

Leveraging Social Support to Engage Smokers in Treatment

Christi Patten, PhD

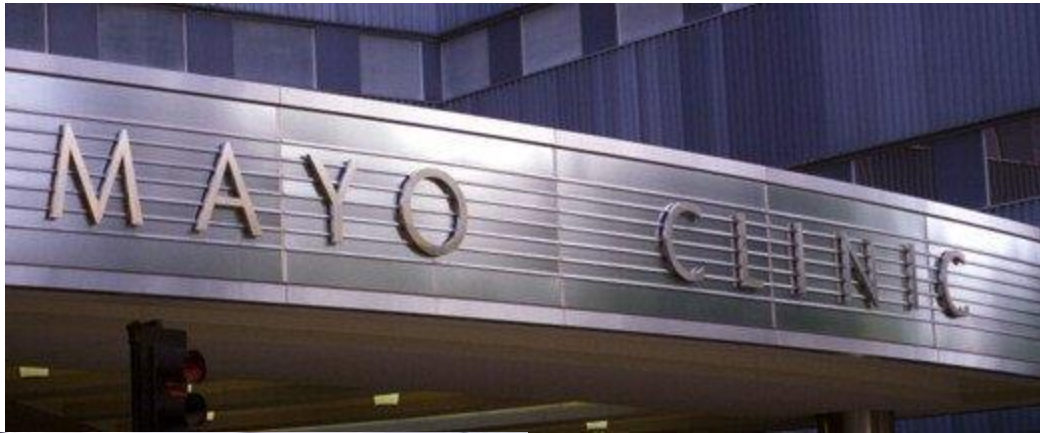
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Funding: NIDA, ClearWay Minnesota



The reason...





Do loved ones of a smoker
experience distress similar to
those close to a substance user?

Thomas et al., 2006, Addictive Behaviors

Can we change another person's behavior?



What is known about the role of social support and smoking cessation?

- Supportive behaviors and statements from spouses/partners are consistently associated with successful smoking cessation.
- Written materials available for loved ones of a smoker but none had been evaluated.
- Studies that tried to change social support for smokers in treatment had mixed findings.
- Thus, how do we optimize social support in smoking cessation especially for smokers not ready to quit?

Potential role of nonsmokers

- About 5% of the 500,000 annual quitline callers (25,000) are nonsmokers calling on behalf of a loved one who smokes (*NAQC, 2014*)
- Surveys of large samples of nonsmokers indicate over 80% willing to help a smoker quit (*Patten, 2004*)
- Studies effectively utilized nonsmokers to reduce household second hand smoke exposure (*Chan et al., 2008*)
- CDC Tips from Former Smokers campaign effective for increasing nonsmokers' behaviors of talking with smokers about the dangers of smoking and recommending they quit (*McAfee et al., 2013*)



Centers for Disease Control and Prevention
CDC 24/7: Saving Lives, Protecting People™

The CRAFT Intervention Program

MOTIVATING
SUBSTANCE
ABUSERS TO
ENTER
TREATMENT

Working with Family Members

JANE ELLEN SMITH
ROBERT J. MEYERS



WANTED: NON-SMOKERS

Do you know someone who smokes?

Are you tired of nagging them to quit?

Do you feel like you've tried everything, but nothing seems to help?

**If you care about a smoker
but don't know how to help them quit,
there might be something else...**

For Information

Call: 1-800-957-2950

Email: supportpersonstudy@mayo.edu

The first step



Because You Care . . .

*Information for Those Wanting to Help
Someone Stop Smoking*



Nicotine Research Center

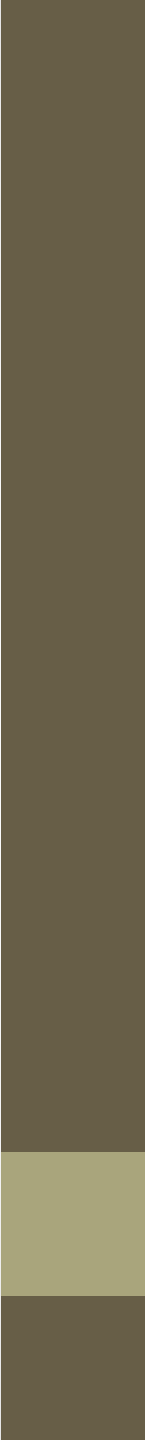
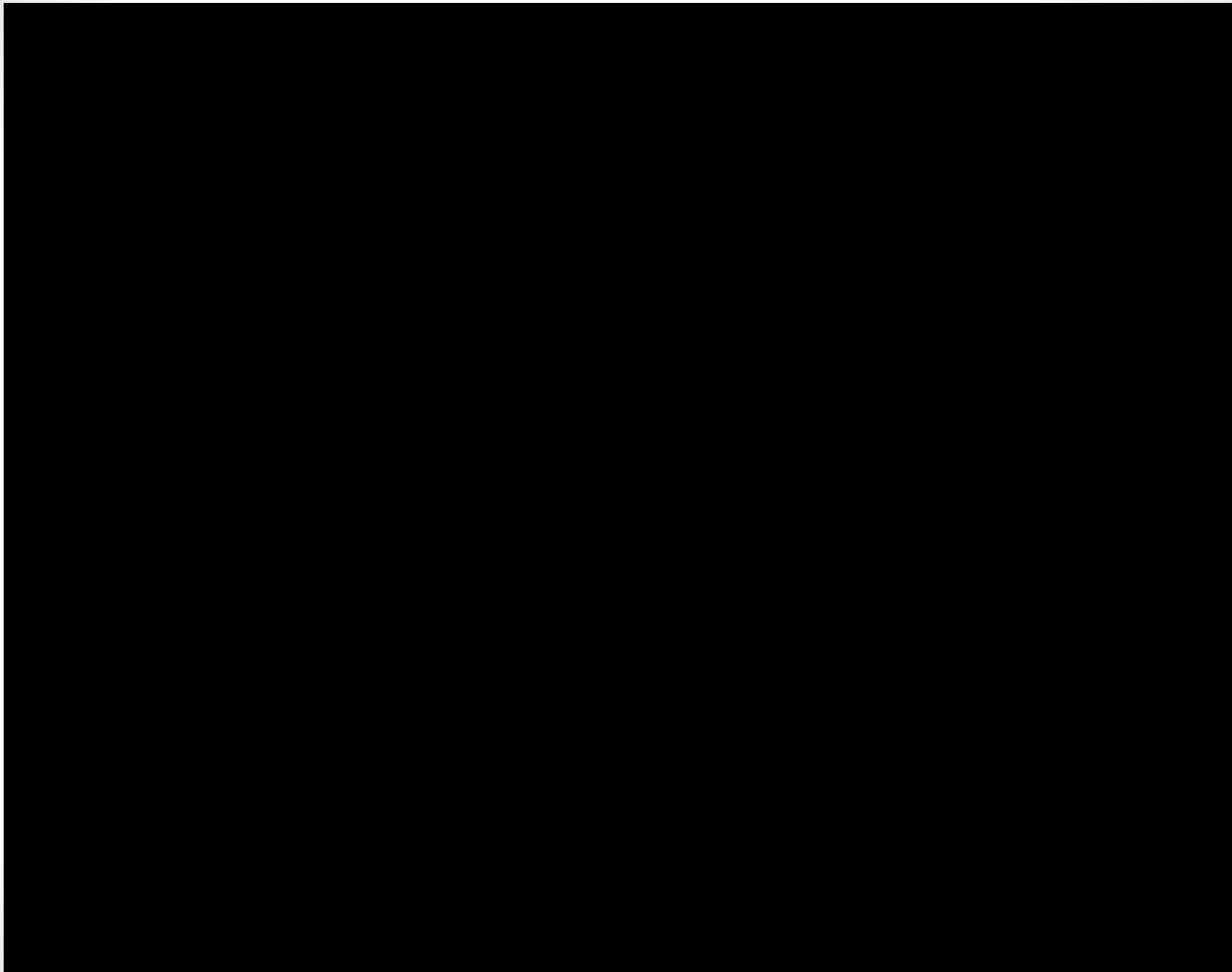
Funding:

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R21 DA18365

5-session, group-based intervention

- Behavior change counseling techniques with MI delivery
 - Clarify their role
 - Educate about nicotine dependence
 - Educate about stage of change
 - **Educate about effective medications/treatments**
 - **Teach basic MI communications skills about how to help smoker quit**
 - Provide information on supportive behaviors and statements



Support Strategies

Effective	Not Effective
Praise	Nag
Show concern	Police
Help alleviate stress	Make threats or ultimatums
Do a fun smoke-free activity together	Withhold affection
Give information on quitting	Hide cigarettes, ashtrays
Acknowledge that quitting can be hard	Preach about not smoking
Encourage	Blame smoker for health problems

Cohen & Lichtenstein, 1986, JCCP

Support Strategies

- Cohen's theory of social support
 - **Instrumental**: assist smoker with taking over some of his/her responsibilities, engage in smoke-free activity with smoker
 - **Informational**: provide smoker with information about quitting or medications that can help
 - **Emotional**: acknowledge that quitting is hard, praise smoker for his/her efforts
- Evidence-based support strategies by stage of change
- Direct and indirect strategies

Support Provided Measure (SPM)

During the past 2 weeks have you...

- ❖ Asked your smoker if they were willing to discuss their smoking?
- ❖ Nagged or preached to your smoker about their smoking?
- ❖ Discussed with your smoker if they were ready to quit or planning to stay smoke-free?
- ❖ Provided your smoker with information on smoking or quitting smoking?
- ❖ Criticized or blamed your smoker for the consequences of smoking?
- ❖ Suggested your smoker use a product such as nicotine patches or a program such as a helpline to quit smoking or stay smoke-free?
- ❖ Engage in a smoke-free activity with your smoker?

alpha=0.73-0.83 across studies
Thomas et al., 2006, J Behav Med

Funding:
NIDA
R03 DA 19050

Results

- 60 support persons
 - 90% female, 90% Caucasian, 85% of smokers precontemplation or contemplation stage of change
- Randomized pilot RCT
- Intervention was feasible
- Significant increases in SPM with intervention compared to control group (written materials only)
- No significant treatment differences on smoker quit rates at 6 months

Patten et al., 2009; Nicotine & Tobacco Research

The 2nd step: rationale

- Increasing the REACH of smoking cessation treatments to smokers on a population level
 - Most smokers are not interested in quitting in the near future
 - Evidence-based cessation treatments are greatly underutilized
 - Only 1-2% of smokers use quitlines
- Could social support networks be tapped to promote smoker treatment utilization ?

Efficacy Study

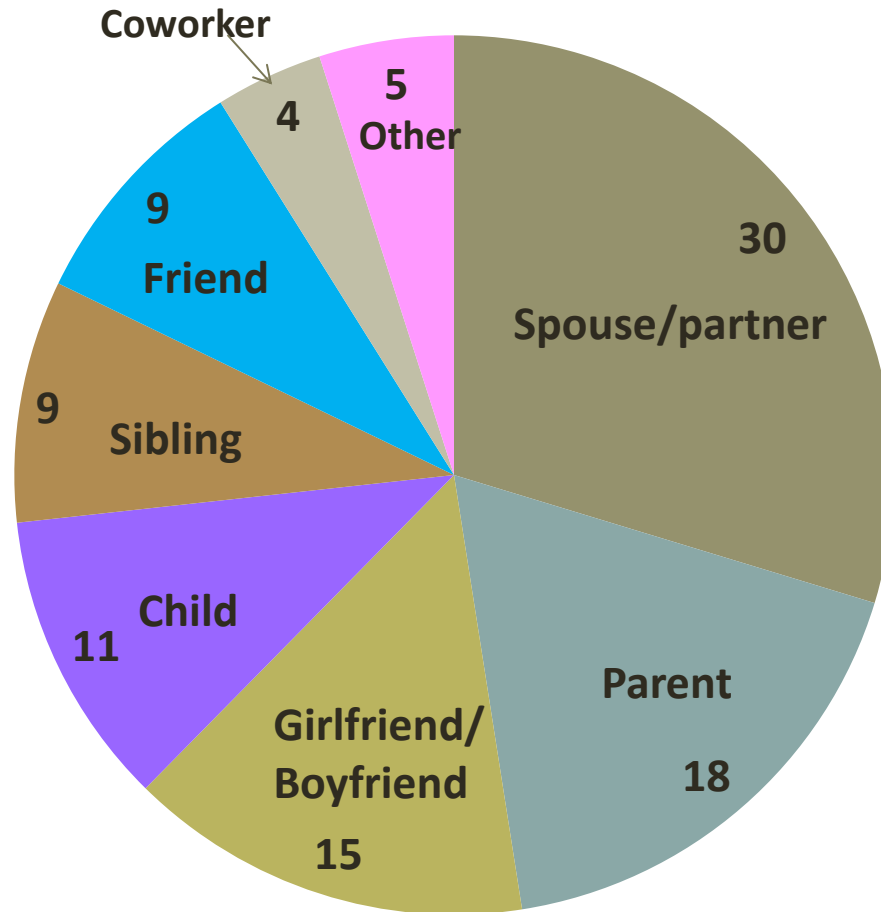
- **534 nonsmokers** recruited statewide
 - 92% female, 95% Caucasian, 88% employed, 49% married, 50% lived with smoker, 85% of smokers low-medium levels of readiness to quit
- **Design:** RCT comparing 3 call counseling intervention + written materials vs. a control condition (written materials only)
- **SP Assessments:** by mail or phone at end of treatment and at 6 months
- **Endpoint:** % of smokers enrolled in the quitline by 6 months



Patten et al., AJPM, 2011

Funding: ClearWay Minnesota

Types of relationships (N=534), %



Written materials

- NCI Clearing the Air brochure
- Readiness to quit ladder (intervention group only)
- 4 page handout on supportive behaviors, nicotine dependence, information on local resources, the quitline, and card with toll-free number

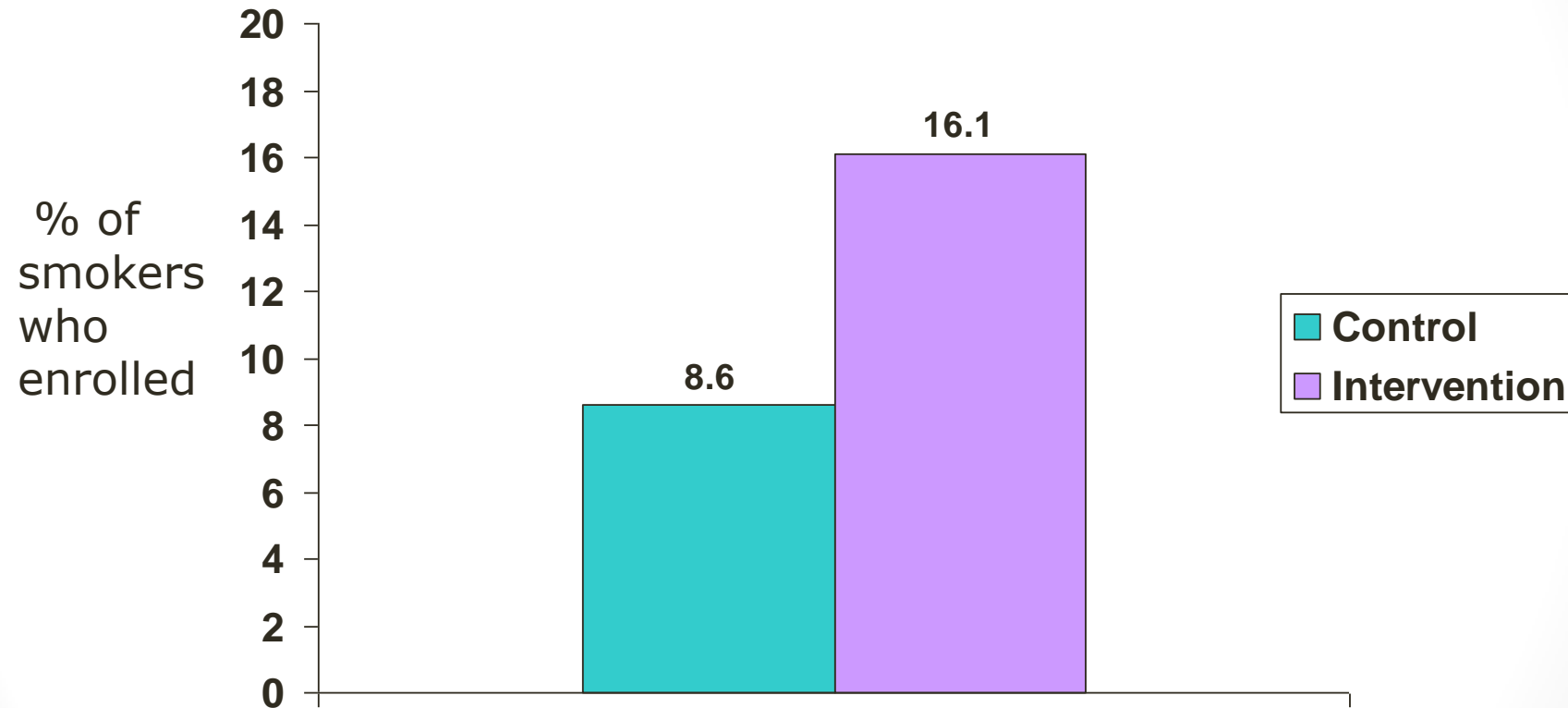


Intervention

- **Delivered by research counselors**
- **Goal:** provide SP's with information and skills needed to encourage their smoker to call the quitline
- **Cohen's theory of social support**
- **3 phone sessions**
 - Clarify their role
 - Educate about nicotine dependence
 - Educate about readiness to quit
 - Provide information on supportive behaviors and statements
 - Teach how to reinforce (shape) progress made by smoker
 - Provide information on quitline



Quitline Utilization through 6 months follow-up by Study Group



Adjusted OR=2.04, 95% CI: 1.19-3.49, P=0.010

3rd Step: Effectiveness Study

Primary Aim : Conduct an RCT in the context of ongoing services of a quitline, comparing two levels of counseling interventions for support persons (1 or 3 calls) versus a control condition on smoker quitline enrollment at 7 month follow-up.

Secondary Aim (Exploratory): Conduct a survey of the smokers to estimate quit attempts and cessation.

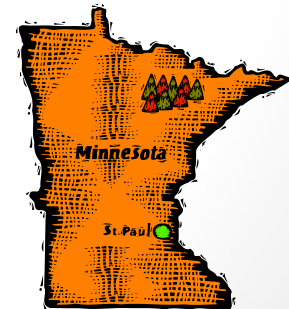
Patten et al., 2014, SRNT conference

Funding

ClearWay Minnesota

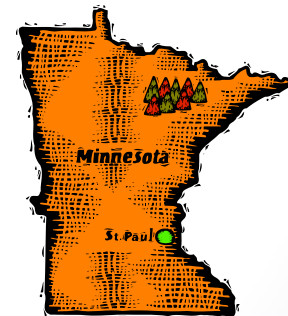
Effectiveness Study

- **704 nonsmokers** recruited statewide
 - 85% female, 95% Caucasian, 75% employed, 60% married, 35% spouse/partner of smoker, 48% lived with smoker, 72% of smokers low-medium readiness to quit
- **Design:** 3 arm RCT comparing 1 and 3 call counseling interventions + written materials vs. control condition (written materials only)
- **Interventions delivered by quitline coaches**
- **1 call** streamlined version of 3 call intervention

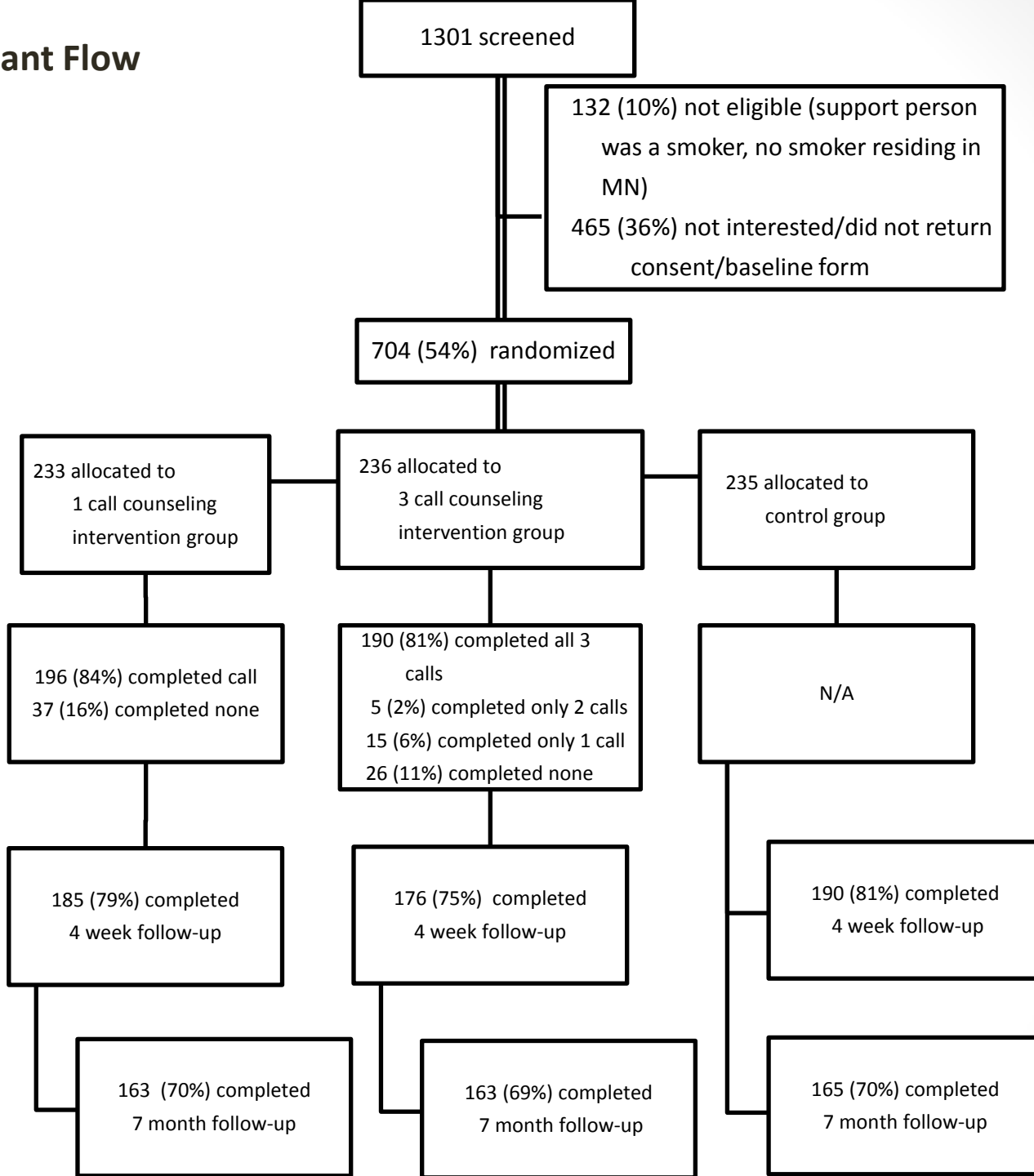


Effectiveness Study

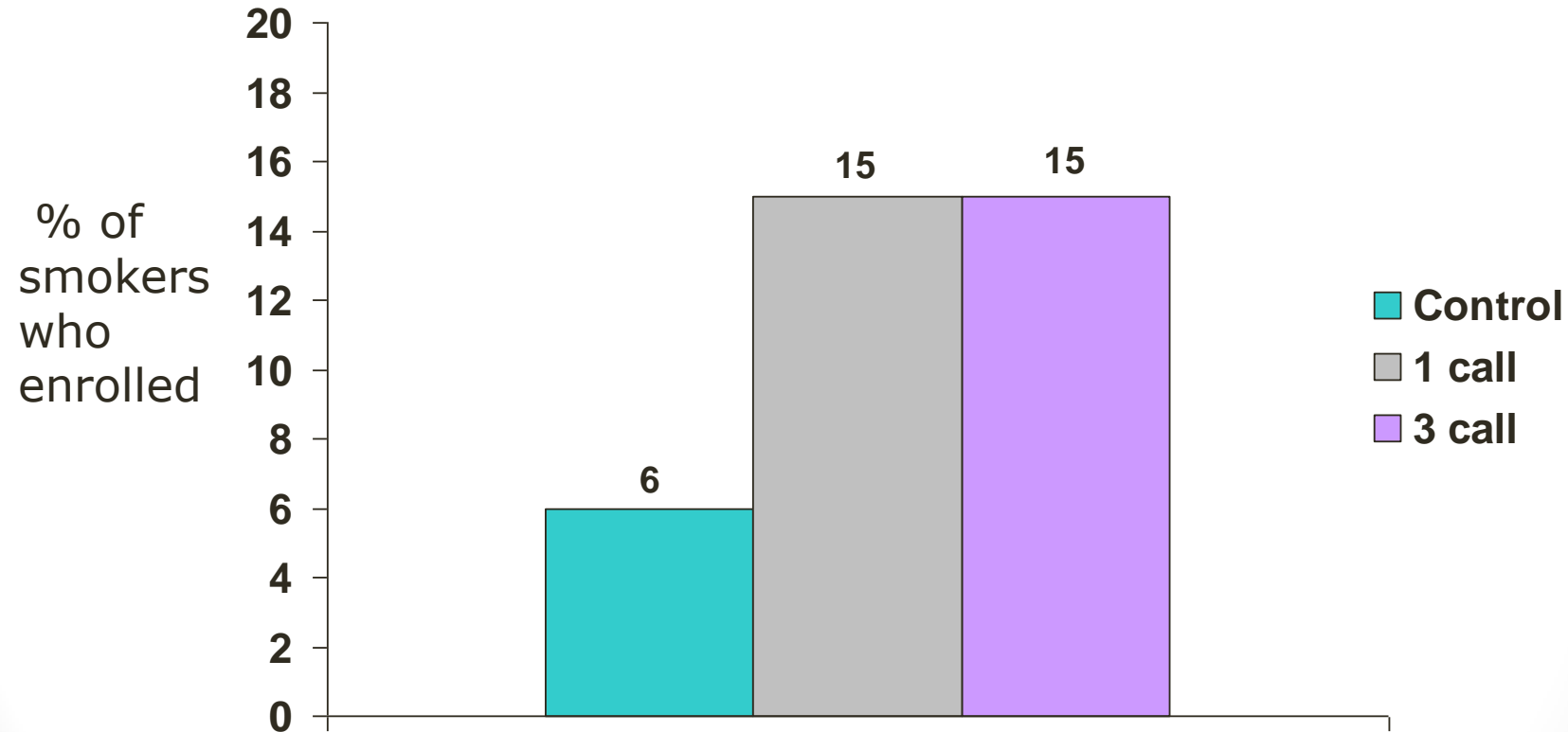
- **Support Person Assessments:** by mail or phone at end of treatment and at 7 months
- **Primary endpoint:** proportion of smokers enrolled in the quitline by 7 months
- **Smoker** survey at 7 months



Participant Flow



Quitline Utilization through 7 months follow-up by Study Group



OR=2.51; 95% CI: 1.33-4.74; p=0.005 1 call vs. control

OR=2.55; 95% CI: 1.35-4.82; p=0.004 3 call vs control

Other findings

- **When do they call?**
 - Control: 57 days
 - 1 call: 52 days
 - 3 call: 71 days
- **Who calls?**
 - Older age of support person, $p=0.009$
 - Smokers higher in readiness to quit, $p=0.001$
 - 7% low
 - 12% medium
 - 16% high
 - No significant interaction effect detected
- **SPM**
 - Significant increases in SPM scores in intervention groups vs. control group, $p=0.004$
 - Treatment effect was not mediated by support provided

Smoker survey

- At enrollment, only about half of support persons (51%; 356/704) gave permission for us to contact their smoker
- Smoker survey response rate was low (38%; 137/356). Thus, only 19.5% of the smokers (137/704) were represented which was insufficient for analysis
- Survey completers (137) compared to non-completers (567) were a select sample :
 - more likely to have enrolled in the quitline
 - and to reside with their support person

Conclusions

- This real world quitline study found that counseling interventions targeting nonsmoking support persons increase the rate that smokers enroll in a quitline
- Provides evidence for quitlines: efficacy + effectiveness trials
- Just **1 call** yielded results essential equal to 3 calls
 - Mean duration: 26 minutes
 - Cost effective: \$38

Future Directions

- Expand the target population of quitlines, e.g., “Help a loved one quit” campaign
- Expand quitline services to offer an efficient and cost effective counseling intervention for **nonsmokers**
- Expand this approach to promote smoker utilization of other evidence-based treatments
- Expand the reach of support person counseling to vulnerable populations and utilizing technology
- Study mechanisms of treatment efficacy

Study Team

- Mayo Clinic

- Tabetha Brockman
- Christina Smith
- Paul Decker

- Consultants

- Dr. Ed Lichtenstein
- Dr. Shu-Hong Zhu

- ClearWay Minnesota

- Dr. Raymond Boyle
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- Joanne DeSilva
- Ann St. Claire
- Jeong Kyu Lee

- National Jewish Health

- Dr. David Tinkelman
- Dr. Amy Lukowski
- Quitline staff

The reason....

