

A Screening and Brief Intervention for Women in OB/GYN Care

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Study sites: St. Petersburg (SPB) and the Nizhny Novgorod Region (NNR)



Women oriented marketing



Phase I: Women's reported alcohol use

Large alcohol exposure window prior to pregnancy recognition, more extensive than in other countries

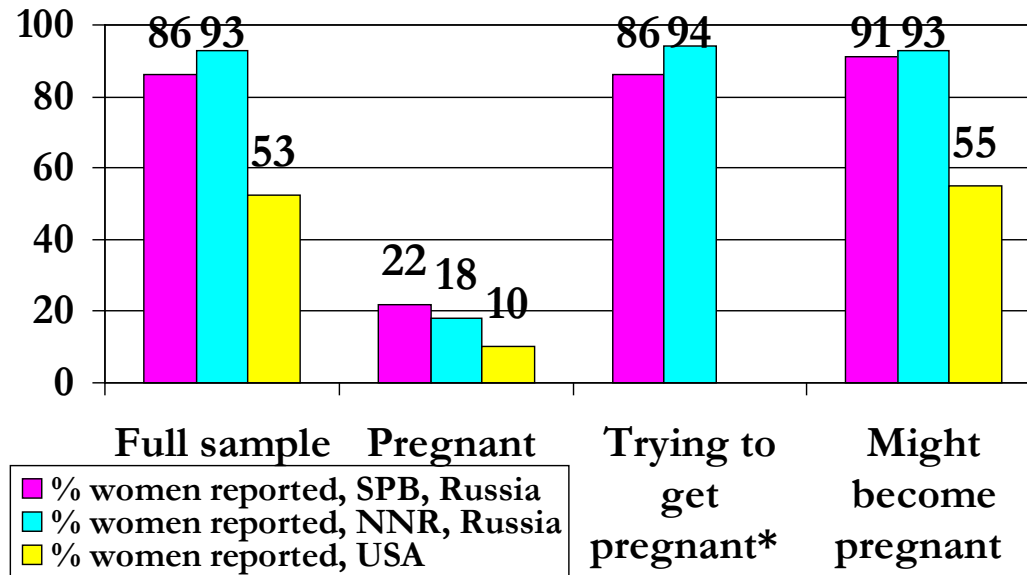
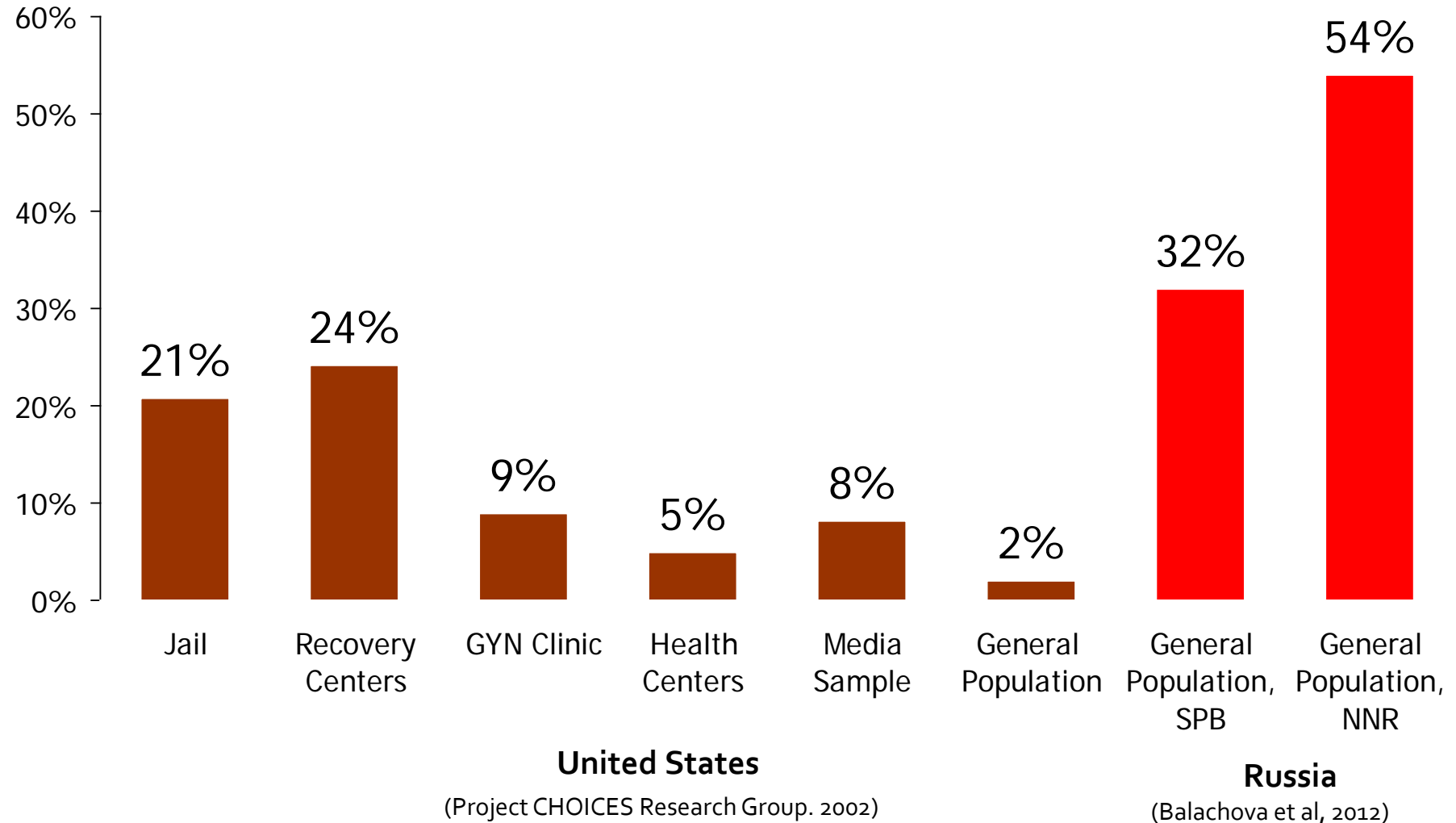


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Binge drinking is the major problem –
60% of women report one or more binges in the last 3 months
40% report binges in the last month

(Balachova et al., 2012)

Women at risk for AEP



Trial study design and objectives

- Can a brief intervention a) change alcohol use patterns, and b) specifically reduce alcohol use in early pregnancy, prior to recognition?
- Delivered by OB/GYN physicians
- Dual-Focused BPI (DFBPI): focused on both alcohol use and unplanned pregnancies

An adaptation of two evidence-based approaches:

- Brief physician intervention- *Healthy Moms* (Fleming & Mundt, 2006; NIAAA,1999)
- A motivational dual-focused intervention- *CHOICES* (Floyd et al., 2007)

Baby's Health is Your Choice
Выбор – здоровье ребенка

Употребляешь алкоголь – предохраняйся
Use alcohol – use contraception

Можешь забеременеть – откажись от алкоголя!
May get pregnant – abstain from alcohol!

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Brief OBG physician intervention

- Two face-to-face structured sessions
- Approximately 5 minutes each one month apart
- Incorporated into routine OB/GYN clinic visits
- Could include taking a medical history, conducting a physical exam, and/or providing/prescribing contraception
- Motivational Interviewing (MI) based - MI “spirit”



Methods

- Design—Two-arm randomized cluster trial—intervention vs. control
- 20 OB/GYN clinics
- Inclusion—Potentially childbearing women, heterosexually active, >0 “at-risk” (4+) drinking
 - 2,165 women screened
 - 767 eligible women enrolled in the study
- Daily alcohol use measured by time-line follow-back interview method
 - 90 days pre-intervention
 - 90, 180 and 360 days post-intervention
- Data structure is days ($n = 259,649$) within subjects ($n = 767$) within clinics ($n = 20$)
 - Complete longitudinal data obtained for 84%. Mean days / subject = 339
- Modeling the data
 - 3-level (days/subjects/clinics) autoregressive latent trajectory (Bollen & Curran, 2004) piecewise growth model

Participants (N=767)

Characteristic
Mean Age
Ethnically Russian
Married
Employed full time
Highest education on 1-6 scale*
Prior # Pregnancies
AUDIT score, mean (% ≥ 8)
Binge drinking (TLFB or single binge question) number (%) of participants report ≥ 1 binge drinking day in previous 90 days
Weekly drinking average of ≥ 8 drinks/week, number (%) of participants

Intervention fidelity

Proportion of completed intervention components

	The doctor...	Woman's report (N=372)	Physician's report ¹ (N=23)
1	asked if I planned a pregnancy or used contraception	0.987	0.997
2	asked about my alcohol consumption	0.989	1
3	told me about the incompatibility of pregnancy and alcohol use	1	1
4	provided information on alcohol effects on the child	0.995	0.995
5	advised me to either stop/reduce drinking or use effective contraception	0.995	0.995
6	asked me what I would choose	0.949	0.997
7	helped me to make my choice	0.959	1
8	discussed with me how to achieve the goal	0.941	0.970
9	discussed barriers with me	0.938	0.965
10	made a follow-up appointment	0.978	0.992
11	I felt doctor's support and willingness to help	0.997	0.992

Group-level time series plot by condition

Significant reduction of # drinks/drinking day ($p < 0.05$)

Reduced for both intervention and control groups,
intervention effect was significant (95% CI = 0)

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Drinking during pregnancy, including a 60 day pre-recognition window

Time series (14 day moving average) plot for women who reported becoming pregnant during the follow-up period (N=72...42 usable)

Date of the pregnancy recognition



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Same semi-continuous Autoregressive Latent Trajectories (ALT)

Centered pre-recognition time variable so intercept reflects mid-point pre-recognition estimate

Significant drop in the odds of drinking in the intervention group compared to control ($p < 0.05$)

Limitations

- Self-report data, possibly reactive to inquiry and to intervention
- Small number of clinic units (statistically speaking, not practically speaking)
- General population women—population level prevention; not necessarily generalizable to women with the most severe substance use disorder who may be the greatest risk for FASDs

Conclusions

- The effect of the intervention on overall drinking was significant and remained robust over the 12 month follow-up period
 - The intervention effect was on the *amount* of alcohol, not the *frequency* of alcohol (i.e. cutting back); the sample included binge drinking women primarily
 - The reduction in #drinks/day was small in size (but not bad for 5 minute intervention!)
➡ potential for widespread reach
- The effect of the intervention on early pregnancy drinking was larger in size, and was seen in a substantial reduction for the *frequency* of drinking (i.e. quitting)
- Control group women continued to drink at about usual levels during the pre-recognition time period

