



Turning Point

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AN ANALYSIS OF VICTORIAN HELLO SUNDAY MORNING BLOG CONTENT

Prepared for VicHealth

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February 2015

Part of





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EXECUTIVE SUMMARY

INTRODUCTION

Victoria's drinking culture is informed by attitudes and beliefs held about alcohol, intoxication and associated behaviours. Public health organisations are increasingly trying to find ways of reducing risky drinking behaviour, especially among young people. The internet and social media are progressively being recognised as platforms for mobilising social change. Hello Sunday Morning (HSM) is an online program that encourages the adoption of a better drinking culture. HSM is a blogging website that supports people to stay sober for a self-determined period of time. Those who sign up instantly have a platform and network to discuss their transition to abstinence, creating an environment that enables people to change their drinking behaviour and attitudes associated with alcohol. Despite HSM seeing rapid growth in its uptake, little research has been undertaken to investigate the impact of HSM in altering drinking behaviours and attitudes. The aim of this project is to therefore analyse how participation in HSM impacts drinking behaviour among Victorians and to explore the motivations, barriers and enablers experienced by Victorian HSM Users during their engagement with the program.

METHODS

This project is divided into two studies. **Part A** involved quantitative analysis of AUDIT scores to assess whether Victorian HSM Users with two completed AUDIT scores (n=49, or 14.2% of the total sample) experienced a change in drinking patterns after their engagement with HSM, including which aspects of alcohol consumption were most affected and which characteristics of Victorian HSM Users predicted reductions in AUDIT scores. **Part B** involved the qualitative coding of available blog data (n=154, or 44.6% of the total sample) into categories followed by a quantitative content analysis of these categories to assess the attitudes that Victorian HSM Users maintain towards alcohol and HSM, their reasons for joining HSM, the benefits they received from HSM, and the barriers and enablers to HSM success, as well as understanding which characteristics of HSM consumers predicted these attitudes and experiences. Where percentages are presented in Part B, these refer either to the percentage relative to all HSM participants, all blog posts, or the sum total of all coding instances as identified in the text and figure captions.

FINDINGS

PART A: The average pre-HSM baseline AUDIT score (n=49) was 18.6. This dropped to 9.8 one month post-HSM (n=31), and increased to 14.4 three months post-HSM (n=21). Most Victorian HSM Users

reported high-risk drinking at baseline (45%), but low-risk drinking one month post-HSM (48%). Three months post-HSM, approximately the same percentage of Victorian HSM Users reported low-risk and high-risk drinking (24%), with most reporting risky drinking (38%). Although this is a small sample, it may indicate that HSM reduces drinking immediately following the program, but that drinking gradually increases following the program. However, it is important to note that the average AUDIT scores 3 months post-HSM were still 4.2 points below baseline AUDIT scores. Further data points are needed to understand whether reductions in drinking are maintained in the longer term.

PART B: The primary reasons Victorian HSM Users reported for joining the program included:

- Reflection/unhappiness at own alcohol consumption
- To improve physical health
- To improve mental health
- To improve relationships
- To gain new experiences
- To gain support from or support others
- To improve finances

The most common goals reported by Victorian HSM Users across the program included:

- Mind and body
- Fitness
- Lifestyle
- Sobriety

The primary benefits experienced by Victorian HSM Users during their engagement with HSM included:

- Improved physical health
- Feeling positive about self
- Greater productivity
- Engaging in new activities or greater enjoyment of activities
- Improved mental health
- New and/or improved relationships
- Financial savings

The most common barriers or challenges reported by Victorian HSM Users during their HSM experience included:

- Stress, tiredness and adversity
- Pervasiveness of drinking in social life
- Negative social, emotional or physical effects of not drinking
- Negative reactions from others
- Inability to control alcohol consumption
- Pressure to drink

The strategies most commonly reported by Victorian HSM Users to overcome the barriers and challenges included:

- Planning, self-talk and will power
- Drawing on the support of HSM Users or other non-drinking networks
- Substituting alcohol with a non-alcoholic drink
- Engaging in non-alcohol related activities
- Drawing on the support of family and friends

DISCUSSION

It appears both from the current study, and those that have preceded it, that HSM is likely to be an effective mechanism both for reducing an individual's drinking, and for changing the way that people think about alcohol. Victorian HSM Users reported significant benefits from the program, and although numerous barriers to abstaining from alcohol were identified, particularly in relation to the pervasiveness of drinking in social contexts, multiple strategies were identified and effectively utilised to overcome these barriers. Investment in increasing awareness and knowledge of HSM in the community, particularly among young adults, is recommended.

1. INTRODUCTION

Alcohol-related problems are a major cause of social harm and ill-health in Australia. Alcohol harm is responsible for 3.2% of the burden of disease in Australia, and in any given year alcohol abuse is responsible for 34,116 disability-adjusted life years lost (1). Furthermore, alcohol is estimated to cost the community \$15 billion per annum (2). There are a range of strategies employed by governments and health organisations to reduce alcohol consumption and harm in Australia, including policies to reduce the accessibility and affordability of alcohol, providing education and raising awareness about the harms caused by alcohol, and legislative approaches for those whose drinking results in harms to others (3). More recently, governments, health organisations and researchers have recognised the importance of tackling culture as a means to preventing and reducing alcohol-related harm (4-6). But, as noted by Fry et al. (4), any strategies to address Australia's 'culture of intoxication' must consider the complex relationship between the individual, the social context and the broader social environment.

Online support groups or internet support groups are increasingly being used for health promotion and communication (7, 8). Traditionally, online support groups have been used to connect people who have specific and often chronic conditions, thus providing an opportunity for the dissemination of information and peer support (9-12). More recently, such initiatives have been translated into the preventative health sphere, targeting physical inactivity (13-15) and smoking (8). One 12-week program focused on physical activity found that participation in the online community positively influenced physical activity levels and, moreover, that positive feedback from online peers was a motivating factor for participants (16). Many of these documented programs are centred on encouraging participation in a specific intervention or program, rather than providing an open forum for reflection and discussion between users. Furthermore, there are relatively few online programs available that focus on supporting others to reduce or moderate their alcohol consumption. One recent exception is Hello Sunday Morning.

1.1 HELLO SUNDAY MORNING

Hello Sunday Morning (HSM) is an online program that aims to change the way alcohol is represented and understood in Australian culture (17). Developed in Australia in 2010, HSM is an online support program that encourages people to commit to a period of non-drinking and to blog about their experiences. While other alcohol-focused programs such as FebFast, Dry July and Ocober also encourage a commitment to a period of abstinence, they do not provide an online platform for contributors to connect and interact. Those who sign up to HSM instantly have a

platform and network to discuss their experiences with others, creating an environment that enables people to communicate and support one another. By supporting people to change their own drinking patterns and allowing them to reflect on alcohol's role in their life and society through the HSM forum, HSM aims to establish a network of people that can redefine drinking cultures.

As of January 2015, HSM had more than 35,000 registered users, including more than 25,000 from Australia. Approximately 60% of those signed up to HSM are female (which is the opposite of the Australian alcohol treatment population), with 54% aged under 30 years of age. A recent analysis of Australian HSM user demographics undertaken by Carah and colleagues (18) reported that the mean age of HSM Users was 36.25 years (younger than the Australian alcohol treatment population) and the mean Alcohol Use Disorder Identification Test (AUDIT - 19) score was 19.8, indicating high-risk or harmful drinking. The most common goals identified by Australian HSM Users were 'fitness' and 'mind and body', followed by 'sobriety'.

Three evaluations have been undertaken of HSM in the past four years (20-22). The first in 2011 reported that the majority of Australian HSM Users were from Queensland and New South Wales, with 21% of Australian HSM Users from Victoria. The report noted that 84% of Australian HSM Users reported completing a HSM without a 'slip up' (a drink prior to finishing their HSM), AUDIT scores dropped by an average of 5.5 points before and after a HSM and 28% fewer Australian HSM Users reporting drinking six drinks per occasion on a weekly basis after completing their HSM. The report also showed that Australian HSM Users reported improvements in mental health during their engagement in HSM and perceptions of alcohol changed over time, including increasing perceptions of negative effects of alcohol, decreases in desire to use alcohol for fun and reduced tendency to consume alcohol to relieve tension (20).

A second evaluation in 2012 focused on blog posts and found that over time, Australian HSM Users changed from being self-focussed – considering their own drinking and the views of peers – to reflecting on the role of alcohol in their lives, and finally to taking a broader view of the role of alcohol in society and ways to help and support others in their HSM experiences (21). A final evaluation in 2013 reported that there are three groups of Australian HSM Users that include: 1) dedicated HSM Users, 2) HSM Users who do not blog often but comment on blogs and reproduce other social content, and 3) HSM Users who mostly use other's blogs and comments as support. The majority of Australian HSM Users (two thirds) do not blog, but the authors concluded that all forms of participation in HSM are important to the HSM process (22).

These previous studies have examined HSM Australia-wide. In focusing on HSM in Victoria, the present study contributes a better understanding of the way in which Victorians engage with HSM,

which is important to understand the utility of the site for Victorians, and may provide an indication of how to increase Victorian engagement in HSM. In addition, previous evaluations have not explored the barriers to reducing alcohol consumption as described by HSM Users and the various strategies they implement to support their commitment to abstinence. The aim of this project is therefore to analyse how participation in HSM influences drinking behaviour among Victorians and to assess whether Victorian HSM Users experience changes in their attitudes towards alcohol during their engagement with HSM. In particular, by exploring the content of blog posts, this study will investigate what types of motivations, barriers and strategies Victorian HSM Users report most frequently, and whether outcomes or attitudes are shaped by particular demographic characteristics or patterns of blogging. This research will contribute to a greater understanding of how HSM works for Victorians, provide suggestions as to how the website might be improved to increase engagement by Victorians, and provide some suggestive evidence on the degree to which the program might be useful for redefining drinking cultures in Victoria.

2. METHODOLOGY

This project is divided into two studies. The first (Part A) reports on a quantitative analysis of AUDIT data from Victorian HSM Users and the second (Part B) reports on a content analysis of blog data from Victorian HSM Users.

2.1 PART A – CHANGES IN DRINKING DURING HSM PARTICIPATION

The aim of Part A was to assess whether Victorian HSM Users experienced changes in their drinking after their engagement with HSM using data through analysis of their Alcohol Use Disorders Identification Test (AUDIT) scores. The AUDIT contains 10 questions about alcohol consumption:

1. How often do you have a drink containing alcohol?
2. How many standard drinks do you have on a typical day when you are drinking?
3. How often do you have six or more drinks on one occasion?
4. How often during the last year have you found that you were not able to stop drinking once you had started?
5. How often during the last year have you failed to do what was normally expected from you because of drinking?
6. How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session?
7. How often during the last year have you had a feeling of guilt or remorse after drinking?
8. How often during the last year have you been unable to remember what happened the night before because you had been drinking?
9. Have you or someone else been injured because of your drinking?
10. Has a relative, friend, doctor or other health worker been concerned about your drinking or suggested you cut down?

The AUDIT is scored on a Likert scale, with each question receiving a score with a range of 0-4 points, resulting in a potential maximum score of 40 points. In Australian usage of the AUDIT, a score between 0-7 indicates low-risk consumption, a score between 8-15 indicates risky or hazardous consumption, a score between 16-19 indicates harmful consumption and a score of more than 20 indicates high-risk or dependent consumption (23).

We received data from HSM management for 345 Victorian HSM Users who began their HSM in 2013 or 2014. Not all Victorian HSM Users reported their AUDIT score at two time points and some

only partially completed the AUDIT at some time points, leaving us with 49 Victorian HSM Users with full AUDIT scores at two time points.

Quantitative analysis was undertaken on those with two full AUDIT scores to assess whether Victorian HSM Users experienced a change in their AUDIT scores after their engagement with HSM. Descriptive analyses were undertaken in Stata version 12 (24) to enable analysis of changes in AUDIT scores between time points 1 and 2, in addition to examining changes by AUDIT item number to assess whether there were some aspects of drinking behaviour that were affected more than others. Bivariate regression analyses were undertaken to determine whether age, gender or pattern of posting predicted a reduction in AUDIT scores, but, perhaps due to the low sample size and small power within sub-groups, we were unable to detect statistically significant differences.

2.2 PART B – AN EXPLORATION OF VICTORIAN HSM USERS’ ATTITUDES AND PERCEPTIONS

The aim of Part B was to explore the attitudes and experiences of Victorian HSM Users. Specifically, the research questions for study 2 were:

1. Why do Victorians choose to participate in HSM/give up alcohol for a period of time?
2. Do Victorian HSM Users describe particular barriers to abstaining from alcohol for a period of time, and if so how these are overcome?
3. Are there differences in the content contributed by those aged under and over 30 years of age?
4. How do Victorian HSM Users reflect on their drinking behaviour and that of those around them over time/across the length of their program?
5. Are there substantive attitudinal differences between those that contribute less blog content (1-5 times) and those that contribute more (5+)?
6. What are the similarities and differences between those who contribute a lot across the span of their program, and those that drop off in terms of content and behaviour?

Of the 345 Victorian HSM Users, only 154 (44.6%) had corresponding blog data, so analysis of blog content was restricted to this sample. These 154 Victorian HSM Users contributed a total of 2844 blog posts. The characteristics of these Victorian HSM Users, all of their blog posts (n=2844) and their goal setting data were exported into NVivo version 10 (25). Content analysis of blog posts was undertaken by two researchers (26). A third researcher double-coded 20 users’ blog posts to ensure inter-rater reliability. The blog posts were coded into four main overarching themes, which were derived based on the research questions. Each of these themes had numerous sub-themes that were inductively derived during coding:

- Reasons for joining HSM/motivations for decreasing alcohol consumption
- Attitudes towards alcohol use and alcohol intoxication
- Benefits of engaging with HSM/reducing alcohol consumption
- Strategies implemented to support HSM/decrease alcohol consumption
- Barriers or challenges encountered to decreasing alcohol consumption

In line with the principles of summative content analysis (27), after all blog data were coded we quantitatively analysed the frequency of these themes and sub-themes according to Victorian HSM User characteristics such as age, gender, number of posts, pattern of posting, AUDIT scores and number of slip-ups. Bivariate regression analyses were then undertaken to determine whether there were specific factors that predicted identification of certain themes such as age, gender, AUDIT scores or patterns of posting, but again, perhaps due to the low sample size and small power within sub-groups, we were unable to detect statistically significant differences. It should be noted that where we provide excerpts of blog content we have not corrected spelling, punctuation or formatting so that it reads as written by the HSM User.

2.3 LIMITATIONS

There are a number of limitations associated with this study that must be acknowledged. Firstly, since Victorian HSM Users responded selectively to the various fields in the online program, there was a significant amount of missing data, including demographic information such as age, but also other data such as goals and AUDIT scores. Secondly, in relation to this, data entered into HSM did not always correlate with blog data. For example, some Victorian HSM Users reported 0 slip-ups in HSM but in their blog data it was evident that they had consumed alcohol. This may be because they did not perceive this as a 'slip-up' per se. Thirdly, we received data for 345 Victorian HSM Users, but only 154 with corresponding blog data. It is unclear whether the remaining 190 Victorian HSM Users did not blog at all, or whether their blog data was not linked to their demographic and user data. Fourthly, while data were extracted for Victorian HSM Users only, we are not certain that all HSM Users included in this sample are Victorian, as some HSM Users may have selected Victoria even if they resided elsewhere. Also, some HSM Users may have lived in Victoria when starting their HSM but have moved since that time. Fifth, the analyses conducted for this study are drawn from participant self-report data, and as such may be subject to recall and social desirability biases. In addition the current research draws upon a purposeful sample of HSM users without a general population sample for comparison, limiting assessments of the HSM program's effectiveness. Finally, we were only feasibly able to code blog posts, and not the many comments provided in response to blogs. An analysis of comments is likely to be particularly useful for understanding the way in which

HSM Users engage and interact with each other and how they offer advice and support to one another. It may also indicate whether interaction or support with other HSM Users is helpful for those experiencing difficulty complying with their period of sobriety or for those who are searching for strategies to support abstinence. Unfortunately we did not have the capacity or resources to analyse all comments as well as blogs. Future research might consider analysis of comments in addition to blog posts.

2.4 ETHICS

Ethics approval for the project was obtained through Eastern Health Research and Ethics Committee (LR17/2014).

3. FINDINGS

3.1 PART A – CHANGES IN DRINKING DURING HSM

3.1.1 Changes in AUDIT scores

We received demographic and other HSM data (such as AUDIT data) from 345 Victorian HSM Users who began their HSM in 2013 or 2014. However, while many Victorian HSM Users completed the AUDIT upon signing up to the program, only 49 had completed the AUDIT at a second time point, 31 of whom completed the AUDIT one month after they finished their HSM and 21 of whom completed the AUDIT three months after they finished their HSM (5 people completed multiple follow up AUDITs). Most of those who completed two AUDIT scores were female (n=35, 71%), and most were over the age of 30 (n=36, 73%), with an average age of 38.4 years (see Table 1). Approximately half of those who had completed two AUDIT scores posted less than 10 times (51%) and half posted more than 10 times (49%).

Table 1. Gender and age of Victorian HSM Users with completed AUDIT scores at two time points

	Male (n)	Female (n)	Total (n)
Under 30 years of age (n)	1	10	11
Aged 30 years or more (n)	6	26	32
Total (n)	7	36	

*Gender and age missing for 7 participants

The average pre-HSM AUDIT score of these 49 Victorian HSM Users was 18.6 (CI=16.57-20.53), indicating harmful drinking (see Figure 1). For those who had completed the AUDIT 1 month post HSM (n=31), the average score was 9.8 (the low end of risky consumption, CI=7.87-11.68). The average AUDIT score 3 months post-HSM (n=21) had increased to 14.4 (the high end of risky consumption, CI=10.88-17.88), suggesting that HSM is most effective in the short term, but that drinking gradually increases after engagement with the program. Further data points are needed to understand whether HSM drinking reduces drinking in the long term.

In terms of particular questions on the AUDIT, at all three time points the question “How often do you have a drink containing alcohol?” returned the highest average (3.6 at baseline, 2.6 at 1 month and 3.0 at 3 months), suggesting that at baseline, Victorian HSM Users consume alcohol between daily to 3 times a week, and 1 and 3 months post-HSM they consumed alcohol between 3 times a week to once per week. The domains with the lowest scores at all three time points included “How often during the last year have you needed a first drink in the morning to get yourself going after a

heavy drinking session?” and “Have you or someone else been injured because of your drinking?”. These started with low scores, but reduced even further after 1 month, increasing a little after 3 months, but not back up to baseline levels. As is evident in Figure 1, there were no particular domains of drinking (according to AUDIT questions) that were affected over the three time points more obviously than others.

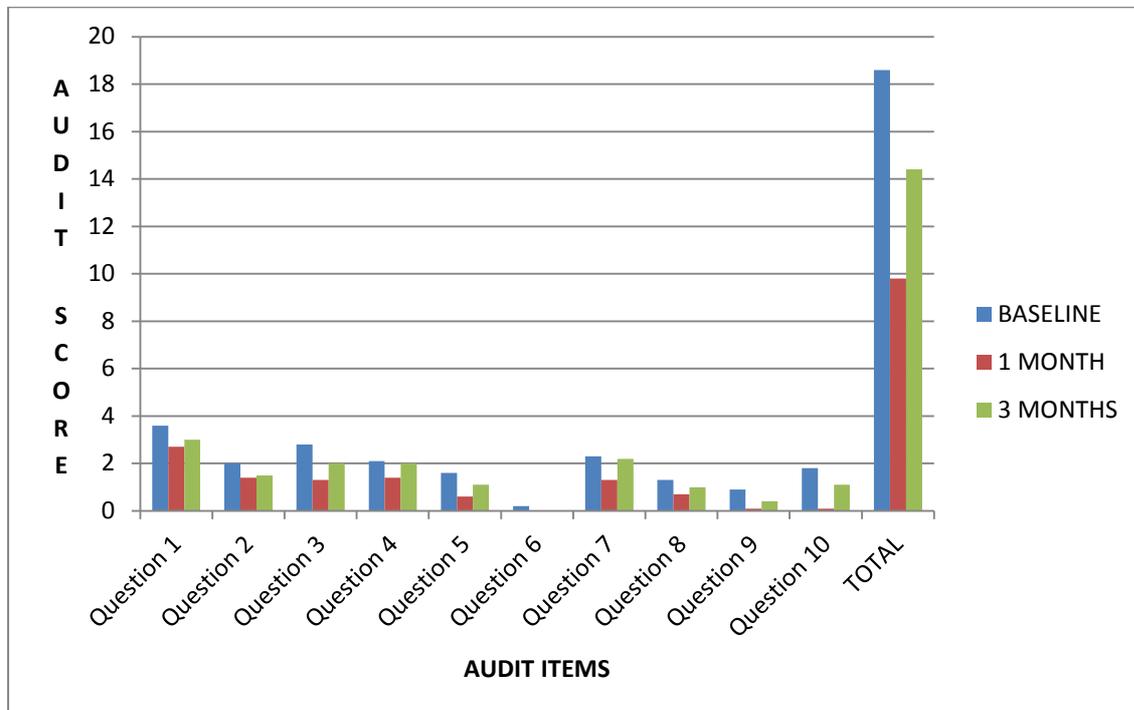


Figure 1. Average AUDIT scores at baseline, 1 month and 3 months (n=49) for Victorian HSM Users

Figure 2 illustrates the proportion of drinkers whose drinking qualified as low-risk, risky, harmful or high-risk on the AUDIT at the three time points. It shows that at baseline, most Victorian HSM Users reported high-risk drinking (45%), with very few reporting low-risk drinking (2%). However, 1 month post-HSM this trend had completely reversed, with the majority of Victorian HSM Users reporting low-risk drinking (48%) and few (7%) reporting high-risk drinking. Three months post-HSM, approximately the same percentage of Victorian HSM Users reported low-risk and high-risk drinking (24%), with most (38%) reporting risky drinking. Overall, 63% of the sample reported a reduced AUDIT score following completion of a HSM. Although it should be noted that this data only reports on 49 Victorian HSM Users, this may be another indication that HSM is particularly effective in reducing drinking in the short term, with gradual increases observed in drinking following participation in the program. It is important to note that for some Victorian HSM Users reductions in drinking were maintained 3 months post-HSM, but for some Victorian HSM Users drinking appeared

to have increased again by this stage. It is also important to note that some Victorian HSM Users may have been seeking a period of abstinence in the short-term but did not intend to reduce their drinking in the long-term.

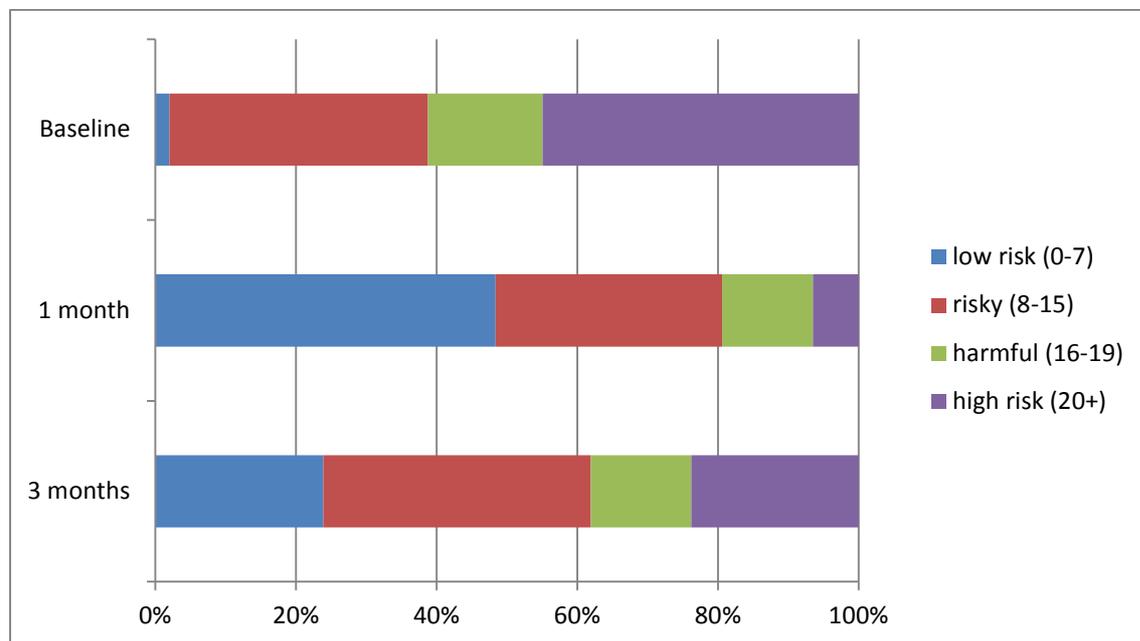


Figure 2. Percentage of AUDIT drinking categories at baseline, 1 month and 3 months (n=49) for Victorian HSM Users

Interestingly, at baseline (pre-HSM), more females (51%) scored ‘high-risk’ on the AUDIT than males (29%), with more males scoring ‘harmful’ (36%) than females (9%). However, females were more likely than males to score low-risk at both 1 month (52% versus 40%) and 3 months (31% versus 0%) post-HSM, with males more likely to score high-risk at 1 month (10% versus 5%) and 3 months (40% versus 19%) post-HSM. But it should be noted that only 10 males completed the AUDIT 1 month, and only 5 completed it 3 months post-HSM. Further research is required to determine if females experience more significant gains from HSM than males.

Similarly with age, only 7 Victorian HSM Users under the age of 30 completed two full AUDIT scores. At baseline, Victorian HSM Users over the age of 30 were more likely to report high-risk drinking than Victorian HSM Users under the age of 30 (50% versus 29%), while Victorian HSM Users under 30 were more likely to report risky levels of drinking at baseline (57% versus 33%). Unfortunately there were too few Victorian HSM Users under the age of 30 who completed AUDIT scores at 1 and 3 months post-HSM to analyse whether there were differences in reductions in drinking according to age.

Victorian HSM Users who scored high-risk on the AUDIT at baseline were more likely to post 10+ times (55%) over the course of their engagement with HSM, as opposed to 1-4 times (18%) or 5-9 times (27%). However, interestingly, Victorian HSM Users who scored 'low risk' 1 month post-HSM were also more likely to post 10+ times (53%) than 1-4 times (7%) or 5-9 times (40%). Regrettably, there were too few cases 3 months post-HSM to assess whether number of posts was associated with reductions in drinking. Baseline AUDIT scores did not appear to subsequently influence the spacing of posting (i.e. posting evenly across the HSM experience or posting initially and then dropping off), but those who posted consistently were much more likely to report low-risk AUDIT scores 1 month post-HSM than those who posted initially and then dropped off (87% versus 13%). Further research with larger samples is required to investigate the influence of gender, age, and pattern of posting on changes in AUDIT scores, given these interesting preliminary findings.

3.2 PART B – AN EXPLORATION OF VICTORIAN HSM USERS’ ATTITUDES AND PERCEPTIONS

3.2.1 Characteristics of Victorian HSM Users

We received demographic and other HSM data (such as intended length of HSM commitment and number of slip ups) from 345 Victorian HSM Users who began their HSM in 2013 or 2014. Of these 345 Victorian HSM Users, 190 Victorian HSM Users (55%) either did not post or we did not receive their corresponding blog data (similar to the two thirds of HSM Users who reportedly do not blog according to a recent HSM evaluation - 22), leaving 154 (45%) Victorian HSM Users who posted between 1 and 152 times.

Table 2 (on the next page) shows the demographic characteristics and other HSM data for those with corresponding blog posts, as well as those who either did not post or did not have corresponding blog data. Those over the age of 30 appear more likely to post than those under the age of 30; however, bivariate regression analyses found no significant differences between those with blog data and those without. The remainder of the analysis will focus on the 154 Victorian HSM Users with blog data.

As can be seen in Table 2, the sample of 154 Victorian HSM Users was mostly female (71%) and mostly over the age of 30 (88%), with a mean age of 41. This is slightly higher than the proportion of females registered on HSM (60%) and much higher than the proportion of people over the age of 30 registered on HSM (46%). Even when looking at the whole Victorian sample (those who posted and those who did not), the proportion of people under the age of 30 is much lower than all registered HSM Users (16% in Victoria compared with 54% registered Users), suggesting that younger Victorians are not accessing HSM at the same level as in other locations. A majority of Victorian HSM Users had committed to a 3 month HSM (88%) as opposed to a 12 month HSM, and Victorian HSM Users reported an average of 0.8 slip-ups and 8.3 positive check-ins during the course of their HSM. Just over half of Victorian HSM Users had posted more than 10 times (51%), and 55% had posted evenly across their HSM period.

3.2.2 Patterns of blogging by day and time

Table 3 (on the next page) shows the timing of blog posts in terms of day of week and time of day. Perhaps unsurprisingly, Sunday morning was the most popular day and time for posting. Sunday was clearly the day of the week when Victorian HSM Users posted the most, followed by Monday, with progressively fewer posts each day until Saturday. Mornings were the most popular time for posting,

followed by evenings and then during the day, with fewer people posting between midnight and 6am.

Table 2. Demographics and HSM data for Victorian HSM Users with and without blog posts

	Victorian HSM Users with blog posts (n=154)	Victorian HSM Users without blog posts (n=190)
Gender		
Male	45 (29%)	47 (30%)
Female	109 (71%)	109 (70%)
Mean age	41.0 (range 22-74)	39.8 (range 19-63)
Age groups		
Victorian HSM Users under 30	13 (12%)	23 (20%)
Victorian HSM Users 30+ years	90 (88%)	92 (80%)
HSM length		
3 months	45 (88%)	too much missing data
12 months	6 (12%)	too much missing data
Number of slip-ups	0.8	0.9
Number of positive check-ins	8.3	6.7
Number of posts		
1-4 posts	38 (25%)	n/a
5-9 posts	37 (24%)	n/a
10+posts	79 (51%)	n/a
Frequency of posting		
Evenly spaced throughout HSM	85 (55%)	n/a
Posted initially then dropped off	69 (45%)	n/a

*Age missing for n=51

*HSM length missing for n=103

*Gender missing for n=34

*Age missing for n=72

Table 3. Victorian HSM Users' blog posts by day of week and time of day

	6am to Midday	Midday to 6pm	6pm to Midnight	Midnight to 6am	Total
Sunday	236	162	168	52	618
Monday	156	119	126	74	475
Tuesday	146	86	126	58	416
Wednesday	135	82	115	40	372
Thursday	106	86	96	47	335
Friday	108	68	94	49	319
Saturday	121	74	65	49	309
Total	1008	677	790	369	2844

3.2.3 HSM goal setting

Sixty-one of the 154 Victorian HSM Users entered an average of 5.8 personal goals into the HSM program (range 1-22). Of the 356 goals entered by these 61 Victorian HSM Users, the most commonly reported were 'Mind and Body' (23% of total goals posted) and 'Fitness' (21%), followed by 'Lifestyle' (16%) and 'Sobriety' (13%). See Figure 3. These are similar to the goals reported by Carah and colleagues (18) in their recent analysis of Australian HSM Users.

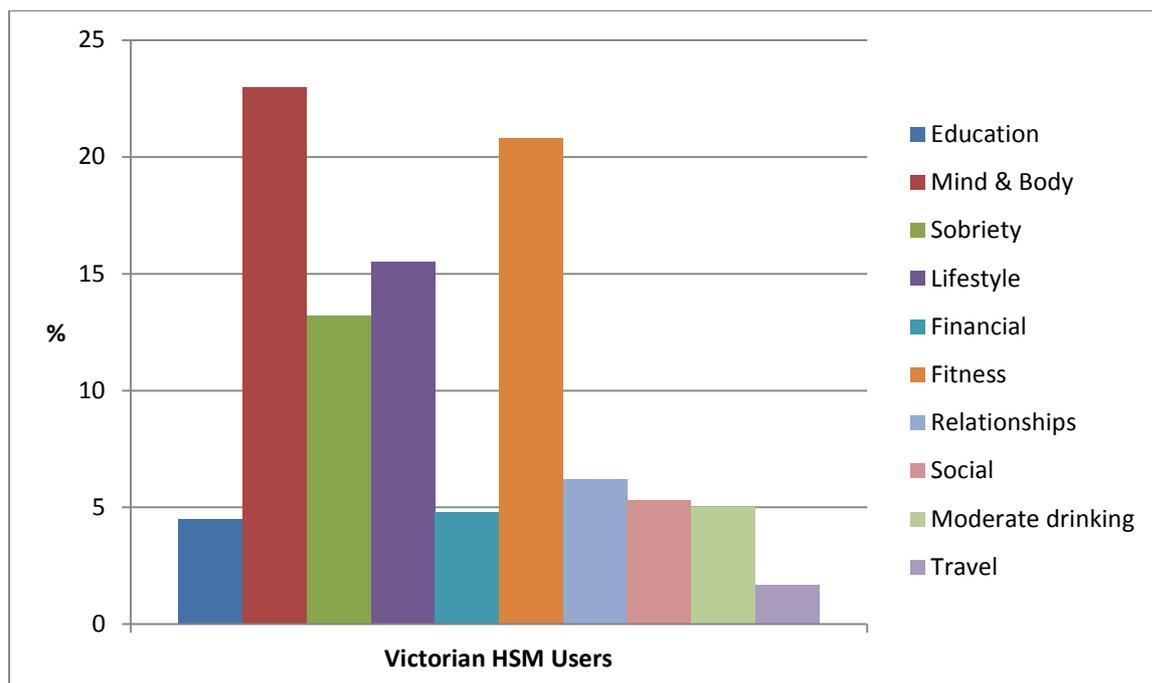


Figure 3. Victorian HSM Users' goal setting data (n=61)

In terms of differences between groups in relation to goal setting data, females were more likely than males to report 'Mind & Body' (25% versus 15%) and 'Lifestyle' (16% versus 11%) goals, while males were more likely than females to report 'Sobriety' (20% versus 11%) and 'Relationship' (11% versus 5%) goals. Those under 30 were marginally more likely to report 'Relationship' (8% versus 5%), 'Education' (8% versus 4%) and 'Travel' (4% versus 1%) goals, and those over 30 were more likely to report 'Mind & Body' (25% versus 21%), 'Sobriety' (15% versus 10%) and Social (6% versus 2%) goals.

3.2.4 Analysis of 'slip-ups'

Of the 154 Victorian HSM participants, 64% (n=98) reported no slip-ups, with 36% (n=56) reporting at least one slip-up (range 1-8). This is a higher proportion of slip-ups than was identified in a previous evaluation of HSM in 2011 (20), which reported that 84% of Australian HSM Users reported completing a HSM without a slip-up. Of the Victorian HSM Users, females were slightly more likely to report a slip-up than males (39% versus 31%), and those over the age of 30 were more likely to report a slip-up than those under 30 (37% versus 23%). There were no differences in likelihood of reporting a slip-up according to pattern of posting, but those in the 'high-risk' category on the AUDIT at baseline were more likely to report a slip-up than those in the lower AUDIT categories (52% versus 39%).

3.2.5 Reasons for joining HSM/decreasing alcohol consumption

Blog data were analysed to understand the various reasons that Victorian HSM Users reported for starting their HSM. These data were analysed independently of goal-setting data, given that goals were developed both initially and along the way. Victorian HSM Users (n=100) reported a range of reasons for joining HSM and making the decision to reduce or cease alcohol consumption, and these were captured across seven broad categories as described in Figure 4 (over the page), including: financial, relationships, mental health, new experiences and personal growth, physical health, reflection on own alcohol consumption, and to gain support from or provide support to others. Some Victorian HSM Users reported multiple reasons for joining.

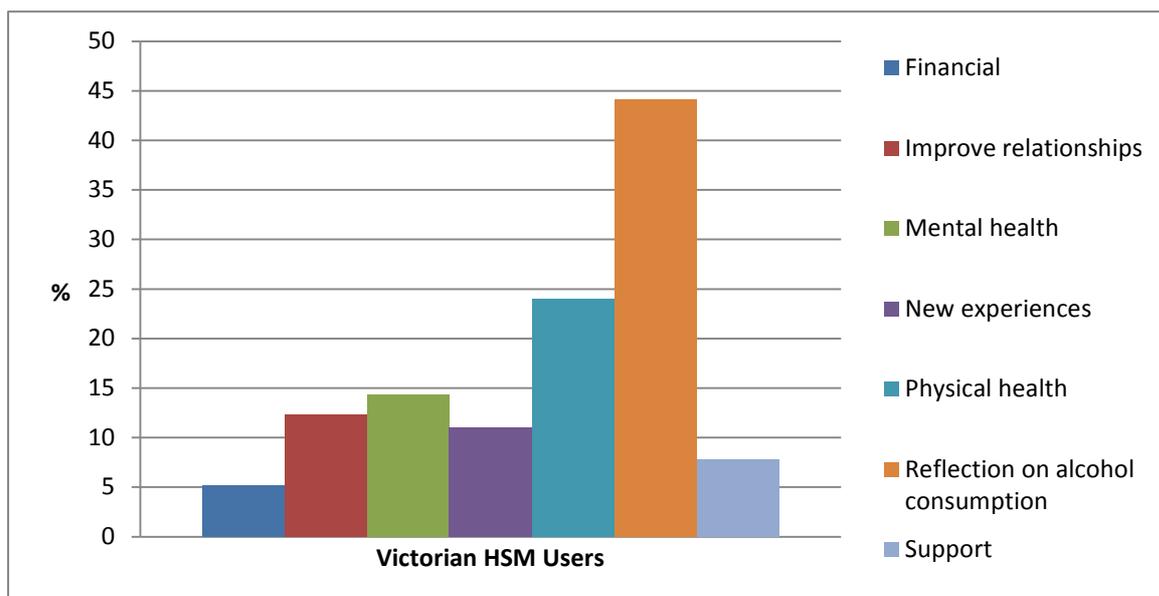


Figure 4: Percentage of Victorian HSM Users (n=154) that reported reasons/motivations for joining HSM

The most commonly reported reason for joining HSM was in response to reflection on one's own alcohol consumption. This was reported by 68 people (44%). These reflections tended to focus on disappointment with one's own heavy drinking and the realisation that the HSM User needed to reduce his or her consumption. Some Victorian HSM Users were unhappy with their regular at-home drinking, while others were unhappy about heavy drinking sessions on weekends. Most often there was some sort of 'tipping point' or event that had sparked this reflection and realisation that they could not continue to drink in this way. For example:

This day has been coming for so long. And I've been avoiding it for so long drinking to avoid facing up to drinking! Numbing out every evening with a bottle (or more) of Chardonnay (Female, 42 years).

I've quit drinking many times before, usually at the point that I have no choice - where I am emotionally, physically and spiritually spent. That sums me up right about now. The time to change is now (Female, 31 years).

Physical health (n=37, 24%) and mental health (n=22, 14%) were the next most commonly reported reasons for joining HSM. These are fairly self-explanatory, with Victorian HSM Users reflecting on the negative physical and mental consequences of alcohol use, and hoping that reducing alcohol consumption would lead to improvements in health. Physical health most often involved losing weight, with reflections about alcohol getting in the way of fitness and sport. Mental health sometimes involved overcoming issues with depression or anxiety, but also sometimes involved a desire for more mental clarity and awareness. For example:

I want to know who I am, without alcohol. I want to feel calm, centred and totally grounded in reality. I want to feel creative and motivated. I want my brain to fire on all cylinders. I want to think clearly and have a good memory. I want to feel energetic, focussed and connected (Female, 60 years).

It was also common for Victorian HSM Users to report joining HSM to improve relationships with partners, family or friends (n=19, 12%). The HSM User below reflects on this as a reason, but also on multiple other reasons such as health, happiness and the desire for peace:

My marriage almost didn't survive, and I owe it to my husband and children to fix this. I know it, deep down, that my drinking is the cause of EVERY thing that isn't right in my marriage, my health, my happiness. Just want the peace (Female, 42 years).

Some Victorian HSM Users wanted to seek out new non-alcohol related experiences or discover new parts of themselves, and find out who they were without alcohol (n=17, 11%), for example:

I want my identity to take other forms apart from 'piss-head' (Female, unknown age).

Others wanted to save money or stem their spending (n=8, 5%):

It [alcohol] is a dragon taking all my gold (Male, unknown age).

Some Victorian HSM Users were not motivated by their own consumption, but joined HSM with the intention of contributing to the creation of an environment that is supportive of abstainers and enables people to abstain or drink moderately (n=12, 8%):

Explaining the 'what' & 'why' of HSM to my friends is starting to feel like an elevator pitch. I think the hardest bit to explain is that for me it's not about my personal relationship with alcohol, so much as being mindful of alcohol culture in general, and trying to spread that mindfulness to those around me (Female, 30 years).

In terms of differences in reasons for joining between groups, females were more likely than males to report physical health (28% versus 16%), mental health (18% versus 4%) and new experiences (14% versus 4%) as key motivators for joining HSM, while males were more likely than females to report wanting to improve relationships (18% versus 10%) and financial motivations (9% versus 4%). While there were only 13 people under 30 in the sample, Victorian HSM Users under 30 were more likely to join HSM due to reflecting on their own consumption (62% versus 41%), and were also more likely to report wanting new experiences (31% versus 9%) and to improve mental health (23% versus 16%). Those aged 30 years or more were more likely to report wanting to improve relationships than those under 30 (14% versus 0%).

There were no apparent differences in reasons for joining HSM between those with high-risk and low-risk AUDIT scores at baseline, with all groups reporting reflecting on their own alcohol consumption and physical health as their main motivation for joining HSM. Those who did not slip up (i.e. did not report consuming alcohol during their HSM) were more likely to join HSM due to reflecting on their own consumption (25.9%), followed by physical health (16%) and mental health (9%).

3.2.6 Attitudes towards alcohol use and alcohol intoxication

Attitudes towards alcohol use and intoxication were largely negative and were mostly reflections on Victorian HSM Users' own consumption of alcohol and the resultant impacts. Just less than half of

the sample (n=73, 47%) reflected negatively on their own use of alcohol; this proportion was similar for males and females. Negative reflections on own alcohol use was most common in the initial stages of Victorian HSM Users' engagement with the program. These comments were dominated by reflections about their alcohol consumption and what led to their decision to begin a HSM. For example:

In fact the scary part of my drinking occurs when no one is around [...] Binge drinking on your own isn't acceptable to me or anyone else and that's why I am here (Male, 38 years).

Negative reflections on one's own consumption reduced over the course of individuals' HSM experiences, with the exception of some Users who continued to reminisce about their previous problematic drinking as a reminder of why they had decided to change their drinking habits, and some who struggled to abstain from drinking, and so continued to post negative reflections about their own alcohol consumption.

In addition to negatively commenting on their own alcohol consumption, 28% of females (n=30) reflected negatively on other people's alcohol use, compared to 9% of males (n=4). These posts tended to involve stories about intoxicated individuals, with Victorian HSM Users expressing negativity about the behaviour of others in situations where they were sober and others were not. These reflections often made the Users wonder if they were viewed in the same way by others when they had been drinking heavily.

The negative effects of alcohol's place in society were also remarked on by 18% of Victorian HSM Users (n=27). These reflections were evident throughout the Users' blogging journey. Negative views of alcohol were mostly focused on the pervasiveness of alcohol in society, but as time passed they also became more about how socially unacceptable it was perceived to be to abstain from drinking in social contexts. Below are some examples of the types of reflections made by Victorian HSM Users as their journey progressed:

I've noticed that not a day has gone by since beginning my HSM where I haven't been offered, around, or tempted with a drink. It's been really interesting to observe that. To see just how prevalent alcohol is in my world, in our culture. (Female, unknown age).

It is bizarre that alcohol is the only drug in the world where you are considered abnormal if you don't drink and an alcoholic if you drink too much (Male, unknown age).

... my behaviour amongst the masses is not normal. It actually got me thinking...its very rare I will ask the person standing next to me why they are choosing to drink booze, yet I'm always asked why I'm not. Funny that! (Female, 33 years).

It is important to note that some Victorian HSM Users did report positively on their own alcohol use (n=30, 19%), although very few people reflected positively on others' alcohol use or positively about alcohol use in society. Those who reported positively on their own alcohol consumption discussed the enjoyment they received from consuming alcohol (i.e. the first drink on a balmy summer's evening). Most positive reflections were focused on moderate or controlled alcohol consumption and several Victorian HSM Users expressed feeling proud for successfully drinking in moderation. Approximately 20% of both males and females reflected positively on their own consumption, more so towards the end of their HSM. Proportionally there was a higher percentage (n=7, 54%) of people under 30 years old who reflected positively on their own use compared to those 30 years and older (n=17, 19%). Those that reflected positively on others' use (n=6, 4%) tended to focus on the good times they witnessed others having while consuming alcohol.

3.2.7 Benefits of engaging with HSM/reducing alcohol consumption

Overwhelmingly, the most common theme identified in the blogs was that participation in HSM resulted in substantial benefits to Victorian HSM Users. More than three quarters (n=118, 77%) of Users reported benefits of the program, a total of 605 times. Benefits included physical health (n=81, 53%), feeling positive about oneself (n=79, 51%), and greater productivity, improved mental health and engaging in new activities or greater enjoyment of activities (all reported by approximately 30%). See Figure 5.

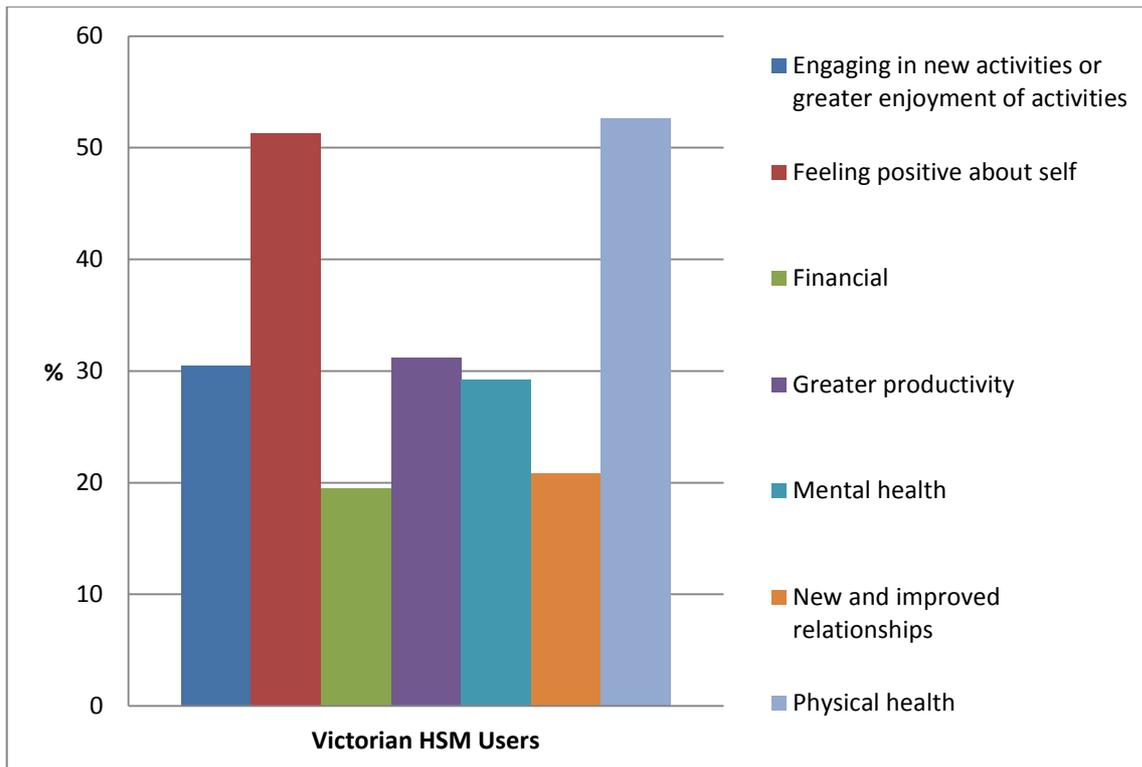


Figure 5: Percentage of Victorian HSM Users (n=154) that reported benefits of HSM

Victorian HSM Users (n=81, 53%) posted an average of 2.9 references each to feeling physically healthier as a result of abstaining. Physical health encompassed many physical benefits, including feeling fitter, healthier and weight loss, as well as sleeping better and seeing improvements in skin and eyes. For example:

My health and fitness has improved so much and I am really more knowledgeable now without anything else in my system how much healthy food effects our mood and energy as appose to eating shit a lot due to being hungover and have now lost 5kg which is also a plus. Have been still training the same gym 4-5 times a week but trying to walk or jog before breakfast and also taking up a class at my gym on Friday (Female, 25 years).

One of the absolute advantages of being off the drink for me has been that I have been sleeping so much better. No more 2am or 3am or 4am insomnia attacks! Lying awake for an hour or so ... frustrated and tired with a 1,000 thoughts tumbling through my head. Now, after two weeks, I have been experiencing unbroken sleep and now starting to feel much better in the mornings (Female, 50 years).

Along with feeling physically better, 71 (46%) Victorian HSM Users expressed feeling positive about themselves and enthusiasm for the future across 191 posts. One of the common ways Users articulated positivity was in relation to developing a sense of clarity, which enabled them to see life in a new way, with the potential for a whole range of new experiences. This theme also encompassed Users who mentioned a new-found sense of self-respect and confidence, and feeling greater control over their lives:

Weeeeeeee!! I did it! I made it through a 30th without needing any alcohol. I was the only person not drinking. I had a great night and I wasn't the quiet, boring person that I was worried I would be :) In fact.. I'm super proud of myself because I have managed to get through the whole long weekend without a drop of alcohol, which included a few unexpected social events. This weekend has boosted my confidence big time. I'm so happy :) (Female, 27 years).

Even when things aren't going how I'd like them to, my clear head (thank you sobriety) means I can accept them and move on, without falling into a heap (Female, 29 years).

There were 48 Victorian HSM Users (31%) that made 82 references to being more productive and finding more time in their days as a consequence of abstaining from alcohol. The comments below illustrate how both work and leisure time was utilised more effectively as a result of reducing drinking:

I think I just had the most productive weekend of the year :) bunnings for plants, ikea for random stuff, food shopping, climbing, exercise, cooking, planting a garden, socialising for a charity cause, catching up with uni girls, reading the papers.. what a fitting way to end 3 months of no alcohol! (Female, 30 years).

I didn't get sleepy, I really engaged with the presentations and thought about their relevance to my work, I asked questions, I made comments and I networked a small amount but didn't feel like I had to make conversation just to assuage my guilt. I had good chats to my manager while we waited at the airport and resolved an issue that was plaguing my confidence as well as offering her advice on a situation she had to deal with. So there! It was so much better. In every way (Female, 44 years).

Almost one third (n=47, 31%) of Victorian HSM Users reported engaging in new activities or gaining greater enjoyment out of activities as a result of their period of abstinence. These activities included cooking, gardening, crafts, musical or other artistic pursuits, fitness and sport, and reading, among other things.

Mental health benefits were also reported by 45 (29%) Victorian HSM Users, who discussed the ways in which HSM had improved their anxiety, depression or mood. Some Victorian HSM Users reported that feelings of shame, guilt and remorse had subsided with the reduction or cessation of alcohol:

I feel so good. I feel calm and peaceful, like I am settling into myself. I never realized while I was drinking how bad I actually felt. I was always anxious and in some kind of a hurry, even just internally somehow. I daresay that I feel good about who I am, that underneath it all I am a loving and beautiful person. I feel like now I can give that love to myself in the best possible way” (Female, 50 years).

One fifth (n=32, 21%) of Victorian HSM Users reported developing new relationships or improving existing relationships with friends and family. Some Users reported that their relationships had improved because they were more engaged with people, listened better and were more tolerant and compassionate towards their friends and loved ones. For example:

It felt good to drink sparkling water with lemon and enjoy lunches and dinners with the kids and listen to them and the stories they had to tell. I felt focused and clear headed and that's what they deserve (Male, 34 years).

Females were slightly more likely to report benefits of HSM than males (2.5 benefits versus 2 benefits). Physical health benefits and feelings of positivity were reported by approximately half of all male and female Victorian HSM Users. There were few differences in benefits experienced by gender, with the exception of females being more likely to report engaging in new activities or getting greater enjoyment out of activities (34% versus 22%) and to report improved mental health (34% versus 18%).

Victorian HSM Users under 30 years of age posted an average of 3.8 benefits each, while those 30 years and above posted an average of 2.4 benefits each. Those under 30 years of age were more likely to report physical benefits (85% versus 51%), as well as feeling more positive about themselves (85% versus 57%) and financial benefits (54% versus 14%).

Those who posted more than 10 times were more likely to report multiple benefits of HSM and to reflect on these benefits more times. Similarly, those who posted evenly throughout their HSM were more likely to report numerous benefits compared with those whose posting dropped off.

3.2.8 Barriers or challenges encountered to decreasing alcohol consumption

Two thirds (n=105, 68%) of Victorian HSM Users (80 females and 25 males) referenced barriers or challenges associated with successfully completing their HSM, a total of 429 times. Barriers and challenges included factors such as experiencing difficulty finding social activities that did not centre on alcohol consumption, not feeling as well without alcohol as hoped or anticipated, and experiencing difficulty either abstaining from alcohol or getting through emotional or stressful events without alcohol. Figure 6 shows that the most common barriers experienced by Victorian HSM Users included stress, tiredness and adversity, followed by the pervasiveness of alcohol in one's social life, unexpected negative emotional, social and/or physical effects of not drinking, and negative reactions from others.

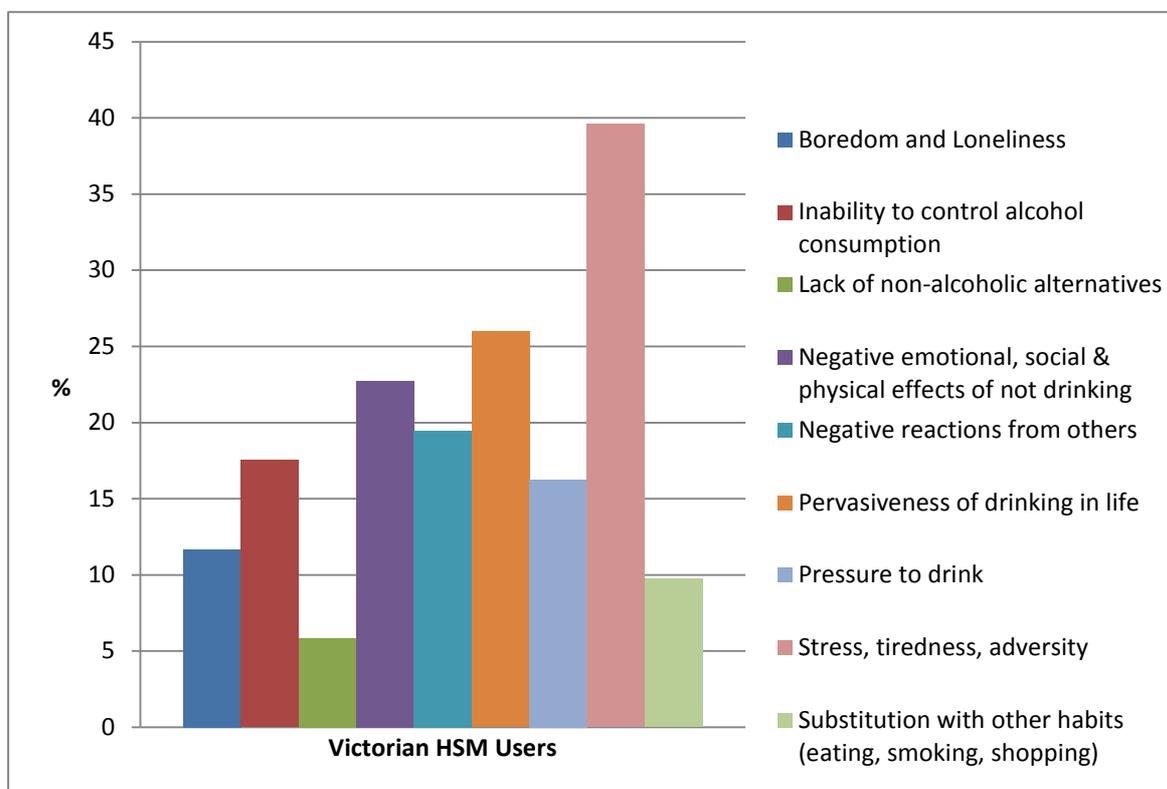


Figure 6: Percentage of Victorian HSM Users (n=154) that reported barriers/challenges in relation to reducing or abstaining from alcohol

Forty percent (n=61) of Victorian HSM Users reported that moments or events that induced stress, tiredness and adversity provided particular challenges for abstaining from alcohol during their HSM. Stress was often reported in relation to work or parenting, with frustration from a particular event often triggering a desire to drink. Users also commonly reflected on feeling like a drink when they felt tired or run down, and also when a particularly traumatic life event occurred, such as a death or loss of employment. For example:

Shitty, rotten, no good, horrible day just frustrating problems and things not going right, rather than any big life shattering things, but enough to make me just about ready to crawl over my family and anyone or anything else in my way to grab a bottle of wine (Female, 50 years).

...it all went to hell in a handbasket. stress. 14 hour work days. the sociopathic boss. dreading waking up in the mornings....enter stage left, my friend in a bottle. oh deary me.... (Female, 39 years).

The second most commonly cited barrier was the presence and saturation of alcohol in Victorian HSM Users' lives, with Users often reflecting on how this made abstinence a challenge, whether that be in their homes, workplace or social lives. One quarter (n=40, 26%) made 66 references to this barrier:

Yesterday I went on a work conference. My colleagues had wine on the plane (I had water), wine at dinner (I had San Pelligrino), and drinks at the bar before calling it night (I called it a night). It was not easy. It was actually really hard. I had a moment where I thought, just one glass of wine would be fine (Female, unknown age).

One of the most interesting barriers reported by 35 (23%) Users was the experience of several unexpected consequences of not drinking. This included physical issues – for example, not feeling as physically well or sleeping as well as expected after a period of abstinence; emotional issues – for example, feeling tired, anxious or moody as a result of ceasing alcohol consumption; and social issues – for example, feeling self-conscious or socially anxious at social events without alcohol or feeling as though they were 'missing out' socially:

Like many others here, I'm a bit miffed that the revelation I had hoped for hasn't come. I guess that's the main reason why I slipped. No bright eyed, bushy tailed me full of energy and optimism (Female, unknown age).

I must say I do miss catching up for a drink with people - I love the random conversations and laughter that occurs after a few drinks. I love the ritual, and I love the feeling of being a bit loose... (Male, unknown age).

I could not believe the intensity of my urge but what was more surprising was that there was an overwhelming sense of grief involved and the grief was for alcohol and all of the fun things that we associate with it, like sitting at the beach watching the sunset with a chilly glass of white or sipping a red near the fire discussing philosophy

or meeting with friends and sharing boutique beers listening to blues music (Female, unknown age).

Negative reactions from others was also a commonly reported challenge, with 30 (19%) Victorian HSM Users posting 49 times about instances of 'shock', 'confusion' and 'screwed up faces' of friends or family. While several blog posts reported that the negative reactions were 'light hearted' jibes, they were nevertheless felt by the User and sometimes drew unwanted attention to them. Others reported social exclusion or feeling unsupported by friends or family, and in some cases Users reported not disclosing their HSM to others and instead pretending to drink in social situations so as to avoid negative reactions:

I'm already finding friends who are 'disappointed' with my decision not to drink cause they want someone to drink with, or think I'll be no fun anymore (Female, unknown age).

Putting people on alert that I wouldn't be drinking I offered to drive and somebody close to me said well if your not drinking then there is no point coming to the pub. Maybe I am being over sensitive but it felt like if your not getting smashed then you have no place in the pub (Male, 32 years).

A similar barrier was that some Users experienced pressure to drink from others. Twenty-five (16%) Users discussed others' attempts to get them to break their HSM. Moreover, they commented that it was not only people they knew well, but others such as wait staff and acquaintances:

My first real test was the Friday night. I had a mates housewarming party. I rocked on up with not one drink in hand, the first thing she said to me was 'Don't tell me you are not drinking!' After explaining to her why I wasn't drinking, she then attempted to persuade me to drink by saying, 'It's just one night, who will know?' My response 'I will know, that's the problem' stopped her from pestering me, however, this did not stop her from throwing jelly shots at me (Female, 22 years).

Some Victorian HSM Users wanted to learn to drink moderately rather than to abstain altogether, but commonly reported that they found this challenging and were unable to stop drinking once they started (n=27, 18%). These Users often reframed their HSM to focus on abstention rather than moderation after a number of 'slip-ups':

There have been moments where I think I can have a glass of wine 'once in a while', but one has become two very quickly. Two is easy to let slip. Then a pre-dinner

champagne is easy to overlook, but by then slippery slope has begun. Last Thursday night, I consciously boarded the roller coaster of "keep them coming" which ended at 3.30am (Female, 39 years).

Loneliness and boredom were also issues that came up for 18 (12%) Victorian HSM Users. These Users either reported avoiding social events and finding themselves bored at home too often, or reported not enjoying social events without alcohol. Some Users (n=15, 10%) also reported substituting alcohol with other undesirable habits. For example, it was not uncommon for Users to report eating more after giving up alcohol, particularly unhealthy foods such as chocolate, and hence putting on weight. A minority reported substitution to other drugs or reported that their finances were suffering due to having more time to go shopping.

Another interesting barrier that was raised was the lack of non-alcoholic drink alternatives at venues and functions (n=9, 6%). Interestingly, those living overseas appeared to have more access to alcohol-free beer and wine at licensed venues. However, those living in Victoria did not appear to have many appealing non-alcoholic options at the same venues. For example:

Today I went to the pub to watch the AFL grand final with a few mates. Me at the bar: "Hi, Can I have a lemon lime and bitters in a schooner glass please?" Bartender: "No you can't, schooner glasses are for beer only, you can have one of these" and proceeds to show me a piss-week girly glass for me to have my girly drink out of. What the fuck is that about? Anyway it got me thinking about how fucked up we are with our culture of drinking in this country. I was in Germany last October visiting a friend. We went to the pub (of course!). I proceeded to indulge in numerous steins of the local ale my mate interspersed his with alcohol free beer that they served ON TAP! (Male, unknown age).

More females (n=80, 73%) than males (n=25, 56%) reported experiencing barriers or challenges during their HSM, and accordingly females were more likely than males to report stress, tiredness or adversity (46% versus 24%), pervasiveness of drinking in social life (29% versus 18%) and negative social, emotional or physical effects from not drinking (25% versus 18%). The remaining barriers were experienced similarly across males and females. In terms of differences across age, those under 30 were more likely to report pressure to drink (38% versus 12%), pervasiveness of drinking in social life (38% versus 28%) and lack of non-alcoholic alternatives (15% versus 4%) as barriers, while people over the age of 30 were more likely to report stress, tiredness and adversity (47% versus 15%) and substitution with other habits (14% versus 8%). There were no patterns in relation to the barriers cited by Users who posted evenly or dropped off, or those who posted more or less than 10

times, with the exception that those who posted more and posted evenly were likely to report more barriers and reflect on them more often.

Those with high-risk AUDIT scores at baseline were more likely to report stress, tiredness and adversity than HSM Users with AUDIT scores in the lower categories (45% versus 30%), and also more likely to report negative social, emotional and physical effects of not drinking (32% versus 18.5%). A higher proportion of Users that reported a 'slip-up' discussed at least one of the nine barriers, compared to those that did not report a 'slip-up' (73% versus 66%).

3.2.9 Strategies implemented to support HSM/decrease alcohol consumption

Victorian HSM Users frequently posted about the various strategies and enablers that supported them to avoid or minimise alcohol during their HSM. These included strategies of distraction to combat short-term cravings, longer term strategies to enable them to make enduring life changes, and strategies to facilitate and maintain motivation. Fifteen broad groups of strategies and/or enablers surfaced from the data, totalling 641 references from 120 Users (78% of Victorian HSM Users), and these ranged from avoiding people or places where drinking was likely to be occurring, to seeking professional advice or help, or to reading alcohol-related literature (i.e. High Sobriety by Jill Stark). See Figure 7. The five most common strategies referred to by Victorian HSM Users are explained in more detail below.

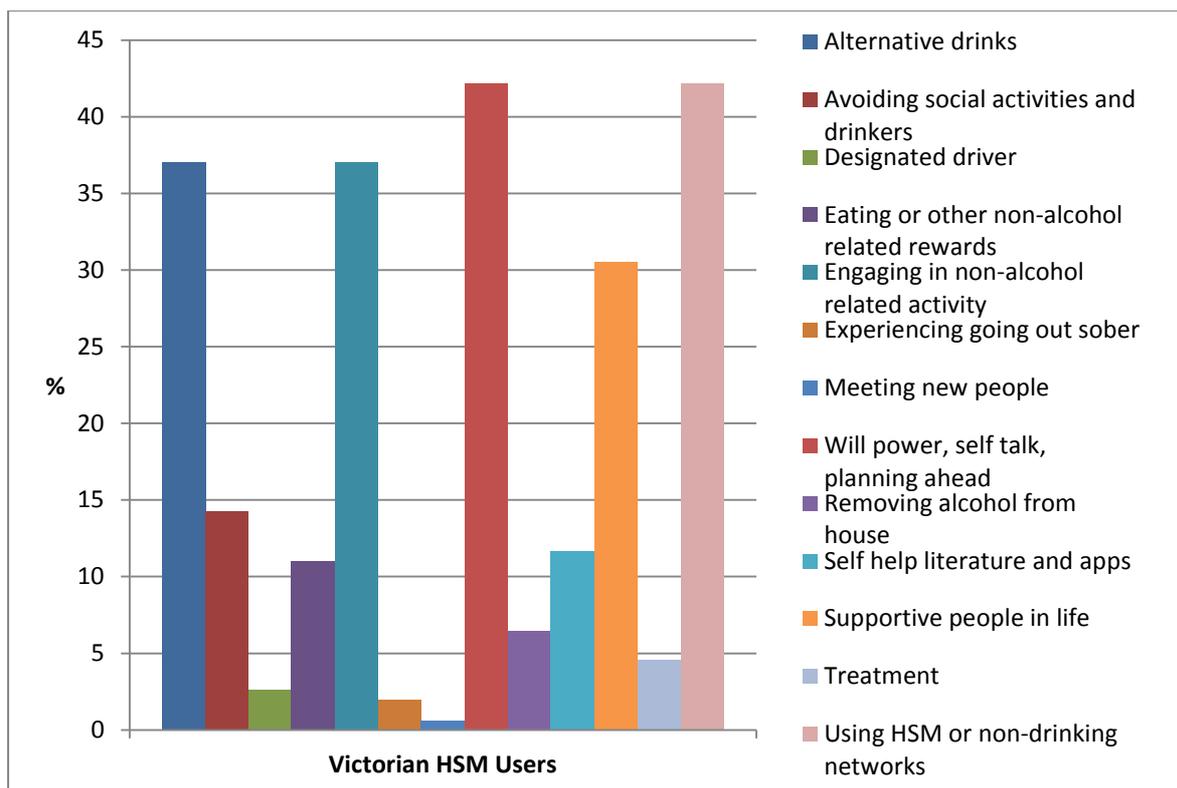


Figure 7: Percentage of Victorian HSM Users (n=154) that reported strategies/enablers to support their HSM or reduce alcohol consumption

Will-power, self-talk and planning was the strategy most commonly reported (along with using HSM or non-drinking networks) by Victorian HSM Users as they attempted to navigate their lives without alcohol. Sixty-five (42.2%) Victorian HSM Users reported using this strategy, in a total of 121 references. In particular, planning for social events was something that Users regularly discussed in terms of setting up adequate safeguards to avoid drinking. For example:

I'm going to a big Rugby game next weekend and the whole day is organised around getting pissed. In my head i have spent several days walking through the day and considering the challenges I will face. One of the key lessons I have learnt is you have to grow the areas that have benefitted from your not drinking. (Male, unknown age).

In addition to planning, self-talk was also discussed as important for many Victorian HSM Users in relation to resisting alcohol-related temptations and cravings. The Users above and below both reflected on the need to plan in advance, but also to continue to remind themselves about why they are not drinking and what they are trying to achieve:

I feel frustrated that I need to put in so many checks and preparations to beat the desire or craving. A big meal, arrive later, shower, brush teeth, big self talks, etc (Male, unknown age).

Sixty-five (42.2%) Victorian HSM Users also reported drawing on the support of HSM or non-drinking networks (this strategy was referenced 154 times by these 65 people). It was common for Users to express gratitude to the HSM community for assisting them in their period of abstinence, and many discussed the usefulness of logging on to the website during moments of temptation and using others' posts or comments as both motivation and distraction. For example:

I am on my way out to a BBQ tonight. It is not the first social event I have had during my first three weeks of abstinence but for some reason I am feeling a little anxious. I know that I am a bit weak and vulnerable today. Maybe I am a bit tired. Anyway, I have come to read a few posts on HSM prior to going out to give me a little motivation. It is good to have this community to rely on (Female, 39 years).

I don't post a lot but I read a lot of posters. It is good to know that I'm not the only one grappling (Female, 53 years).

Victorian HSM Users also reported seeking out other non-drinking friends or networks to aid in their abstention (e.g. Alcoholics Anonymous or simply forming a network of non-drinkers to socialise with).

Thirty-seven percent (n=57) of Victorian HSM Users reported that non-alcoholic drinks were a useful strategy to avoid drinking alcohol. This was reflected on 133 times by these 57 Victorian HSM Users. Non-alcoholic drinks ranged from alcohol-free beer and wine, to fancy soft drinks or mocktails, and herbal teas or hot chocolate. Using alternative drinks as a strategy was helpful in a range of situations, for some people it allowed them to maintain existing habits at home without using alcohol (i.e. pouring a glass of soft drink into a wine glass after a long day at work), and for others it allowed them to feel part of social situations where everybody else was drinking alcohol. For example:

One of the main things I've learnt is that it's not actually about "not drinking", that's way too hard!! It's about "not drinking alcohol". So have a drink in your hand, pour one when you get home from work if that's your thing, clink the ice, swish it around if you like, savour the taste, have it with dinner, sip it or skull it - just change your choice of beverage so it doesn't have alcohol in it (Female, 50 years).

That non alcoholic wine has already come in handy, this weekend suddenly, without warning became a massive social event... I took my non alcoholic wine to 3 different events and was able to mingle, with the best of them, glass in hand looking the part

and nobody was the wiser. I hate to admit it but it really did take the pressure off and relieved any cravings that I, briefly had (Female, unknown age).

Victorian HSM Users also discussed a need to keep busy and distracted from the desire to drink, and reported doing this by substituting usual drinking occasions with non-alcohol related activities. Thirty-seven percent (n=57) of Users reported utilising this strategy in a total of 107 references. Non-alcohol related activities included cleaning the house, cooking, gardening, fitness or sport, camping, catching up with friends, reading or having bubble baths. For example:

So far I've been getting a lot more done too. Not sure if it's because of more energy or just me trying to keep distracted. A lot more rehearsals, sessions (music not beer), public lectures, even just urban adventures. (Female, 28 years).

The only solution I can think of to avoid drinking is to fill every waking minute of my day with activity, whether that's reading, yoga, meditation, running, swimming (Female, unknown age).

The final most commonly reported enabler reported by Victorian HSM Users was to have supportive people in their life. Almost one third (n=46, 30%) of Users referred to such support, a total of 87 times. Supportive people included friends, family and colleagues, and even strangers with whom they had struck up a conversation with at a party or bar. Support from others included being respectful or encouraging of the Users' decision to abstain, as well as the mere presence of other non-drinkers at social events:

The people that I caught up with knew what that deal was which was good, and they'd been incredibly supportive rather than being coy and suspicious. One friend was so much so she kept saying me doing this was restoring her faith in humanity. We talked a little about it but I didn't want to make it a focus point of the trip. A group of us went out on a couple nights and they by default didn't drink nearly as much either. I kept saying for them not to feel obliged because of me and to enjoy themselves, but they seemed more relieved that the pressure was off! [...] It did make me realise maybe we just all do it because we think it's what is expected, and yet everyone is secretly just wanting to ease off. The social pressures around drinking are enormous! (Female, 28 years).

We went to a friends house for dinner last night- it was hard but mad easier that out of the 8 there 4 were none drinkers! (Female, 42 years).

Females were more likely to reflect on the various strategies that enabled their HSM experience, reporting an average of 2.7 strategies per female, compared with 1.8 strategies for males. Accordingly, most of the strategies discussed here were more commonly reported by females than males, including using HSM or non-drinking support networks (47% versus 31%), using alternative drinks and engaging in non-alcohol-related activities (42% versus 24%) and having supportive people in one's life (37% versus 16%). Those under 30 were more likely to report using planning, self-talk and will power (77% versus 42%), the importance of having supportive people in their life (69% versus 33%) and engaging in non-alcohol related activities (54% versus 44%). On the other hand, those over the age of 30 were more likely to report drawing on HSM or other non-drinking networks (46% versus 23%) and using alternative drinks (44% versus 31%). The User's pattern of posting did not appear to influence the types of strategies reported, but those who posted more often and more consistently were more likely reflect on more strategies.

There were few differences in the strategies reported between Victorian HSM Users with high-risk and low-risk AUDIT scores at baseline, with the exception that high-risk drinkers reported more frequently on the importance of having supportive people in one's life (50% versus 28%). The strategies that were reported most commonly by those who had not 'slipped up' were using HSM or non-drinking networks (44%), engaging in non-alcohol related activities (43%), using alternative drinks (42%) and self-talk, planning and will power (40%).

4. DISCUSSION

The aim of this project was to gain an understanding of how participation in HSM influences drinking behaviour among Victorians and to assess whether Victorian HSM Users experience changes in their attitudes towards alcohol during their engagement with HSM. In particular, we explored the types of motivations, barriers and strategies Victorian HSM Users reported most frequently during their HSM, and whether outcomes or attitudes were shaped by particular demographic characteristics or patterns of blogging.

4.1 Do Victorians experience changes in their drinking during HSM?

Analysis of AUDIT data for those Victorian HSM Users with at least two AUDIT scores (n=49) showed that they were drinking at high levels at baseline – scoring 18.6 on the AUDIT, which is similar to the levels identified by Carah et al. (18) in analysing data from a larger sample of Australian Users (19.8). However, one month post-HSM, majority of Victorian participants had much lower AUDIT scores (9.8). Three months post-HSM; however, AUDIT scores had increased (14.4), but not back to baseline levels. Between baseline and three months post-HSM this equates to a drop in AUDIT scores of 4.2, which is similar to the drop identified among Australian HSM Users in the first evaluation of the program (20). While the Victorian data are limited by the small number of Victorian HSM Users with two AUDIT scores, these findings suggest that participation in HSM reduces alcohol consumption following the program, but that consumption gradually increases over time (although not back to baseline levels). Furthermore, there appeared to be better gains experienced by females and those who posted consistently (as opposed to dropping off), which may indicate that ongoing engagement in HSM is likely to be important with regards to experiencing benefits from the program, and that there might be a need to tailor HSM or other similar interventions differently to males and females.

4.2 Why do Victorians choose to participate in HSM?

Analysis of blog data revealed seven primary reasons that Victorian HSM Users participated in the program. These included (in order of how commonly reported): reflection and/or dissatisfaction about one's own alcohol consumption, to improve physical health, to improve mental health, to improve relationships, to gain new experiences, to gain support or provide support to others, and to improve finances. More than one-third of Victorian HSM Users (n=61, 39%) entered goal-setting data along their HSM journey, and the majority of these goals were focused on health, with 'Mind and Body' and 'Fitness' the most commonly reported goals, followed by 'Lifestyle' and 'Sobriety'. These goals suggest that once participants start engaging with the program their focus turns from reflecting on reducing their alcohol consumption to pursuing health-related goals and activities.

4.3 What are the barriers Victorian HSM Users describe in relation to abstaining from alcohol and how are these overcome?

There were a range of barriers reported by Victorian HSM Users that made it difficult to abstain from alcohol, including (in order of how commonly reported): stress, tiredness and adversity, pervasiveness of drinking in social life, negative emotional, social and physical effects of not drinking, negative reactions from others, inability to control consumption, pressure to drink, boredom and loneliness, substitution with other habits and lack of non-alcoholic drink alternatives. HSM Users drew on numerous strategies to counter these barriers including (in order of how commonly reported): self-talk, planning and will power, engaging with HSM and other non-drinking networks, engaging in non-alcohol related activities, using alternative drinks and drawing on supportive people in their lives. Other less common strategies included avoiding social activities where drinkers were present, rewarding oneself with non-alcohol related treats, reading alcohol-related literature and removing alcohol from the house.

These barriers and strategies can be summarised into four main points. Firstly, supportive people, whether they be close to the HSM User or accessible online through HSM, are important for overcoming the various barriers that arise in relation to negative reactions or pressure from non-supportive people. Secondly, self-motivation through planning, self-talk and willpower is important to overcome barriers that arise in relation to unexpected stressful events and unexpected negative consequences of not drinking. Thirdly, focusing on non-alcohol related activities is important for overcoming the pervasiveness of drinking in society. Finally, appealing non-alcoholic drinks, both at home and at licensed venues, are an important substitute for alcohol, and providing better access to good quality alcohol-free beer and wine in Australia is therefore something that should be considered by health promotion agencies.

4.4 Are there differences in the content contributed by those aged under and over 30 years of age?

Unfortunately there were only 13 Victorian HSM Users with blog posts under the age of 30 (although there are potentially more given age was missing for 51 of these 154 HSM Users). This indicates that Victorian HSM Users are much more likely to be over the age of 30 than all registered HSM Users. This also means that the differences we've identified by age must be cautiously interpreted. All ages reported similar primary reasons for joining HSM, which included reflection on one's own consumption and physical health, and both age groups predominantly had goals focused around health. However, there were some differences across various domains, with Victorian HSM Users under the age of 30 more likely to join HSM because they wanted to gain new experiences, which

was also reflected in their greater likelihood of selecting goals of 'Education' and 'Travel'. On the other hand, people over the age of 30 were more likely than those under 30 to report joining HSM to improve relationships, and were more likely to select 'Sobriety' as a goal. In terms of attitudes to alcohol, Victorian HSM Users under 30 years old were more likely to reflect positively on their own alcohol use compared to those 30 years and older. They were also more likely to report physical benefits and feeling positive about themselves and to report financial benefits than those over the age of 30.

Victorian HSM Users under the age of 30 were more likely to report barriers in relation to social pressures, such as pressure to drink and the pervasiveness of drinking in social life, while people over the age of 30 were much more likely to report stress, tiredness and adversity as a barrier. In relation to strategies, those under 30 were more likely to report the need for self-talk, planning and will power, having supportive people in their life who did not criticise their decision to abstain, and engaging in non-alcohol related activities, while those over the age of 30 were more likely to report drawing on HSM or other non-drinking networks and using alternative drinks as a substitution for their routine or habit of drinking.

Further work is needed to ascertain differences by age given the small number of Victorian HSM Users under the age of 30, especially given that there appear to be some interesting differences in attitudes and HSM experiences between different age groups. The fact that there are so few Victorian HSM Users under the age of 30 also indicates that more health promotion or awareness-raising work needs to be undertaken with a focus on younger Victorians to increase their knowledge and use of HSM.

4.5 How do Victorian HSM Users reflect on their drinking behaviour and that of those around them over time/across the length of their program?

Negative reflections on one's own alcohol use were most common in Victorian HSM Users' initial posts, as they reflected on their alcohol consumption and decision to commit to a period of abstinence. These reflections reduced over time in line with reductions in drinking. As they reduced, negative reflections on others' alcohol use increased. The negative role of alcohol in society was evident throughout Victorian HSM Users' blogging journey and focused on the pervasiveness of alcohol in society. Over time there was increasing reflection (and frustration) on the social unacceptability of abstaining from drinking in social contexts. There were some positive reflections on alcohol consumption, but these were almost exclusively focused on moderate or controlled alcohol consumption and were more evident towards the end of HSM Users' blogging journey.

4.6 Are there substantive attitudinal differences between those that post more blog content or post more frequently?

It was common for Victorian HSM Users to post more than 10 times, with half of all bloggers doing so and a quarter posting between 1-4 times and between 5-9 times respectively. On the other hand, just over half of Victorian HSM Users posted evenly across the program and just under half posted initially and then dropped off. Surprisingly there were no substantive differences in the content posted by those who posted a lot or those who posted a little, or those who posted evenly and those who dropped off, with the exception that those who posted more and posted consistently were more likely to report multiple benefits, barriers and strategies and reflect on them more frequently, which could point to more intense involvement leading to better outcomes, or at least more subjective perceptions of better outcomes. The only substantive difference noted in relation to pattern of posting was that those who posted consistently were more likely to report low-risk AUDIT scores 1 month post-HSM than those who posted initially and then dropped off (87% versus 13%). However, these findings were not sustained 3 months post-HSM.

5. FUTURE DIRECTIONS

The results shown here draw upon the responses from a small purposeful sample of HSM Users, highlighting their alcohol consumption patterns before and after participating in the program and the content of the blogs they contributed. Future research seeking to demonstrate the effectiveness of programs like HSM should draw upon a larger sample and utilise a control group methodology. Building upon this, with a larger sample it would be possible to make a more comprehensive assessment of whether blogging regularly is associated with a greater likelihood of reduced alcohol consumption.

Given the range of data collected from participants through the HSM program, such as time and day of posting blogs, number of slip ups and blog content, future research could assess the feasibility of developing automated text messages or in site messaging at times when slip ups are likely, or when HSM Users require the support of the broader HSM community.

6. CONCLUSION

This study builds on previous evaluations of HSM by focusing on Victorians and exploring for the first time the various reasons HSM Users reported for joining HSM, the benefits derived by participation in HSM, the barriers/challenges to abstaining from alcohol, and the various strategies/enablers that were utilised to overcome these barriers. There were no apparent differences between the Victorian data and previous evaluations of HSM that analysed program-wide data in relation to gender and AUDIT scores; however, Victorian HSM Users were much more likely to be over the age of 30 than all registered HSM Users. Given that younger adults in Victoria are underrepresented in HSM, we recommend that Victorian health promotion agencies consider promoting awareness of HSM to younger adults. It is evident, both from the current study and from those that have preceded it, that HSM is an effective mechanism not only for reducing an individual's drinking, but also for changing the way that he or she thinks about alcohol. In particular, both this evaluation and one previously (21) have found that committing to a period of abstinence, while encouraging self-reflection and interaction with others doing the same, promotes discussion about the role of alcohol in society and how pervasive drinking is in social settings across Australia, as well as how difficult it can be to abstain from drinking in these contexts. These discussions are an important step towards re-shaping cultures of drinking.

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