

Brief interventions are effective in reducing alcohol consumption in opiate dependent methadone maintained patients: results from an Irish cohort.

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Background - Irish Context

- At present there is in approx 10,000 patients receiving methadone maintenance throughout the Irish Republic (Central Treatment List, 2010).
- A small cohort also abuse alcohol and a proportion of these eventually develop alcohol dependence.
- The intravenous drug using cohort also have high prevalence rates for hepatitis C, variously estimated at between 70-80% carrying the active virus at any one time (Smyth, O'Connor, Barry & Keenan, 2003).

Alcohol & opiate dependence

- Increased risk of:
 - Heroin overdoses (Gossop, 1996)
 - Unsafe injecting behaviour (Stein, et al., 2000)
 - Complications of methadone dosage (Kreek, 1990)
- Ryder et al., (2009) prevalence of problem alcohol use among heroin users in GP. Screened 196 patients, 68 patients (35%) AUDIT positive.
 - Of those 68 patients, 33 (48%) patients 'hazardous' and 8 (12%) patients 'harmful', 27 (40%) patients dependent

Effectiveness of BI

- Primary care
 - Recent Cochrane review (Kaner et al., 2007) of 22 RCTs (enrolling 7,619 Ss) showed that overall BI of up to four sessions, lowered alcohol consumption.
- Opiate dependent groups
 - Stein et al., (2002) needle exchange clients. Two 1 hour sessions of MI reduced alcohol consumption.
 - Gerald, et al., (2002) MMT Ss nine sessions of MI reduced alcohol consumption.
- *Can an effective BI be delivered in one session to an opiate dependent MMT cohort?*

Current study

- Aims
 - to assess the effectiveness of brief interventions to reduce alcohol consumption in those who are harmfully and hazardously misusing alcohol.
 - to test the acceptability and feasibility of delivering a brief intervention amongst these patients.
- Hypothesis
 - patients who participate in a BI will show a reduction in their alcohol consumption at three-month follow-up as assessed by AUDIT scores.

Method

- Design
 - a quasi- experimental design with before and after scores on the AUDIT being compared from baseline to three months follow-up.
- Setting
 - Three methadone maintenance clinics in Dublin.

Method

- Participants
 - Participants were all opiate dependent and accessing methadone maintenance treatment.
 - All patients attending the clinics were eligible to participate.
 - Exclusion criteria - uncontrolled severe psychotic disorder or suffered from terminal illness.
- Power analysis - 180 participants who received a BI, giving 80% power to detect a medium effect size of Cohen's $d=0.5$ with an alpha error level of $p < 0.05$.

Method

- Measures
 - Time 1: Alcohol Use Disorders Identification Test – ten item screening tool (AUDIT; Babor, Higgins-Biddle, Saunders & Monteiro, 1992).
 - Time 2: AUDIT-C, shortened version of AUDIT, comprising of three items.

Method

- Study Procedure
 - All clinical staff, were trained in BI protocols by an expert trainer in the area using World Health Organisation guidelines of evidence-based approaches (Babor & Higgins-Biddle, 2001).
 - All patients attending the three study clinics were screened using the AUDIT.
 - Those patients identified as hazardous and harmful drinkers (AUDIT score ranging between 6-19 for women and 8-19 for men) received a brief intervention delivered by staff immediately after screening had taken place.

- Study Procedure (continued)
 - Alcohol dependence syndrome (AUDIT score >20) were referred for further counselling with the counselling team as per BI protocol (Saunders, Aasland, Babor, De la Fuente, & Grant, 1993).

 - Both groups (hazardous and harmful users) were followed-up at three months using the AUDIT-C.

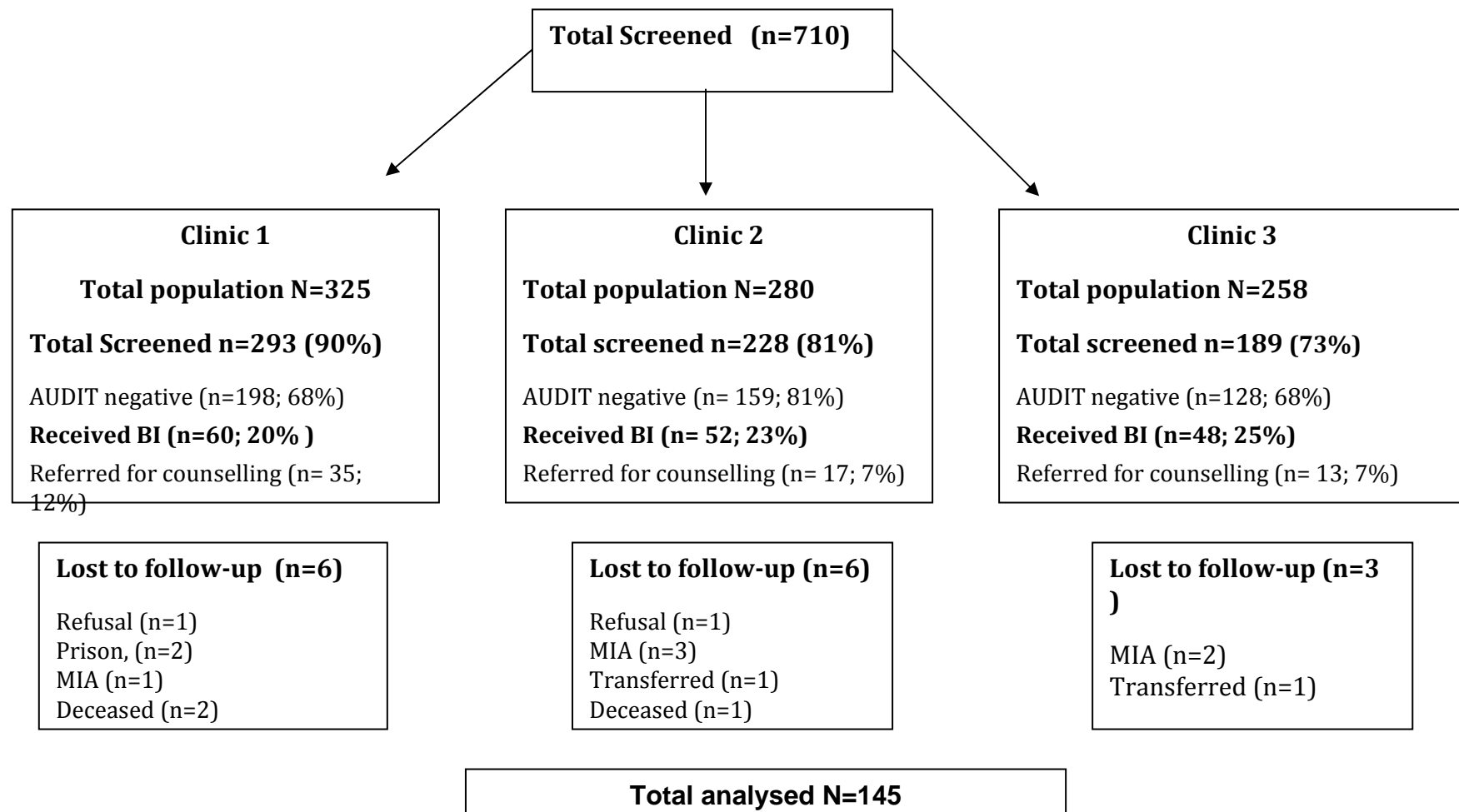
 - The patients identified as alcohol dependent were not followed-up in this study.

Brief Intervention

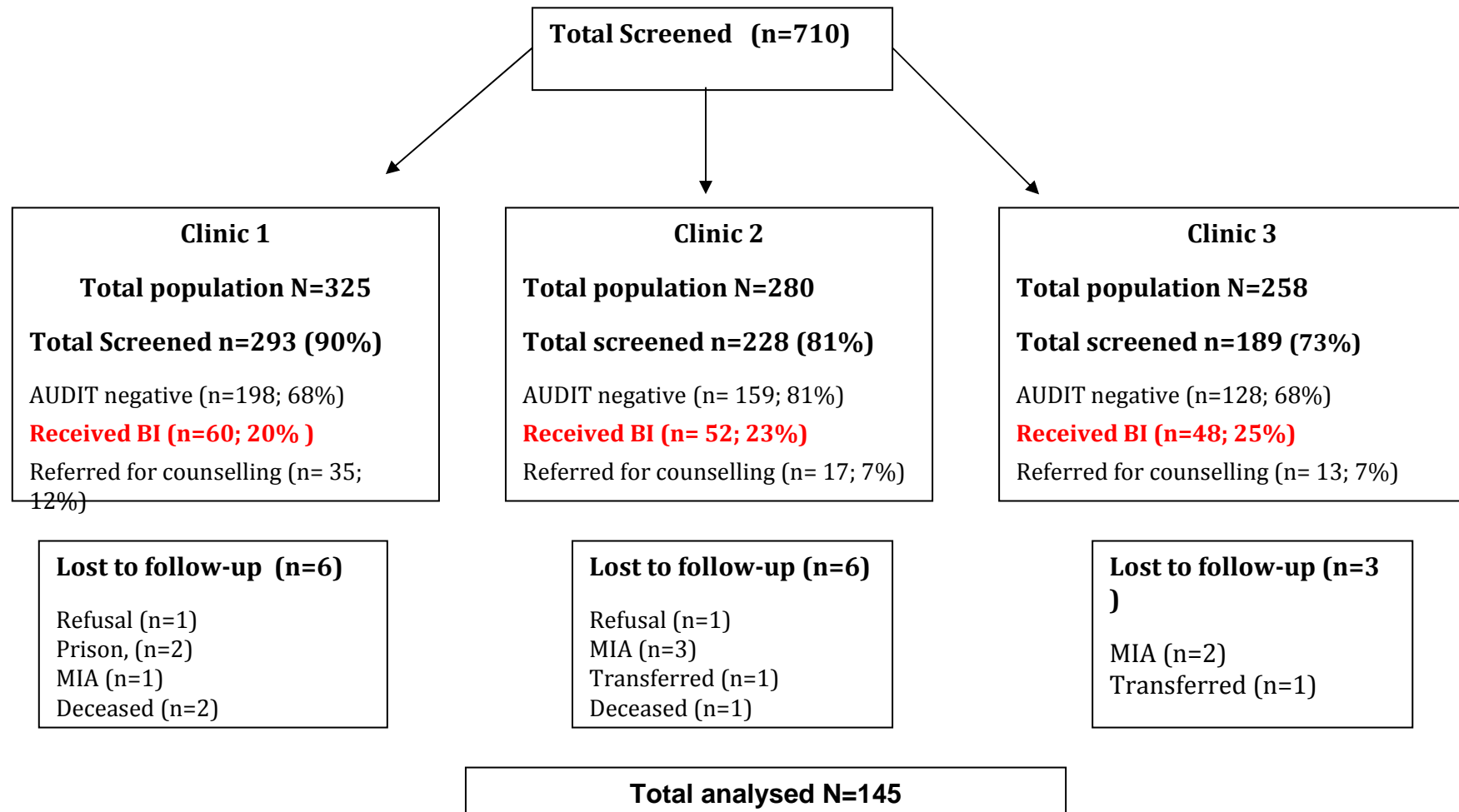
(WHO; Babor & Higgins-Biddle, 2001)

- Present screening results
- Identify risks and discuss consequences
- Provide medical advice
- Solicit patient commitment
- Identify goal
- Give advice and encouragement

CONSORT diagram



CONSORT diagram



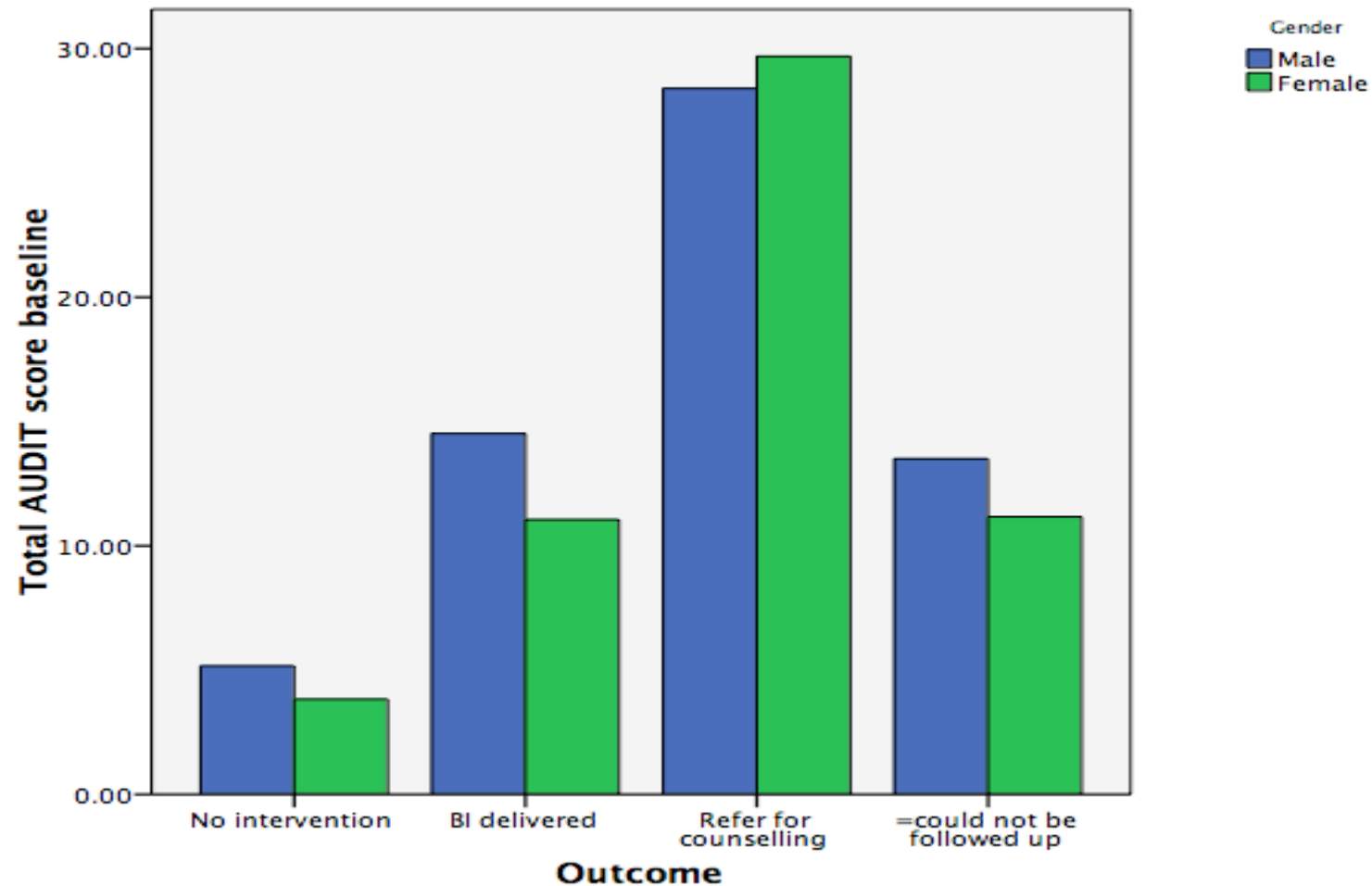
Results

Table 1: Baselines AUDIT scores

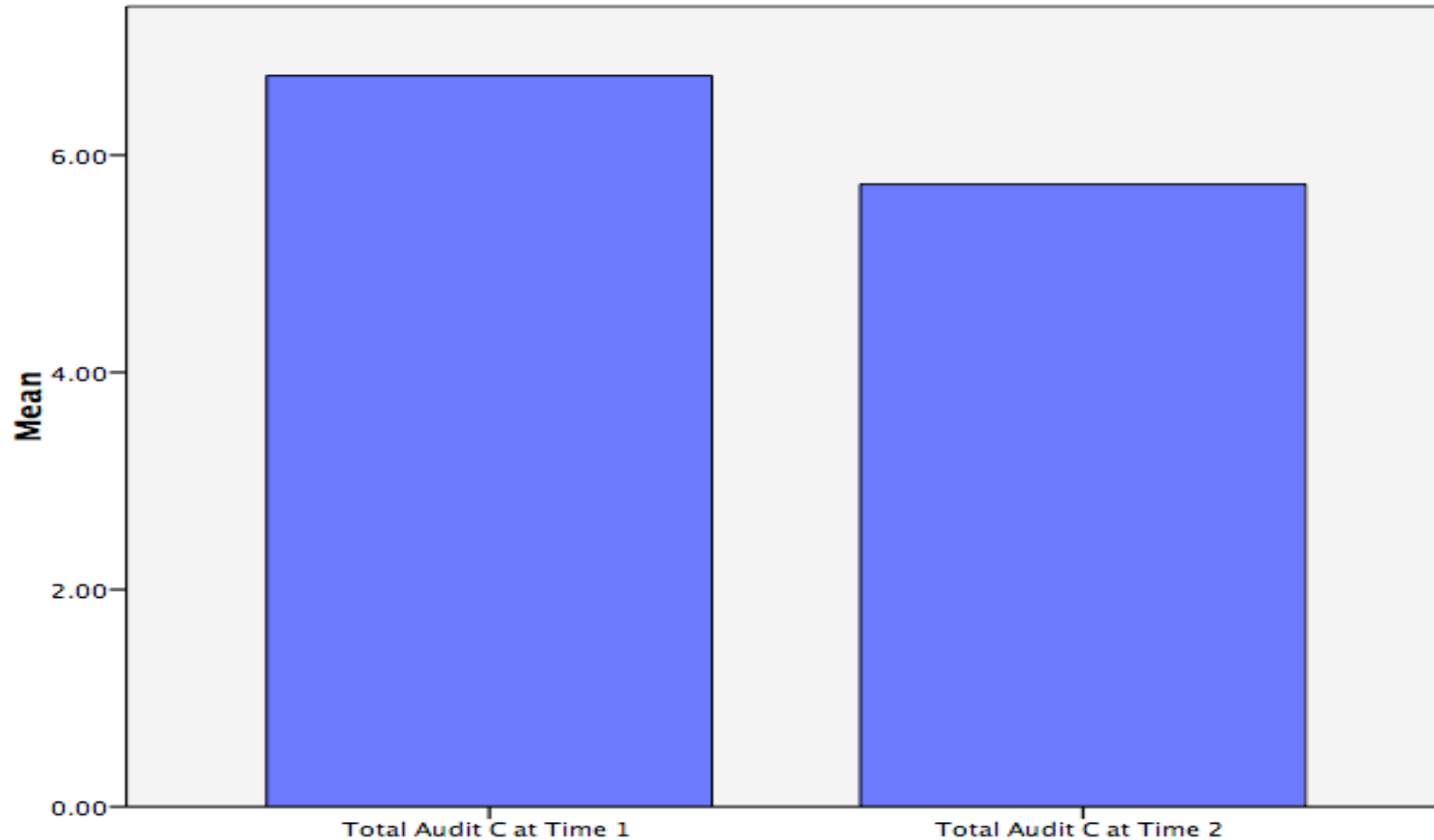
Total pop (n=710)	AUDIT Positive (n=160)	AUDIT Negative (n=485)	Dependent (n=65)
10.1 (9.6)	13.5 (6.7)	4.7 (4.5)	28.7 (7.2)

means (standard deviations)

Baseline screening outcome

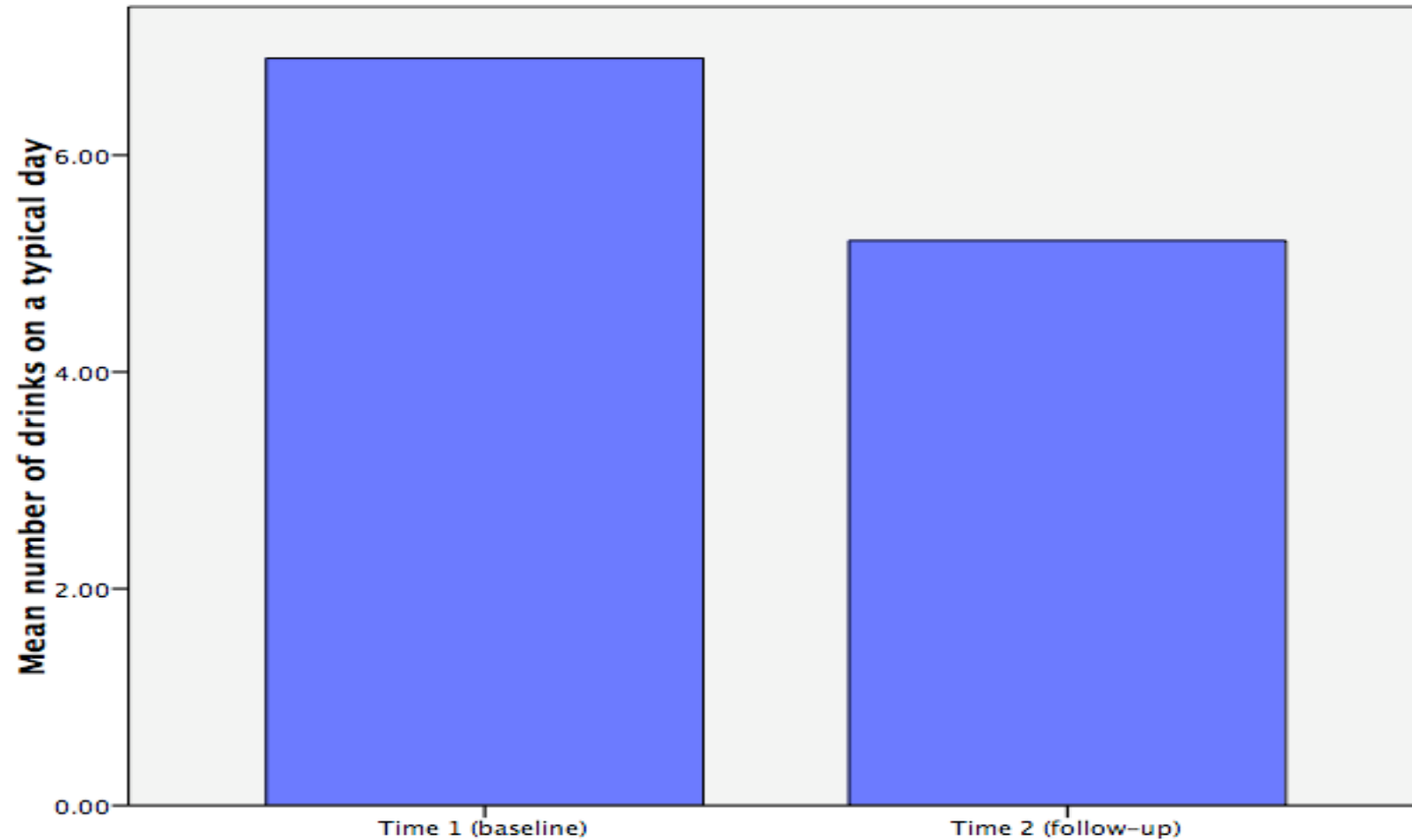


*Was there a significant
change in AUDIT C scores as
a result of the intervention?*



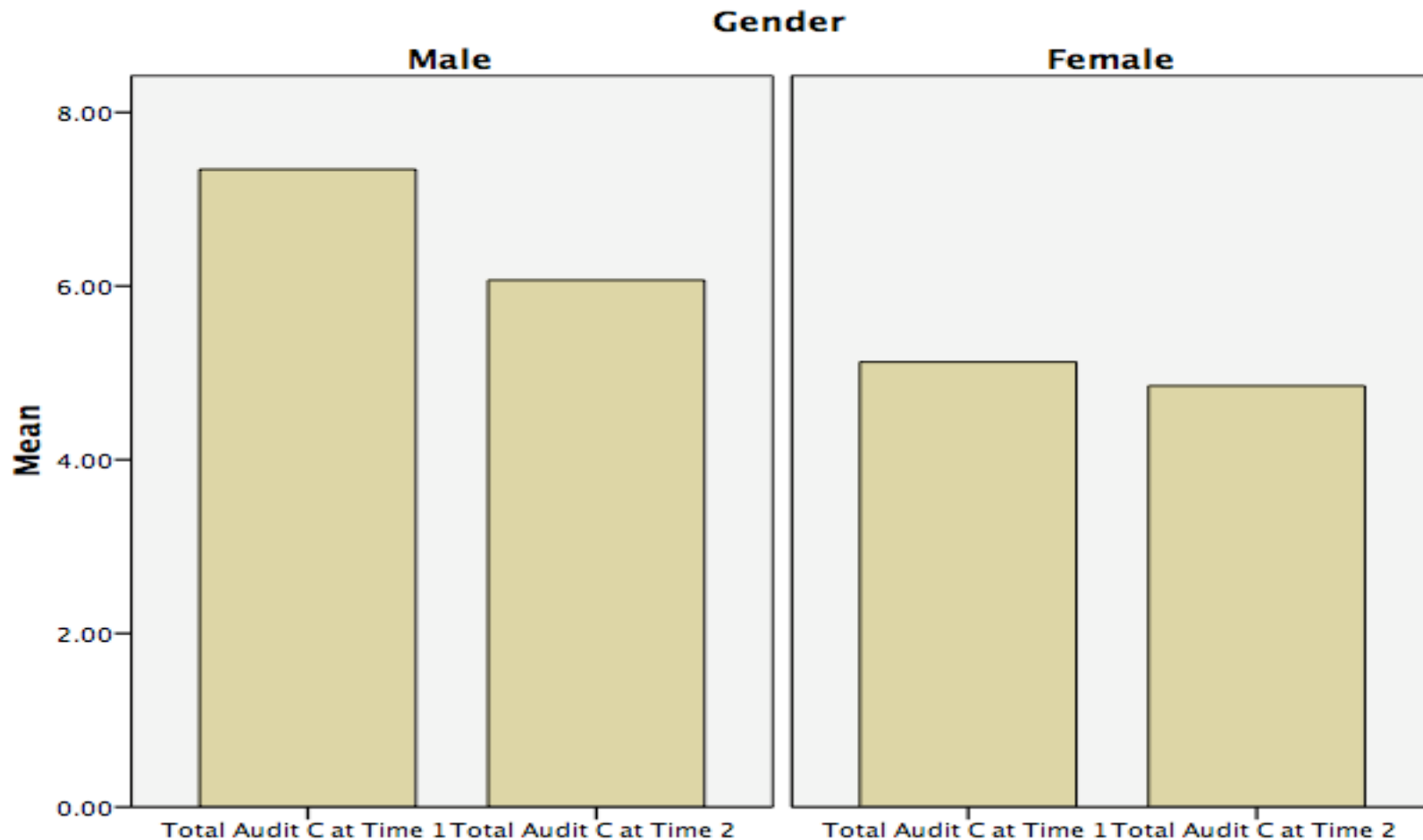
There was a statistically significant reduction in AUDIT C scores from T1 ($x=6.74$, $sd=2.35$) to T2 ($x=5.74$, $sd=2.66$) for the BI group [$z = -3.98$, $p < 0.01$].

*Did the intervention reduce
the number of drinks
consumed on a typical day
drinking?*



There was a statistically significant reduction in the number of drinks consumed from T1 ($x=6.91$, $sd=2.46$) to T2 ($x=5.21$, $sd=2.50$) [$z = -5.63$, $p < 0.01$].

*Was the intervention effective
for both males and females?*



The intervention was effective in reducing AUDIT C scores at T1 ($x=7.34$, $sd=2.28$) to T2 ($x=6.06$, $sd=2.62$) scores for males only [$z = -4.25$, $p<0.001$].

*Did the BI manage to 'shift'
anyone from being AUDIT
Positive to AUDIT Negative?*

Yes, there was a statistically significant decrease in the proportion of males who were AUDIT-C positive from T1 (N=104) to T2 (N=87) [$\chi^2=8.25$, $p<0.003$]. There was no significant decrease for females.

Discussion

- An average of 23% of the clinical population of methadone maintained clients screened were hazardously or harmfully misusing alcohol.
 - Similar to Ryder et al (2009) study – 21%
- Both baseline screening (82%) and follow-up screening was high (145/160).
- WHO screening for alcohol misuse and brief intervention delivery can be effectively achieved by a range of clinical staff.

Take home message

- A **one off** brief intervention for alcohol misuse aimed at opiate dependent methadone maintained males can reduce alcohol consumption.

- Many thanks to patients and clinicians for taking part in this research

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