. In overview, it appeared that the self-help groups helped to advance social support by assisting members to avoid drug use.

Findings from the present study helped to identify factors that attracted people to maintain their involvement in the NA groups. Factor analysis of data from the first interview helped to identify underlying associations between the many variables examined in this study. This analysis identified a single factor linking the extent of social and community group involvements with acceptance of external spirituality beliefs. It is possible this factor may have referenced a sympathy to church involvement. This factor was associated with lower use of treatment and sickness benefits. In the retrospective analysis, social and community group involvement and endorsement of external spirituality were associated with length of stable group attendance. In the follow-up study, external spirituality predicted subsequent stable group involvement, but showed little evidence that it had increased over time. The implication from the present study was, therefore, that one factor predicting stable self-help group involvement was acceptance of external spiritual beliefs, which was itself related to a more extensive involvement in a range of social and community groups.

Findings from the present study provided some indication that improvements in mental and physical health were associated with longer periods of regular self-help involvement. Analysis of the first interview data revealed that the length of stable group involvement was independently associated with a global health factor (incorporating mental and physical health). However, through the follow-up period, mental and physical health improved for both the stable and unstable group attenders, although the extent of improvement in physical health was slightly higher for the stable attenders.

In light of the above evidence associating stable self-help exposure with significant benefits, it is noteworthy that the present study provided impressive evidence that Victorian NA groups were able to retain a large proportion of members to at least 12 months. If we assume that all those who were subsequently lost to follow-up did not maintain involvement in self-help, then 36 (40%) of the original sample of 91 could be conservatively estimated to have maintained weekly self-help attendance through the 12 month follow-up period observed for this study. This retention figure compares very favourably to alternative drug-free modalities, such as therapeutic communities. For example, through the period 1984 to 1988, the Odyssey House therapeutic community retained 28 per cent of those who entered Level 1 of treatment (achieved after a median of just over three months or 103 days) through to Level 4 or above (achieved after a median of just over one year or 378 days). Retention rates for Odyssey House through this period were either similar or better than methadone programs and Australian and international therapeutic communities operating around the same period (Toumbourou et al., 1998).

Assessing study strengths and limitations

The sampling strategy used in the present study enabled unique observation of a group in the process of their first exposure to self-help. It appeared that those sampled were representative in terms of their sex and geographical distribution, but may have been an older group compared to other NA members.

The procedure of relying heavily upon members of self-help groups to introduce the present study to newer members may have produced certain recruitment biases. It is almost certain that there were a group of people who remain for less than three months in self-help groups. The sampling strategy was not designed to investigate this group. Indications from the present study suggested illicit drug users from less stable social backgrounds may have been overrepresented among this short-staying group of self-help members. Although it may be argued that those higher in social skills may have been overrepresented in the present sample, the finding of moderate levels of social isolation suggested that sampling strategies enabled a number of less socially connected self-help members to be surveyed.

Doubts are sometimes raised regarding the accuracy of retrospective reports. Evidence from the present study supported the accuracy of retrospective recall. Recall of behaviour over the three months prior to the first interview was examined by asking respondents to recall this period 12 months later at the second interview. Reported behaviours recorded in the three months prior to the first interview were highly correlated with reports of the same period recalled 12 months later,

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during the follow-up interview. Correlations between the two periods are reported in Appendix 1, Table A4. Findings supported the stability of respondents' retrospective 12 month recall for the main measures utilised in this study.

Investigation of officially recorded information also supported the validity of self-reported information collected in this study. A strong association was observed between self-reported usage of methadone prior to the first interview and officially recorded methadone program registrations.

Associations examined in the present study have been based on a small sample size and this should be acknowledged in drawing conclusions. The follow-up study contrasted characteristics for a group that had maintained stable weekly attendance in the groups with others who had been less stable attenders. In interpreting these analyses, it should be acknowledged that the unstable attenders were characterised by considerable variation in the length of time they had maintained weekly attendance in the groups. It is unclear whether those subsequently lost to follow-up were different to those who were followed-up in their behaviour after the first interview. However, extensive analysis did suggest that this group were very similar to the less stable group attenders at the first interview.

Conclusions

The present study is the first longitudinal follow-up to investigate the impact of involvement in Narcotics Anonymous (NA) self-help groups on a sample of members recruited directly from within the groups themselves. Evidence supported previous findings from overseas research suggesting that NA groups provide a useful adjunct to formal drug treatment services. NA members commonly reported previous treatment service contact. Of the new self-help members followed over a 12 month period, 40 per cent maintained at least weekly attendance. Those maintaining this level of attendance demonstrated a number of advantages, including a four-fold reduction in alcohol and drug use and improvements in social support. Yet, despite the apparent benefits revealed in both the present study and in previous research, NA groups did not appear to be well supported in Victoria. Only around six per cent of formal illicit drug treatment clients were using NA groups in 1995 and utilisation by methadone clients appeared particularly low.

Future investigation could usefully examine options for increasing self-help participation. Evidence from the present study suggests that important drug treatment advances may be achievable by more closely monitoring the extent to which drug treatment services in Victoria link their clients into self-help groups. Are there policy changes that might encourage growth in self-help groups? To what extent do treatment agencies publicise and actively support meeting attendance? What, if any, links exist between methadone services and NA groups? Are clients aware that there may be potential benefits for social support and recovery through active participation in self-help groups? What are the barriers to participation experienced by drug treatment clients? By increasing social support and encouraging mutual aid, self-help groups appear to contribute not just to outcomes sought through drug treatment but also to broader social improvement objectives.

APPENDIX 1

Table A1: Self-help group attendance and participation in treatment programs in the 18 months (six periods of three months) prior to interview

	Victorian survey (N=91)					
Self-help attendance & participation in treatment	End of 3-month periods measured prior to interview					
	<3 months	<6 months	<9 months	12 months	15 months	18 months
	Percentage of respondents reporting any involvement %					
Any self-help	98	24	3	2	2	1
Any treatment	58	52	43	36	31	26
Methadone	11	12	8	9	9	7

Table A2: Self-help attendance and rates of involvement in various drug use behaviours in the 18 months (six periods of three months) prior to interview

	Victorian survey (N=91)					
Self-help attendance & drug use	End of 3-month periods measured prior to interview					
	<3 months	<6 months	<9 months	12 months	15 months	18 months
	Percentage of respondents reporting any involvement %					
Any self-help	98	24	3	2	2	1
Tobacco	98	97	97	96	96	96
Alcohol problem*	49	55	67	60	69	68
Marijuana	34	51	64	67	69	69
Injecting	32	43	50	55	57	55
Amphetamines	24	33	42	47	51	53
Tranquillisers	30	37	47	43	43	42
Heroin	26	31	30	32	33	31
Other opiates	13	15	23	19	19	20
Cocaine	3	4	5	11	15	15

* Drinking at NHMRC hazardous levels, binge drinking or reported problems with drinking

APPENDIX

Table A3: Retrospective reports of income sources in the 18 months prior to interview

	Victorian survey (N=91)					
Self-help attendance & income	End of 3-month periods measured prior to interview					
	<3 months	<6 months	<9 months	12 months	15 months	18 months
	Percentage of respondents reporting any involvement %					
Any self-help	98	24	3	2	2	1
Illicit income	10	32	35	33	33	33
Jail	0	2	6	2	3	6
Sickness benefits	54	45	38	32	32	30
Full-time employment	6	26	32	29	30	35

The reliability of the retrospective interviewing procedure was examined by asking respondents at their 12 month follow-up interview to recall their behaviours relevant to a number of domains in the three months prior to their first interview. Responses at the first interview were compared against recall at the second interview, 12 months later. Findings for these analyses are reported in Table A4.

Table A4: Reliability of retrospective recall of behaviour. Correlation between baseline (first interview) and second interview (12 months later)

Reported days in 3 months prior to first interview engaged in the following activities	Pearson correlation, probability, sample
At least weekly self-help attendance	0.82, 0.0001, n=55
Receiving sickness benefits	0.77, 0.0001, n=57
Marijuana use	0.71, 0.0001, n=59
Injecting	0.67, 0.0001, n=61
Hazardous alcohol use	0.67, 0.0001, n=60
Full-time employment	0.63, 0.0001, n=57
Receiving unemployment benefits	0.54, 0.0001, n=57
In treatment	0.39, 0.002, n=62

APPENDIX 2

The 12 Steps of Narcotics Anonymous⁵

1. We admitted that we were powerless over our addiction, that our lives had become unmanageable.
2. We came to believe that a Power greater than ourselves could restore us to sanity.
3. We made a decision to turn our will and our lives over to the care of God *as we understood Him*.
4. We made a searching and fearless moral inventory of ourselves.
5. We admitted to God, to ourselves, and to another human being the exact nature of our wrongs.
6. We were entirely ready to have God remove all these defects of character.
7. We humbly asked Him to remove our shortcomings.
8. We made a list of all persons we had harmed, and became willing to make amends to them all.
9. We made direct amends to such people wherever possible, except when to do so would injure them or others.
10. We continued to take personal inventory and when we were wrong promptly admitted it.
11. We sought through prayer and meditation to improve our conscious contact with God *as we understood Him*, praying only for knowledge of His will for us and the power to carry that out.
12. Having had a spiritual awakening as a result of these steps, we tried to carry this message to addicts, and to practice these principles in all our affairs.

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APPENDIX 3

Publications from The Role of Self-Help Groups in Drug Treatment Research Project

Keenan, M., Toumbourou, J., Storey, G., Clarke, C., & Hamilton, M. (1996). *Sharing private experience in drug treatment self-help groups: Reflections from an outsider*. Unpublished manuscript, Turning Point Alcohol and Drug Centre Inc. & Faculty of Medicine, University of Melbourne.

Toumbourou, J., & Hamilton, M. (1994). Researching self-help drug treatment: Collaboration and conflict in the age of harm reduction. *Addiction*, 89(2), 151–156.

Toumbourou, J., Hamilton, M., & Smith, R. (1994). Surveying the drug service users' perspective through self-help groups. *Journal of Community and Applied Social Psychology*, 4(2), 131–140.

Toumbourou, J. W., Hamilton, M., U'Ren, A., Stevens-Jones, P., & Storey, G. (2002). Narcotics Anonymous participation and changes in substance use and social support. *Journal of Substance Abuse Treatment*, 23(1), 61–66.

Toumbourou, J., U'Ren, A., Hamilton, M., & Campbell, J. (1996). *Injecting and other drug use amongst recent entrants to Victorian drug user self-help groups*. Proceedings of the 1996 Autumn School of Studies on Alcohol and Drugs, pp33–50. Melbourne: St Vincent's Hospital.

U'Ren, A., Toumbourou, J., Stevens-Jones, P., & Hamilton, M. (1996). Abstract: Social support, self-help participation and drug use. *Australian Journal of Psychology*, 48(Suppl), 148.

Woff, I., Toumbourou, J., Herlihy, E., Hamilton, M., & Wales, S. (1996). Service providers' perceptions of substance use self-help groups. *Substance Use and Misuse*, 31(10), 1241–1258.

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