

Internet-Based Treatment for Adolescent Smokers



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Potential of the Internet

- Adolescents use the Internet
 - Among U.S. youth ages 12 to 17
 - 48% used the Internet at home (*US Census, 2000*)
 - 87% go on-line from any location (*PEW Internet, 2004*)
- Internet is accessible 24 hours/7 days a week
- Young people prefer Internet–delivered guidance due to convenience and anonymity
- Peer-based social support



Few Evaluations of Internet Cessation Programs

- 3 studies used single group design
 - www.cyberisle.org (*Skinner et al. 1997*)
 - Virtual chat “Breathing Room” (*Woodruff et al. 2000*)
 - [Kick It!](#) program for college student smokers (*Escoffery 2004*)
- Group treatment plus Web site vs. no treatment (*Chen & Yeh, 2006*)
- Group treatment plus web & telephone adjuncts vs. group tx alone (*Mermelstein & Turner, 2006*)
 - quit rates at 3-months higher for enhanced group (14% vs. 7%)
 - 29/181 confirmed to have used web site
 - Greater use of web site associated with higher quit rates at post-tx

Randomized Trial of an Internet-Based vs. Brief Office Intervention for Adolescent Smoking Cessation



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National Cancer Institute



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Announcements

<http://chess.chsra.wisc.edu/Chess/aboutchess.htm>



Web Development

- Series of 8 focus groups
 - 24 current and 13 former smokers ages 11-17
- Web prototype feedback
- Quantitative surveys (N=1305)
- Teen Panels

Patten et al., Annals Beh Med, 2003

Pingree et al., Health Comm, 2004

Meis et al., J Internet Computer Mediated Comm, 2002



Speak
OUT

My Journal
Discussion Group
Real Time Chat
Ask an Expert
Personal Stories
Art Gallery

A central graphic on a black circular background. At the top is a glowing green mouth. Below it, the text 'Speak OUT' is written in white, with 'OUT' in a larger, bold font. Underneath, a list of services is provided in white text: 'My Journal', 'Discussion Group', 'Real Time Chat', 'Ask an Expert', 'Personal Stories', and 'Art Gallery'. The background of the entire page is purple with faint white lines.

Did YOU KNOW?

Did you know that after quitting, it takes 2 DAYS for the nicotine to leave your body?

A black rectangular box with a white border. It contains the text 'Did YOU KNOW?' in a bold, sans-serif font, with 'YOU' in a larger font. Below it is a line of text in a smaller font, underlined: 'Did you know that after quitting, it takes 2 DAYS for the nicotine to leave your body?'.

File Edit View Go Favorites Help

Back Forward Stop Refresh Home Search Favorites History Channels Fullscreen Mail Print Edit

Address https://chess.chsra.wisc.edu/sos/interface/SO/DG/SO_DG_Frame.htm Links

S.S.S. Home

Thinking about Quitting

How to Quit

Staying Smoke-free

Smoking and Health

Life's Ups and Downs

Speak Out

- My Journal
- ➔ Discussion Group
- Real Time Chat
- Ask an Expert
- Personal Stories
- Art Gallery

Speak OUT

PANIC button

Glossary | Quit Notes | FAQ | Help | Getting Started | Comments

DISCUSSION GROUP

Write a Message

From: **Haile**

Topic:

Send Message

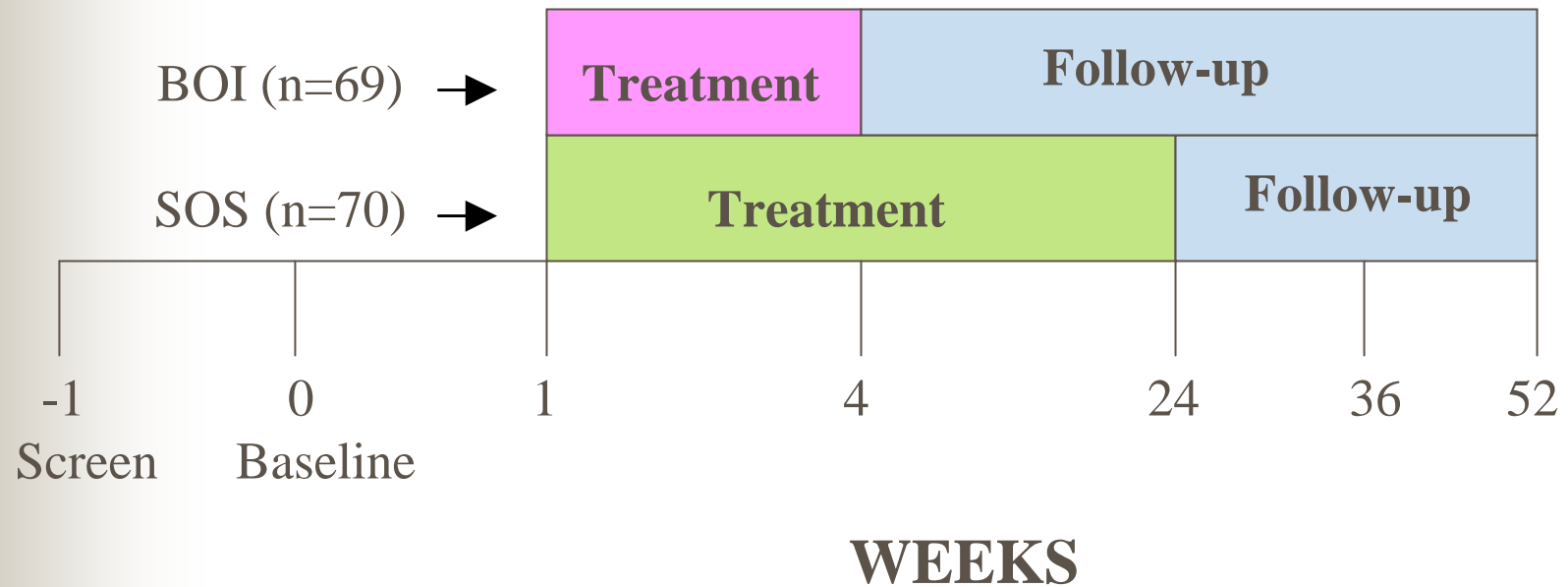
Erase Message



Hypotheses

- Compared with a *clinic-based* Brief Office Intervention (BOI), a home-based Internet intervention (SOS) will be associated with:
 - Higher week 24 abstinence rates
 - greater reductions in CPD and days smoked
- Adolescents will use SOS but for how long and which components will be accessed?

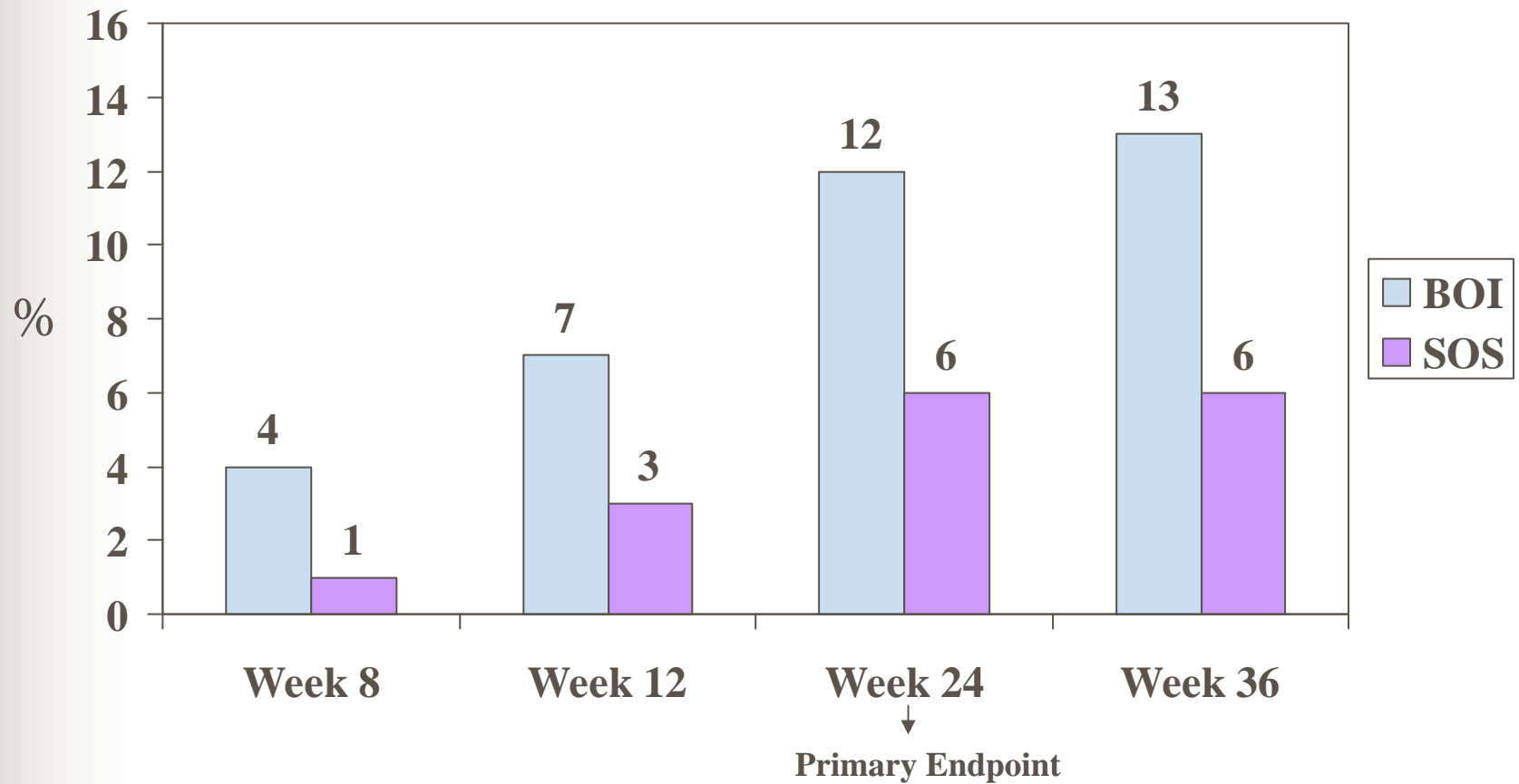
Study Design



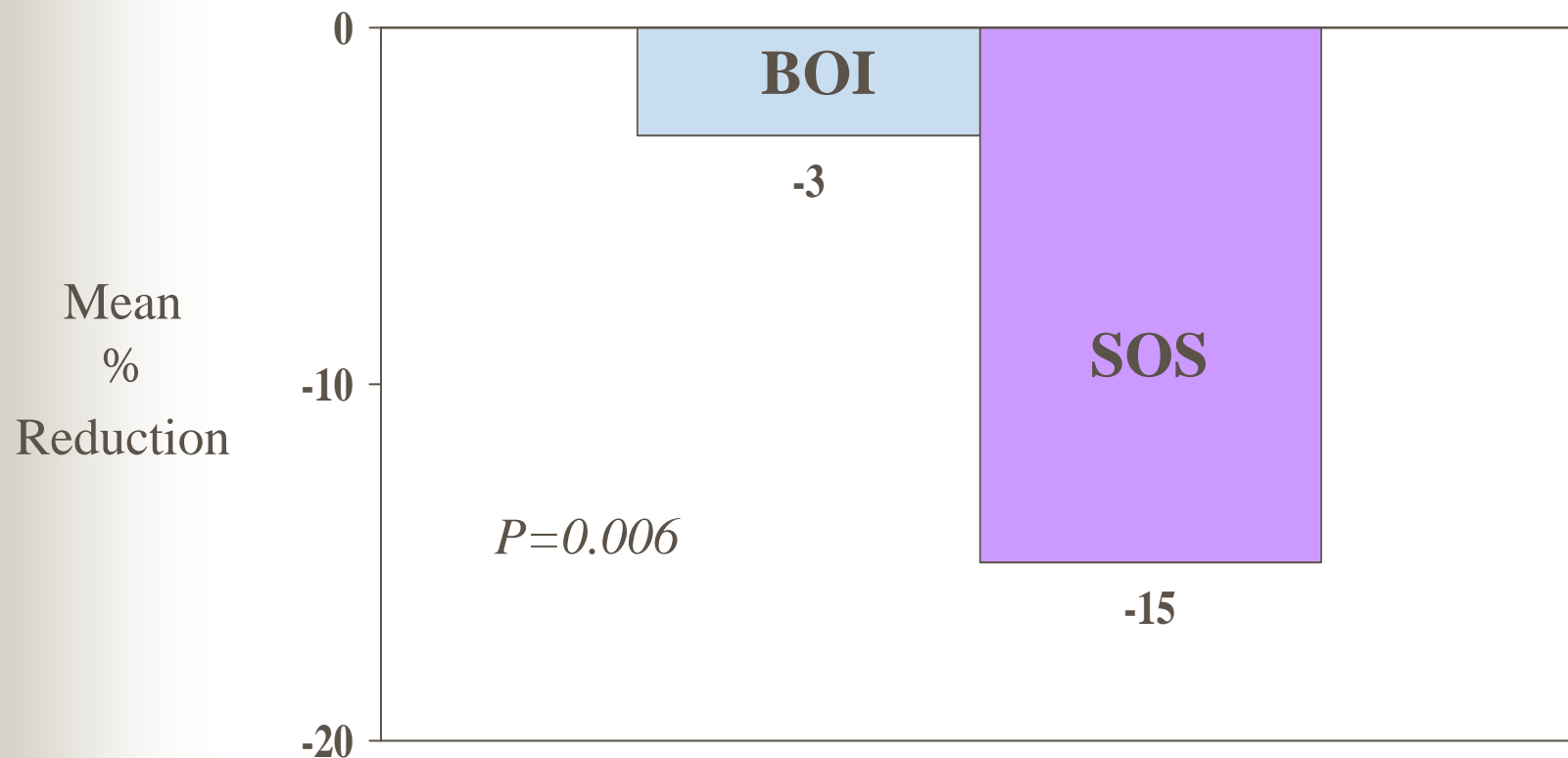
Key Baseline Characteristics (N=139)

Characteristic	BOI (n=69)	SOS (n=70)
Age, years (mean \pm SD)	15.8 \pm 1.4	15.7 \pm 1.3
Female gender, %	49	50
Use of Internet, %		
Little or no use	12	14
Some use	41	33
A lot of use	48	53
Cigarettes smoked (mean \pm SD)		
# days smoked of past 30	28.3 \pm 4.2	29.2 \pm 1.9
CPD	10.1 \pm 6.8	9.8 \pm 5.9
Plan to quit in next 30 days %	80	69

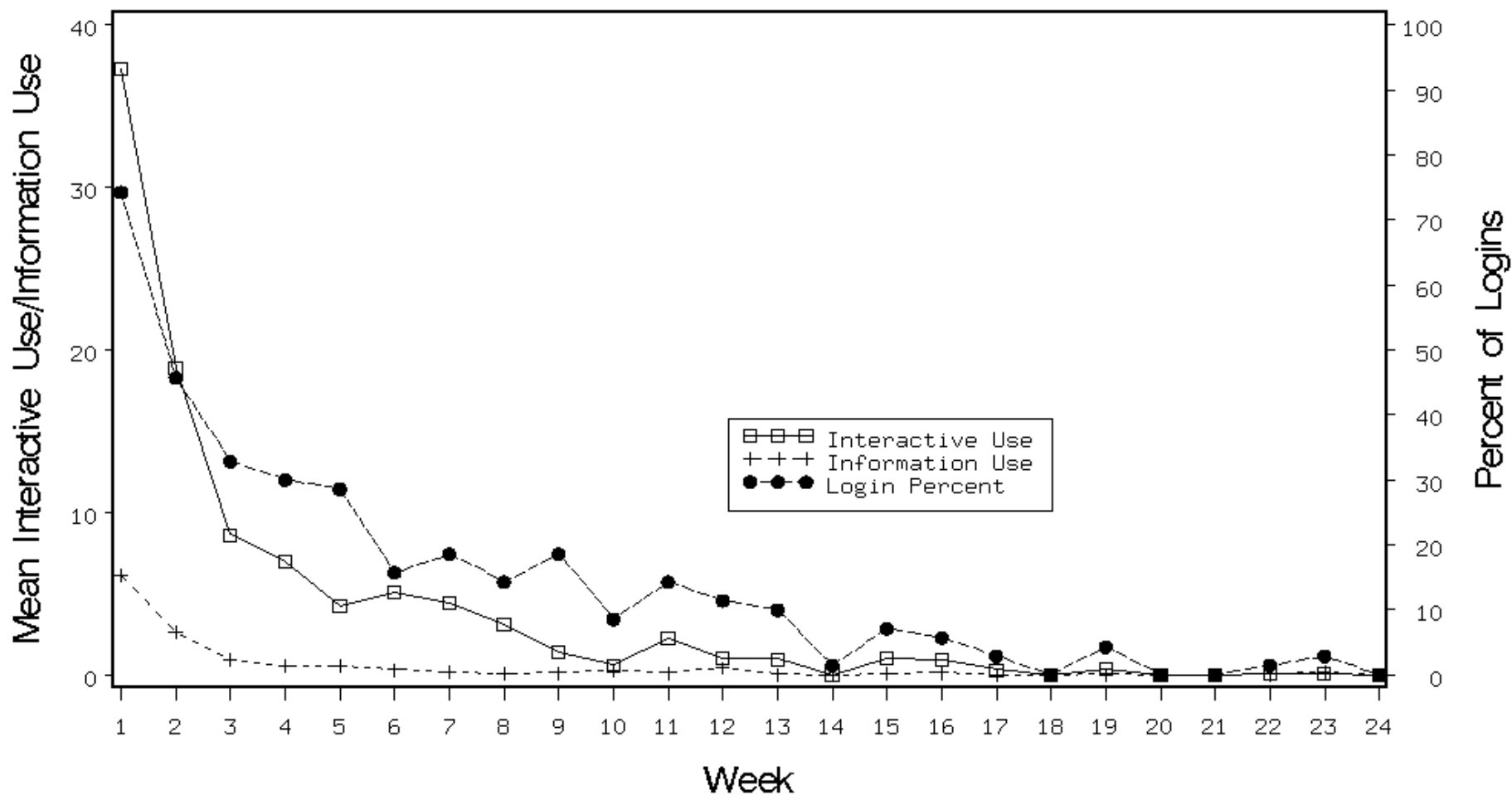
30 Day Point Prevalence Abstinence



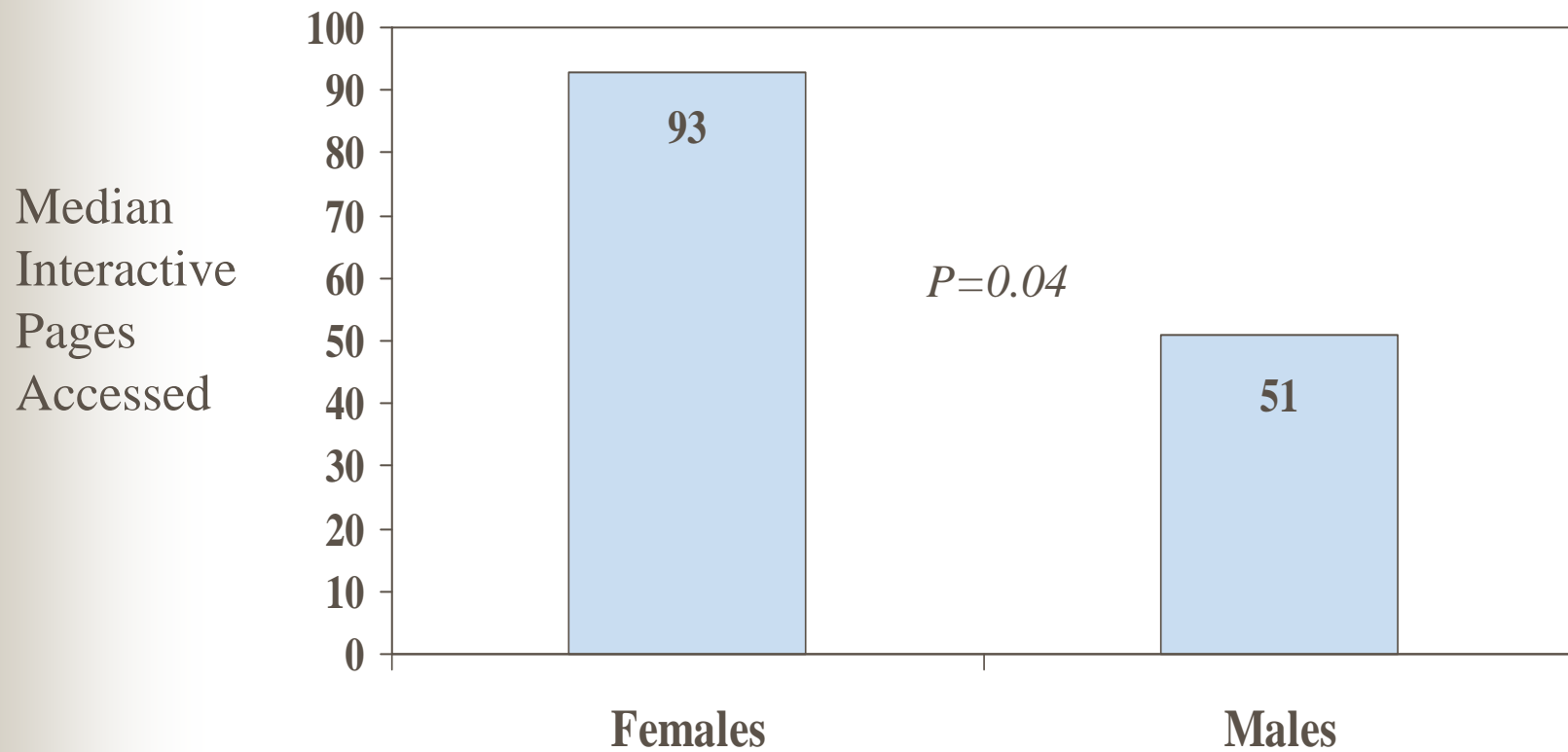
Reductions in Number of Days Smoked from Baseline at Week 24



Weekly Logins and SOS Component Use



Interactive Component Use by Gender



Top 5 SOS Components Used

Component	% of total SOS pages accessed (of 7,708)	Type of Component	Number pages within each component
Discussion group	35	Interactive	1
Quit plan	30	Interactive	39
Quit notes	10	Interactive	24
My journal	4	Interactive	19
Ask an expert	3	Interactive	1



Major Themes from Discussion Group Postings

- Seeking social support and personal assistance with quitting
- Providing advice/encouragement to reduce cigarettes per day



Conclusions

- We were not able to tap the potential of the Internet vs. a health care model for adolescent smoking cessation
- Low rates of use limits the exposure to and potential effectiveness of SOS
- Among continuing smokers, teens benefited more from a Web-based program on changes in smoking behavior



Limitations

- “Real-world” Internet use but within context of a clinical trial
- Computer literacy of sample



Future Research Directions

- Augment Web interventions with more structured, personal and proactive support components (*Nguyen et al., 2004*)
 - Context of an initial clinical encounter and/or face-to-face counseling
 - Linear vs. open structure
 - Prompting/reinforcement: e-mail, phone text messaging, telephone calls



Future Research Directions

- Increasing Web Participation (*An et al. 2006*)
 - Real U Web site vs. Beta Web site added:
 - peer coaches
 - e-mail reminders
 - online college magazine
 - linear structure
 - Participation rates 93% (Real U wk 20) vs. 26% (Beta wk 5)
 - Week 5 quit rates 16% vs. 4%
- Sample considerations

