



Twelve-month outcomes of a two-stage social network intervention

Reducing heavy drinking and related consequences
among residential college students

Introduction

Lives Lived Well Research
Team (LLW)

University of Queensland,
Australia

Professor Leanne Hides

Prevention, early intervention,
treatment of AOD and MH problems

Emphasis on young adults and
adolescents



The strongest risk factor for high risk drinking by adolescents and emerging adults is social influence from peers.

(e.g. Leung et al., 2014; Han, Grogan-Kaylor, Delva & Castillo, 2012; Borsari & Carey, 2001; Simons-Morton et al., 2001, Kandel, 1996)

Can we make the social network
work with us?



Social Network Interventions in Residential Colleges

- Nancy Barnett and colleagues (2019)
- ‘Strategic Players’ Method in R (Ott et al., 2018)
- BMI to Strategic Players (most well connect among “target group” of heavy drinkers)
- Assess indirect effects of intervention
- Heightened Social Processes, Alcohol Use & Harms

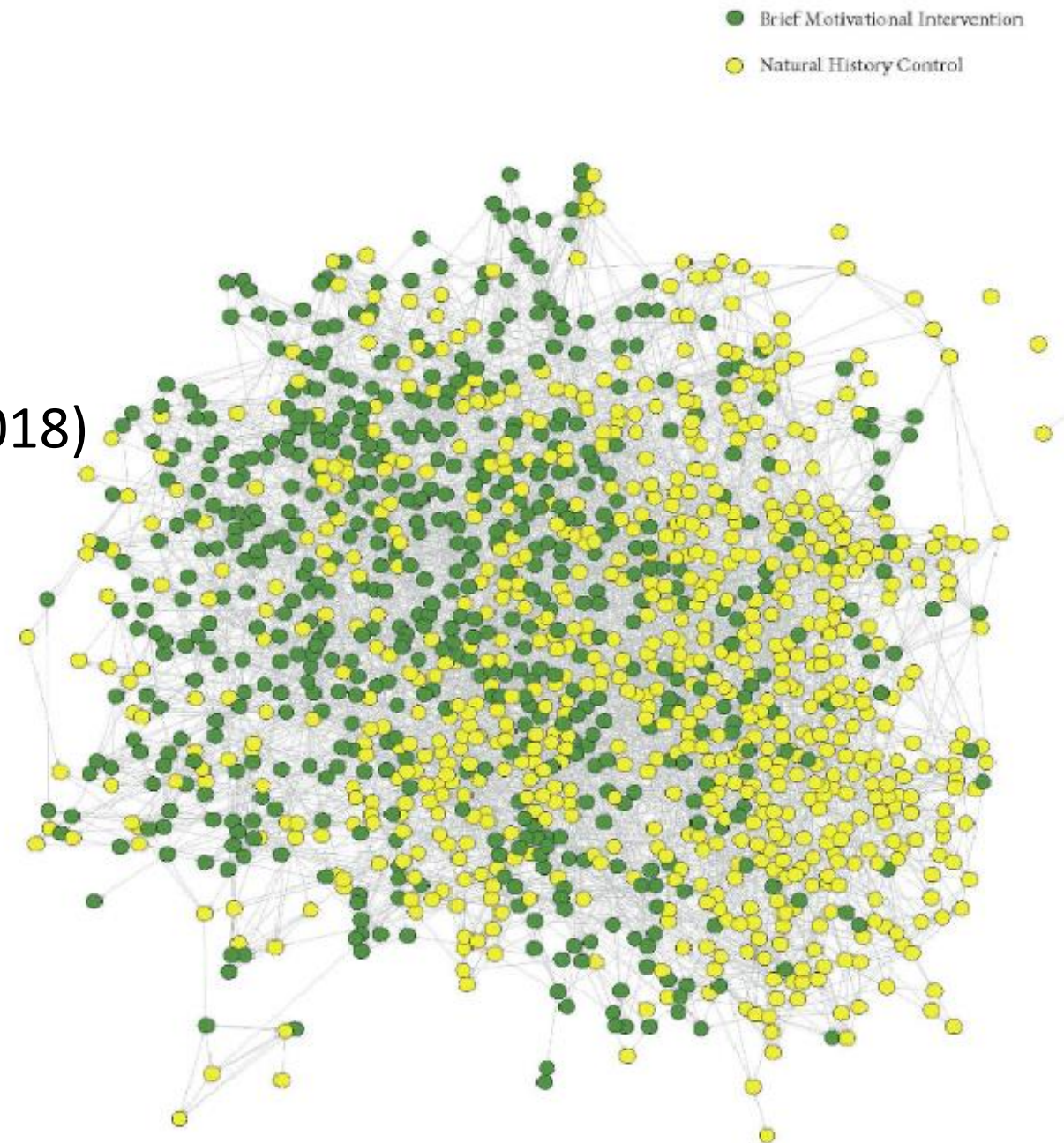


Fig. 1. Sociogram of the First-year College Student Network at Baseline ($N = 1342$).

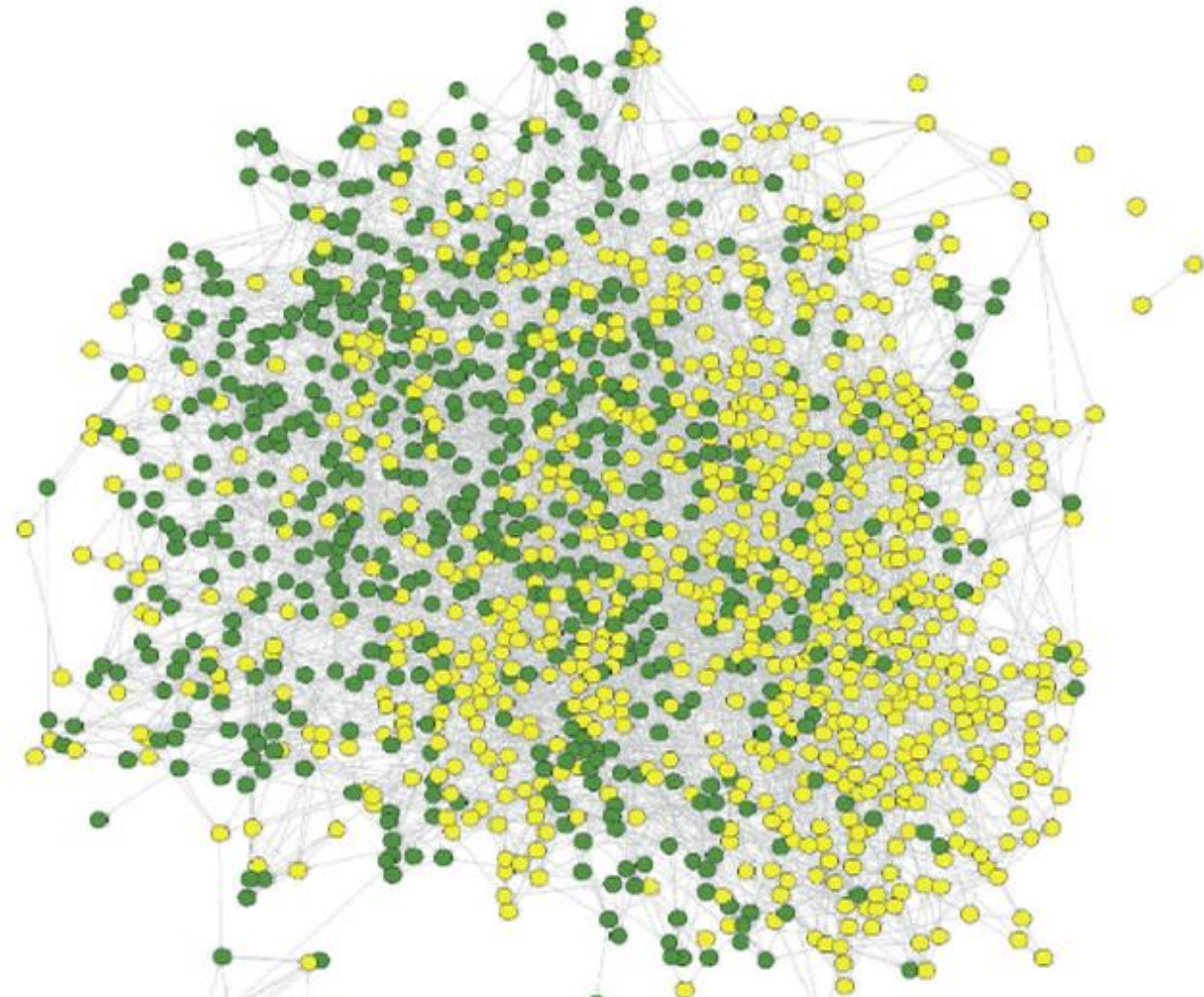
2 Stage Social Network Intervention

Australian Residential Colleges

Reducing AOD-Use and Consequences

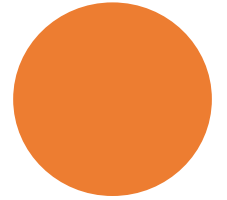
Utilising Social Influence Effects

2-Stage Social Network Intervention



Stage 1: Peer-Led Workshops

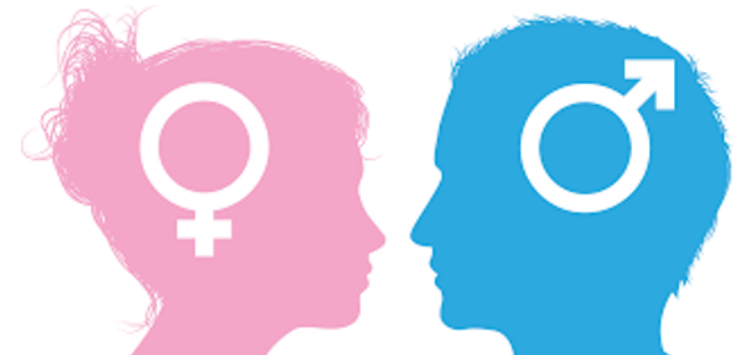
- Student leaders co-designed and co-facilitated
- Workshop on AODs & Harm Minimisation Strategies
- Interactive, trivia style
- Orientation Week (Higher Risk)
- Recipients: entire first-year cohort at 4 colleges ($N = 543$)
- Rated 4.2/5 Satisfaction ($N = 285$)



10. The same number of males and females experience health harms from alcohol and drug use?

a) True?

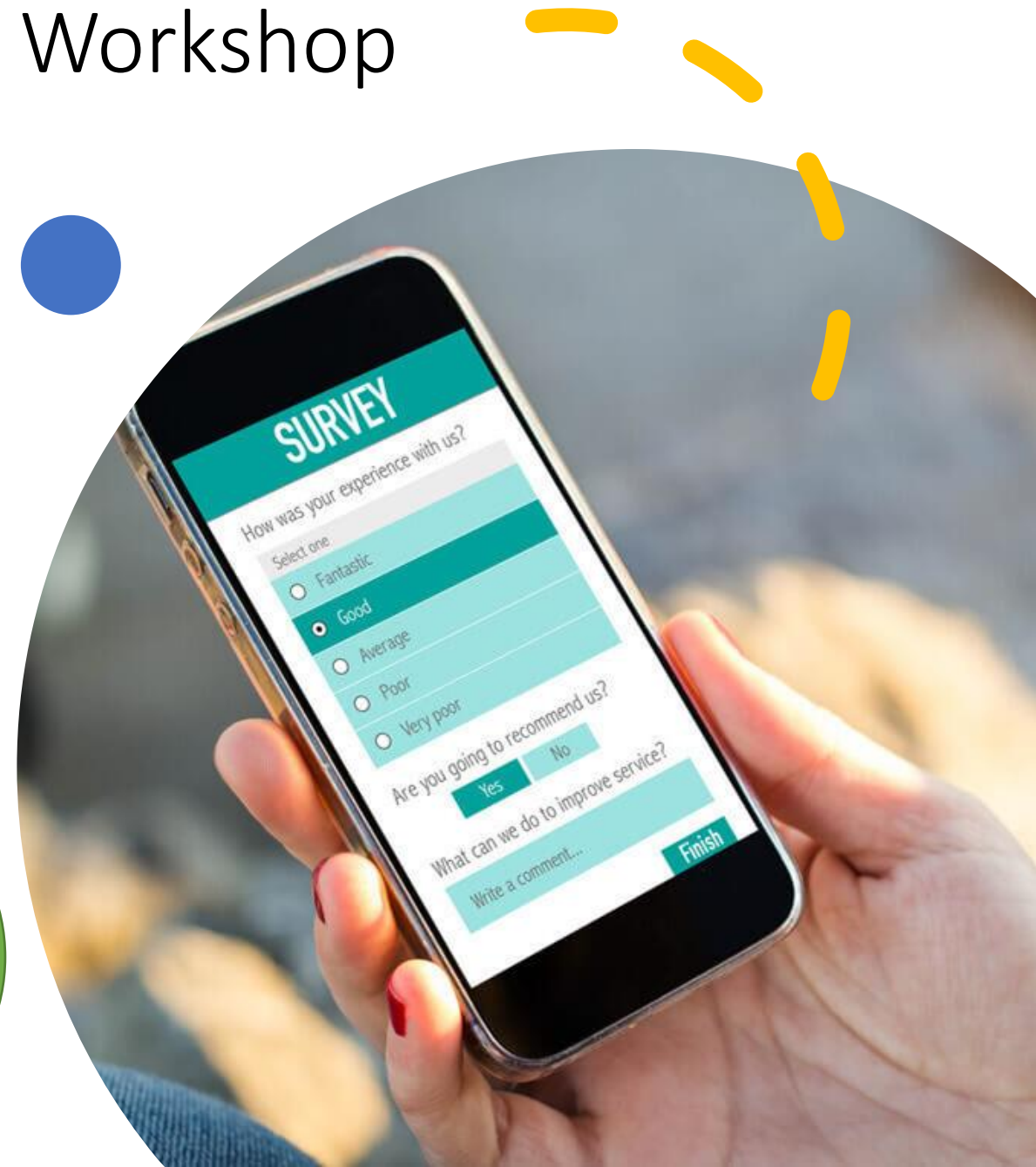
b) False?



Baseline Survey During O-Wk Workshop (FU: 3m, 6m, 12m)

- Demographics
- AOD Use (ASSIST, AUDIT, ATOP, Single items)
- AOD Related Consequences (BYAACQ)
- College Norms (Identification, Expectations)
- Personality (SUPPS – Impulsivity)
- MH (PHQ9, GAD7)
- Social Network (IPI-adapted)

Px Paid \$20
per survey



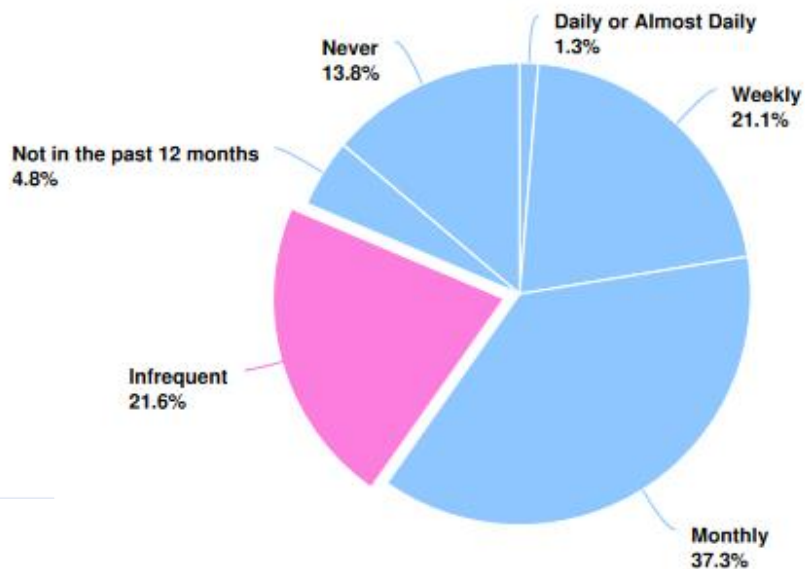
My Survey Results

My Substance Use:

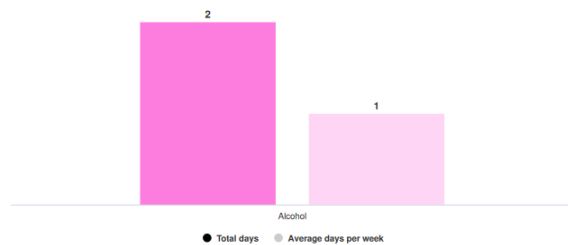
Substances used in the past 3 months



21.6% of females your age have used **Alcohol** as frequently as you (Once or Twice).



Days used in the Past 4 weeks (28 days)



Amount typically used



Problems identified for Alcohol in the past 3 months

| | |
|---|-----------|
| Had a strong desire or urge to use | Never |
| Alcohol has lead to health, social, legal or financial problems | Never |
| Failed to do what was normally expected of you because of your Alcohol use | Never |
| Friends or relatives have expressed concern about your Alcohol use | No, Never |
| Ever tried and failed to control, cut down or stop your Alcohol use | No, Never |

There is a strong relationship between substance use and Mental Health



Depression

You reported **minimal** symptoms of depression

32.2% of females your age who have taken part in Quikfix also report experiencing minimal symptoms of depression



Anxiety

You reported **minimal** symptoms of anxiety

40.7% of females your age who have taken part in Quikfix also report experiencing minimal symptoms of anxiety

Stage 2: Targeted Social Network Intervention



Female College (n = 152)



Female College (n = 98)



Co-ed College (n = 110)



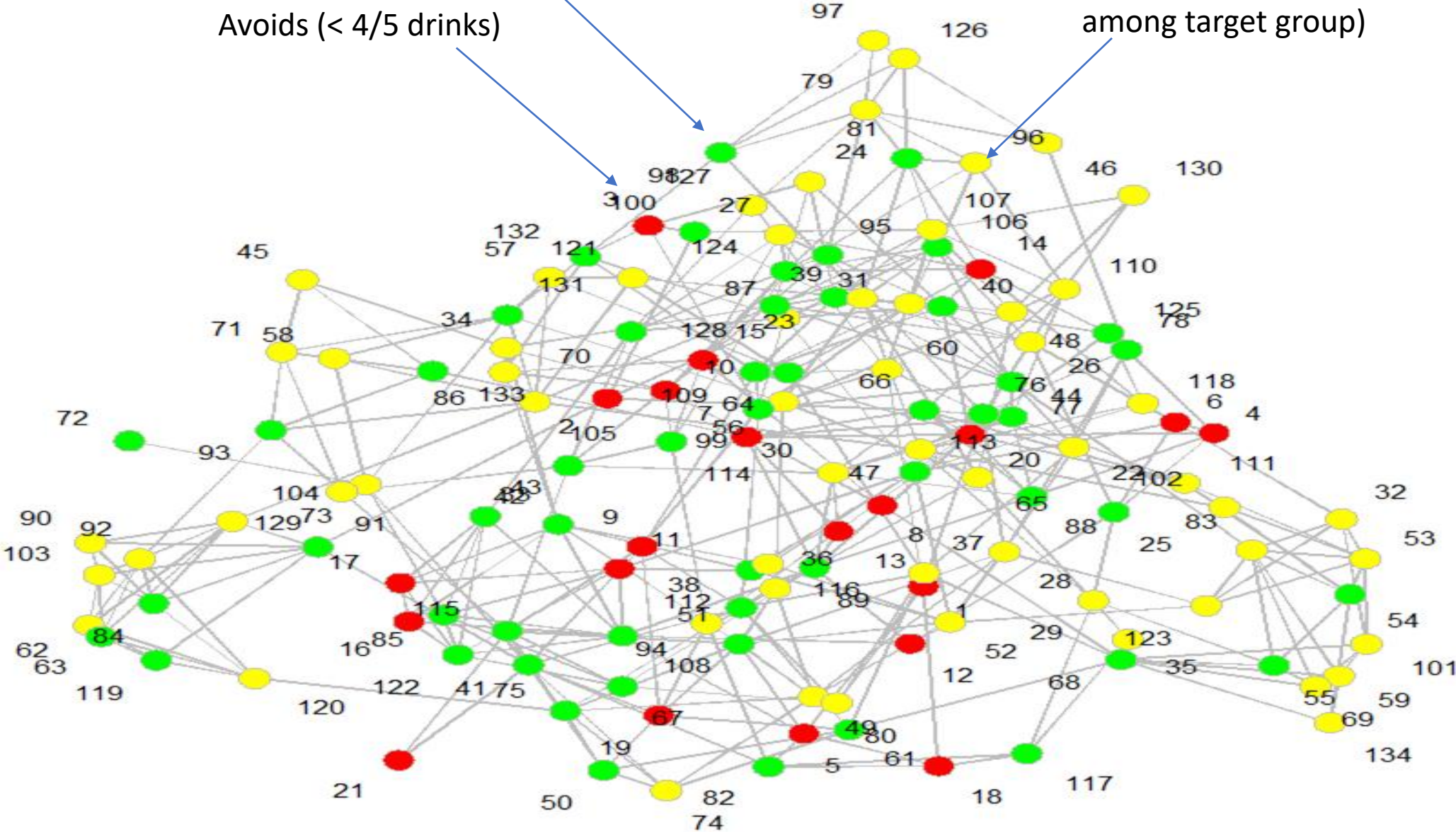
Co-ed College (n = 142)

Stage 2: Targeted Social Network Intervention

Targets ($\geq 4/5$ drinks)

Strategic Players (n = 60)
(best connected set among target group)

Avoids ($< 4/5$ drinks)



QuikFix for Strategic Players

(Hides et al 2014)

- Lives Lived Well Team (UQ)
- Youth Friendly BMI for AOD use

- AOD Clinician
- 2-3 Phone Sessions (30 mins)

- Personality Targeted
Coping Skills Training

- > efficacy than usual MI (Hides et al 2021)

Study protocol | [Open Access](#) | Published: 08 August 2014

The Quik Fix study: a randomised controlled trial of brief interventions for young people with alcohol-related injuries and illnesses accessing emergency department and crisis support care

[Leanne Hides](#) [✉](#), [David J Kavanagh](#), [Mark Daghish](#), [Susan Cotton](#), [Jason P Connor](#), [Jan J Barendregt](#), [Ross McD Young](#), [Davina Sanders](#), [Angela White](#) & [Lance Mergard](#)

[BMC Emergency Medicine](#) **14**, Article number: 19 (2014) | [Cite this article](#)

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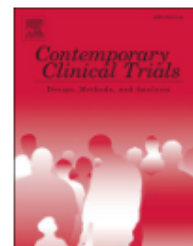




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A two-stage social network intervention for reducing alcohol and other drug use in residential colleges: Protocol for a feasibility trial

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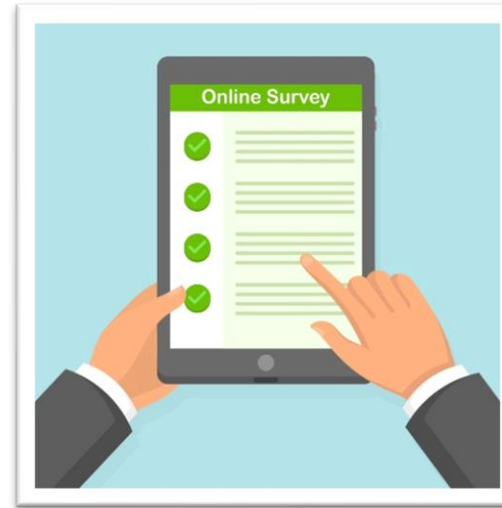
Alcohol
College
Social network
Treatment
Implementation
Substance use

ABSTRACT

Background: In many countries, the rate of binge drinking and alcohol-related harms among students living in residential colleges exceeds that observed among young people in the general population. Peer influence plays a key role in driving alcohol and other drug (AOD) use in colleges. This highlights the potential role of peer influence AOD-interventions in college student-networks. This protocol paper outlines the design of a two-stage social network intervention (SNI) for reducing AOD-use in four Australian first-year residential college networks. **Methods:** In Stage 1, a peer-led workshop will provide education about AOD-use and harm-minimisation strategies to four first-year cohorts in the first week of semester one ($N \sim 500$). In Stage 2, a targeted SNI will be delivered to the largest co-educational, first-year cohort ($N \sim 160$), wherein heavy drinking 'Strategic Players' (influential students) will be identified and offered a brief, telephone-delivered motivational interviewing intervention for AOD-use (QuikFix). Participants will complete online surveys at baseline and 12-, 26-, and 52-weeks follow-up. **Results:** Recruitment occurred in February 2021 and is now closed. Results are expected to be submitted for

2021 College Survey completions

First Years
4 Colleges
Px 543



O-week
Recruitment

BL
507 px
(94%)



3m
464 px
(92%)

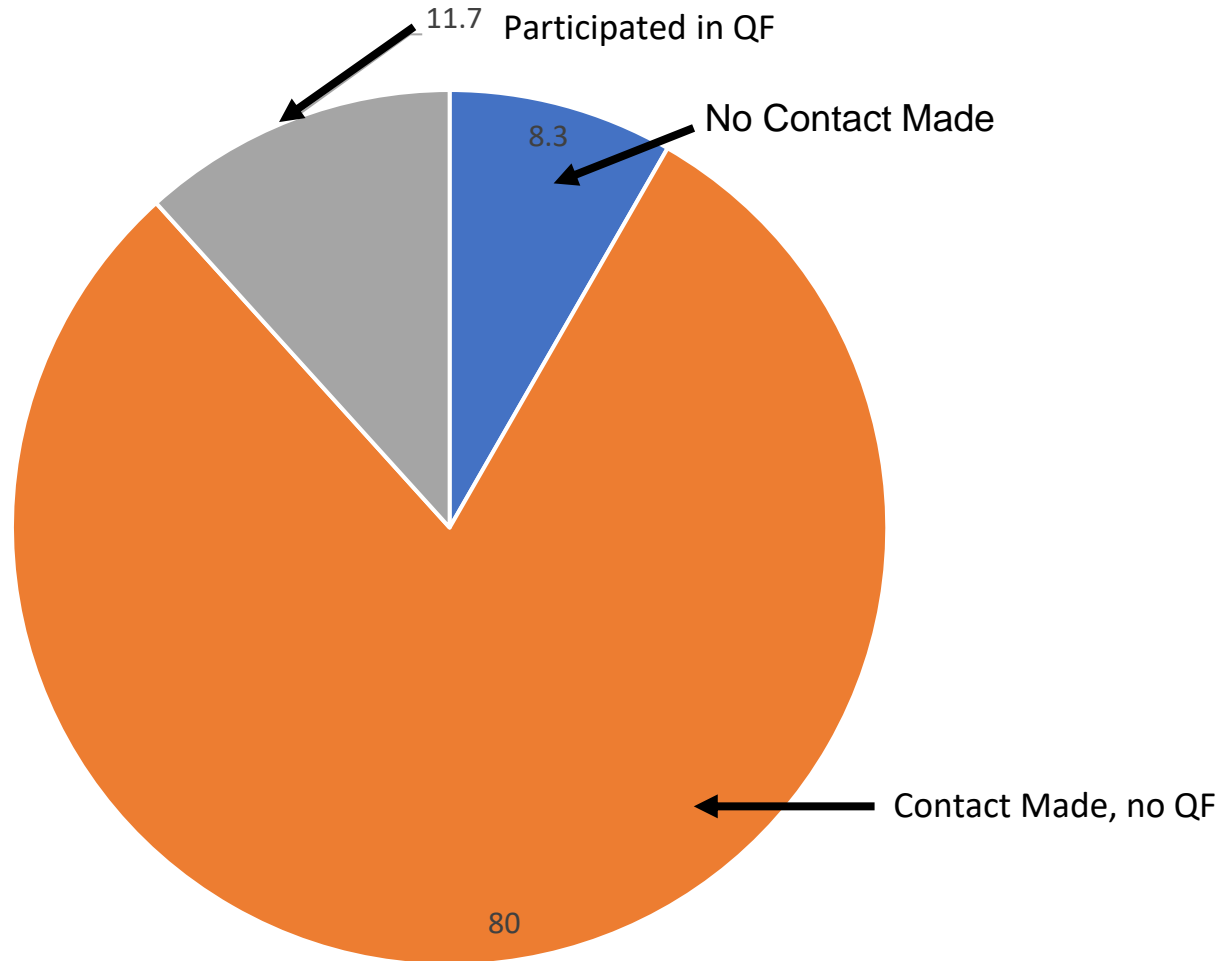


6m
420 px
(83%)



12m
417 px
(82%)

Contact Rate with Strategic Players (n = 60)



Influential first year students (n = 60)

Unable to contact (n = 5; 8.3%)

Contact made but no QF (n = 48; 80%)

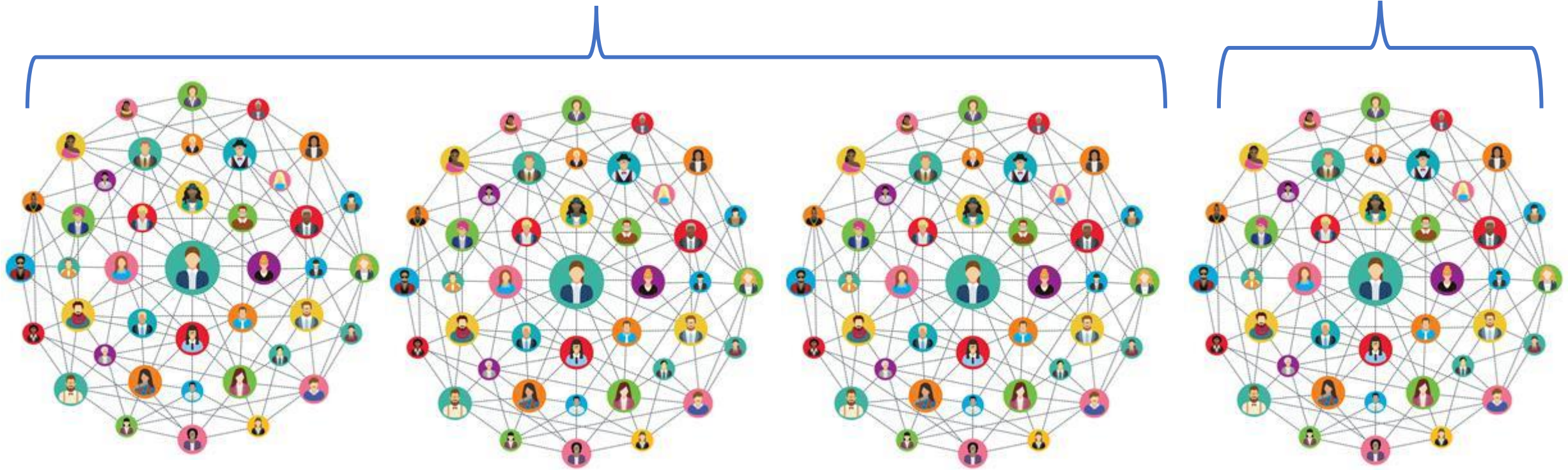
Completed QF (n = 7; 11.7%)

■ No Contact ■ Contact, No QF ■ Contact + QF

Baseline to 12 Month Results (WS vs WS + SNI)

Workshop Only (n = 355)

Workshop + SNI (n = 142)



Female College (n = 147)

Female College (n = 98)

Co-ed College (n = 110)

Co-ed College (n = 142)

CHANGES IN ALCOHOL USE

Non-Random Control (n = 355)
VS

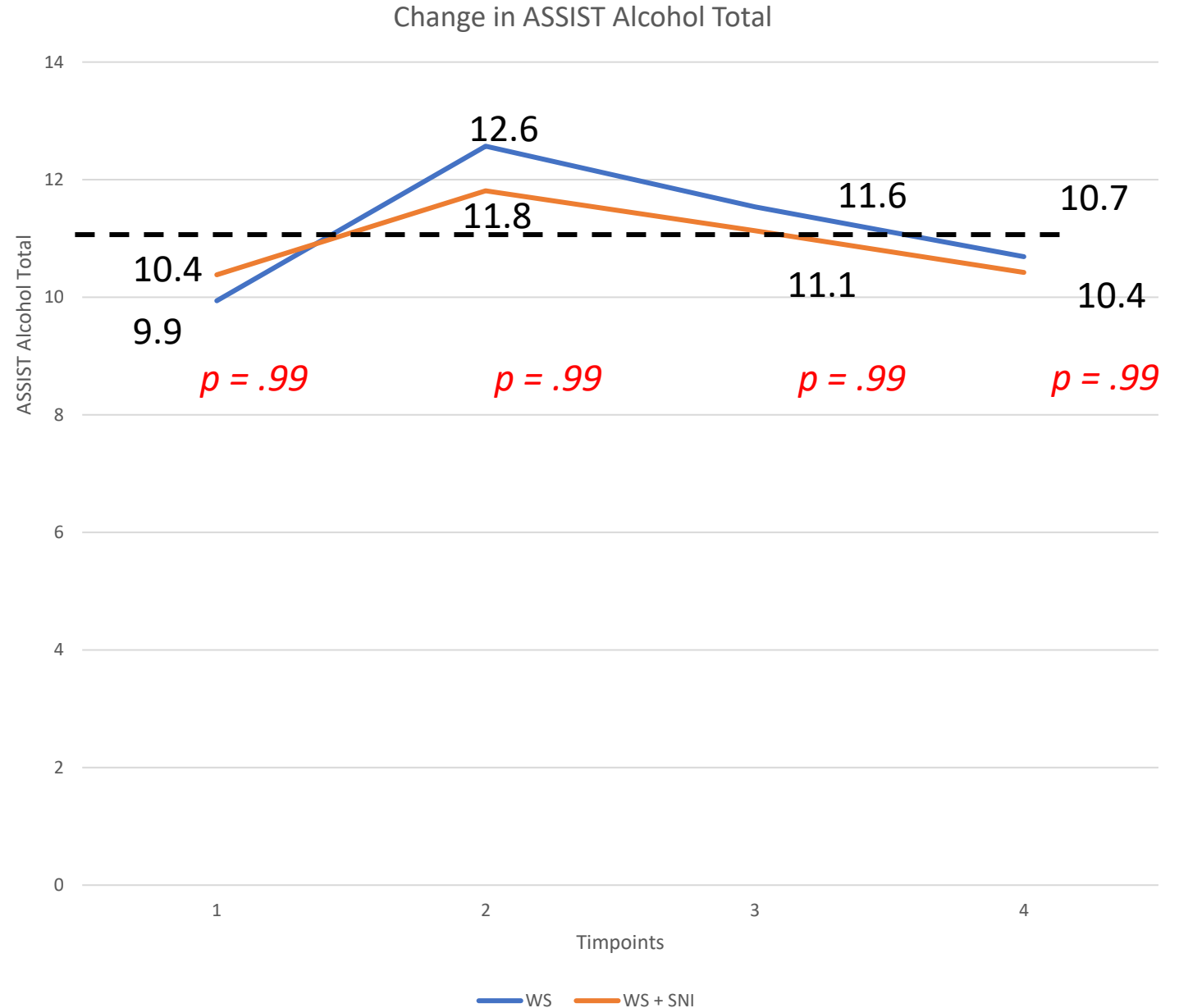
WS & SNI College (n = 142)

** MI Data

*covariates: Gender, Age, urban/rural,
Relationship status, ethnicity

No Time x Treatment
interaction @ 3m

($p = .99$)



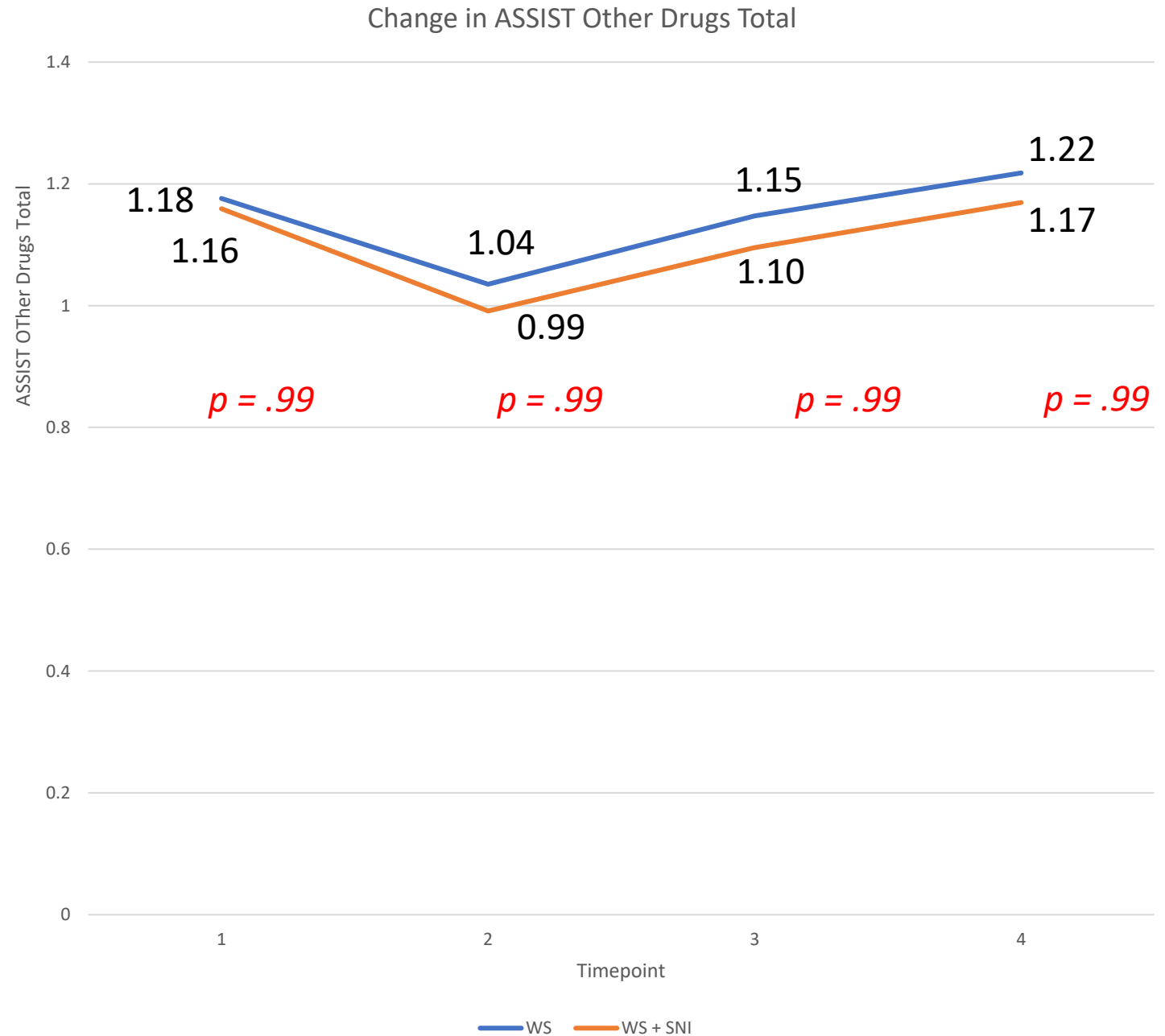
CHANGES IN OTHER DRUG USE

Non-Random Control (n = 355)
VS
WS & SNI College (n = 142)

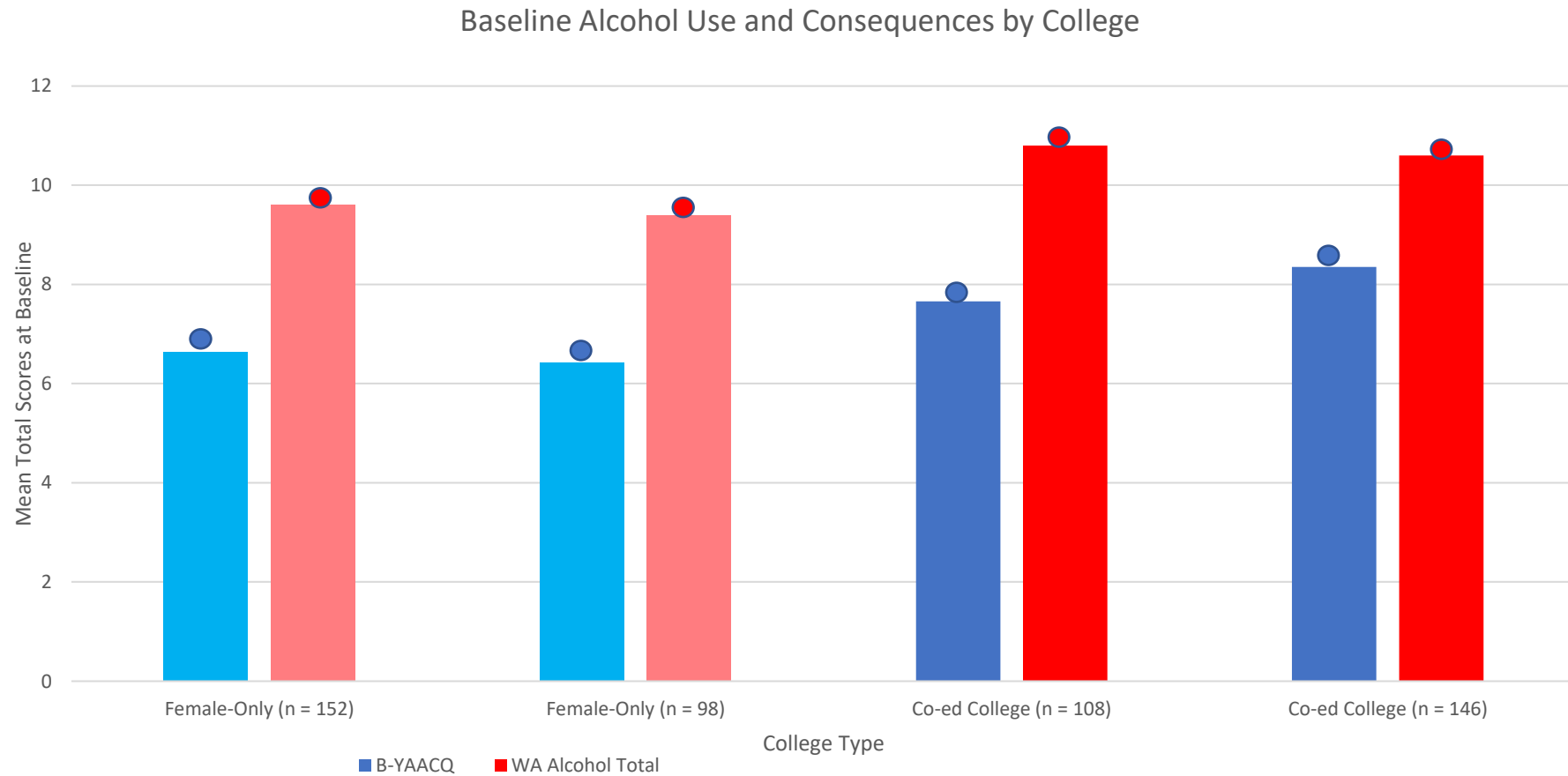
** MI Data

*covariates: Gender, Age, urban/rural, Relationship status, ethnicity

No Time x Treatment interaction @ 3m
($p = .99$)



Limitation – 2 Female Only Colleges



BL differences between female-only & co-education colleges?

t-test BL WA Alcohol total: $p = .05$

t-test BL B-YAACQ total: $p = .001^{**}$

Comparing Co-Educational Colleges

- Non Random Control (WS Only)

Stage 2 Network (workshop + SNI)



Co-Ed College (N = 110)



Co-Ed College (N = 142)

CHANGES IN ALCOHOL USE

Non-Random Control (n = 110) vs WS & SNI College (n = 142)

*covariates: Gender, Age + urban/rural, Relationship status, ethnicity

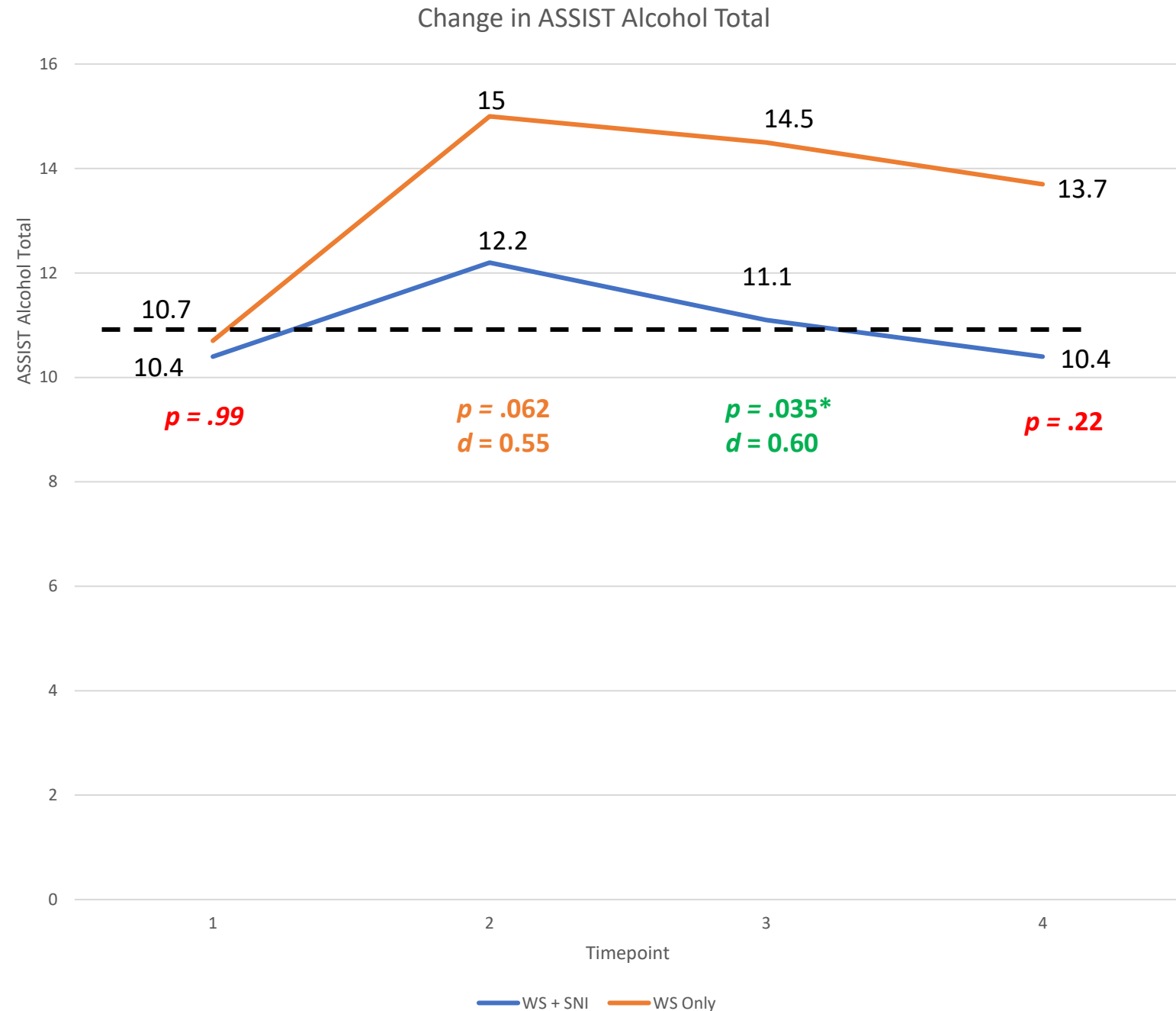
*Both Co-education colleges

- MI Data

- Time x Treatment interaction

@ 3m $p = .062$

@ 6m - $p = .035^*$



CHANGES IN OTHER DRUG USE

Non-Random Control (n = 110)
VS

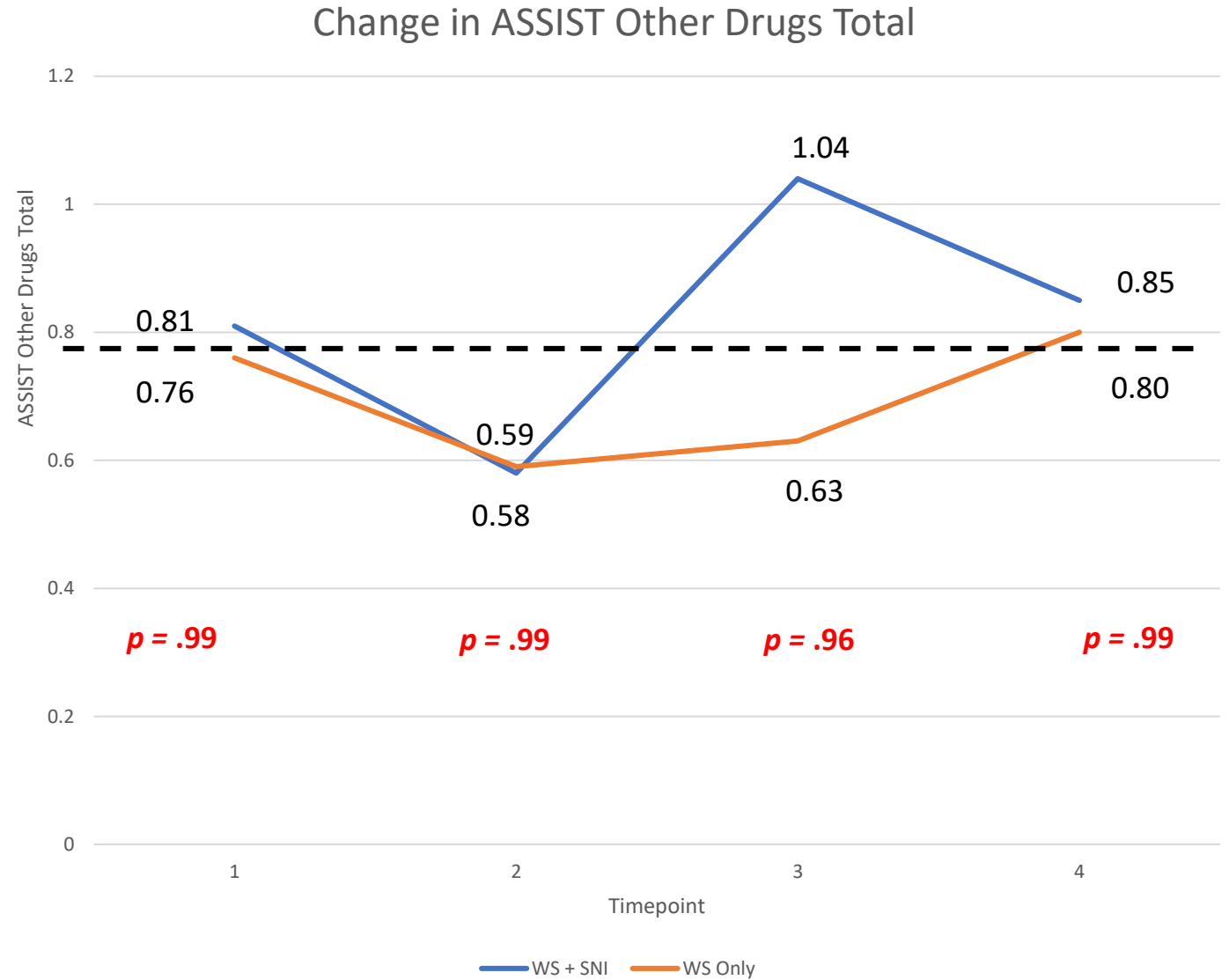
WS & SNI College (n = 142)

*covariates: Gender, Age + urban/rural, Relationship status, ethnicity

*Both Co-education colleges

- MI Data

- No Time x Treatment interactions



Comparing Target Groups (Heavy Drinkers)

- Non Random Control (WS Only)

Stage 2 Network (workshop + SNI)



Co-Ed College (N = 75)



Co-Ed College (N = 113)

CHANGES IN ALCOHOL USE

Control Targets (n = 75) vs WS & SNI Targets (n = 113)

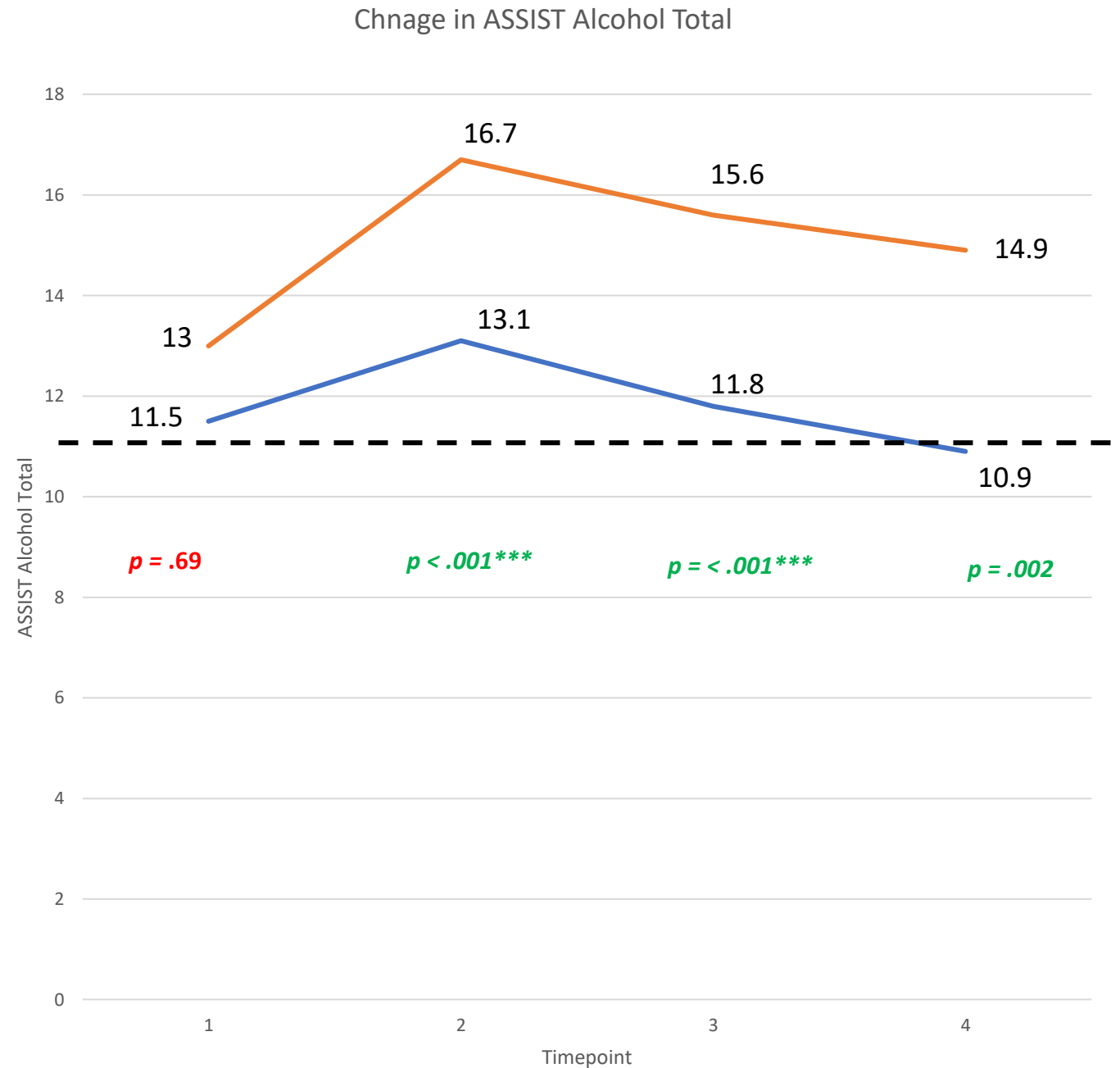
*covariates: Gender, Age + urban/rural, Relationship status, ethnicity

*Both Co-education colleges

- MI Data

• Time x Treatment interaction @ 3m

($p = <.0001$)***



Strengths & Limitations

Strengths

- Addition of Stage 1 Workshops
 - Recruitment & engagement
 - Possible added benefit: >TAU?
- Application of QuikFix
 - > Efficacy than usual MI
- Sample Size (N = 497)
 - Power to Detect Most Effects

Limitations

- Low uptake of QuikFix by SPs
- Gender-imbalanced sample
- Non RCT design
 - Chance difference WS vs WS + SNI?
 - WS better than Tx as Usual?



Where to from
here?

1. Publish Outcomes 2021 SNI
2. Randomised Controlled Trial

2022 RCT SNI Design (n = 715; 6 colleges)

WS Only



Co 4 (n = 131) and co 5 (n = 144)

WS + SNI



Co 1 (n = 197) and co 2 (n = 144)

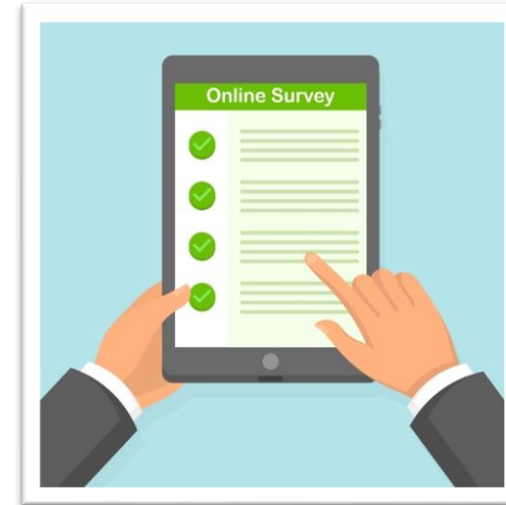
Control (Assessment Only)



Co 3 (n = 75) and co 6 (n = 201)

2022 College Survey completions

First Year Px 892
@ 6 colleges



Baseline

BL
715 px
(80%)

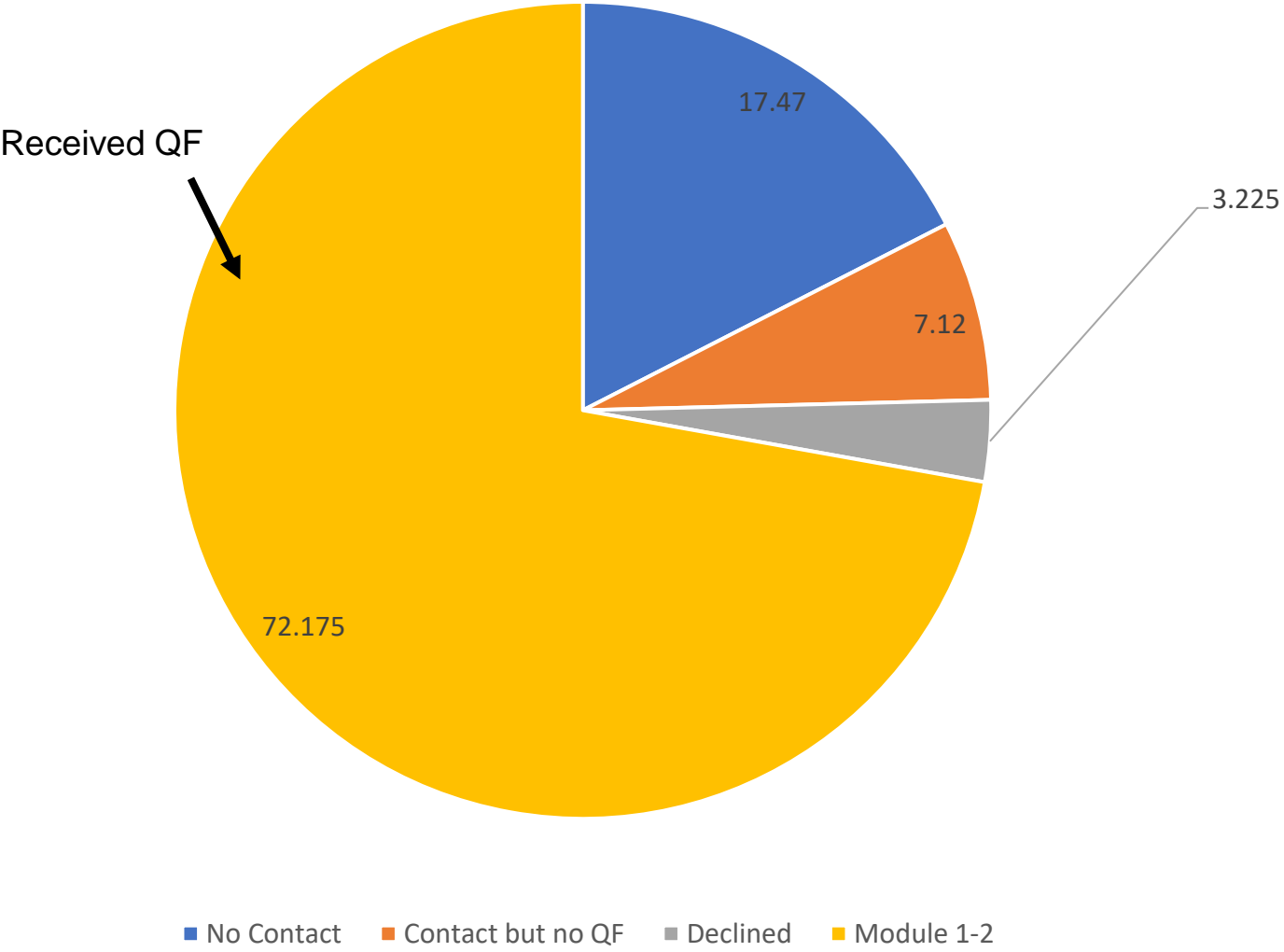
6wk
657 px
(92%)

3m
607 px
(85%)

6m
591
(83%)

12m
Feb
2023

2022 Quik Fix Participation Rate (n = 101 SPs)



- Key Differences 2021 vs 2022 SNI:**
1. Streamline consent process - fast
 2. “Light touch” – conversational, M1-2 (survey feedback, strategies & goals), M3 optional
 3. > college specific training for clinicians

Take Home Points – 2 Stage SNI Feasibility Trial

- 1) Feasible – Possible to engage college students 12-m SNI study
- 2) Acceptable – Workshops & ‘light touch’ QuikFix well received
- 3) Potentially Effective – Added benefit of Stage 2 (targeted SNI) atop stage 1 workshop → RCT will determine efficacy

Project Team

- Leanne Hides
 - Lily Davidson
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 - Zoe Walters
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Australian Government
Department of Health

NCYSUR

National Centre for Youth
Substance Use Research

Lives Lived Well

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