Reach and Effectiveness of Smoking Cessation Intervention for Youth

Results from the Hutchinson Study for High School Smoking Group-Randomized Trial

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Goals of the HS Intervention

**REACH**
- *Reach out* to smokers
- Overcome barriers to recruitment and retention
- Establish *rapport*

**HELP TO QUIT**
- *Enhance motivation* to quit smoking
- Provide *skills* for quitting

*Increase smoking cessation among population of teen smokers*
Study Question

To what extent can a proactive intervention involving proactive outreach and proactive MI-plus-Skills Training telephone counseling for teen smokers succeed in

(1) reaching and engaging them, and
(2) effecting smoking cessation?
Challenges in Reaching/Recruiting Teens

- Concerns about stigmatization “smoker”
- Concerns about privacy
- Desire for autonomy
- Misperceptions about smoking cessation programs
- Lack of enthusiasm
- Requirement that they take the first step
Proactive Method of Recruitment that We Used

1. In-class survey (of high school juniors)

2. “Cold-call” contact (after obtaining parental consent for those students under 18)

3. Invitation (*MI-style*)
Telephone Counseling

1. For both smokers and non-smokers
2. Telephone-delivered
3. Use of Motivational Interviewing (MI)
4. Use of Cognitive Behavioral Skills Training (CBST)
# Telephone Calls

<table>
<thead>
<tr>
<th>Number of calls</th>
<th>For smokers not ready to quit:</th>
<th>For smokers who had made a commitment to quit:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Motivation-enhancement calls</td>
<td>Skills-training calls</td>
</tr>
<tr>
<td></td>
<td>Up to 3</td>
<td>Up to 6</td>
</tr>
<tr>
<td>Total number of calls</td>
<td></td>
<td>Up to 9</td>
</tr>
</tbody>
</table>
Study Design

"Year 1"

Select and Recruit 50 Washington High Schools

In-Class Survey (Junior Year), ⇒ 2,151 smokers

Randomize

25 Control High Schools 1,093 Smokers

25 Experimental High Schools 1,058 Smokers

"Year 2"

Counselor-initiated Telephone Intervention (Senior year)

"Year 3"

Endpoint Data Collection (Post-High-School)
Cohort of Smokers (2,151)

**DEMOGRAPHICS**
- 47.3% female
- 26.1% non-Caucasian
- 93% age 16 or 17
- 25% eligible for free/reduced price meals

**SMOKING**
- 62.8% smoke less than daily
- 33.1% intend to smoke in the future
- 47.2% made at least 1 quit attempt in the last year
Participation in In-Class Survey

13,042 high school juniors

12,141 (93.1%) completed the in-class survey

2,151 smokers
Results for Recruitment/Participation

n = 1,058 smokers, experimental group

1. Eligible for telephone counseling: 89.6%* (948/1058)

2. Succeeded in contacting: 80.5% (851/1058)

3. Participated in telephone counseling: 65.3% (691/1058)

* From 86% parental consent for 779 minor-age smokers, plus 179 older smokers
What was responsible for the favorable results ("65%") on reach?

OUR JUDGMENT

1. *Proactive* identification and contact of teen smokers
2. Contact of both smokers *and (selected) non-smokers*
3. Personalized invitation to participate
4. Telephone
5. Focus on the individual, and rapport, from the first word.
### Intervention Effect on Smoking Cessation

**Daily Smokers** (n = 695)

<table>
<thead>
<tr>
<th>Pair</th>
<th>Control</th>
<th>Experimental</th>
<th>Δ, %</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>Cess, %</td>
<td>n</td>
</tr>
<tr>
<td>Overall</td>
<td>337</td>
<td>5.9</td>
<td>358</td>
</tr>
</tbody>
</table>

95% confidence interval (CI) = 0.8 to 7.1 (p = .02)
Intervention Effect on Smoking Cessation

*Less-than-Daily Smokers* (n = 1,165)

<table>
<thead>
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<th>Pair</th>
<th>Control</th>
<th>Experimental</th>
<th>Δ, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>n</td>
<td>Cess, %</td>
<td>n</td>
<td>Cess, %</td>
</tr>
<tr>
<td>Overall</td>
<td>629</td>
<td>536</td>
<td>24.8</td>
</tr>
</tbody>
</table>

95% confidence interval (CI) = −2.1 to 9.8 (p = .19)
Intervention Effect on Smoking Cessation

6-month prolonged abstinence at one year post intervention (N = 1,860)

<table>
<thead>
<tr>
<th></th>
<th>Control</th>
<th>Experimental</th>
<th>Δ, %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pair</td>
<td>n</td>
<td>Cess, %</td>
<td>n</td>
</tr>
<tr>
<td>Overall</td>
<td>966</td>
<td>17.8</td>
<td>894</td>
</tr>
</tbody>
</table>

95% confidence interval (CI) = – 0.2 to 8.1 (p = .06)
What was responsible for the effectiveness of the intervention?

**OUR JUDGMENT**

1. Proactive contact and invitation.
2. Telephone.
3. Counselor’s interest in the client: his/her situation, thoughts, attitudes, challenges.
4. Overriding goal: empathetic interaction.
5. MI and its respectful, deferential nature.
6. Skills training delivered in the MI style.
7. Attention to implementation.
Leischow editorial

Resource

“...a new and promising foundation for youth tobacco cessation intervention...”

“...a resource to address the immediate need of young daily smokers who wish to quit.”

Quitlines

“...quitlines should be encouraged ...to implement [this] intervention”

Possible Impact

“...with the goal of increasing on a national scale the number of adolescents who quit smoking”
Conclusion

These results suggest possible opportunities for quitlines in continuing to expand services to youth:

- Proactive recruitment: youth will respond

- MI + Skills Training telephone counseling: youth can benefit from it.
Contact information

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References


Thank you for your interest!