

# **Young People, Social Media & Alcohol: A Heady Mixture?**

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## **Introduction**

Alcohol abuse is a major social problem in many developed countries, with the UK towards the forefront of this unfortunate trend (Alcohol Concern 2014). The greatest concern is reserved for alcohol abuse among adolescents and young adults (Hastings & Angus 2009). Alcohol abuse causes both short- and long-term problems. While few young people die of alcohol poisoning, accidental death, notably in car accidents, among young people is often associated with alcohol consumption (Department for Transport 2013). Long-term alcohol abuse leads to a wide range of health problems including liver disease and various forms of cancer (Anderson, Chisholm & Fuhr 2009); according to Alcohol Concern (2014) rates of liver disease are rising in the UK while they are declining elsewhere in Europe, and rates of liver disease among people aged under 30 are rising alarmingly. The prevention of alcohol abuse is a global and a national public policy health priority (Beaglehole & Bonita 2009, Public Health England 2013). Social marketing campaigns making extensive use of social media have proved to be an effective approach to tackling tobacco consumption among young people (Hastings et al 2008), and so it is proposed that a similar approach can be used as an important component of action to prevent alcohol abuse. In this project we investigate the presumed link between alcohol abuse and social media use by young people, and evaluate the likely effectiveness of social media marketing to deliver anti-alcohol messages.

## **Young People, Alcohol & Social Media**

Drinking is often an integral part of young people's social lives, with many reporting that they have to be drunk to have a good time. Approximately 25% of men and 18% of women aged 16-24 binge drink in Britain (ONS, 2013). Social media are also now heavily integrated into the social lives of young adults. Yet, according to Leyshon (2011:9), research into marketing on social media remains 'in its infancy' while Nicholls (2012) highlights the heavy alcohol online promotion which is also supported by the self-posted photos of social media users consuming alcohol when socialising with friends. Problematic alcohol consumption among young adults is a matter of real social concern, and there is evidence that social media play a role in encouraging alcohol abuse.

According to Fox et al. (1998), the context of a message can have a great impact on its effectiveness in terms of an audience's attention, recall, engagement and intention to consume alcohol. It follows that the sharing, via social media, of photos that associate social activities with heavy drinking may act to normalise, and even encourage, alcohol abuse. At the same time, social media may represent a valuable conduit by which safe-drinking messages can be conveyed to young adults.

The focus of this study is on young adults, aged 18 to 25, for a number of reasons. Within this age group it is known that many people are heavy alcohol users and binge drinkers (Seaman & Ikegwonu 2010). In addition, Hastings & Angus (2009) have pointed out that this age group is considered to be a key target market for the alcohol industry. Not surprisingly, members of this age group are also known to be heavy users of the Internet generally and of

social media in particular (Ofcom 2010). Finally, several studies have shown that this age group is prone to peer influence in respect of alcohol consumption (Bobo & Husten 2000; Borsari & Carey, 2001; Henriksen et al. 2008; Seaman & Ikegwuonu 2010). Since these young adults are known to be heavy users of social media and of alcohol, and are susceptible to peer influence in alcohol consumption, we propose that peer influence concerning alcohol consumption exerted through social media will be an important factor influencing their cognitive, affective and conative responses to alcohol-related messages.

Tackling the problem of alcohol abuse, like tackling the problem of smoking, requires multiple approaches. These include, for example, health education, medical interventions, legal measures, restrictions on availability, and labelling requirements (Anderson, Chisholm & Fuhr 2009). However, Anderson et al. (2009) argue that industry self-regulation is one of the least effective approaches; there is particular scepticism concerning self-regulation in the important context of online media (Hastings & Angus 2009, Nicholls 2012). Under these circumstances, the use of social media as a vehicle for communicating safe drinking messages may usefully contribute to wider programmes designed to reduce alcohol abuse among young adults.

## **Methodology**

### *Research Purpose and Design*

This project investigates the extent to which safe-drinking promotional initiatives can have an effect on cognitive and emotional responses towards alcohol, and intentions to reduce future drinking. In particular, we investigate the impact that a safe-drinking message on a Facebook page can have on young adults' (aged 18 to 25) intentions to consume alcohol in the future. It is expected that this research will facilitate the development of effective safe-drinking communications on social media, and contribute towards the reduction of alcohol misuse.

A number of specific research objectives follow from this overall purpose. (1) To investigate the impact of a Facebook safe-drinking message on the behavioural intentions of young adults with respect to alcohol consumption. (2) To explore the impact of Facebook photos showing people socialising while drinking alcohol on intention to consume alcohol in the future. (3) To investigate the impact of the content of the Facebook page stimuli on the effectiveness of the safe-drinking advertisement. (4) To explore the mediating role of visual attention on the impact of user-generated images on safe-drinking advertisement effectiveness. (5) To explore participants' visual attention to various elements of the Facebook stimuli.

University students were recruited as participants in the empirical phase of the study. The research used a mixed-methods approach, combining a three-way between-subjects experiment design using eye-tracking technology to study young people's responses to visual stimuli on Facebook, with a quantitative questionnaire to measure their self-reported alcohol consumption and their attitudes towards alcohol, and qualitative follow-up interviews with selected study participants designed to probe the reasons for their questionnaire responses. Owing to constraints of space this paper concentrates on the quantitative findings from the study and the qualitative results are not reported in detail here. The sampling approach aimed to include current alcohol users, and non-users who could start drinking alcohol. The intended sample size for the experiment was 30 valid participants per condition (Mischner et al. 2013), so 90 in total. Facebook was used since it is the most popular social media website (Barnett 2011) and it can support text and pictures relevant to our research objectives.

This study uses eye tracking technology (Tobii X2-30 hardware/software). An unobtrusive piece of hardware is attached to the base of a 15” laptop that gathers data on gaze duration, fixation and order, speed of identification of and disengagement from the photos and advertising messages on the Facebook page, and avoidance of specific on-screen elements. As far as the participant is concerned, they are simply using a Facebook page on a normal 15” laptop. The participant is practically unaware that their eye movements are being monitored (although, of course, for ethical reasons the participants were fully briefed on the process).

Eye-tracking equipment has been used in a limited number of studies testing anti-alcohol messages, for example Thomsen and Fulton’s (2007) research on adolescents’ attention to anti-alcohol print advertisements; Fox et al.’s (1998) investigation of warnings on beer print ads; and more recently Brown and Richardson’s (2012) investigation of the effectiveness of distressing imagery in anti-alcohol campaigns and Ten Hoor et al.’s (2012) research on threatening health messages. However, it has not previously been used to test the effectiveness of safe-drinking messages online. Since similar images showing people socialising while drinking alcohol are also used in alcohol ads to encourage consumption, we believe that this project could support the development of effective policies on alcohol marketing and design the dissemination of effective safe-drinking messages, since research shows that they are being ignored by many young people (Griffin et al. 2008).

#### *Sampling, Research Methods and Instruments*

90 participants took part in the eye-tracking experiment, allocated randomly between three experimental conditions that were defined by the primary visual stimuli used. 30 participants were exposed to each of three primary visual stimuli during the eye-tracking study. The visual stimuli were shown to the participants in the form of a Facebook page, on which the principal images and the presence or absence of an anti-alcohol communications message were manipulated to create the experimental conditions. The experimental conditions are illustrated in Appendix A and can be summarised as: condition 1, Facebook page showing young adults socialising and consuming alcohol, with an anti-alcohol advertisement on the right-hand side of the page; condition 2, showing young adults socialising without alcohol, with the anti-alcohol advertisement on the right-hand side of the page; condition 3, showing young adults socialising and consuming alcohol, but with no anti-alcohol advertising. The anti-alcohol (safe-drinking) advertisement used was taken from the NHS Change4Life campaign (see <http://www.nhs.uk/change4life/Pages/change-for-life.aspx>).

The demographic characteristics of the participants in the study are shown in Table 1. After participating in the eye-tracker study all participants completed the questionnaire, and 19 participants were selected for a follow-up qualitative interview.

The questionnaire, administered to all participants, measured demographic characteristics, self-reported alcohol consumption, self-efficacy, intention to reduce drinking, intensity of Facebook usage, and, for those exposed to the anti-alcohol advertisement, their attitude towards the advertisement. The scales and sources used, and the items measured using the questionnaire, are presented in Appendix B. All of the measurement items were taken from previously validated research instruments.

Table 1: Demographic characteristics of achieved sample

Test condition	Academic level (n) (Note 1)		Secondary Education (n)			1 <sup>st</sup> year in the UK (n)	Male (n)	Female (n)	AUDIT-alcohol consumption level <i>M</i> (SD)	Facebook usage intensity <i>M</i> (SD)	Total (n)
	4/5	6/7	UK	Overseas	Both						
1 Alcohol consumption and anti-alcohol advertising	11	19	21	9	0	4	11	19	6.63 (4.57)	3.61 (1.07)	30
2 No alcohol consumption and anti-alcohol advertising	11	19	19	9	2	5	10	20	7.07 (4.98)	3.57 (.84)	30
3 Alcohol consumption with no anti-alcohol advertising	12	18	19	9	2	2	12	18	7.23 (5.21)	3.62 (.82)	30
TOTALS	34	56	59	27	4	11	33	57	6.98 (4.9)	3.6 (.91)	90

Note 1: Academic levels 4 & 5 correspond to first and second year undergraduate, academic levels 6 & 7 correspond to final year undergraduate and to postgraduate.

## Results & Discussion

Throughout the results section, unless specified otherwise, we consistently control for participant's age, self-efficacy, drinking behaviour (AUDIT scale) and whether it is their first year studying in the UK.

Objectives 1 and 2 concerned the relationship between the participants' behavioural intentions towards future alcohol consumption and their exposure to particular visual stimuli: a safe-drinking advertisement embedded in a Facebook page (objective 1) and different user-generated images representing young people socialising with and without alcohol (objective 2). These objectives were investigated using univariate ANCOVA. No significant between-group differences were found for any of the experimental conditions. There were no significant differences of means on the intention to drink scale between those who were exposed to safe-drinking advertisement and those who were not (regardless of which user-generated image was included), and there were no significant differences of means on the intention to drink scale between those who were exposed to the alcohol-related user-generated content and those who were not (whether the advertisement was present or not). The mean 'intention to reduce drinking' score for the three experimental conditions was 8.70 for participants who were exposed to the alcohol-related user-generated images and the safe-drinking advertisement, 8.57 for those exposed to non-alcohol user-generated images and the safe-drinking advertisement, and 8.63 for those exposed to the alcohol-related images but no advertisement. There is no statistically significant difference between these means ( $F(2, 90) = 0.008, p = 0.992$ ).

Objective 3 concerned the relationship between the user-generated visual content on the Facebook page and the perceived effectiveness of the safe-drinking advertisement. A univariate ANCOVA analysis shows a significant difference in perceived advertisement effectiveness between those exposed to the alcohol-related image and those exposed to the non-alcohol-related image ( $F(1, 43) = 4.106, p = 0.050$ ). The perceived effectiveness of the safe-drinking advertisement is greater when associated with the image of young people

socialising consuming alcohol ( $M_{\text{FB alcohol images}} = 0.58$ ), than when associated with the image of young people socialising without alcohol ( $M_{\text{No FB alcohol images}} = -1.42$ ).

Following on from objective 3, objective 4 concerned the mediating role of visual attention on the relationship between the user-generated Facebook stimuli (images of young people socialising with and without alcohol) and the perceived effectiveness of the safe-drinking advertisement. Using the same control variables, 95% bias-corrected bootstrap confidence intervals with 5,000 bootstrap samples were conducted (Preacher and Hayes 2008). This analysis examines the mediating impact of visual attention paid to elements of the visual stimuli on the impact of the presence or absence of alcohol in the user-generated images on the effectiveness of the safe drinking message. The results reveal that the bootstrap includes zero for gaze duration to the user generated images (-1.1832 to .1445) and gaze duration to the safe drinking message (-1.4837 to .2013). It follows that the impact of user-generated images on the effectiveness of safe drinking message is mediated by visual attention (gaze duration) to both the user generated images and the safe drinking message.

Objective 5 is a more general objective that concerns the investigation of participants' visual attention when engaged with the experiment, using the eye-tracker data. Controlling for the same covariates, we conducted univariate ANCOVA analysis investigating whether or not there was a statistical association between the user-generated image used (presence or absence of alcohol) and the visual attention paid to the Facebook page, the user generated images, and the safe-drinking advertisement elements. No significant statistical differences were found. A similar analysis was then conducted exploring whether any statistical association could be found between the safe-drinking advertisement (presence or absence of a Change4Life advertisement) and the participants' visual attention. Table 2 illustrates the results of this analysis. Overall the descriptive statistics reveal that the visual attention measures (both gaze and fixation count) are higher for the stimuli that include the Change4life advertisement than for those that do not. The visual attention to user-generated images is significantly higher in the absence of the Change4Life advertisement ( $F(1, 90) = 4.665$ ,  $p = 0.034$ ;  $M_{\text{ad present}} = 10.43$  milliseconds versus  $M_{\text{ad absent}} = 13.41$  milliseconds).

TABLE 2: Visual attention for change4life ad present v. absent (n=90)

Visual Attention*	Ad		No Ad		F	P
	M	SD	M	SD		
Gaze duration to FB page	34.24	20.61	28.05	13.47	1.81	.182
Fixations on FB page	85.72	46.37	69.97	31.71	2.351	.129
<b>Gaze duration to UG images</b>	<b>10.43</b>	<b>7.00</b>	<b>13.41</b>	<b>8.77</b>	<b>4.665</b>	<b>.034</b>
Fixations on UG images	28.30	18.06	34.60	20.40	3.288	.073

\*Gaze = milliseconds, Fixations = frequency count

A number of additional analyses were conducted on the data: first, to establish whether or not participants actually noticed the safe-drinking message (Change4Life advertisement); and, second, to consider the statistical association between individuals' demographic characteristics, such as drinking level and age, and their intention to reduce drinking.

A substantial number of participants did not notice the safe-drinking message. 60 participants were exposed to the message; 28% didn't notice the advertisement while 72% noticed it. However, of participants exposed to the user-generated image of socialising with alcohol

37% did not notice the advertisement, while among participants exposed to the user-generated image of socialising without alcohol only 20% did not notice the advertisement.

We found a negative relationship between reported alcohol consumption behaviour and intention to moderate future drinking behaviour. The AUDIT scale is used to measure the extent of an individual's alcohol consumption. A score of 8 or more in the 10-item AUDIT scale indicates a likelihood of hazardous or harmful alcohol consumption (Saunders et al., 1993). A binary variable splits the sample into low alcohol consumers (those who scored 0-7,  $n = 49$ ) and high alcohol consumers (those who scored 8 and above,  $n = 41$ ) on the AUDIT scale. Univariate ANCOVA analysis controlling for age, self-efficacy and whether it is their first year in the UK, indicates that, surprisingly, low alcohol consumers have higher intention to reduce drinking compared to high alcohol consumers ( $F(1, 90) = 5.660, p = 0.020$ );  $M_{\text{low consumption}} = 9.45$  vs.  $M_{\text{high consumption}} = 7.66$ ).

Moreover, a univariate ANCOVA, controlling for participants self-efficacy and whether it is their 1<sup>st</sup> year in the UK, shows that the impact of age on intent to reduce drinking is significant. Older participants reported a higher intent to reduce drinking than younger students ( $F(1,90) = 4.110, p = .020$ ;  $M_{18-20} = 7.39$  vs.  $M_{20-23} = 9.70$  vs.  $M_{24+} = 8.00$ ).

### **Conclusion, Limitations & Implications**

There is a significant negative relationship between level of alcohol consumption and intention to reduce drinking behaviour in the future. Counter-intuitively, lower alcohol consumers have higher intentions to reduce drinking behaviours than higher alcohol consumers. Older participants were more likely to intend to reduce their alcohol consumption in the future. In general, the Change4Life anti-alcohol advertisements got low positive evaluations and a substantial proportion of the participants did not notice them. It was found that these advertisements are more positively evaluated when combined with user-generated images of young people socialising with alcohol compared to young people socialising without alcohol. This could be because the youth alcohol culture is primed, triggering the audience to consider the relevance and need for such social marketing initiatives. Although Change4Life advertisements did not directly affect intention to reduce drinking (regardless of level of alcohol currently consumed), Facebook pages with Change4Life advertisements lead to lower visual attention paid to the user-generated images (these include user-generated images of youths consuming alcohol). Therefore if the aim of policy makers is to reduce online peer pressure and influence of social media images on young consumers, placing a social marketing advertisement may have an indirect impact by moving attention away from the user-generated images.

This study was limited to the 18-25 age group, the visual stimuli used were mock-ups of Facebook pages rather than live Facebook pages, and only one advertising treatment was included in the experimental design. This suggests three important extensions for future investigation. First, the research can usefully be extended at both ends of the age spectrum, to both older school-children (aged 16 to 18) and to slightly older adults (aged 26 to 30). Second, the interaction between the participants and the Facebook pages can be made more realistic and 'natural', by designing an improved interface that provides an experience that is closer to live Facebook usage. Finally, for this study only a single Change4Life advertisement was used and a considerable number of participants did not notice it. It is suggested that augmenting the research design by including an additional advertising treatment, perhaps one that is more visually intrusive, would be a valuable development of the present work.

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## APPENDIX A

### Visual Stimuli used in the Eye Tracking Experiments

#### Test Condition 1: Showing alcohol consumption and anti-alcohol advertising

Search for people, places and things

Owen Home

Owen Williams Edit Profile

News Feed

Messages 99+

Events 1

PAGES

Hoist

Just a Poco 2

The Next Web 8

Like Pages 20+

Pages Feed

Create Ad

APPS

Games

Postbox

plug.dj

Music

On This Day

Gifts

Games Feed

David-Smith added 10 new photos to the album Freshers-Week  
October 7 at 8:09pm

Like Comment Share

6 people like this.

Write a comment...

Chat (Off)

don't let drink sneak up on you

change 4 life

Cutting down on alcohol with the drinks checker. Get the free smartphone app www.Change4Life.co.uk

#### Test Condition 2: Showing no alcohol consumption and anti-alcohol advertising

Search for people, places and things

Owen Home

Owen Williams Edit Profile

News Feed

Messages 99+

Events 1

PAGES

Hoist

Just a Poco 2

The Next Web 8

Like Pages 20+

Pages Feed

Create Ad

APPS

Games

Postbox

plug.dj

Music

On This Day

Gifts

Games Feed

David-Smith added 10 new photos to the album Freshers-Week  
October 7 at 8:09pm

Like Comment Share

6 people like this.

Write a comment...

Chat (Off)

don't let drink sneak up on you

change 4 life

Cutting down on alcohol with the drinks checker. Get the free smartphone app www.Change4Life.co.uk

### Test Condition 3: Showing alcohol consumption with no anti-alcohol advertising

The image is a screenshot of a Facebook news feed. At the top, there is a search bar with the text "Search for people, places and things" and a magnifying glass icon. To the right of the search bar are navigation links for "Owen", "Home", and a notification bell with a red "1". Below the navigation bar is a left-hand sidebar with a profile for "Owen Williams" and a list of menu items: "News Feed", "Messages" (99+), "Events" (1), "PAGES" (Hoist, Just a Poco (2), The Next Web (8), Like Pages (20+), Pages Feed, Create Ad), and "APPS" (Games, Postbox, plug.dj, Music, On This Day, Gifts, Games Feed). The main content area shows a post by "David-Smith" titled "added 10 new photos to the album Freshers-Week" dated "October 7 at 8:09pm". The post contains two photographs: the top one shows two young men with large, excited expressions holding beer bottles and glasses; the bottom one shows a group of young women at a party, some holding beer bottles. Below the photos are the interaction options "Like Comment Share", a notification "6 people like this.", and a comment input field with the text "Write a comment...". In the bottom right corner, there is a "Chat (Off)" button.

## APPENDIX B

### Description and sources of scales used in the questionnaire

Construct	Number of items	Type of scale	Source
Alcohol consumption (AUDIT)	10	5-point scales describing increasing frequency/quantity of alcohol consumption	Saunders et al (1993)
Self-efficacy	9	7-point scales describing confidence with respect to alcohol consumption; 'not at all confident' to 'totally confident'	Breslin et al (2000)
Intention to reduce drinking	2	7-point intent scales from 'not at all' to 'completely'	Brown & Richardson (2012)
Attitude towards the advertisement	3	7-point bi-polar semantic differential scales	Brown & Smith (2007)
Facebook usage intensity	7	5-point Likert scales	Ellison et al. (2007)

### Items included on the questionnaire (Cronbach's Alpha, Means & St. Deviations)

Scale: Attitude towards the ad $\alpha = .812$ , $M = -.53$ , $SD = 4.24$			
Items		M	SD
Evaluate the change4 life ad from not persuasive (-3) to persuasive (3)		-.33	1.728
Evaluate the change4 life ad from bad (-3) to good (3)		.53	1.420
Evaluate the change4 life ad from not effective (-3) to effective (3)		-.74	1.801

Notes: Scale range was -9 to 9 with positive scores denoting positive evaluations; participants had the option to choose if they noticed the ad or not.

Scale: Facebook usage intensity $\alpha = .826$ , $M = 3.6$ , $SD = .91$			
Items		M	SD
About how many total Facebook friends do you have? <sup>1</sup>		6.13	2.084
On a typical day, about how much time do you spend on Facebook? <sup>2</sup>		1.98	1.484
Facebook is part of my everyday activity		3.69	1.167
I am proud to tell people I am on Facebook		3.43	1.006
Facebook has become part of my daily routine		3.73	1.188
I feel out of touch when I haven't logged onto Facebook for a day		2.81	1.389
I feel I am part of the Facebook community		3.41	.982
I would be sorry if Facebook shut down		3.61	1.196

Notes: 1. 0=10 or less, 1 = 11–50, 2 = 51–100, 3 = 101–150, 4 = 151–200, 5 = 201–250, 6 = 251–300, 7 = 301–400, 8 = more than 400; 2. 0 = less than 10, 1 = 10–30, 2 = 31–60, 3 = 1–2 hours, 4 = 2–3 hours, 5 = more than 3 hours; 3. For the items 3-8 response categories ranged from 1 = strongly disagree to 5 = strongly agree

Scale: AUDIT $\alpha = .745$ , $M = 6.98$ , $SD = 4.9$			
Items		M	SD
How often do you have a drink containing alcohol? <sup>1</sup>		1.83	.927
How many drinks containing alcohol do you have on a typical day when you are drinking? <sup>2</sup>		1.17	1.134
How often do you have six or more drinks on one occasion? <sup>3</sup>		.98	.848
How often during the last year have you found that you were not able to stop		.34	.752

drinking once you had started? <sup>3</sup>		
How often during the last year have you failed to do what was normally expected of you because of drinking? <sup>3</sup>	.30	.485
How often during the last year have you needed a first drink in the morning to get yourself going after a heavy drinking session? <sup>3</sup>	.11	.381
How often during the last year have you had a feeling of guilt or remorse after drinking? <sup>3</sup>	.58	.734
How often during the last year have you been unable to remember what happened the night before because you had been drinking? <sup>3</sup>	.53	.753
Have you or someone else been injured as a result of your drinking? <sup>4</sup>	.91	1.533
Has a relative, friend, doctor, or other health worker been concerned about your drinking or suggested that you should cut down? <sup>4</sup>	.22	.761

Notes: 1. Response categories with their codes were (0) Never (1) Monthly or less (2) 2-4 time/month (3) 2-3 time/week (4) 4+ time/week; 2. Response categories with their codes were (0) 1 or 2 (1) 3 Or 4 (2) 5 or 6 (3) 7 or 9 (4) 10 or more; 3. Response categories with their codes were (0) Never (1) Less than monthly (2) Monthly (3) Weekly (4) Daily or almost daily; 4. Response categories with their codes were (0) No (2) Yes, but not in the last year (4) Yes, during the last year; The minimum score for non-drinkers is 0 and the maximum possible score is 40; Scores of 8 or higher indicate a likelihood of hazardous or harmful alcohol consumption.

Scale: Self-efficacy $\alpha=.862$ , $M=5.65$ , $SD=1.21$		
Items	M	SD
Pleasant times with others	5.34	1.602
Social pressure to drink	5.20	1.806
Urges and temptations	5.69	1.680
Conflict with others	5.87	1.837
Unpleasant emotions	5.74	1.765
Pleasant emotions	5.24	1.644
Physical discomfort	6.27	1.681
Testing control over my use of alcohol	5.88	1.542

Note: The question was "Right now to what extent (1 being not confident at all to 7 being totally confident) you would be able to resist the urge to drink heavily in situations involving..."

Scale: Intention to reduce alcohol consumption $\alpha = .762$ , $M=8.63$ , $SD=3.80$		
Items	M	SD
To what extent are you willing to reduce your drinking in the next three months?	4.80	2.073
To what extent do you intend to reduce your drinking in the next three months?	3.83	2.158

Note: Response categories ranged from 1=being not at all to 7=being completely. The overall scale is a sum of the two items.