



DRY JANUARY[®]

Evaluation of Dry January 2018

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Executive summary

The popularity of Dry January is growing: each year tens of thousands of people register via the website or mobile phone application, and over four million people attempt to have a Dry January without registering or signing-up.

Over the years, Alcohol Change UK (and formerly Alcohol Concern) has sought to increase the effectiveness of the campaign in delivering long-term behavior change through a range of wraparound interventions, delivered via the website, email, app, and social media. The aim of the research reported here was to determine which elements of support are valued and effective, and how various aspects of support may be enhanced.

The research involved surveys and interviews. Self-completed online questionnaires were completed by 2,821 participants at the time of registering for Dry January, 1,715 participants at the end of Dry January, and 816 participants 6 months after the end of Dry January. In addition, semi-structured individual telephone interviews lasting 20-70 minutes were conducted with 19 people purposively sampled from survey participants.

Key findings

Why do participants choose to do Dry January? The survey revealed a range of motives in the diverse sample, but the most important were health reasons, and to take on the challenge. Fundraising was not an important motive.

Do participants value being ‘part of something bigger’? In the survey, being part of something bigger was less important than other elements of taking part in Dry January, and it was not a strong influence on staying dry. However, among interviewees, there was much discussion of the importance of feeling part of something bigger.

Do socioeconomic factors influence participation in, and successful completion of, Dry January? Dry January participants appear to be of higher SES and contain a greater proportion of white people than the general population. Socioeconomic factors were not significant predictors of successful completion of Dry January.

Does participation change self-efficacy for managing alcohol consumption? Drink-refusal self-efficacy (DRSE) increased significantly among Dry January participants.

Does participation change drinking attitudes and behaviours? There was a significant weakening of drinking motives, and significant reductions in drinking at 6-month follow-up.

Does participation change wellbeing? Participants reported improvements in their general health, sleep quality, concentration, energy levels, and skin. Many also reported losing weight.

How do participants experience the fundraising message? Most participants did not give great importance to fundraising. However, for the minority of participants who did engage in fundraising it played a significant role in completing the challenge successfully.

Do participants value the support they receive during the month? Participants valued information demonstrating the benefits of taking part in Dry January, stories from other participants, and tips for how to resist cravings or temptation. The website and app gained the most positive ratings.

How would participants suggest improving the support they receive? Participants gave a range of suggestions for how to improve the support that is provided. There was a clear and unsurprising desire for customisation of the support provided.

Background

In recent years, organisations in several countries around the world have established campaigns in which people are challenged to give up alcohol for one month. Alcohol Concern (now Alcohol Change UK) first ran Dry January in 2013. Its popularity is growing: the number of people who register via the website or mobile phone application to do Dry January increased from just over 4,000 in 2013 to nearly 60,000 in 2016 (de Visser et al., 2017). Additional evidence indicates that millions of people attempt to have a Dry January without registering via the website (de Visser et al., 2017).

Previous surveys of Dry January participants have shown that most report completing the challenge and that successful completion of Dry January is accompanied by greater confidence in being able to refuse alcohol as well as lower levels of alcohol intake 6 months later (de Visser et al., 2016). These surveys have also revealed that 'rebound effects' (i.e. drinking more after a period of abstinence) are uncommon, and that they are much less likely than sustained reductions in alcohol intake (de Visser et al., 2016). Evidence from small-scale studies indicates that completion of a month of alcohol abstinence has physiological benefits (Coghlan, 2014; Munsterman et al., 2018). Past analysis of Dry January participants has revealed that participation and successful completion are linked to improvements in general well-being (de Visser et al., 2018).

Success in abstinence challenges is predicted by the characteristics of individual drinkers such as Drink Refusal Self-Efficacy (DRSE), which is an individual's self-perceived capacity to refuse alcohol (Young et al., 1991). People with greater DRSE are more likely to complete abstinence challenges and participants in Dry January experience increases in DRSE - especially those who complete the challenge (de Visser et al., 2016). It is also possible that drinking motives predict success in Dry January and are influenced by participation in Dry January.

In addition to considering individual characteristics, it is important to consider the influence of the social settings in which people undertake Dry January. Non-drinkers and non-drinking sometimes have negative associations such as being less fun, less sociable, and boring (Conroy & de Visser, 2013, 2014; Piacentini & Banister, 2009; Seaman & Ikegwuonu, 2010; Zimmermann & Sieverding, 2010). These negative perceptions of abstinence may increase the demands on Dry January participants: not only must they manage their own urges and temptation, but they must do so in a context where social pressure and societal expectations construct non-drinking as something unusual that must be justified convincingly. However, the growth of Dry January (de Visser et al., 2017) may mean that temporary abstinence is now not so unusual and is therefore easier to manage. It may even be the case that, at scale, Dry January is able to switch these negative associations. The growth of 'sober positive' movements certainly seems to indicate a societal change.

It is important to note that social support can help people to adhere to health behaviour change (Bauld, Bell, McCullough, Richardson & Greaves, 2009; Olander, Fletcher, Williams, Atkinson, Turner & French, 2013). Over the years, Alcohol Change UK has increased the type and amount of support given to participants via the websites, email, app, and social media; with the intention of increasing the effectiveness of the campaign in delivering longer-term behaviour change for its participants. It is, therefore, important to determine which elements of this support are valued and effective, and how various aspects of support may be enhanced.

Evaluation methods

Online data collection via self-completed questionnaires was conducted at the time of registration for Dry January (baseline), at the end of Dry January (one-month follow-up), and six months after the end of Dry January (six-month follow-up). All people who registered for Dry January 2018 were invited to take part:

- 2,821 participants completed the baseline questionnaire
- 1,715 completed the one-month follow-up questionnaire
- 816 completed the six-month follow-up questionnaire.

Where possible, responses to the three surveys were linked by email addresses. Details of statistical analysis procedures and results are available from the authors.

Most of the questions had pre-set response options. In addition to demographic variables, the questionnaire assessed previous experience of temporary abstinence (as part of, or separate from, Dry January), and reasons for taking part in Dry January. The questionnaire also included the World Health Organization's Alcohol Use Disorders Identification Test (AUDIT: Babor et al., 2010), the Drink Refusal Self-Efficacy scale (DRSE: Young et al., 1991), and the Drinking Motives Questionnaire (DMQ: Kuntsche & Kuntsche, 2009). Some sections of the questionnaire had free-text comment sections. Free-text comments made by survey respondents are presented in this report in italics.

In addition, semi-structured individual telephone interviews lasting 20-70 minutes were conducted with 19 people purposively sampled from the one-month follow-up survey. The sample was designed to include sufficient numbers of men and women, and completers and non-completers of Dry January. The sample was further stratified to ensure adequate representation of people who did not make use of the support provided to Dry January participants (six interviewees), people who used both the mobile app and the website (seven interviewees), people who only used the app (two interviewees), and people who only used the website (four interviewees). This sampling facilitated the exploration of how different sources of support were valued by participants, the potential modifications of, and additions to, existing sources of support, and the views of those who did not use any of the sources of support provided.

Anonymised transcripts underwent Thematic Analysis (Braun & Clarke, 2006). The analysis presented here is characterised by a blended approach that combines deductive and inductive and processes. The deductive phase involved exploration of pre-determined issues reflected in the questions set for the evaluation; the inductive phase allowed exploration of additional novel issues.

Results

The baseline sample consisted of 2,821 drinkers aged 18-84 (mean age = 46.7, sd = 11.9). Participants who completed the six-month follow-up survey differed in some ways from those who did not. Compared to those who did not complete the follow-up, those who completed it:

- had a significantly higher mean age
- were significantly more likely to report having a university-level education
- gave a significantly higher mean rating of their health
- gave a significantly higher mean rating of the quality of their sleep
- were more likely to report being a past participant in Dry January
- had a significantly lower mean AUDIT score.

Because of these differences, all data reported below are weighted for the likelihood of completing the follow-up surveys.

The data in the Table 1 outline the demographic profile of the people who completed the baseline survey. Compared to the general population, the sample appears to have:

- Fewer people from Black and Minority Ethnic backgrounds. 3% reported a non-white ethnic background, compared to 14% for the general population.
- A higher level of university education. 61% reported a university education, compared to 42% in the general population.
- Higher average incomes. The median income was in the £40,000-£50,000 bracket, whereas in the general population median income is below £30,000.

Baseline participant characteristics

17% of respondents said they intended to use Dry January to stop drinking altogether. However, most (79%) intended to follow Dry January by drinking less than they did before taking part.

60% had completed at least one month without alcohol at some time in the past. Just under half (44%) had previously participated in Dry January.

Most respondents (58%) participated in Dry January alone. Among those taking part with other people, the most common companions were spouses or partners (28%).

Participants were relatively heavy drinkers. On average, they reported getting drunk just under once per week, and their AUDIT scores suggested 42% were drinking at risky levels.¹

When comparing Dry January participants to the general population, the proportions of risky drinkers appear high. However, it must be noted that the study only included drinkers. In the general population, around 20% do not drink alcohol, and their AUDIT scores of zero would be classified as lower risk.

¹ Thresholds were: 0-7 = lower risk; 8-16 = increasing risk; 16-19 = higher risk; and 20+ = possible dependence

Table 1 Profile of Dry January 2018 Participants

Sex	Female	80.0%
	Male	20.0%
Ethnicity	White	97.3%
	Mixed / Multiple	1.0%
	Asian British	0.9%
	Black British	0.7%
	Middle-Eastern	<0.1%
Education	< GCSE	2.1%
	GCSE	14.5%
	A level	22.3%
	university	60.9%
	other	0.2%
Income	up to £30000	23.0%
	£30000 - £60000	43.1%
	£60000 - £90000	19.6%
	over £90,000	14.3%
Plans for after Dry January	stop drinking	17.3%
	drink less	78.7%
	drink same	3.9%
	drink more	0.0%
Dry month in past?	no	40.4%
	yes	59.6%
Past participant in Dry January	no	56.0%
	yes	44.0%
Attempting Dry January with ...?	nobody	57.6%
	spouse / partner	28.1%*
	other family member	6.3%*
	friend	9.2%*
	work colleague	4.3%*
Frequency of getting drunk	(times / month)	3.44
AUDIT score	(range = 0 - 40)	14.78
AUDIT category	lower risk	12.9%
	increasing risk	45.0%
	higher risk	18.9%
	possible dependence	23.2%

* multiple responses possible

'Performance' during Dry January

60% of respondents completed Dry January without drinking alcohol. Successful completion of Dry January was related to some of the baseline characteristics in Table 1. Those who completed a month without alcohol were:

- Significantly more likely to be male
- Had a significantly lower mean AUDIT score

However, completing Dry January without drinking was not significantly related to age, ethnicity, education, income, completing a dry month in the past, having participated in Dry January in the past, or doing Dry January with another person.

Among the 40% of respondents who did drink after registering for Dry January, the number of days until the first drink ranged from 1 to 30, but the average was around 12 days. The people who did drink during Dry January reported that on the day(s) when they did drink, they drank less than they usually would:

- 73% reported that they drank less than they usually would
- 24% reported drinking as much as they usually would
- 3% reported 'rebound effects'

The remainder of the results are set out in blocks that address each of the evaluation questions, under headings that specify those questions.

- **Why do participants choose to do Dry January?**
- **What are their motivations?**

Table 2 shows responses to the question **How important was each of the following reasons for your decision to do Dry January this year?**, from the baseline survey. Responses were given on a scale ranging from 0 (not at all important) to 10 (extremely important).

Table 2 Reasons for taking part in Dry January

Importance of each reason	rating / 10
To improve my health	8.79
To prove to myself that I can do it	8.36
To have more control over my drinking	7.81
To lose weight	7.76
To have more energy	7.50
To reset my relationship with alcohol	7.43
To improve my sleep	7.05
To improve my concentration	6.49
To save money	3.76
Friends and/or family are doing it	2.24
For charity	1.39

The most important reasons were for participation were ‘to improve my health’ and ‘to prove to myself that I can do it’. Respondents also gave relatively high ratings to having more control over their drinking and/or re-setting their relationship with alcohol. As indicated in Table 1, a substantial minority of respondents reported that they intended to use Dry January to stop drinking altogether, but the most common response was that participants wanted to drink less after Dry January than they did before taking part.

The likelihood of staying dry during January was significantly related to giving a lower importance of the reason ‘to save money’. There was no significant association between the likelihood of staying dry during Dry January and the strength of any of the other reasons for taking part.

Analysis of the interviews identified five themes that captured motivations for participating in Dry January:

- Health benefits
- For the challenge
- To change my relationship with alcohol
- To save money
- Fundraising

Various elements of well-being were subsumed within the ‘health benefits’ theme: to improve health, to lose weight, to improve skin, to improve sleep, to improve lifestyle and to feel more in control of drink-related binge eating:

I am very conscious about my health and I found that my lifestyle had impacted on things like my blood pressure and whatever. But most behind it is to get some weight off, to get [myself] back in trim again and to the give the body a rest from the excess in December.

I did have in the back of my mind that it would be good for my health if I gave up; if I didn’t have alcohol for a month, I might lose weight, improve my skin, all that kind of thing.

It's good to detox because I am mindful of things like weight gain. So, I am doing it for health reasons.

The 'challenge' theme was relatively straightforward, although may represent a deeper concern that they are to some degree dependent. As one respondent put it:

To show that I could actually do it!

The theme 'to change my relationship with alcohol' included not only interviewees' hopes to change their overall relationship with alcohol, but also to feel more in control of drinking, to reduce drinking generally, to maintain current abstinence, and (for a small minority) to achieve long-term abstinence:

Over the course of the month of December, I felt when I drank I wasn't feeling the effects of it anymore. And it made me think, why are you doing this then if you don't even feel buzzed? Because that's the reason I would want to drink. So, I'd have a glass of wine and go, 'this kind of feels like medicine instead of fun'. So, I thought, why don't you just reset everything and then see where you are.

It's just that I find that as the year goes on alcohol consumption increases overtime and just becomes a bit habitual. So, I just wanted to break that cycle.

I wasn't happy with the amount I was drinking. I'd be drinking each night and I just felt it was getting a bit of a problem really, you know, a bit unhealthy. It just felt like a good thing to try and a bit more balanced, you know.

Actually, the motivation is to pack it in completely.

In contrast to some of the other themes outlined above, saving money and fundraising were less multifaceted:

To try and save a bit of money

I am a breast cancer patient and I decided to do it to raise money for Breast Cancer [Now] and that's the only reasons I decided to do it

With few exceptions, each of the five motivational themes was reported by the four groups of users of website and/or app support. The motivations related to health benefits and the opportunity to change their relationship with alcohol featured heavily across all groups, reflecting their importance in the survey (see Table 2).

- Do participants value being ‘part of something bigger’ during the month?
- Does this help them achieve their goals?

Table 3 below displays responses to the question **How important to you was each of the following aspects of signing up for Dry January?**. This was included in the one-month follow-up survey at the end of January. Respondents used a scale ranging from 0 (not at all important) to 10 (extremely important). Being part of a community was one of the less important reasons, and citing this reason was not significantly related to whether participants completed a dry month. The fact that Dry January makes not drinking feel normal and gives an acceptable reason for not drinking were given greater importance, but neither of these was significantly related to whether participants completed a dry month.

Table 3 Reasons for signing up for Dry January

Importance for signing up for Dry January	rating / 10
I know I’m doing something healthy for my body	8.8
Taking on the challenge	8.0
It makes not drinking feel normal	7.0
It gives a reason for not drinking that others accept	6.6
Being part of a community	3.9
Taking part with my friends/family	3.5
Fundraising for charity	2.8

The likelihood of staying dry during January was significantly related to giving greater importance to the reasons ‘taking on the challenge’ and ‘fundraising for charity’. There was no significant association between the likelihood of staying dry during Dry January and the strength of any of the other reasons.

Among interviewees – and across each of the groups of users and non-users of support – there was much discussion of **the importance of being part of something bigger by registering for Dry January**. Among the many interviewees who felt that the mass-participation element of Dry January was important, views on how this affected their own experience clustered around two themes: ‘connection’ and ‘recognition and acceptability’. ‘Connection’ refers to the positive and motivating influence that was promoted by the sense of collective commitment and belonging:

It was definitely important. I knew that if I needed a load of help or support, there would be plenty of other people out there in the same position. You know, you tell people that you’re doing it; it’s a thing lots of people do and that definitely motivates you to try and finish it.

‘Recognition and acceptability’ refers to the way in which reference to Dry January smoothed social situations by serving to swiftly explain interviewees’ abstinence – even placating hostile responses. The broadly held view that Dry January is widely known as a concept and a practice allowed some interviewees to deploy the seemingly self-explanatory tag line “Dry January” when faced with challenges related to abstaining in social settings:

Lots of people, lots more people seem to do it – Dry January – than when I first started doing it. So, if you said to somebody, “I am doing Dry January”, people [would] go, “Oh! What’s that?” But now it’s like, “Oh, OK”.

Yeah, it was a relief, almost, to be able to say, “I am doing Dry January”, because it was just, sort of, so widely accepted. Everybody had heard about it and they were like, “Oh, right. OK”.

Analysis of the role of social media in feeling part of something bigger revealed three further themes: 'sense of connection'; 'source of empathy and affirmation'; and 'source of diverse experiences'. First, some interviewees referred to the role of social media in communicating a sense of connection by promoting feelings of collective commitment and belonging:

It was probably very useful. Again, just to see things on social media and to have that reminder [of] why you're doing it and you're not just doing it for you; this is part of a wider thing. I very firmly felt that if I give up halfway through, I am letting somebody down. Even if [they're] not a person I know, I feel like I've got to stick with it instead of doing it off my own back. Social media just reminding you you're not on your own.

Some interviewees also noted that social media provided a medium for the exchange of messages of empathic support and affirmation, thereby fuelling a sense of being part of a large collective event:

With social media ... people know what [Dry January] is these days. You can go on Instagram and Twitter and, like, hashtag Dry January and get 'likes' on stuff like that. So, yeah, that did help. That's also like another reward.

Furthermore, some interviewees felt that the breadth of subjective experiences of Dry January accessible on social media served to communicate further the sense of being part of a bigger movement:

Just different ideas, like knowing for some people that it was great to find alcohol-free wine or beer, for other people it wasn't; for some people it was very emotional, for others it was more health. So, I think during the month, [social media] was a wonderful discovery for me; I've kept up conversations with people and hearing other people's experiences brings much more sources of hope.

- **Does participation in, and successful completion of, Dry January vary by socioeconomic factors or by drinking status at baseline?**

It is not possible to determine fully whether demographic factors predict participation in Dry January, because this research did not include a sample of non-participants to permit comparisons. However, compared to the general population, the sample (as described in Table 1) appears to have a lower proportion of people from Black and Minority Ethnic backgrounds, and a higher proportion of university-educated people and people with higher incomes.

The mean AUDIT scores and proportions in each AUDIT category (Table 1) show participants had a range of patterns of alcohol consumption, from very light drinkers to people with possible alcohol dependence, but in general were heavier drinkers than the broader population.

Staying dry during Dry January was related to having a lower AUDIT score at baseline. This means that people with lower levels of alcohol intake and/or fewer alcohol-related problems were more likely to stay dry during Dry January. Male respondents were also significantly more likely to report completing the month without alcohol. However, staying dry during Dry January was not significantly related to age, ethnicity, education, income, completing a dry month in the past, having participated in Dry January in the past, or doing Dry January with another person.

- **Does participation lead to changes in self-efficacy around managing one's alcohol consumption over the medium-term?**
- **Does this vary by socioeconomic factors or by drinking status at baseline?**

Drink-refusal self-efficacy (DRSE) is a multifaceted construct that is a reflection of people's capacity to resist temptation or pressure to drink in various contexts. Example scenarios include 'When I am worried', 'When my friends are drinking', and 'When I first arrive home'. Higher scores indicate greater DRSE. In previous studies of Dry January, greater DRSE at baseline has been found to predict the likelihood of staying dry during January. Furthermore, both staying dry during Dry January *and just participating* have been found to lead to increases in DRSE (de Visser et al., 2016).

As found previously, DRSE increased significantly among Dry January participants. Across the whole sample, there were significant increases in DRSE between baseline and the six-month follow-up. However, there was no significant interaction between DRSE at follow-up and staying dry during Dry January. **Increases in DRSE were found among both those who stayed dry for the month and those who did not.**

The association between AUDIT score and DRSE was weaker at 6-month follow-up than at baseline, suggesting that increases in DRSE were greater among those with riskier drinking patterns. There was no significant interaction between change in DRSE and income.

- **Does participation lead to sustainable changes in behaviours around, or attitudes towards, alcohol?**
- **Does the magnitude of those changes vary by socioeconomic factors or by drinking status at baseline?**

There was a significant reduction in drinking days per week - from 4.3 at baseline to 3.3 at six-month follow-up. **This was regardless of whether participants stayed dry during January.** The reductions were significantly greater among those with higher AUDIT scores at baseline. It was not affected by income.

There was a **significant reduction in units consumed per drinking day** - from 8.6 at baseline to 7.1 at six-month follow-up. This was also regardless of whether participants stayed dry during January. The reduction in units consumed per drinking day was significantly greater among those with higher AUDIT scores at baseline. It was also not affected by income.

There was a **significant reduction in frequency of getting drunk** - from 3.4 times per month at baseline to 2.1 times per month at six-month follow-up. Similarly, this was regardless of whether participants stayed dry during January. The reduction in frequency of getting drunk was significantly greater among those with higher AUDIT scores at baseline. It was not affected by income.

The Drinking Motives Questionnaire (DMQ) assesses motivation for drinking alcohol. Example items include 'To get tipsy/buzzy', 'So you won't feel left out', and 'To forget about your problems'. Higher scores indicate stronger motives to drink.

Results showed that **drinking motives were significantly weaker at six-month follow-up than at baseline.** Again, however, this was irrespective of whether participants successfully completed Dry January without drinking.

The association between AUDIT score and DMQ was weaker at 6-month follow-up than at baseline, suggesting that **changes in drinking motives were greater among those with riskier drinking patterns.**

- Does participation lead to changes in self-perceived wellbeing, and are such changes sustained over time?
- Does this vary by socioeconomic factors or by drinking status at baseline?

Table 4 displays responses to the question from the second survey at the end of January: **What benefits have you experienced from taking part in Dry January?** Respondents used a 7-point scale ranging from 1 (disagree very strongly) to 4 (neither) and 7 (agree very strongly). Scores above 4 indicated that the benefit had been experienced: this was the case for all but one of the potential benefits.

Table 4 Benefits of taking part in Dry January

Benefit	% agree*	Mean
I have a sense of achievement	93.4%	5.8
I have saved money	88.4%	5.4
I am thinking more deeply about my relationship with alcohol	81.8%	5.4
I feel more in control of my drinking	80.4%	5.3
I have reset my relationship with alcohol	77.7%	5.2
I have learnt more about when and why I drink	75.7%	5.2
The quality of my sleep has improved	71.4%	5.1
I have realised that I don't need to drink to relax or enjoy myself	71.2%	5.1
My general health has improved	69.7%	5.0
I have more energy	67.2%	4.9
My levels of concentration are better	57.1%	4.7
My skin looks better	53.7%	4.7
I have lost weight	57.4%	4.6
I have spent more quality time with friends and family	40.6%	4.4

* proportion who “agree”, “agree strongly”, or “agree very strongly”

The **most commonly experienced benefits were a sense of achievement, saving money, and thinking more deeply about their relationship with alcohol**. It can also be seen that on average, each of the potential benefits was experienced by Dry January participants (i.e., the mean score was above 4 for all 14 potential benefits).

Compared to people who did not have a dry month, respondents who stayed dry during Dry January were significantly more likely to report that they had lost weight, that they had a sense of achievement, and that they had realised that they don't need to drink to relax or enjoy myself. The other benefits were experienced equally by those who did and did not make it through January without drinking.

At all three time points, participants used a 5-point scale (poor / fair / good / very good / excellent) to rate their general health, sleep quality, energy levels, and concentration. Comparisons across the three time points revealed perceived benefits of taking part in Dry January:

- Ratings of **general health were significantly higher** at the end of Dry January than at baseline. This was not related to income, baseline AUDIT score, or staying dry during Dry January.
- Ratings of **sleep quality were significantly higher** at the end of Dry January than at baseline. This was significantly greater among those with higher baseline AUDIT scores, but was not related to income, or staying dry during Dry January.

- Ratings of **energy levels were significantly higher** at the end of Dry January than at baseline. This was significantly greater among those with higher baseline AUDIT scores, but was not related to income, or staying dry during Dry January.
- Ratings of **concentration levels were significantly higher** at the end of Dry January than at baseline. This was not related to income, baseline AUDIT score, or staying dry during Dry January.

Ratings of general health, sleep quality, energy levels, and concentration were all, also, significantly higher at six-month follow-up than at baseline. This indicates that **the benefits gained during Dry January were sustained** and not just temporary.

In the interviews, five themes were identified in relation to respondents' experiences of different benefits associated with participation in Dry January:

- Sense of satisfaction (e.g. 'The main thing for me was just a real sense of satisfaction')
- Improved finances (e.g. 'The increase in bank balance is great, so I bought my self a new coat!')
- Improved health
- Improved relationship with alcohol
- Facilitated fundraising"

Interviewees' reflections on their improved relationship with alcohol was heavily characterised by a **feeling of being more in control, and therefore less habit-driven** in their drinking behaviour. This was further characterised by a reduction in general consumption following Dry January:

I felt more in control; not getting wasted all the time. **If I was out with friends, I went home when I wanted to. Yeah, I felt more in control of things.**

It absolutely has changed my relationship with alcohol. I feel empowered about choices to drink or not to drink.

The main thing for me was a sense of satisfaction that I was **back in control**. Normally, when I get home from work, that's the kind of time that I find it really hard to unwind and I just [have] a glass of wine; it feels almost like a dependency. So, it was just really nice to feel that pass and get to a stage [where I] was just as content with a cup of tea.

At the end of January, I didn't just go back to my old habits, even though I've been tempted to. I've resisted buying any bottles of wine. Yesterday, I bought a single serve from the supermarket.

A broad range of health benefits was apparent in the theme of improved health: weight-loss; increased energy; absence of hangovers; increased physical activity; improved mood; increased mental clarity; improved sleep; feeling healthier; and improved skin:

I found that it has been really helpful [with] my diet and weight-loss. I've found I have more energy to do things. You know, **not waking up with hangovers on Saturday morning. Instead, going to the gym.** So, it's definitely been beneficial, for sure.

You feel that you sleep better, you've got better energy levels. You obviously drink more water, so **everything is just healthier.**

Waking up and feeling completely alive without any signs of feeling dull around the edges. The difference in waking up and thinking, let's get on and start the day. That is a definite difference.

Only one interviewee engaged in fundraising as part of Dry January 2018, but this person observed that fundraising was 'the main benefit [I] noted'.

Each of the five benefit-related themes featured in at least some of the responses provided by interviewees in each of the four groups of users and non-users of support. One difference was the absence of reports of benefits related to 'improved relationship with alcohol' and 'sense of satisfaction' in the app only group. Another was the presence of the theme 'improved finances' in the app only group, perhaps because the 'money saved' function made this aspect salient.

- **How do participants experience the fundraising message?**
- **Does it enhance or detract from the rest of the experience?**
- **Does this differ by participant, and if so, how?**

As noted in Table 3, the charitable potential of Dry January was not an important reason for participation: the average rating was 1.3.

Table 5 shows responses to the question from the one-month follow-up **Did you know that you could fundraise through Dry January for Alcohol Concern, one of our 6 charity partners, or another charity?**

Table 5 Knowledge of potential fundraising via Dry January

	proportion
Yes - and I raised money / donated what I saved	6%
Yes - but I did not raise money	61%
no - I did not know, but I would have liked to	8%
no - and it would not have made a difference	18%
no - but I raised money / donated through another route	4%
no - but I donated to Alcohol Concern	3%

Very few participants (13%) engaged in any form of fundraising or donation. Respondents who engaged in fundraising did not differ significantly from those who did not in terms of age, sex, education, income, or baseline AUDIT score. However, in contrast to the findings of previous surveys, those who engaged in fundraising were significantly more likely to report staying dry during Dry January. The likelihood of staying dry during January was also significantly related to giving greater importance to the reason ‘fundraising for charity’.

The interviews revealed that **fundraising was not an important element of most people’s experiences of Dry January**. However, for the interviewee who did engage in fundraising, this was very important:

I am a breast cancer patient and I decided to do it to raise money for Breast Cancer [Now] and that’s the only reasons I decided to do it.

The remaining respondents’ responses to questions about the possibility of fundraising as part of Dry January conveyed a mixed picture: some were open to the possibility, and others expressed clear views against combining participation with fundraising. A few interviewees who expressed views against combining fundraising with Dry January referred to their existing long-standing charitable commitments and felt unable to accommodate additional fundraising. Others expressed a blanket disinterest in fundraising.

Several interviewees spoke of a sense of discomfort and awkwardness around asking people to make donations for what they considered to be a relatively straightforward challenge given their non-dependence on alcohol. Indeed, there was a sense that it was hard to compare Dry January to other charitable events that involve greater physical hardship:

I think the difficulty that, um, I find it hard to compare giving up alcohol for a month with, you know, the challenge walk; we walk one hundred miles in forty-eight hours. And I find that is a massive stretch and a big challenge for me; I don’t feel the same about alcohol. I don’t think I’d

get the same level of support by saying, "I am doing Dry January, can you give me some money for charity?"

It might be the case that, for those for whom staying dry is an easy challenge, fundraising is not relevant; for those for whom staying dry is a real challenge, the stigmatising nature of alcohol problems makes fundraising from others challenging.

There was variety in people's response to questions surrounding which charities they might consider raising money for. Those who felt unsure wanted to know more about the type of work Alcohol Change UK engaged in before committing to raising money.

- Do participants value the support they receive during the month?
- Does this vary between those using the app and those using the website?

45% of respondents used both the app and the website, 33% used only the app, 12% used only the website, and 9% of respondent used neither the app nor the website. Table 6 displays responses to the question from the 1-month follow-up survey 'How helpful to you was each of the following sources of advice and support during Dry January?'. Respondents used a scale ranging from 0 (not at all helpful) to 10 (extremely helpful). Sources of support are presented in order of how many people used them.

Table 6 Perceptions of sources of support and advice

Source of advice and support	proportion who used	rating / 10 if used
Dry January app	78%	8.2
Dry January website	57%	7.1
Dry January blog	48%	6.8
Dry January Facebook page	22%	6.5
Facebook group - Dry January and beyond	16%	6.7
Facebook group - Dry January community	14%	6.7
Dry January twitter	8%	5.5
Dry January Instagram	5%	5.8

The Dry January app was used by more than three-quarters of participants and rated the most helpful. The Dry January website was the only other source of support used by a majority of participants. Perhaps not surprisingly, the more frequently used sources of support and advice were also the most highly rated.

Table 7 displays responses to the question from the one-month follow-up survey **How helpful was each of the following types of advice and support during Dry January?** Respondents used a scale ranging from 0 (not at all helpful) to 10 (extremely helpful). The most useful sources of information were statistics that demonstrated the benefits of taking part in Dry January, stories from other participants about their experiences of Dry January, and tips for how to resist cravings for alcohol or temptation to drink.

Table 7 Perceptions of types of support and advice

Type of advice and support	proportion who used	rating / 10 if used
Statistics on the benefits	77%	7.4
Stories from other participants	70%	7.2
Tips for how to resist craving or temptation	70%	7.0
Tips for activities without alcohol	61%	6.3
Information about alcohol-free drinks	63%	6.5

Compared to respondents who did not use the Dry January app, those who did gave significantly higher ratings for the helpfulness of advice and support: statistics on the benefits; stories from other participants; tips for how to resist cravings or temptation; tips for activities without alcohol; and information about alcohol-free drinks.

Compared to respondents who did not use the Dry January website, those who did gave higher ratings for the helpfulness of advice and support: statistics on the benefits; stories from other participants; tips for how to resist cravings or temptation; tips for activities without alcohol; and information about alcohol-free drinks.

Further analyses revealed significant differences in these ratings between the 9% of respondent who used neither the app nor the website, the 33% who only used the app, the 12% who only used the website, and the 45% who used both the app and the website. In all cases, **the highest ratings were given by those who use both the website and the app**, followed by users of the website only, users of the app only, and then users of neither the app nor the website. This indicates that the more people engaged in the campaign and made use of the available support, the higher they rated it – although this association could of course work the other way.

In general, interviewees reported feeling motivated by the Dry January website and blog:

So, every morning I was having my breakfast and waiting for the email to come because it was going to encourage me for the day. I really found that so good.

Users of the website and blog reflected on several content elements that they found helpful: informative articles; mocktail recipes; and personal stories about drinking experiences:

Yeah, definitely encouraging. I think they list a few like health statistics and just sort of nice, short articles or, you know, facts and things, and recipes for mocktails and that kind of thing.

Those blog articles as well. I would tune in on people because there are some quite sad stories and it was interesting to see the human condition and how people were coping. And some of the inspirational kind of things from people. **I thought that was good.**

Interviewees also valued the summary of progress and daily reminders. Many interviewees also reported liking the **tone of the messages, which were concise, balanced, and non-judgemental**. The personal narratives, which conveyed the acceptability of moderation post-Dry January, were also seen as engaging:

What I liked about [the daily messages] was that they were like a daily pep talk. They weren't a big long lecture, they didn't seem like a sales campaign. When I read them, they were short, sweet, concise, to the point. A daily reminder that you're doing something and that there's thousands of other people doing it as well and there's a reason and it's good for everyone.

When people wrote about what it was like for them, I think, for me, **it took away the shame** because there were so many different types of stories. Hearing one woman did this, and one man felt that and even that some people moderated after, and that was okay. I think that helped me because I was able to contemplate alcohol-free at the beginning of January.

However, the interviews also revealed mixed opinions about many of these elements. These are addressed in the sections on improving support (see below).

Interview feedback on the Dry January Facebook page and groups was limited, because only three interviewees made use of these resources. Overall, interviewees who used the Facebook page found it motivating. Furthermore, the access to personal stories about drinking and participation in Dry January was identified as helpful, as were both the sense of connection and social support provided:

We just sent each other personal messages of encouragement a couple of times as well. So, you know, you're just giving each other a bit of a pat on the back, I suppose, and a bit of a: "Keep going!"

Table 8 displays responses to the question from the one-month follow-up survey **How helpful was each of the following app features?** Respondents used a scale ranging from 0 (not at all helpful) to 10 (extremely helpful).

Table 8 Perceptions of Dry January App features

App feature	proportion who used	rating / 10 if used
Progress calendar	95%	9.1
Daily messages	88%	7.7
Money saved tracker	86%	7.5
Articles	85%	7.0
Report card	81%	8.4
Calories saved tracker	76%	7.6
Units saved tracker	75%	7.6

The most frequently-used, and most highly-rated app feature was the progress calendar. The least frequently-used, and least highly-rated app features were the calorie and unit trackers. The money saved tracker received an average rating, but was more widely used than the other trackers.

Interviews show the app was widely seen as a good source of support and motivation:

I also had the app that said, "Did you drink yesterday? Yes or no". And it actually shows you the amount of days you've got left. Now, obviously, at the beginning of the month, that's a bit daunting, but just to know that you're slowly chipping away at the challenge, and every day is going to be a good day. So, those things for me particularly work.

Interviewees identified several features of the app that they found helpful: visual representation of cumulative progress; daily reminders of progress; the ability to share progress with others; the money saver tracker; the unit tracker; the calorie counter; and the post-Dry-January unit tracker:

You can just see your progress and the more you go through the month and you see the little teacups, you just kind of... **It's quite an achievement to see that you've filled up the month.**

It still motivates me and actually I didn't think that I'd keep using it the app after January, but I have, and it's helped me get to Dry March.

Showing how much money you were saving as well; that was good. And the same with like calories as well.

And being really shallow, I like to show off about it on Instagram every ten days as well. Yeah, I like to post my progress on there and get a few 'likes'.

And the unit. The idea of a unit instead of a glass. I was, like, "Oh my gosh! This is what I am doing to my liver!"

When the participants who used the app during Dry January were asked whether they planned to continue to use the app after Dry January finished, 68% said yes, 20% said maybe, and 12% said no. However, it should be noted that some survey respondents and interviewees suggested a need for some improvements to facilitate ongoing use (see below).

In the interviews, the non-users of website or app support generally reported feeling that they were not necessary. For some interviewees, this was because of confidence arising from having previously completed Dry January. Others reported feeling sufficiently equipped to deal with the challenges of the month:

You know, it was just kind of 'cos I didn't struggle with it that much. I just decided I wasn't going to drink in January. And I think it was probably easier than I expected. Yeah, there was no other kind of resource that I felt I needed that I might have found on the website.

Some non-users of support also reported that they wanted to focus on non-drinking-related interests rather than drinking and abstinence, and they did not feel that the available sources of support facilitated this approach:

The main thing is, that really gets to me, when I am [not] drinking, I am so sick of thinking about it. Totally sick of thinking about it. And so, probably that's the other reason why I don't take a lot of peripheral stuff that is available on the internet. You know, I just don't want to think about it anymore. I just want to get on with it.

Nevertheless, when non-users were asked which sources of support they would consider using in the future suggestions included: website; app; Facebook; emails; text messages; Twitter; buddy schemes; face-to-face support groups; and vlogs.

- **How would participants suggest improving the support they receive, to make it more engaging and valuable?**

Interviewees were asked to comment on all sources of support. In contrast, the survey asked app users to respond specifically in relation to how to improve the app, so their *responses* are presented separately:

More of the same please. I feel you have definitely upped your game. More stories from people like me who are not dependent on alcohol but like the feeling that going dry gives would be good. The motivational stories from others is a big part.

Finding an acceptable variety non-alcoholic drink to ask for in pubs would be good. I found on the blog someone suggested Sparkling water and Angostura bitters, it works for me and is easy for bartender to understand and serve.

More stuff about the benefits, how you should be feeling, there was none of that this year and I really found it motivating on my first Dry Jan three years ago.

You could win prizes for numbers of days, numbers of consecutive days etc. Not real prizes, things like stars and balloons and stuff on the app. You could win custom emojis to use in your phone if that is possible.

In contrast, some users of the website and blog felt they were already aware of the information contained within the support and attributed no value to the inclusion of mocktail recipes:

I think I looked at the drinking thing [mocktails] once, but I found my own sort of things to mix with water and things.

Some aspects were considered less helpful, these included: too many statistics; repetitive articles; reinforcement of social norms related to drinking; the content of articles prompting drink-related craving; a perceived bias towards depictions of extreme drinking behaviour; and overemphasis of abstinence:

I did read some of the articles; some of them were quite repetitive, I suppose. You know, referring to the same things.

When the first Friday came along, it was like, "Well now, here's the real test, blah, blah, blah". I thought to myself, I know this. It treated me as if I was some kind of office worker, ready to go out there to a regular Friday night do, like used to happen thirty or forty years ago.

That's what it feels like all the time: while the football is on, you're supposed to have a beer with your mates. And that's what the blogs felt like to me: oh, it's New Year, you're supposed to be having a drink with your friends.

When I read blogs, it made me think about wanting a beer. I just thought: "It's easier just to concentrate on doing what I am doing; things I know are working for me."

All their blogs are about people who have been seriously affected by alcohol, but there are a lot of people in that middle group who are not seriously affected by it.

The social side of drinking in moderation, and even maybe some of the health benefits that are recognised, [like] people with heart conditions and maybe a glass of red wine every now and then is not such a bad thing. And I think Dry January and the abstinence flashing away at you tends to overlook that side of things.

Some interviewees suggested various revisions to the content of the website and blog: inclusion of more infographics; incorporation of a broader range of personal stories about drinking; and better acknowledgement of the benefits associated with moderate drinking. Some of these are echoed in the paragraphs below.

Additional suggestions included adding individual preferences settings for the frequency of emails and the communication of more information post-Dry January:

I just think tone it down a bit, give me an option. If you could just click on the bottom and say how many of the emails you want over the month. I'd like to have an option, rather than them just sending me emails every day.

How would participants suggest improving the Dry January app?

There were numerous responses to the question **What new features or improvements would you like to see in the app?**, which clustered into several themes. These comments related to the app provided for Alcohol Change UK by CyberLiver.

Fifteen survey respondents wrote comments about the need for more stories from people who they felt similar to. Many felt that the stories focused too much on heavier and/or dependent drinkers:

I found that a lot of the personal experiences were from people who had a very serious problem with alcohol, or who could have been classed as alcoholics. I felt there should have been more things directed at people who didn't have a serious problem, but just wanted a break from alcohol.

More stories, greater variety of voices/experiences - can even include less dramatic stories that related to more ordinary drinking lives and the improvements found through making and sustaining changes.

Thirty survey respondents wrote suggested more factual information about the benefits of taking a break from drinking:

More scientific explanations to substantiate claims.

More of a push about the sleep/mood part - I didn't notice it until 3rd Feb.

Some facts / information about the health benefits of not drinking, or the negatives of drinking. Just as some motivation and a reminder of why I'm doing it!

Articles or features that relate to the possibility that you might not feel any of the benefits, but that it's still doing hidden good (my skin was dreadful throughout and this was discouraging).

The final comment is noteworthy, because although many people reported noticing various improvements to their well-being (see Table 4), there were other benefits that may not be subjectively apparent. It was suggested by some participants that there would be value in adding a timeline – similar to that published by the NHS for people who are (considering) quitting smoking (www.nhs.uk/smokefree/why-quit/what-happens-when-you-quit) – to show what benefits appear at what stage of abstinence:

I love the daily email with tips and advice. I learnt the average craving takes 6 minutes.... I will never forget that. More facts and figures and statistics on how it improves health, how long it takes to change habits or to improve breathing, health etc by email and on the app. It's facts and numbers that have the biggest impact on me. By doing this X days you will have reduced the risk of X by X, or by drinking less than X you improve quality of liver or other organs...

I would have liked more health updates like the stop smoking campaign would do - after 24 hours, after 3 days etc on alcohol's impact on health if possible.

These comments reflected specific aspects of a broader desire on the part of many survey respondents for more motivation and encouragement, as well as recognition of effort and achievement.

Perhaps more motivational messages, that can be triggered at certain times or locations.

More notifications – so at the end of the first week you get a 'well done' message and comment on the health benefits you should be feeling. Weekend notifications to help avoid falling off the wagon.

Daily encouragement quotes.

Daily positive thoughts/hints. More positive reinforcement.

Many survey respondents expressed disappointment at not feeling that their completion of Dry January was properly recognised:

Awards! Badges like you achieve on Fitbit.

Better motivational messages when you stay dry.

More positive affirmations on the "dry" days and on days when I didn't stay dry I would've liked some sort of message to spur me into doing better.

No celebration message or acknowledgement received after completing the full month dry. It just skipped to February... can't look back a month either.

Also, a bit more of a reward/encouragement at the end of Dry January would have been nice- the app didn't particularly make it feel like an achievement at the end of it, other than the certificate which I had to make an effort to find.

Would be nice to have reward badges for certain milestones, maybe a bit more of a "celebration" on the app if you do the whole month like a big star and confetti!

It did not mark you completing Dry January - no well done, little fireworks, cheering sound -that would have been nice!

Furthermore, although many respondents appreciated the tone of the messages they received (see above) some survey respondents made comments about the message tone of the responses given by the app, and some made suggestions for how to improve them:

Maybe try to dilute the moralistic tenor. For instance, on the 'My Progress' feature, the word 'sober' (which suggests that the alternative is 'drunk') could be replaced by 'dry', while the symbol for 'Drank' - the down-turned thumb - is perhaps a tad judgemental. But overall, the app is great, very helpful.

For February and beyond, when asked the question each morning 'did you have a drink yesterday?' the options should be yes/no (not 'erm, funny story' or similar for 'no'). This will encourage me to continue to use the app for the rest of the year to reduce but not stop alcohol consumption entirely. The options presented imply that drinking any alcohol after January is somehow a problem.

Not to be so much of a negative if I had a drink, 3rd Feb was my first drink of the year, and it felt like a disappointment with a thumbs down, and better try harder type message after one drink.

The App Progress screen has just two states Sober and Drank. When one is trying not to drink as much as one did, you certainly feel you might as well be hung for a sheep as a lamb when you have to declare you drank. This is not healthy. Could another state be added? Drank sensibly, which would reference the new target one had set up in a new page of one's Impact

calculator. Perhaps an encouraging message as one saved the data, saying, "In control. Excellent!"

More than 50 survey respondents made comments about their frustration with technical aspects of the app. Many noted that the app sometimes failed to open, that it crashed when moving between functions, that it asked for updates more than once per day, or that it appeared not to accurately record information that was entered:

The glitches at the beginning almost made me give up signing up as it took 3 days before I could.

App always fails to open successfully at first attempt; prone to crashing when moving between pages.

I've paid for premium but some days it wouldn't let me access premium content. When trying to enter the previous day's results it automatically asks for today's results, even early in a morning.

Some interviewees also noted technical hitches, which hindered their engagement:

I had a lot of technical difficulties with it. I couldn't [download it]. I think I tried to download it on New Year's Day, probably along with everyone and it kept crashing. And then when I could login, the app kept crashing and I tried quite a few times and I just gave upon it in the end.

Some interviewees made recommendations for revisions related to the display and navigation of the app, including: the incorporation of different tabs for distinct features; and individual preference settings for the calendar view:

On the first page where it adds up how many [drink-free] days and it's got articles like bunched up at the bottom. Just put those on a different tab; everything else is on a different tab. It's just it ruins the aesthetic of the homepage.

When you open [the app], I would like to be able to set the [calendar format]. I can see that if someone is doing the year, they would want to open it and instantly see the numbers for the year, not for the week.

At a slightly more basic level, several survey respondents noted that the app should remember personal details such as their name:

I'd like it to be more personalised. It refers to me as "Null".

Needs to process Facebook sign up properly. My name is still "null" despite reporting it!

Some felt that all app content should be available free, without limiting some content only to those paying for the premium app:

Putting content behind a paywall is not great.

I think more of the capability should be available at no charge.

Others suggested that having fewer distinct and reliable features may be the best approach:

The free app is frankly pointless, mine was upgraded but really it is of very little use.

The only good part is the daily reminder and the progress page.

Clearer names features - report card, progress report and tracker are all words that mean the same thing.

Twenty-five survey respondents made comments about improving the functionality of the progress tracker. Many of these people suggested that there should be flexibility to enter a different start date, and for the tracker to count cumulative days rather than re-setting to zero at the beginning of the month:

I stopped drinking on 24/12/17 but the 8 days in December are not part of my total. I would like to know how many days I've been dry even if they were in 2017.

I would like app not to reset itself after January, just carry on showing how much money I have saved and how much calories I've lost. At the moment I want to stay dry in February but it starts from 0. I would like the app to carry on counting, so by the end of the year I see how many days I was sober and how much money I saved.

Thirty-five survey respondents wrote comments about the need for a more responsive and more accurate drink/unit counter. Some of these comments related to making the current features more responsive and easier to use, while others were suggestions for additional features:

Easier to add multiple types of drinks when you do have a drinking day to make sure that you actually enter them.

Update on drinks you can enter. A bigger database would be helpful with the alcohol percentage for each percent (e.g. 13% for wine). I want the ability to add drinks individually without having to go back to the screen to add another glass each time. I'd like to be able to do my night's drinking in one go and then see the results on the report card.

Unit tracker rather than just "yes, I drank" or "no, I didn't drink."

A way to track daily units like the drink less app rather than an average.

A weekly / monthly graph of drinks used rather than just the thumbs down so I can look at what I drink on those days overall.

Interviewees echoed these comments about the need for a more flexible, user-friendly drink/unit tracker:

Whilst I was trying to record, like, what I had drunk, it seemed to me at the time [that] if you had a glass of wine, you could only put in that you had a glass of wine. If you'd had another [type of] drink as well, you couldn't put that on there.

Twenty-five participants made comments about the money saved feature. Many of these people noted that it may have over-estimated savings because it appeared to be based on prices of drinks in licensed premises rather than off-licence prices.

I'd like the money calculator to reflect 'drinking at home' prices.

Money saved tracker - distinguish between pub or supermarket purchase?

Some also noted that if drinkers replaced alcoholic drinks with non-alcohol drinks, then the saving was actually only the difference between the two drinks, not the total alcohol drink price:

Replacement drinks need to be factored in for cost and calories e.g. buying a coke instead of beer.

A suggested possible adaptation would be for participants to enter drink prices manually rather than relying on pre-set prices to improve accuracy:

Able to put your own amount of units and cost on for what you drink. I drink bottles of beer that are 1.7 units and cost £1.49 so my report would be more accurate if I could enter that manually.

Interviewees also noted a desire for a more nuanced and responsive money saved function that more accurately reflected the cost of their drinks:

Well, one thing that I don't particularly agree with is it sort of tells you how much money you've saved by not drinking. And I must admit, I can't agree with the money that it says that you are saving; it seems a little on the high side, if I am honest.

A small number of survey respondents also requested a more general capacity for customisation of app features:

It would be good if you could choose what area you want to focus on, such as calories saved. At the moment the app seems to concentrate on money saved, but that wasn't my motivation, and I doubt it is many other people's main motivation either.

Different challenges - like you get on machines at gyms, to cater for every kind of drinker. The 'one day at a time' person, the '100-day challenge' person, the '66 day sober sprint' person - this one could include stats and stories on why 66 days is a good challenge. I think adding quotes from Clare Pooley and Catherine Gray's books would be really motivating.

I deleted the app as I did not like the constant reminders popping up on my phone front screen. I could not find where to turn this off. This should be made optional.

Option to receive messages or updates as made me think about alcohol when I wasn't thinking about it.

Perhaps progress photos? So, I could take a picture of myself at the beginning of the month and end and compare the two depending on how much alcohol I had drunk that month?

Add a selfie... a bit like running apps do after exercise. Take a selfie of you feeling good! Then have downloadable content with selfie and Dry Jan branding on to share on social media.

A daily section linked to the progress calendar where you could record your thoughts and feelings and which you could save and look back on e.g. how you overcame temptation to drink one day or successful strategies you used to moderate on days you drank etc.

More chance to write my feeling of better health now that I am starting to really feel the benefits. This is my 6th month of booze free so you encouraged me to keep going, thank you.

It is likely that such features would not be easy or cheap to develop and implement, so there may be value in explaining why the free app contains the features it does, and why Alcohol Change UK - as a charity - does not have the capacity to develop and provide a highly detailed app for free.

Additional issues 1: The challenge

Three themes emerged from the interviews but did not relate directly to any single evaluation question.

The first of these was about the nature of the challenge, a theme that follows-on from people's reasons for taking part in Dry January. In turn, three sub-themes were identified relating to the various challenges interviewees encountered during Dry January: social pressures; drinking triggers; and emotional drinking.

Social pressures

'Social pressures' revealed the strength of expectations to drink when socialising, and the consequences for not meeting these expectations. Interviewees described experiencing demands to provide explanations for doing Dry January and some reported others' efforts to get them to drink:

The social pressure to drink, I have noticed, in this country, it's enormous.

If a social event comes up and there's quite a lot of expectation from other people. People are like, 'oh, why aren't you drinking?' And that's quite a bit of a challenge because I'll say, "I am doing Dry January" and a lot of people will say, "Oh well, it doesn't matter: you can have one."

At a wedding, that's when I noticed it more. It was all those times when you're sitting with your peers and everybody else is drinking and you are not, that was the hardest thing. It wasn't so much missing the alcohol as not being fully part of a social occasion.

We had friends around for dinner and [I am] trying to kind of think about replacing the place alcohol has in those sort of events.

We didn't go out nearly as much, and then when we did go out we might just go out for an hour.

Drinking triggers

Distinct difficulties related to the theme of 'drinking triggers' included the temptation presented by alcohol promotions in shops and cues to consume alcohol in the home:

I find, for example, there's quite often [alcohol promotions] in my local supermarket. There's sort of cheap, cheap wine offers every weekend. [It's] hard standing there in the supermarket feeling really tempted to put them in my trolley and then thinking "No, put them back."

I was seeing somebody on the television drinking something and I was thinking to myself, "Oh, that'd be nice". It'd be, you know, "Oh well, just a glass or something."

Emotional drinking

Further challenges were associated with the 'loss of an emotional tool': interviewees reported the challenges experienced by not being able to use alcohol as a reward, or as a coping strategy when feeling depressed or stressed:

[When] my training was in full flux and I'd done some really long, hard runs, and it's so nice to come in and crack open a beer as a reward. I had to remind myself that it's only a little while and, you know, just to keep going and be strong.

The challenge-related themes were raised by both users and non-users of support.

Additional issues 2: Managing the challenge

Given these challenges, it was important to explore how people coped with, or managed, these challenges. Five sub-themes related to coping strategies were identified: the 'Dry January' tag line; alcohol-free alternatives; social strategies; physical strategies; and reflexive strategies.

The 'Dry January' tag line

The broadly held view that Dry January is widely known as a concept and a practice allowed some interviewees to deploy the seemingly self-explanatory tag line "Dry January" when faced with challenges related to abstaining in social settings:

Lots of people, lots more people seem to do it - Dry January - than when I first started doing it. So, if you said to somebody, "I am doing Dry January", people [would] go, "Oh! What's that?" But now it's like, "Oh, OK".

Alcohol-free alternatives

Some strategies clustered under the theme 'alcohol-free alternatives' included the substitution of alcoholic drinks with non-alcoholic versions of traditionally alcoholic beverages (e.g., alcohol-free beer) or a range of soft drinks. Other strategies included using other food as emotional rewards for situations in which alcohol had previously served that purpose. These were construed as 'treats' in the way that alcohol would have been before Dry January:

Yeah, I did think, "Ah, I could grab a beer right now". But I was just like, "No, it's fine. You sit down there, and you have a cup of tea and some biscuits and eat as many of the biscuits as you want, [just] don't touch the beer".

More practically, I made sure I bought some nice posh [non-alcoholic] drinks so it felt like something else nice to have that I wouldn't have during the rest of the week.

Social strategies

The 'social strategies' described by interviewees specifically related to various management techniques used only in social situations. These included: explicitly expressing commitment to Dry January; communicating an ability to have fun while abstinent; going home when social events became unenjoyable due to drinking-related tensions; and arranging alcohol-free (or at least not alcohol-focused) social activities:

In previous years, the way I would manage that would be[to] avoid the situation altogether; probably not go to things. Whereas now, I won't stop myself from going to anything; I am quite firm. I'll say, "Look, this is something that I do. I am quite happy. I can still have a good time. I am fine."

When I did meet up with friends, we all aimed to go out for a nice meal, rather than sit around in the pub for five hours.

Physical strategies

Other strategies were employed outside of social situations to manage temptations or craving. These physical strategies included: removing alcohol from sight at home, engaging in more physical activity, and purposefully engaging in an alternative activity as a form of distraction:

So, I'd begin brushing my dog or tidying a cupboard or something. You know, because it says the desire, the craving, goes within six minutes and I suppose that sort of helped; a distraction.

What helped was going down the gym much more often.

The first quote above is interesting, because it illustrates how exposure to information about managing cravings was translated into a personally-relevant strategy.

Reflexive strategies

Additional coping mechanisms characterised by varied forms of reflexivity were also identified. One of these 'reflexive strategies' entailed mentally preparing prior to Dry January to strengthen commitment and to prepare strategies for managing craving and temptation:

I mentally prepared myself for the idea that I am doing Dry January, therefore I am not going to have a drink. Thinking things through before January did help.

Other reflexive strategies included: reflecting on abstinence achieved so far; reflecting on having made a public commitment to Dry January; reflecting on the health benefits ensuing abstinence; and reflecting on Dry January blogs to bolster motivation:

If something bad happened at work or with my family, I think that sort of made me want to drink. **But, honestly, the app with the teacups; it is such a strong motivator to have them all look like teacups!**

I would look on that **Dry January blog and motivate myself through that**. So, yeah, whenever I was weakening at all, [thinking about] health issues would focus my mind again.

Although there were some similarities in the coping strategies used by respondents from the support user and non-user groups, differences were also observable. For example, the use of 'reflexive strategies' was only apparent among interviewees who used the app – alone or in combination with the website. Non-users of support did not report using the Dry January tag-line.

Additional issues 3: Advice for others

A third broad theme was 'advice for others', which consisted of eight sub-themes. Four of these closely corresponded with four of the coping strategy themes reported above and therefore were given equivalent labels: 'alcohol-free alternatives'; 'social strategies'; 'physical strategies'; and 'reflexive strategies'. The additional four sub-themes are described below.

Embrace the challenge

The sub-theme 'embrace the challenge' emerged in almost all interviews. It reflected a shared perception of the value interviewees retrospectively attributed to the experience of participating in Dry January, rather than a class of abstinence-promoting strategies per se:

I would say, "Go for it!" and "It's not as hard as you might think", and I think once you've done it once, you will see how beneficial it is and want to carry on doing it.

Oh my god, I'd encourage them to do it all the time. I think you get to realise what you are capable of doing on your own, in yourself, because it gives you that [awareness that] you don't have to rely on [alcohol] to make you feel at ease.

I would say, "See it through because you will see". It doesn't even have to be some tangible benefit to it. It could just be the fact that you've risen to the challenge, but you will get something out of it for sure.

Focus on other interests

Giving attention to personal interests unrelated to drinking was seen as a more productive strategy than engaging in activities that entailed reminders of not being able to drink alcohol:

Introduce something else or spend more time doing something that you already do, but so that becomes the focus rather than the focus being on what you are not doing - i.e., drinking.

This sub-theme was not apparent in all interviews: indeed, it conflicted with a broad array of tactics noted within the alcohol-avoidance strategies outlined above. However, this reflects the diversity of the participants.

Make a public commitment

Making an explicit, public commitment to Dry January was related to motivational impetus:

I think the fundraising thing would've been the thing that kept me motivated to stick with it. You know, once I'd given my word to people and once people had started sponsoring me, it's like, "OK, I am not doing this just for me, I am doing it to fundraise. I've given my word."

Prepare

Many respondents focused on the merits of preparation prior to the start of Dry January, and the need to anticipate challenges and identify potential coping strategies. Some interviewees also suggested reducing alcohol intake in the lead-up to Dry January:

I would be sort of trying to moderate my drinking a little bit before. Almost doing some sort of preparation, lead-up work to it in terms of sort of having alcohol-free [days]. Being aware of what you've got coming up, social situations, and just sort of thinking that through.

Discussion

Why do participants choose to do Dry January? What are their motivations?

The survey revealed a range of motives in the diverse sample, but the most important were health reasons, and to take on the challenge. Fundraising was not an important motive.

Do participants value being ‘part of something bigger’ during the month? Does this help them achieve their goals?

In the survey, being part of something bigger was less important than other elements of taking part in Dry January, and it was not a strong influence on staying dry. However, among interviewees, there was much discussion of the importance of being part of something bigger, and being able to refer to Dry January provided a valid reason for not drinking.

Does participation in, and successful completion of, Dry January vary by socioeconomic factors or by drinking status at baseline?

The participants in Dry January appear to be of higher SES and contain a greater proportion of white people than the general population. Socioeconomic factors were not significant predictors of successful completion of Dry January.

Does participation lead to changes in self-efficacy around managing one’s alcohol consumption over the medium-term? Does this vary by socioeconomic factors or by drinking status at baseline?

As found previously, Drink-refusal self-efficacy (DRSE) increased significantly among Dry January participants. These increases were greater among people with more harmful drinking patterns at baseline, but were not affected by socioeconomic status.

Does participation lead to sustainable changes in behaviours around, or attitudes towards, alcohol? Does the magnitude of those changes vary by socioeconomic factors or by drinking status at baseline?

There was a significant weakening of drinking motives, and significant reductions in drinking days per week, drinks per drinking day, and frequency of drunkenness at 6-month follow-up. These reductions appeared to be greater among people whose drinking patterns at baseline were more harmful, but they were not affected by socioeconomic status. These outcomes were the same whether people completed Dry January successfully or not.

Does participation lead to changes in self-perceived wellbeing, and are such changes sustained over time? Does this vary by socioeconomic factors or by drinking status at baseline?

Participants reported improvements in their general health, sleep quality, concentration, energy levels, and skin. Many also reported losing weight. These benefits were more likely to be reported by people who completed Dry January without drinking alcohol. They were not related to socioeconomic factors.

How do participants experience the fundraising message? Does it enhance or detract from the rest of the experience? Does this differ by participant, and if so, how?

Fundraising was an issue that appears to split participants. Most did not give great importance to this reason for taking part, and very few engaged in fundraising. However, for the minority of participants who did engage in fundraising it played a significant role in completing the challenge successfully.

Do participants value the support they receive during the month? Does this vary between those using the app and those using the website?

Participants valued information demonstrating the benefits of taking part in Dry January, stories from other participants, and tips for how to resist cravings or temptation. The highest ratings for the support provided were given by those who use both the website and the app, and the lowest ratings were given by those who used neither the app nor the website.

How would participants suggest improving the support they receive, to make it more engaging and valuable?

Participants made a range of suggestions for how to improve the support and advice they receive. Given the wide range of participants and their different motivations for taking part and different needs for support, there was a clear and unsurprising desire for customisation of support provided (especially that provided via the app).

References

- Bauld, L., Bell, K., McCullough, L., Richardson, L. & Greaves, L. (2009). The effectiveness of NHS smoking cessation services: a systematic review. *Journal of Public Health*, 32, 71-82.
- Babor, T.F., Higgins-Biddle, J.C., Saunders, J.B. & Monteiro, M.G. (2001). *The Alcohol Use Disorders Identification Test: Guidelines for Use in Primary Care (2nd Edition)*. Geneva: World Health Organization.
- Coghlan, A. (2014). Our liver vacation: Is a dry January really worth it? *New Scientist* 2014; 2950: 6-7. downloaded 30 June 2014 from: <http://www.newscientist.com/article/mg22129502600-our-liver-vacation-is-a-dry-january-really-worth-it.html?full=true#.U7J7jrEylws>
- Conroy, D. & de Visser, R.O. (2013) "Man up!": discursive constructions of non-drinkers among UK undergraduates. *Journal of Health Psychology*, 18, 1432-1444.
- Conroy, D. & de Visser, R.O. (2014) Being a non-drinking student: an interpretative phenomenological analysis. *Psychology & Health*, 29, 536-551.
- de Visser, R.O. & Nicholls, J. (2018) Temporary abstinence during Dry January: predictors of success; effects on well-being. *Psychology & Health*, under review
- de Visser, R.O. Robinson, E., Smith, T., Walmsley, M. & Cass, G. (2017). The growth of "Dry January": promoting participation and the benefits of participation. *European Journal of Public Health*, 27, 929-931.
- de Visser, R.O., Robinson, E. & Bond, R. (2016). Voluntary temporary abstinence from alcohol during "Dry January" and subsequent alcohol use. *Health Psychology*, 35, 281-289.
- Krebs, P., Prochaska, J.O. & Rossi, J.S. (2010) A meta-analysis of computer-tailored interventions for health behavior change. *Preventive Medicine*, 51, 214-221.
- Kuntsche, E. & Kuntsche, S. (2009). Development and validation of the Drinking Motive Questionnaire Revised Short Form (DMQ-R SF). *Journal of Clinical Child and Adolescent Psychology*, 38, 899–908.
- Munsterman, I.D., Groefsema, M.M., Weijers, G., Tjwa, E.T.T.L. (2018). Biochemical effects on the liver of one month of alcohol abstinence in moderate alcohol consumers. *Alcohol & Alcoholism*; 53, 435-438. doi: 10.1093/alcalc/agy031
- Olander, E.K., Fletcher, H., Williams, S., Atkinson, L., Turner, A. & French, D.P. (2013). What are the most effective techniques in changing obese individuals' physical activity self-efficacy and behaviour: a systematic review and meta-analysis. *International Journal of Behavioral Nutrition & Physical Activity*, 10(29). doi: 10.1186/1479-5868-10-29
- Piacentini, M. G., & Banister, E. N. (2009). Managing anti-consumption in an excessive drinking culture. *Journal of Business Research*, 62(2), 279-288
- Seaman, P. & Ikegwuonu, T. (2010). *Drinking to belong: Understanding young adults' alcohol use within social networks*. York: Joseph Rowntree Foundation.
- Young, R. M., Oei, T. P., & Crook, G. M. (1991). Development of a drinking self-efficacy questionnaire. *Journal of Psychopathology and Behavioral Assessment*, 13(1), 1-15.
- Zimmermann, F., & Sieverding, M. (2010). Young adults' social drinking as explained by an augmented theory of planned behaviour: the roles of prototypes, willingness, and gender. *British Journal of Health Psychology*, 15(3), 561–81.