

Satisfaction, alliance and intervention experience

*Comparing provider- vs computer-delivered brief motivational
interventions for substance use among childbearing aged women*

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e-Interventions and e-SBIRT

- Compared to in-person, provider-delivered interventions, **e-interventions** are comparable in terms of treatment attendance and retention,¹ treatment outcomes,²⁻⁴ and are highly acceptable to users^{1,5-7}
- Technology-delivered screening, brief intervention, and referral to treatment (SBIRT) or **e-SBIRT** has also been rated highly by users^{8,9}
- **Therapeutic alliance** with multi-session e-interventions has generally been comparable to face-to-face interventions or at least acceptable;¹⁰⁻¹² however, the role of alliance in treatment outcome with e-interventions is unclear
- Therapeutic alliance has not been examined in e-SBIRT
- **Treatment fidelity** with e-interventions/e-SBIRT is understudied

¹Kay-Lambkin et al. (2011); ²Budney et al. (2011); ³Gryczynski et al. (2015); ⁴Schwartz et al. (2014); ⁵Berman et al. (2014); ⁶Wright et al. (2002); ⁷Shingleton & Palfai (2016); ⁸Murphy et al. (2013); ⁹Pollick et al. (2015); ¹⁰Sucala et al. (2012); ¹¹Ormrod et al. (2010); ¹²Kiluk et al. (2014)

Aims

1. To compare satisfaction and alliance ratings following receipt of in-person, provider-delivered SBIRT (*SBIRT*) and computer-delivered SBIRT (*e-SBIRT*)
2. To compare motivational interviewing components received in both SBIRT groups

Methods

- **Secondary analyses** from RCT recruiting substance using women of childbearing age from a reproductive healthcare clinic
- **359 non-pregnant and 80 pregnant women** randomized to:
 - SBIRT delivered by trained clinicians (n = 145)
 - e-SBIRT delivered via tablet computers (n = 143)
 - Enhanced usual care (n = 151)
- Participants completed brief satisfaction and alliance measures following SBIRT completion
 - **Satisfaction:** 6-items, Likert-rated (1—“*not at all*” to 7—“*extremely*”)
 - **Alliance:** 8-items, Likert-rated (1—“*never*” to 7—“*always*”)
- Both SBIRTs reviewed for presence of **6 major motivational intervention components**
- Analyses: descriptive statistics, chi-square tests, correlations and general estimating equations

Project START

Time Spent



Theoretical Basis



Tailoring



Counselor Involvement

Who

How

Setting

Beh. Target

Tobacco,
alcohol, or
other drugs

Technology

Web

Where

Reproductive
Healthcare
Clinic

Population

Childbearing-
aged women

Approach

Motivational
Interview

Cost

No Charge


Summary

Low duration, web-based motivational interviewing intervention for substance use among childbearing-aged women; no counselor involvement. Delivered in a Reproductive Healthcare Clinic setting.

e-SBIRT Sample Screen


My use of street or prescription drugs






Everyone is different



Which sentence best describes how you are feeling about drugs?

- A I need to make a change in my drug use.
- B I do not want to change my drug use.
- C I have recently quit using drugs completely.
- D I am not sure what I want to do.



 repeat  previous  next  pause  stop

Questions to finish in section: 0

progress

Motivational Intervention Components

	MI Components
1	Understand primary substance
2	Discuss reasons for using and not using/cutting down; ask key question
3	Provide personalized feedback; ask key question
4	Handle resistance skillfully and draw out change talk
5	Develop change plan
6	Summarize and support what patient has elected to do

Baseline Participant Characteristics

	E-SBIRT N = 143	SBIRT N = 145
Age, M(SD)	34.6 (10.3)	33.6 (10.9)
Pregnant, N(%)	24 (16.8)	27 (18.6)
<u>Race/Ethnicity, N(%)</u>		
African American	93 (65.0)	102 (70.3)
Caucasian	16 (11.2)	19 (13.1)
Hispanic	22 (15.4)	19 (13.1)
Other	12 (8.4)	5 (3.5)
<u>Primary Substance, N(%)</u>		
Nicotine	80 (55.9)	81 (55.9)
Alcohol	23 (16.1)	15 (10.3)
Cannabis	27 (18.9)	32 (22.1)
Other drug	13 (9.1)	17 (11.7)
Days/months using primary substance, M(SD)	23.6 (7.8)	23.2 (8.3)

High Satisfaction and Alliance Ratings

Satisfaction	e-SBIRT n = 133 M (SD)	SBIRT n = 137 M (SD)	p
Ease of use	6.73 (0.86)	6.71 (0.78)	.832
Likeability	6.47 (0.98)	6.62 (0.72)	.153
Interesting	6.54 (0.91)	6.60 (0.79)	.556
Bothersome*	2.47 (1.90)	1.54 (1.47)	.000
Helpfulness for participant	6.47 (1.10)	6.61 (0.97)	.278
Helpfulness for other women	6.44 (1.01)	6.69 (0.88)	.031
Total Score	6.36 (0.72)	6.61 (0.57)	.002

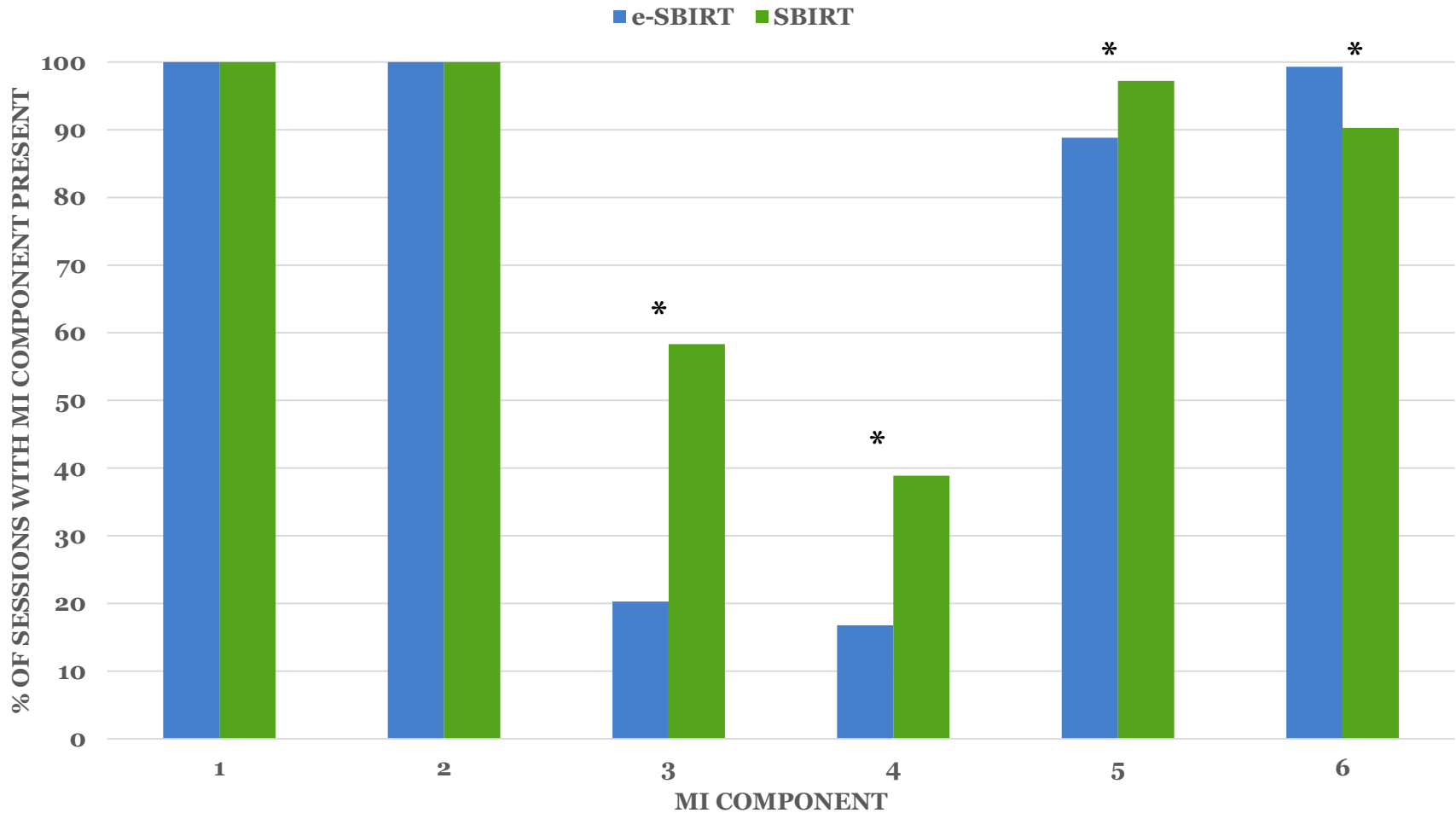
Alliance	e-SBIRT n = 133 M (SD)	SBIRT n = 137 M (SD)	p
Understood	6.71 (0.84)	6.75 (0.79)	.650
Respected	6.91 (0.44)	6.86 (0.64)	.473
Comfortable	6.73 (0.88)	6.88 (0.43)	.085
Encouraged to make own decisions	5.96 (1.33)	6.81 (0.55)	.000
Frustrated*	2.56 (2.03)	1.22 (0.90)	.000
Helped to set goals for myself	6.55 (1.06)	6.64 (1.03)	.491
Helped me consider how I might change	6.68** (0.88)	6.74 (0.80)	.546
Could be more honest	6.84 (0.59)	6.88 (0.40)	.504
Total Score	6.47 (0.62)	6.79 (0.42)	.000

Notes: *Reverse coded item. **For this time, n = 107 due to computer error.

Satisfaction and Alliance Unrelated to Outcome

- **Satisfaction and alliance** were significantly **correlated with each other** for both groups:
 - SBIRT: $r = 0.60, p < .001$
 - e-SBIRT: $r = 0.53, p < .001$
- **Neither were correlated with treatment outcome** (total days of use across follow-up):
 - Satisfaction: $r = 0.05, p = .46$
 - Alliance: $r = 0.05, p = .43$

MI Components Present by Condition



Discussion

- Women were highly satisfied and felt allied with both SBIRTs
- Women in both SBIRTs received motivational intervention components similarly
- e-SBIRT may be a feasible way for delivering brief interventions in busy medical settings

Limitations & Future Directions

- Limitations
 - Did not use established satisfaction and alliance measures
 - Programming error reduced number of responses to one of the e-SBIRT alliance items
 - Interrater reliability was unexpectedly low for step 6
- Future directions
 - Understanding role alliance plays in treatment outcome for e-interventions/e-SBIRT

Thank you!

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