



Drinks.Ration

An app to manage alcohol
misuse in help-seeking
veterans

www.drinksration.app

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@DrinksRation





ALCOHOL USAGE IN THE UK ARMED FORCES

1 June 2016 - 31 May 2017

ALCOHOL SCREENING TOOL



74% (n = 109,459) of Regular UK Armed Forces personnel had completed a questionnaire (AUDIT-C). (1% declined)




This is the first large scale use of the AUDIT-C questionnaire in a military population

RISK CATEGORIES


61% scored 5+ indicating that they may potentially be at increasing risk or above of alcohol related harm

(ranging from poor mood, accidents and reduced fitness, to possible long-term illness)

You would score in this category if you drank:


 3 glasses of wine twice a week

OR

 4 pints of beer on one occasion in the month

2% scored 10+ indicating that they may potentially be at increasing or higher risk and should be advised to see their GP

You would score in this category if you drank:

 3 pints of beer 5 times a week

ALCOHOL ADVICE



80% of personnel who scored 1+ had been given an alcohol advice leaflet

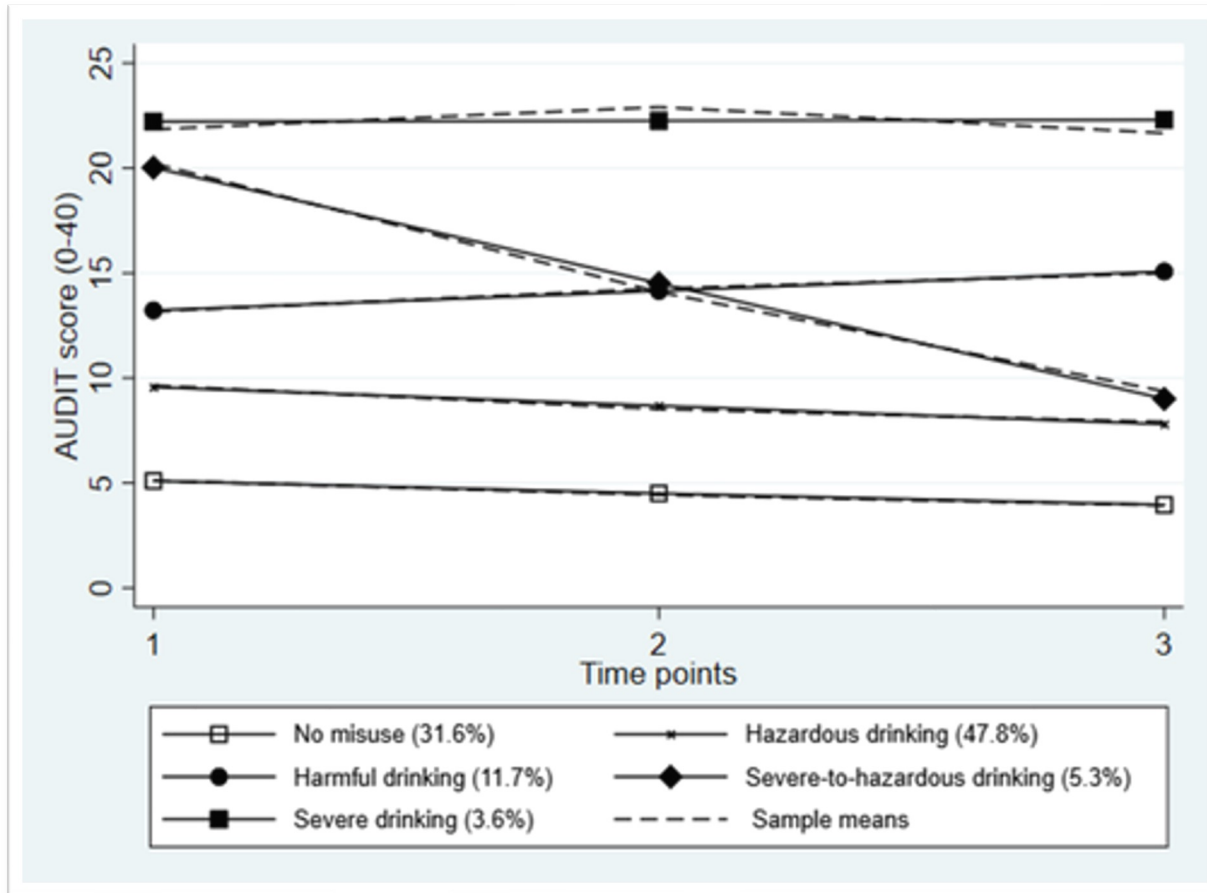


63% of personnel who scored 5+ had been given advice about reducing their drinking (alcohol brief intervention)

Is there a problem with drinking in the UK military?



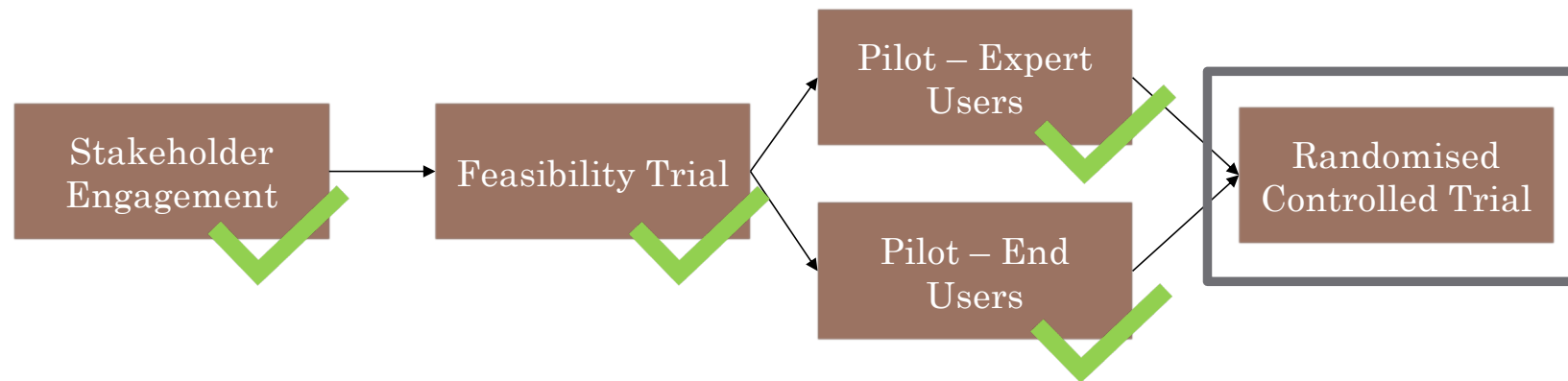
Is there a problem with drinking after leaving service?



Trajectories of alcohol misuse among the UK Armed Forces over a 12-year period. Palmer *et al.* 2021. *Addiction*. doi:10.1111/add.15592

The story so far...

Medical Research Council Complex Intervention Guidelines



How is *Drinks.Ration* different to other apps?



Content tailored to ex-serving personnel

Focused on shorter term outcomes e.g. impact on relationship

Content driven by user feedback and interaction

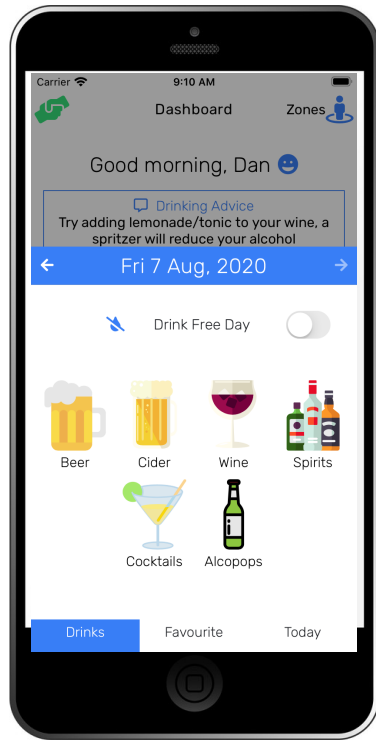
Daily *personalised* text messages and/or push notifications

Weekly assessments of mood and drinking behaviours to inform personalisation

App split into stages using HAPA model

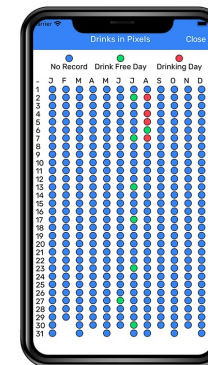
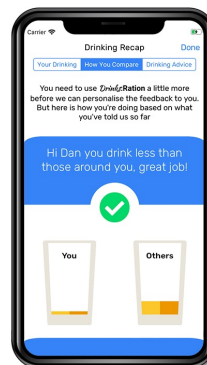
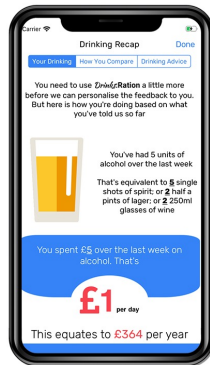
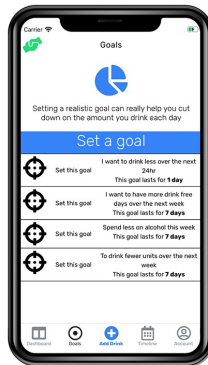
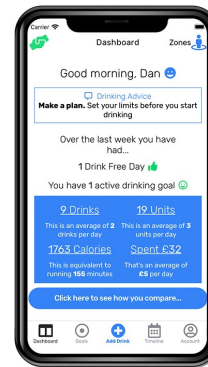
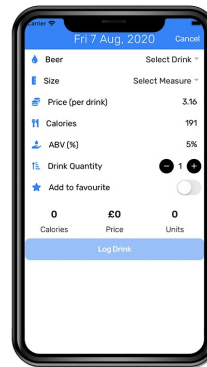
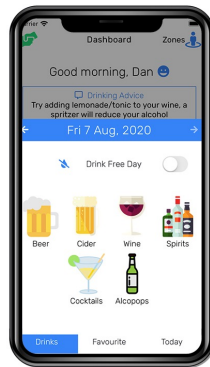
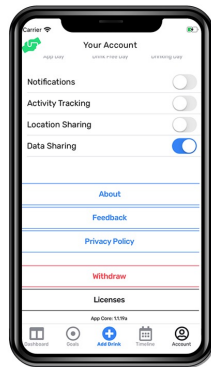
Behavioural Change Theory underpins all *Drinks.Ration* components

Drinks.Ration Overview



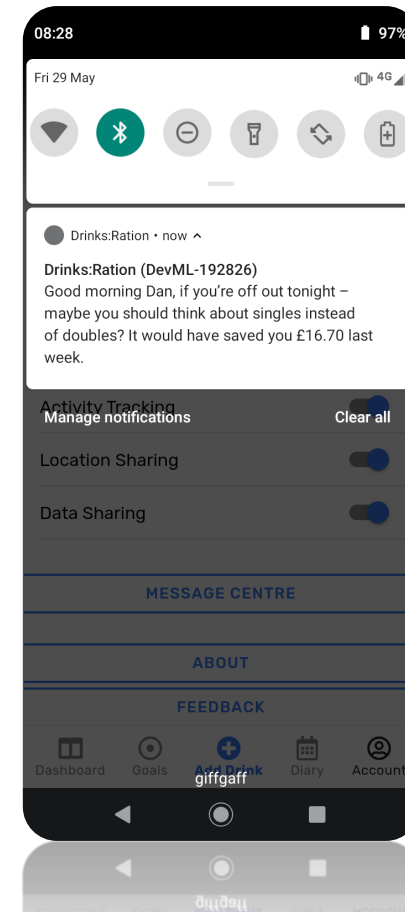
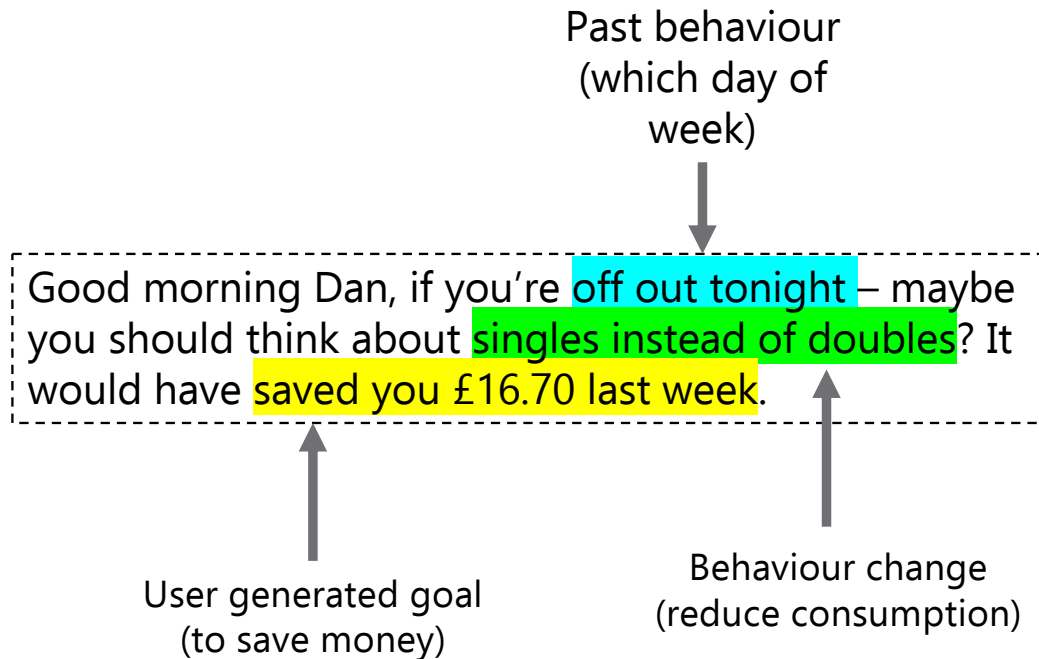
- **Designed as a 28-day intervention using a staged approach:**
 - **Stage 1:** Normative feedback, promote self-efficacy and self-monitoring;
 - **Stage 2:** Maintenance of self-efficacy and introduce goal/action planning;
 - **Stage 3:** Managing self-efficacy and coping development;
- **User interaction required;**
- Log alcohol and drink free days;
- Log mood and mental health state.





Drinks:Ration Screenshots

Personalising the 'message' - Example



Study design



Hypothesis: We hypothesised that the intervention arm app would be more efficacious in **reducing alcohol consumption** compared with the control arm app;

Design: Two arm randomised controlled trial powered to detect a **four unit decrease** in alcohol consumption at follow-up;

Control Arm

No monitoring features except CMO guidance on alcohol consumption

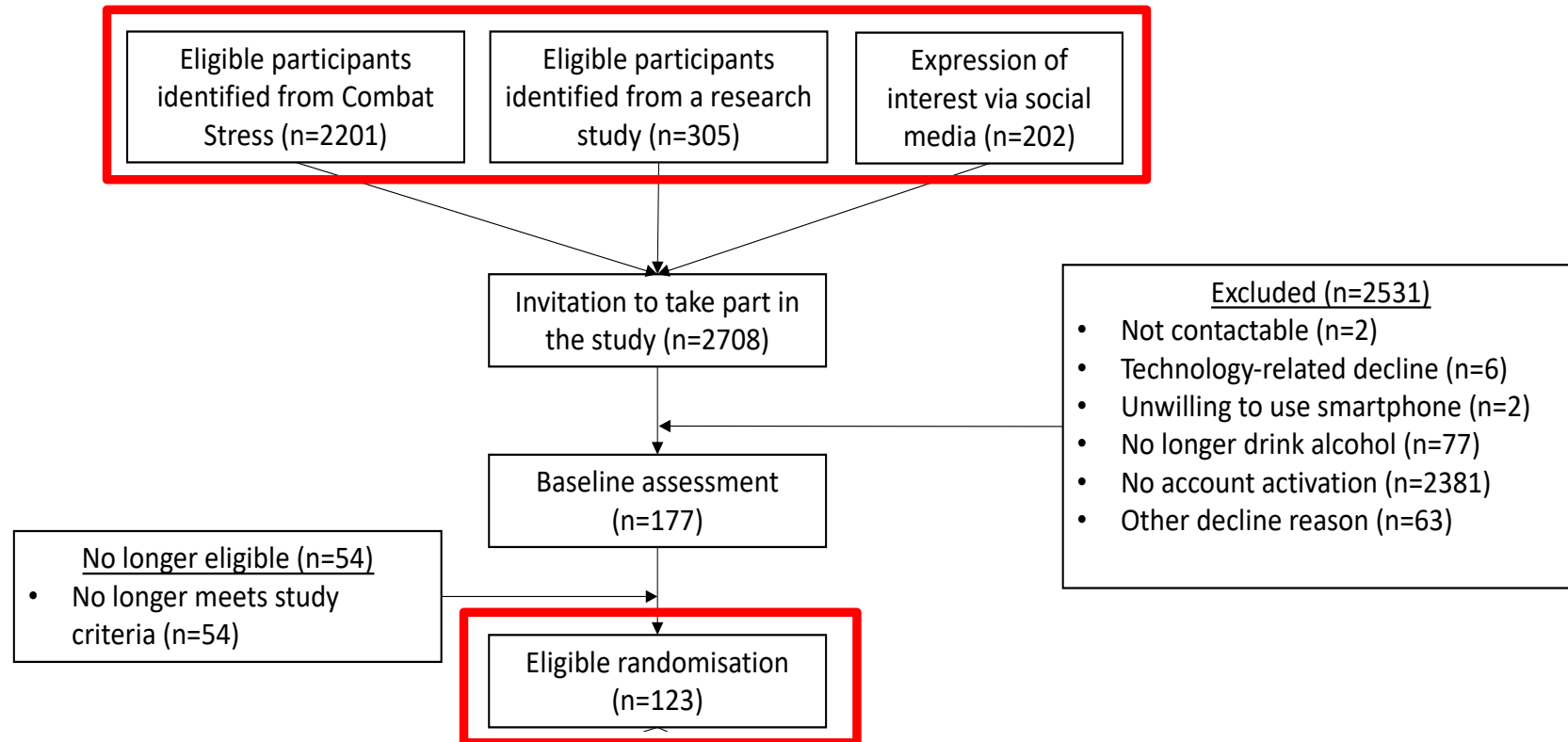
Intervention Arm

Full functionality including individualised normative feedback

Outcomes: Primary outcome is **change in alcohol consumption between baseline (day 0) and 3-month follow-up (day 84)**; secondary outcome measures include:

- 1) change in baseline to follow-up **Alcohol Use Disorder Identification Test score**, and
- 2) change in baseline to follow-up **World Health Organisation Quality of Life-BREF score** to assess Quality of Adjusted Life Years.

Donabedian's process evaluation measures include 1) app usage, and 2) usability ratings as measured by the mHealth App Usability Questionnaire.



Recruitment

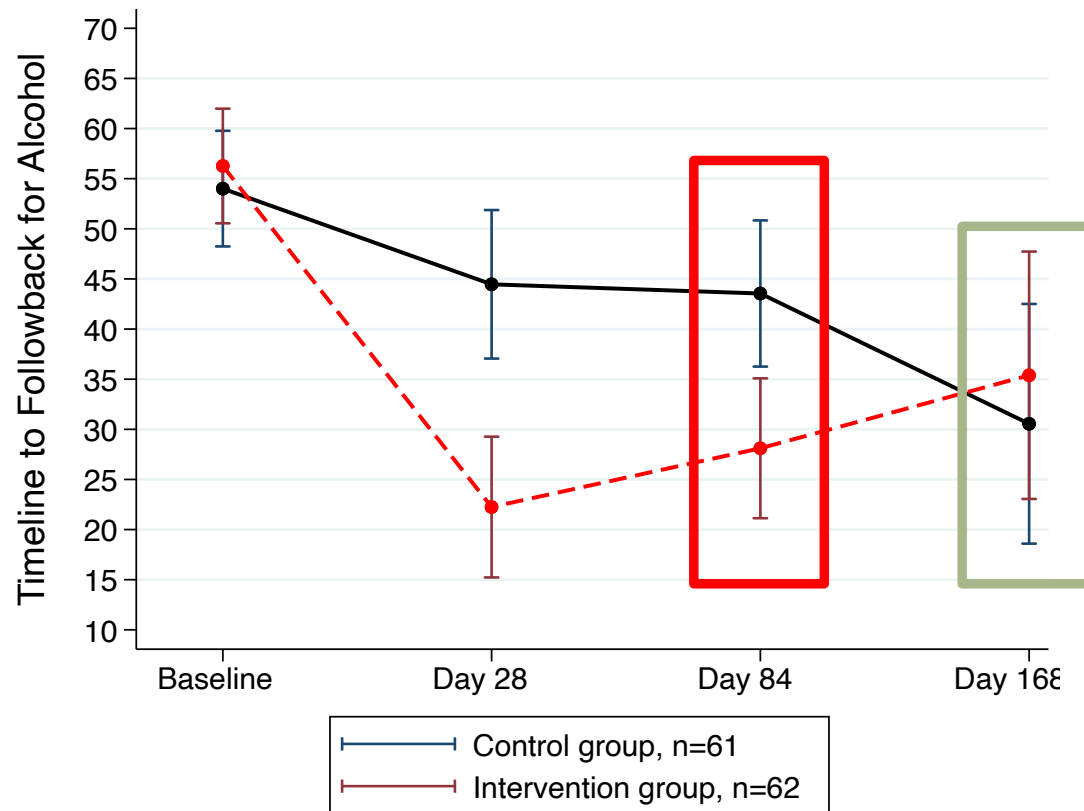


Characteristic	Treatment Arm	
	Control (n=61)	Intervention (n=62)
Age (mean, 95% CI)	47.42 (44.86 to 49.98)	47.67 (45.25 to 50.09)
Gender (n, %)		
Male	58 (95.1)	59 (95.2)
Female	3 (4.9)	3 (4.8)
Military branch (n, %)		
Royal Navy/Royal Marines	6 (9.8)	8 (12.9)
Royal Air Force	8 (13.1)	8 (13.1)
Army	44 (73.2)	43 (69.6)
Other	3 (4.9)	3 (4.9)
Length of military service (median, IQR)	15 (8 to 22)	12 (7 to 22)
Post-Traumatic Disorder (n, %)		
Probable PTSD	26 (42.6)	31 (50.0)
Depression (n, %)		
Probable depression	30 (49.2)	35 (56.5)
Anxiety (n, %)		
Probable anxiety	32 (52.5)	29 (46.8)
AUDIT score (mean, 95% CI)	16.2 (14.0 to 18.4)	17.2 (15.3 to 19.1)
Device type (n, %)		
iOS	32 (52.5)	24 (38.7)
Android	29 (47.5)	38 (61.3)

Demographics



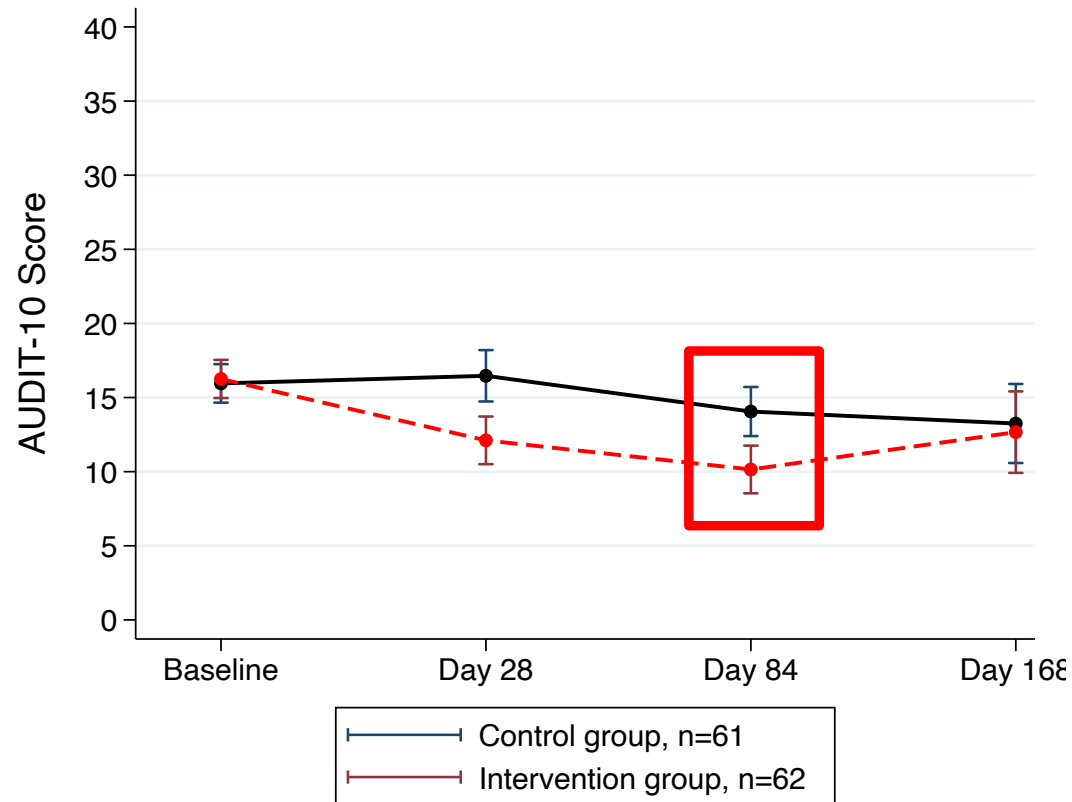
Does *Drinks:Ration* reduce self- reported alcohol consumption?



Mixed models. Adjusted for age, sex and predictors of missingness

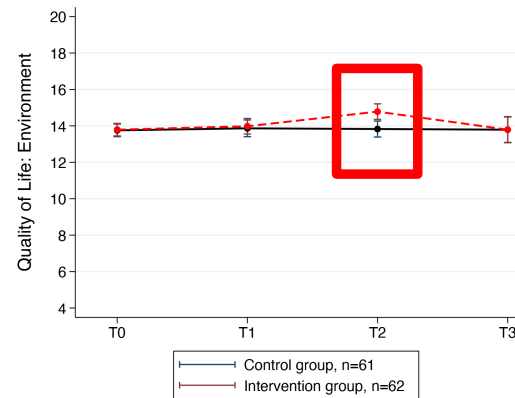
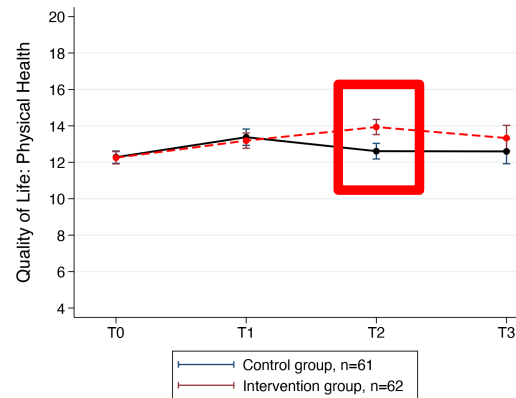
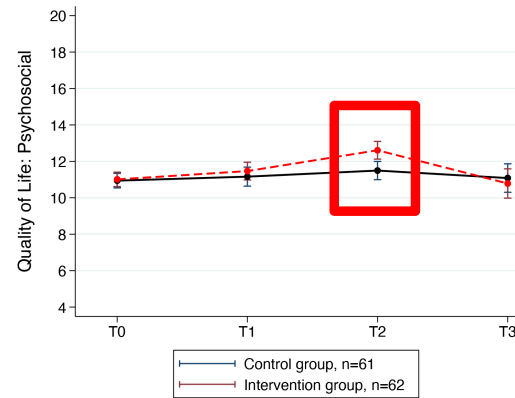
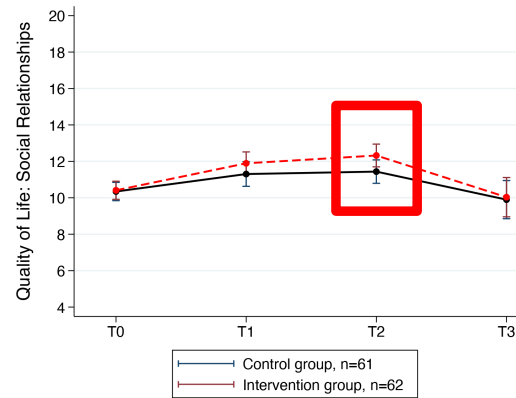


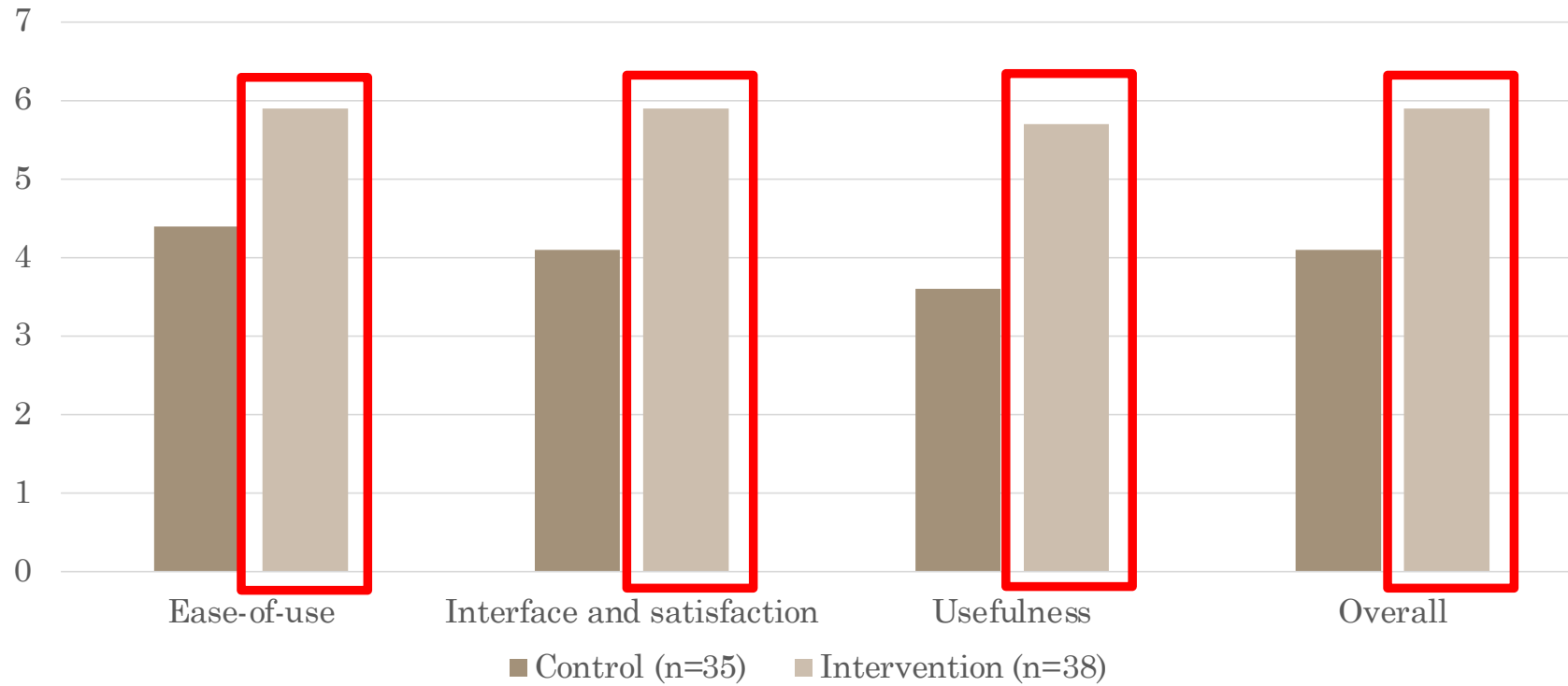
Does
Drinks:Ration
reduce self-
reported
AUDIT score?





Does *Drinks:Ration* improve quality of life score?





App usability scoring

Conclusions and implications

- Measures of engagement were encouraging across the study;
- Most users used the app primarily for self-monitoring;
 - Use of goal setting was limited;
 - Related to perceived need to change drinking;
- *Drinks:Ration* was found to be efficacious in reducing alcohol consumption in help-seeking veterans at day 84;
- Covid-19 may have had an impact on the study or drinking behaviours;
- These findings support the dissemination of *Drinks:Ration*.





Drinks:Ration

The role of a smartphone application in reducing alcohol consumption in a veteran population seeking formal mental health support



FiMT Funder Report

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COMBAT STRESS
FOR VETERANS' MENTAL HEALTH



Combat Stress Partnership



Armed Forces Trial

Lead by Surgeon Commander Katherine
King

Thank You

Research Team.

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