

THE FUTURE OF ALCOHOL CHALLENGE RESEARCH AND THE DEVELOPMENT OF HIV PREVENTION AND TREATMENT INTERVENTIONS

Melissa A Lewis PhD

Professor

Health Behavior and Health systems

School of Public Health

University of North Texas Health Science Center

OVERVIEW

What we know

What we do
not know

Potential future
research

ALCOHOL CHALLENGE AND PREVENTION OF SEXUAL RISK TAKING: WHAT WE KNOW

MacDonald et al.,
2000

Handstamp
Manipulation



Figure 5. Study 3: Handstamps used for the cue manipulation.

ALCOHOL CHALLENGE AND PREVENTION OF SEXUAL RISK TAKING: WHAT WE **DON'T** KNOW

How can we use inhibitory cues in interventions?

How strong does an inhibitory cue have to be?



Figure 5. Study 3: Handstamps used for the cue manipulation.

ALCOHOL CHALLENGE AND PREVENTION OF SEXUAL RISK TAKING: WHAT WE KNOW

Content Delivery



Inhibitory Cues and Prevention

Normative Comparisons

Protective Behavior Strategies

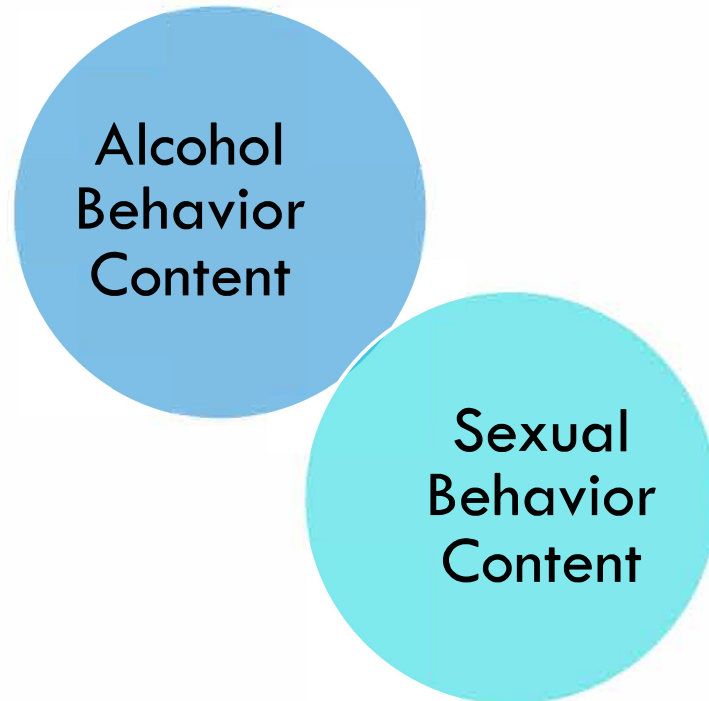
Condom Negotiation

Expectancies

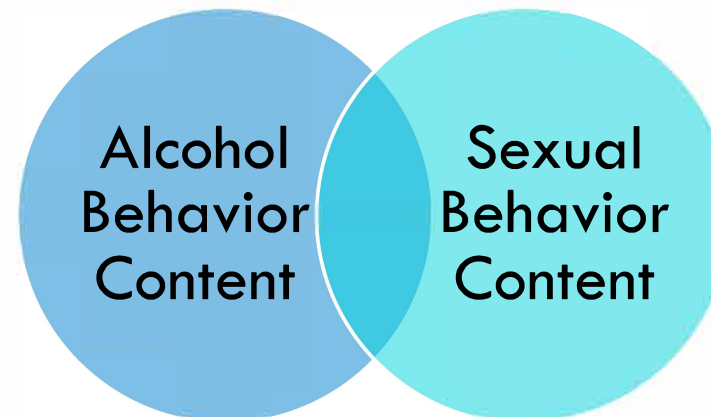
Attitudes

INTERVENTION FRAMING

Combined: alcohol content and sexual decision making content.

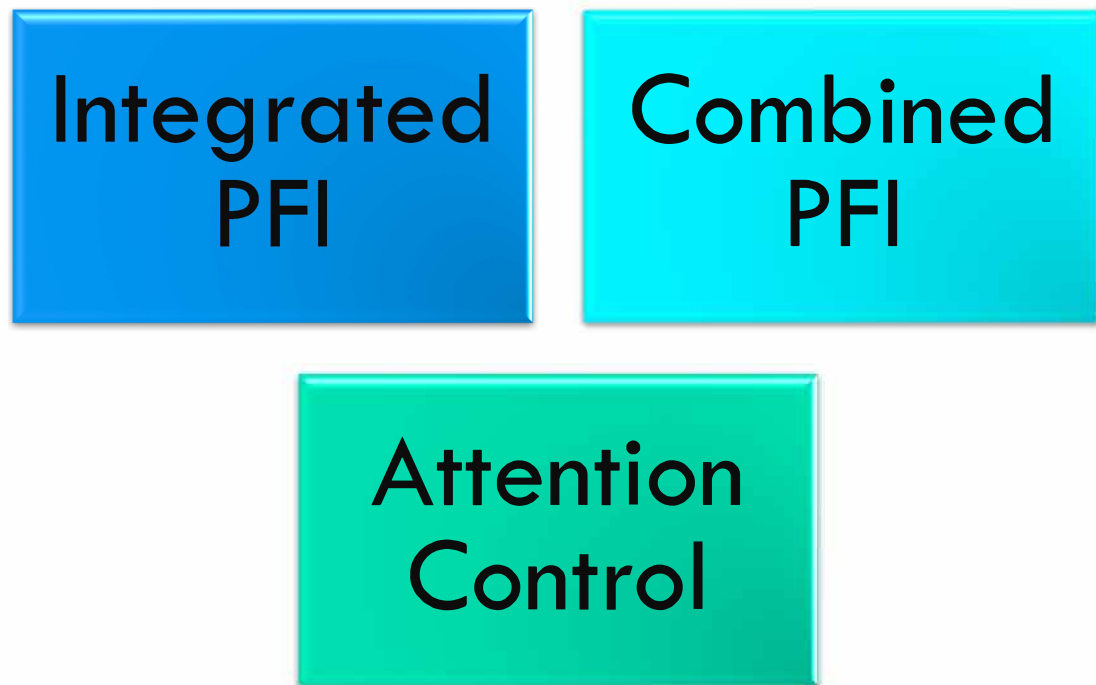


Integrated: content that focuses on role of alcohol in sexual risk taking.



PROJECT STARR (R21AA021767)

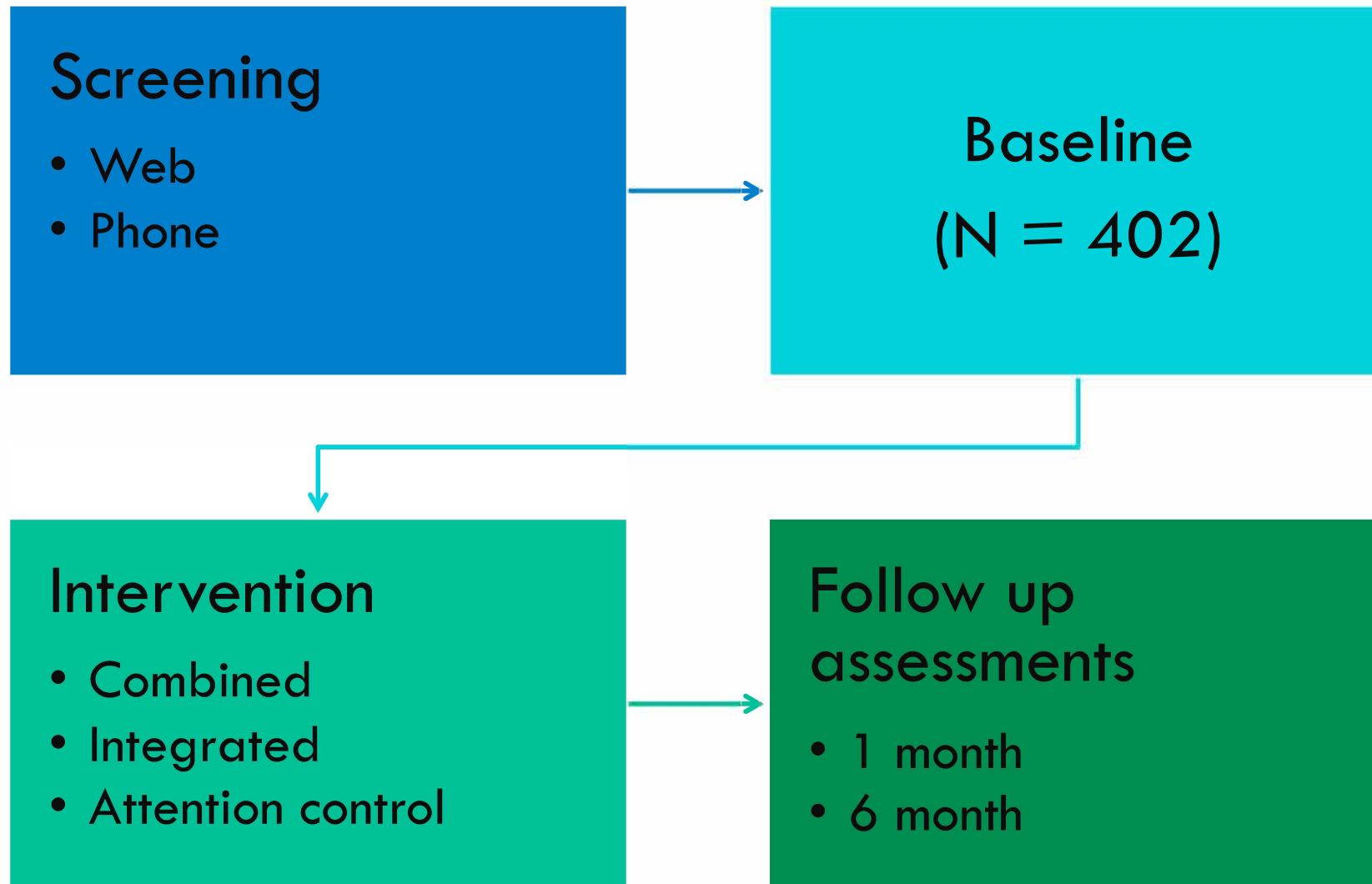
Conditions



Outcomes



STUDY DESIGN

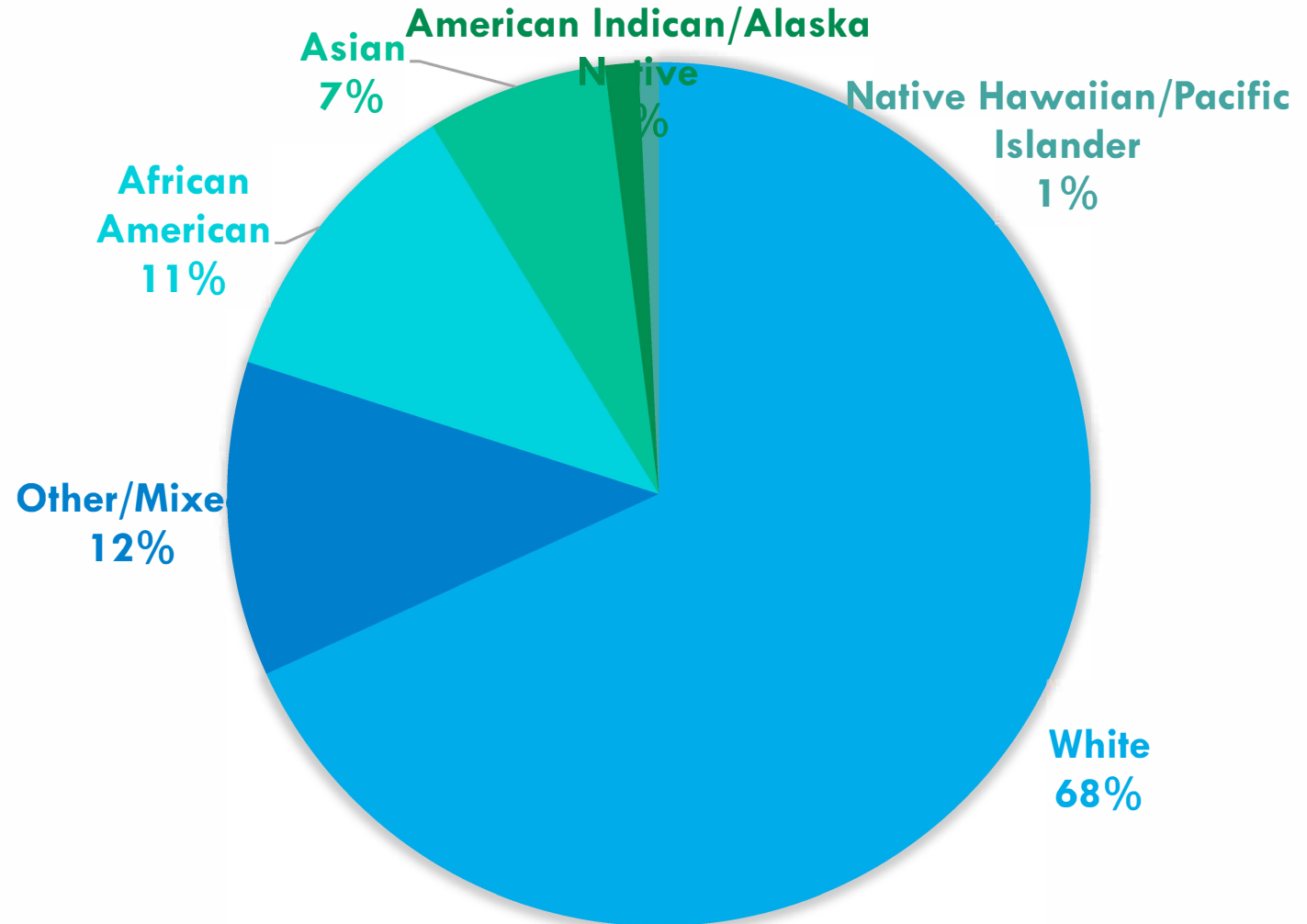


PARTICIPANT DEMOGRAPHICS

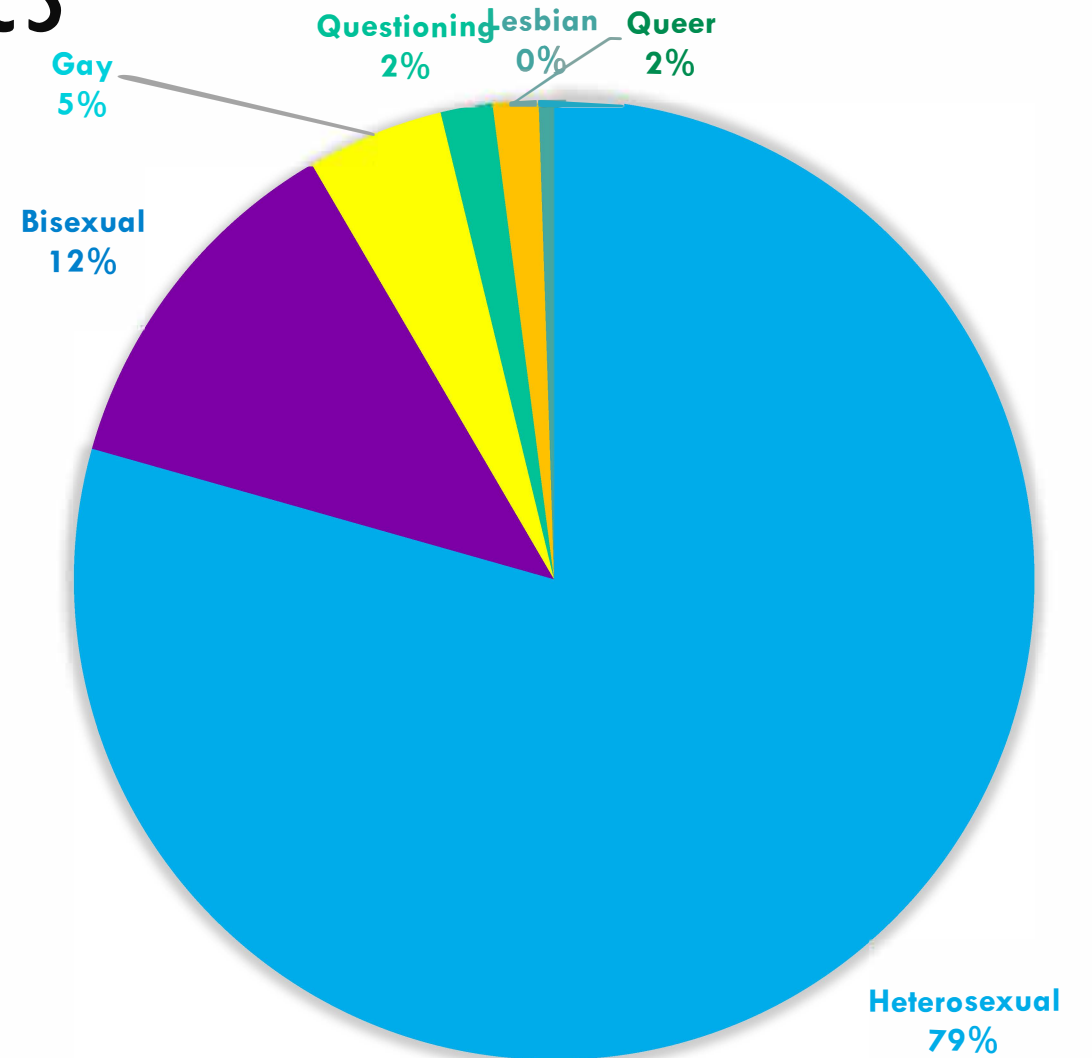
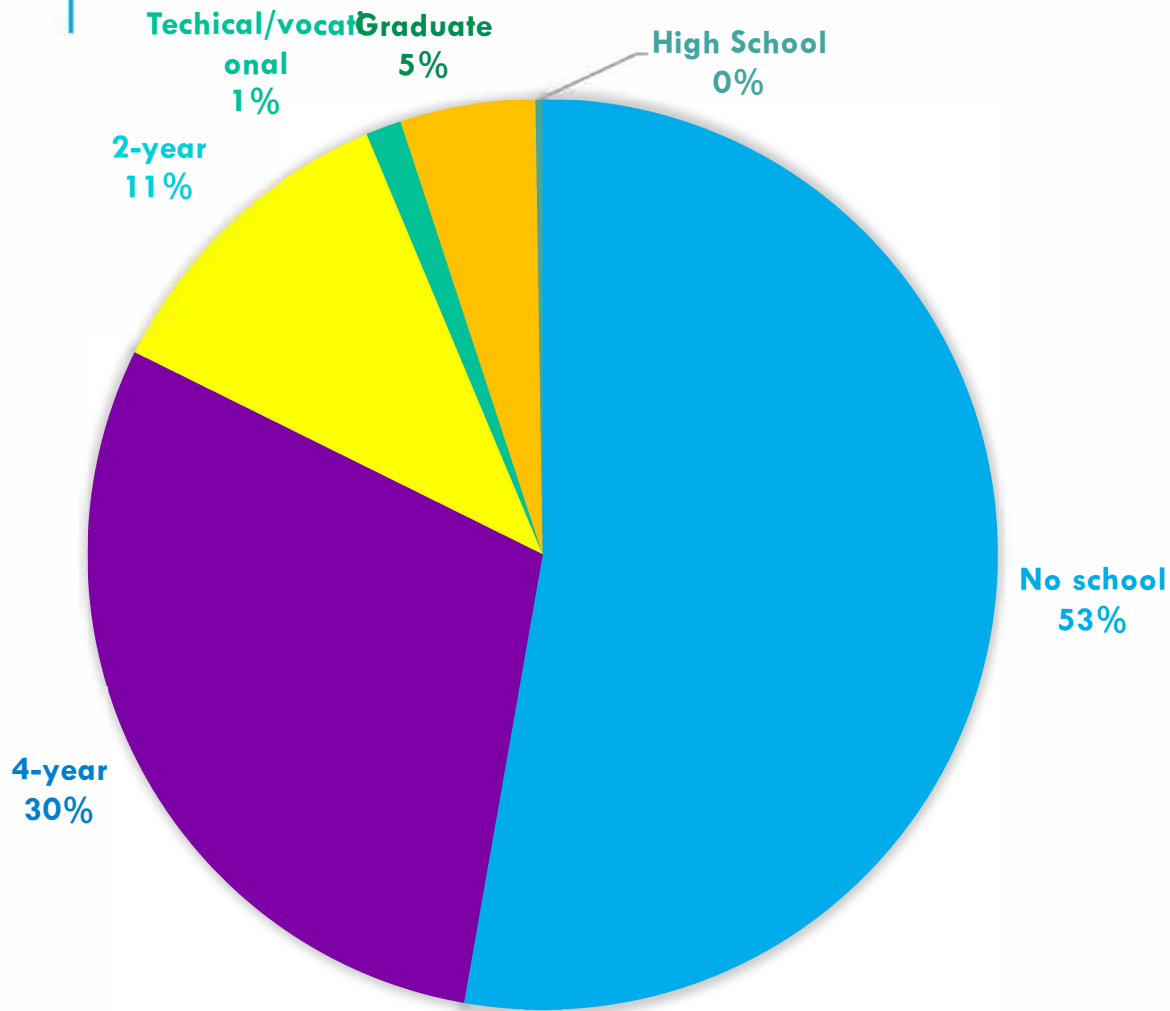
22.44 years old
(SD = 1.89)

53.98% female

14.25%
Hispanic/Latino



PARTICIPANT DEMOGRAPHICS



COMBINED CONDITION

How do you compare to other women your age?

NUMBER OF DRINKS IN A TYPICAL WEEK

You reported in the past month during a typical week...

You drank **32 drinks**.

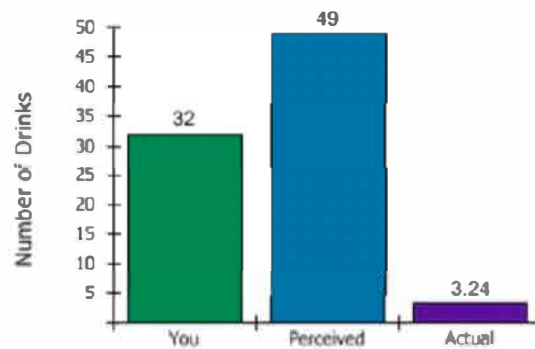
You think the typical woman your age drank **49 drinks**.

According to women your age...

The typical woman your age has **3.24 drinks** in a typical week.*

*Sexual partners include oral, vaginal and anal partners. This information comes from a 2014 self-report study that included a random sample of 358 young adults.

Number of Drinks in a Typical Week



You = Your drinking behavior

Perceived = Your estimate of the drinking behavior for the typical woman your age

Actual = Actual drinking behavior of the typical woman your age

Alcohol and Perceived Risk

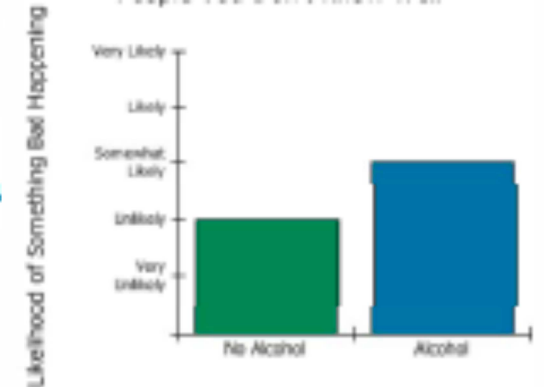
THE ROLE OF ALCOHOL IN GOING TO A PARTY WITH PEOPLE YOU DON'T KNOW WELL

You said...

It is **unlikely** that something bad would happen to you if you went to a party with people you didn't know very well when **not drinking**.

It is **somewhat likely** that something bad would happen to you if you went to a party with people you didn't know very well **when drinking 4 or more drinks**.

Role of Alcohol in Going to a Party with People You Don't Know Well



No Alcohol = The likelihood of something bad happening when **NOT** drinking.

Alcohol = The likelihood of something bad happening when drinking **4 or more drinks**.

INTEGRATED CONDITION

How do you compare to other women your age?

NUMBER OF DRINKS BEFORE OR DURING SEX

You reported in the past month...

You had an average of **6 drinks** before sex.

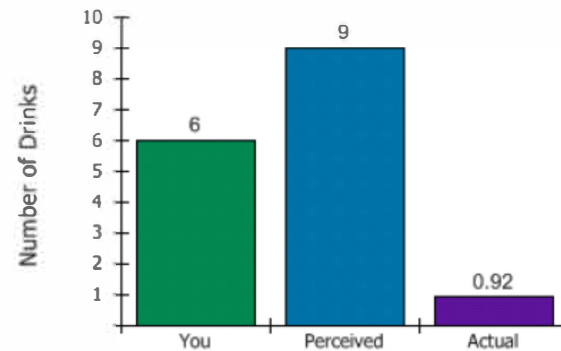
You think the typical woman your age has an average of **9 drinks** before sex.

According to women your age...

The typical woman your age has about **between 0 and 1 (0.92) drinks** before sex*.

*Sexual partners include oral, vaginal and anal partners. This information comes from a 2014 self-report study that included a random sample of 358 young adults.

Number of Drinks Before or During Sex



You = Your sexual behavior

Perceived = Your estimate of the sexual behavior for the typical woman your age

Actual = Actual sexual behavior of the typical woman your age

Alcohol and Perceived Risk

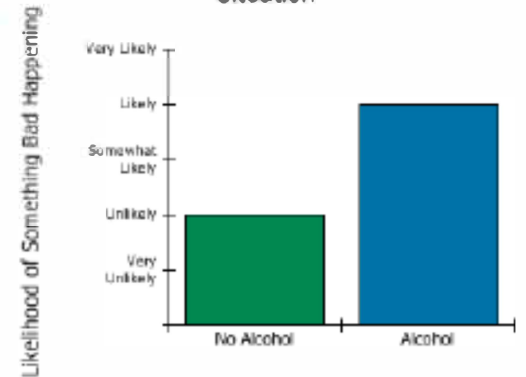
THE ROLE OF ALCOHOL IN AN UNCOMFORTABLE SEXUAL SITUATION

You said...

It is **unlikely** that something bad would happen to you if you were in an uncomfortable sexual situation when **not drinking**.

It is **likely** that something bad would happen to you if you were in an uncomfortable sexual situation **when drinking 4 or more drinks**.

Role of Alcohol in an Uncomfortable Sexual Situation



No Alcohol = The likelihood of something bad happening when **NOT** drinking.

Alcohol = The likelihood of something bad happening when **drinking 4 or more drinks**.

RESULTS

Results from hurdle mixed models for outcomes in combined and integrated intervention conditions vs. control condition.

	Month 1				Month 6			
	Logit		Count		Logit		Count	
	OR	95% CI	RR	95% CI	OR	95% CI	RR	95% CI
Number of casual sexual partners								
Combined Condition	0.40	0.07, 2.18	1.09	0.38, 3.07	0.31	0.12, 0.79	1.08	0.62, 1.94
Integrated Condition	0.14	0.02, 0.88	0.94	0.35, 2.90	0.60	0.23, 1.55	0.88	0.49, 1.52
Number of times using a condom ²								
Combined Condition	1.05	0.43, 2.25	1.58	0.30, 9.34	0.65	0.27, 1.94	0.69	0.43, 1.15
Integrated Condition	0.82	0.34, 1.85	1.21	0.21, 7.26	0.70	0.28, 1.81	0.93	0.60, 1.46

RESULTS

	Month 1				Month 6			
	Logit		Count		Logit		Count	
	OR	95% CI	RR	95% CI	OR	95% CI	RR	95% CI
Number of times drinking prior to sex								
Combined Condition	0.18	0.04, 0.95	1.80	0.90, 3.49	1.37	0.61, 2.93	0.74	0.51, 1.06
Integrated Condition	0.09	0.02, 0.43	1.50	0.70, 3.07	1.42	0.66, 3.10	0.81	0.56, 1.15
Alcohol-related sexual consequences								
Combined Condition	0.78	0.19, 3.44	0.82	0.45, 1.77	1.16	0.57, 2.50	0.76	0.52, 1.06
Integrated Condition	1.12	0.22, 5.52	0.47	0.23, 0.90	0.80	0.36, 1.73	1.10	0.69, 1.44
Typical drinks per week								
Combined Condition	0.97	0.18, 7.19	0.76	0.65, 0.91	0.49	0.09, 2.52	0.87	0.73, 1.04
Integrated Condition	0.63	0.10, 4.10	0.88	0.76, 1.05	1.01	0.16, 5.83	0.88	0.73, 1.06

RESULTS AND REMAINING QUESTIONS

Reduces alcohol-related sexual risk taking

Framing and integration

Timing of intervention delivery

Interest in content?

What was happening during the intervention?

WHAT HAPPENS DURING ONLINE INTERVENTIONS?

average 5.20 min (SD=7.7, range 0.25-59.75)

97.0% viewed at least one page of their feedback

53.7% viewing it one time

29.1% viewing it two times

14.2% viewing it three or more times

80% of participants finished all 15 pages in at least one session

87.3% got halfway through (seven pages) in at least one session

more than half of the participants finished all 15 pages at their first viewing session

5.2% of participants visited all 15 pages more than one time

WHAT HAPPENS DURING ONLINE INTERVENTIONS?

79.1% alone, 9.1% friends

48.2% No other activities

78.8% Studying

9.6% Working

8.8% Computer emailing

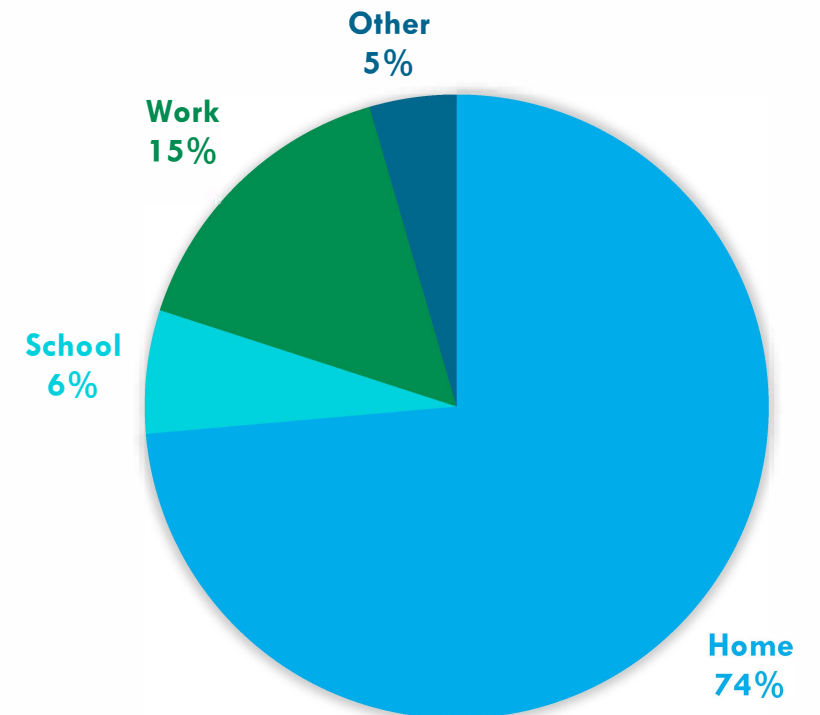
4.4% Socializing

8.8% Eating

10.5% Phone/texting

16.7% Listening to music

LOCATION DURING INTERVENTION



ALCOHOL CHALLENGE AND PREVENTION OF SEXUAL RISK TAKING: WHAT WE **DON'T** KNOW

How much does attentiveness matter?

How much does context matter?

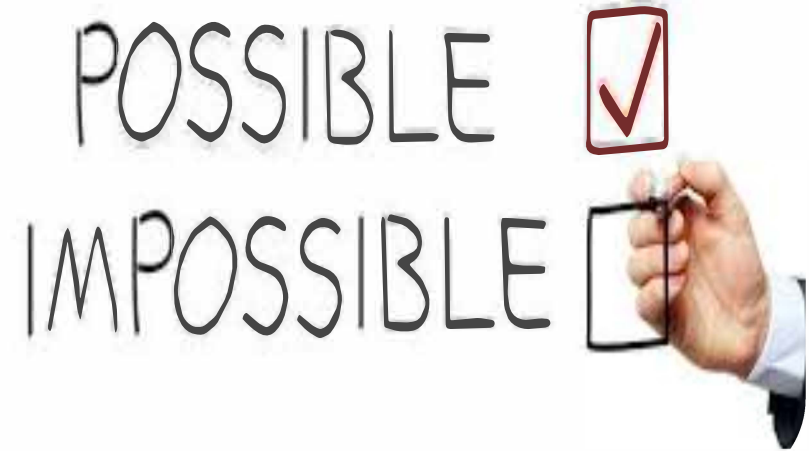
Increasing knowledge is needed as more in the moment interventions are developed



ALCOHOL CHALLENGE AND PREVENTION OF SEXUAL RISK TAKING: WHAT WE KNOW

Suffoletto et al., 2013

TM Intervention for Young Adult Women Discharged from ED



No differences between intervention and control but TM for sexual risk taking was feasible and acceptable

ALCOHOL CHALLENGE AND PREVENTION OF SEXUAL RISK TAKING: WHAT WE **DON'T** KNOW

Intervention content map onto days at risk?

Inhibitory if intoxicated?

Inhibitory if aroused?



UNKNOWN

ALCOHOL CHALLENGE AND PREVENTION OF SEXUAL RISK TAKING: WHAT WE KNOW

Lewis K01AA016966

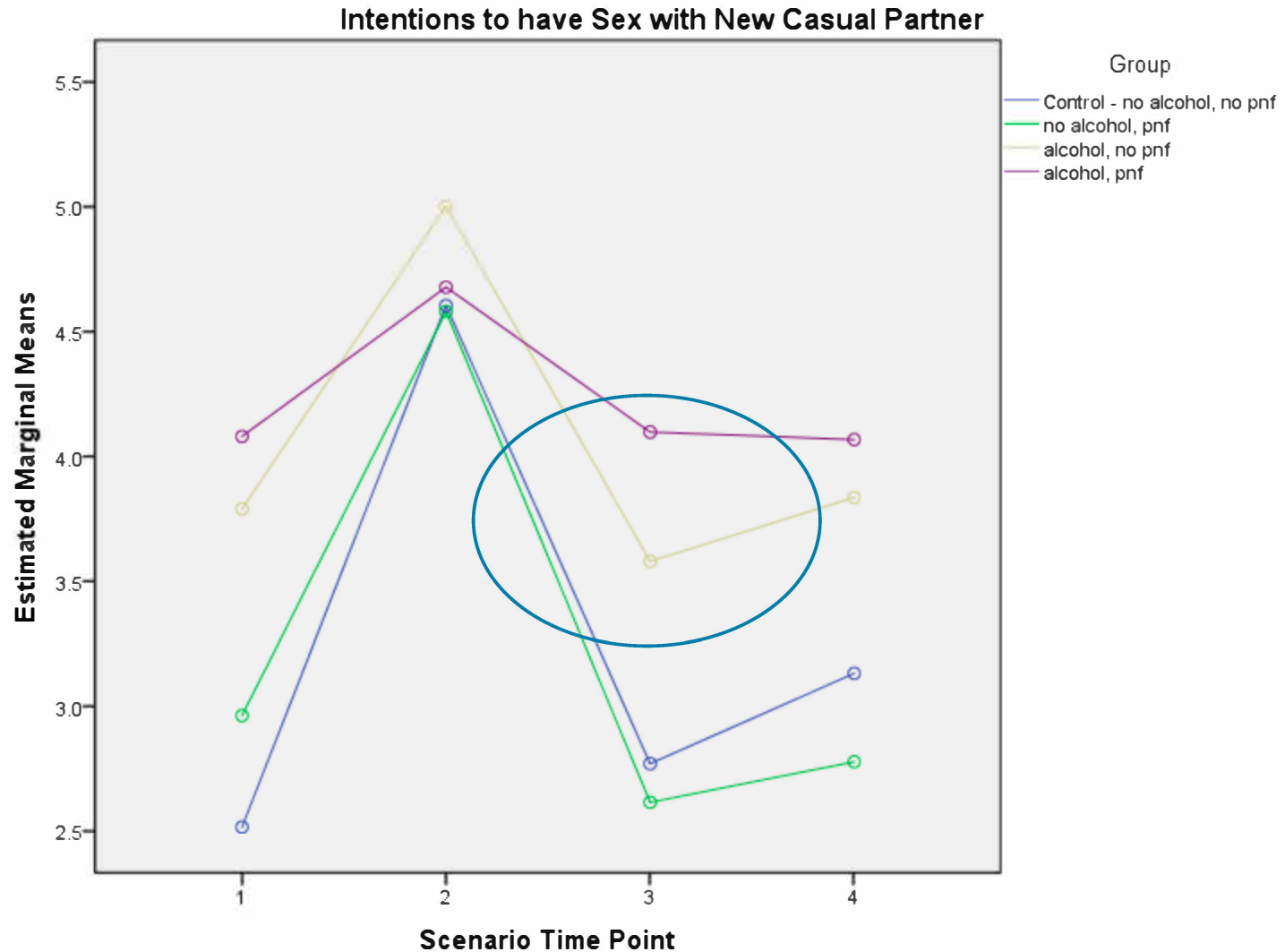
120 college students (60 male, 60 female)

2 x 2

Sexual intentions in scenario

	Alcohol (.08)	No Alcohol
PNF		
No PNF		

STRENGTH OF INHIBITORY CUES WHEN INTOXICATED



Covariates appearing in the model are evaluated at the following values: Birth Sex: = .50, arousal = 5.0532

ALCOHOL CHALLENGE AND PREVENTION OF SEXUAL RISK TAKING: WHAT WE **DON'T** KNOW

Intervention components are strong inhibitory cues?

How are inhibitory cues interpreted...

- In different contexts?
- When intoxicated?
- When sexually aroused?
- When using other drugs, polysubstance use?
- Between person differences?
 - Sex, HIV status, sexual orientation, age

FUTURE RESEARCH TO ANSWER THESE QUESTIONS

Alcohol administration research

Types of
content are
inhibitory
cues?

Cognitions,
behavior?

When
intoxicated?

When
sexually
aroused?

HIV status

Minority
populations

ECOLOGICAL MOMENTARY ASSESSMENT

Under 21?

Changes in context throughout drinking event?

Ascending and descending limb?

Higher risk days vs lower risk days?

INCORPORATE ALCOHOL BIOSENSORS

In the moment

EMA
methodology

Feasibility
studies needed

DISSEMINATION AND IMPLEMENTATION

Interest in interventions outside of research?

Part of development process

More dissemination and implementation research



THANK YOU

