

Implementing A Novel Workplace Smoking Cessation Intervention Targeting Hispanic/Latino Construction Workers

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News



Researchers to Launch Innovative Smoking Cessation Program for Hispanic Construction Workers

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A team of researchers at Sylvester Comprehensive Cancer Center and the Department of Public Health Sciences at the University of Miami Miller School of Medicine is preparing to launch an innovative smoking cessation intervention program for Hispanic construction workers.

"This occupational group is at high risk of smoking-related health and occupational hazards," said Taghrid Asfar, M.D., M.S.P.H., who is a co-investigator in the initiative. "But smoking cessation efforts have been hindered by several factors, including high workplace mobility, limited access to health promotion services, and lack of culturally sensitive interventions tailored to their work/life circumstances."




Taghrid Asfar, M.D., M.S.P.H., and David J. Lee, Ph.D.

Related Departments

Sylvester Comprehensive Cancer Center

Smoking rates among construction workers

- ❑ Construction workers (CWs) have the highest smoking rate (27.2% vs 21.8%) and the lowest access to effective smoking cessation treatment among all occupations.
 - ❑ The workplace is an effective setting for delivering smoking cessation programs; however, only 6%-14% of construction workers have coverage through such programs.
 - ❑ While the need for workplace smoking cessation programs among construction workers has been recognized as a top priority, no systematic development and implementation of such programs has been attempted.
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The harmful effects of smoking among construction workers

- ❑ Cigarette smoking is strongly associated with significant morbidity and mortality (e.g., lung cancer, cardiovascular disease).
- ❑ Apart from smoking, construction workers are frequently exposed to a wide range of workplace hazards such as carbon monoxide, fumes (e.g., asphalt, welding), air pollutants, and fibers, many of which interact with smoking to increase the risk of lung cancer.
- ❑ Onsite smoking practices also increase the risk for workplace injuries among construction workers.



Smoking among Hispanic/Latino construction workers

- ❑ The number of Hispanic/Latino construction workers has tripled over the last 10 years to 2.8 million, representing nearly 30% of the US construction workforce.
- ❑ Traditional cigarette smoking among Hispanic/Latino construction workers is double that of Hispanics in the general population (31% vs. 16.1%, respectively).
- ❑ Only few smoking cessation trials has been done, with none targeting Hispanic/Latino construction workers.



Challenges for Cessation Efforts among Hispanic Construction Workers

Hispanic Construction Workers generally have lower access to cessation services due to:

- ❑ High mobility/turnover
- ❑ The hectic nature of their work
- ❑ Lack of interventions that are tailored to their culture and work/life circumstances



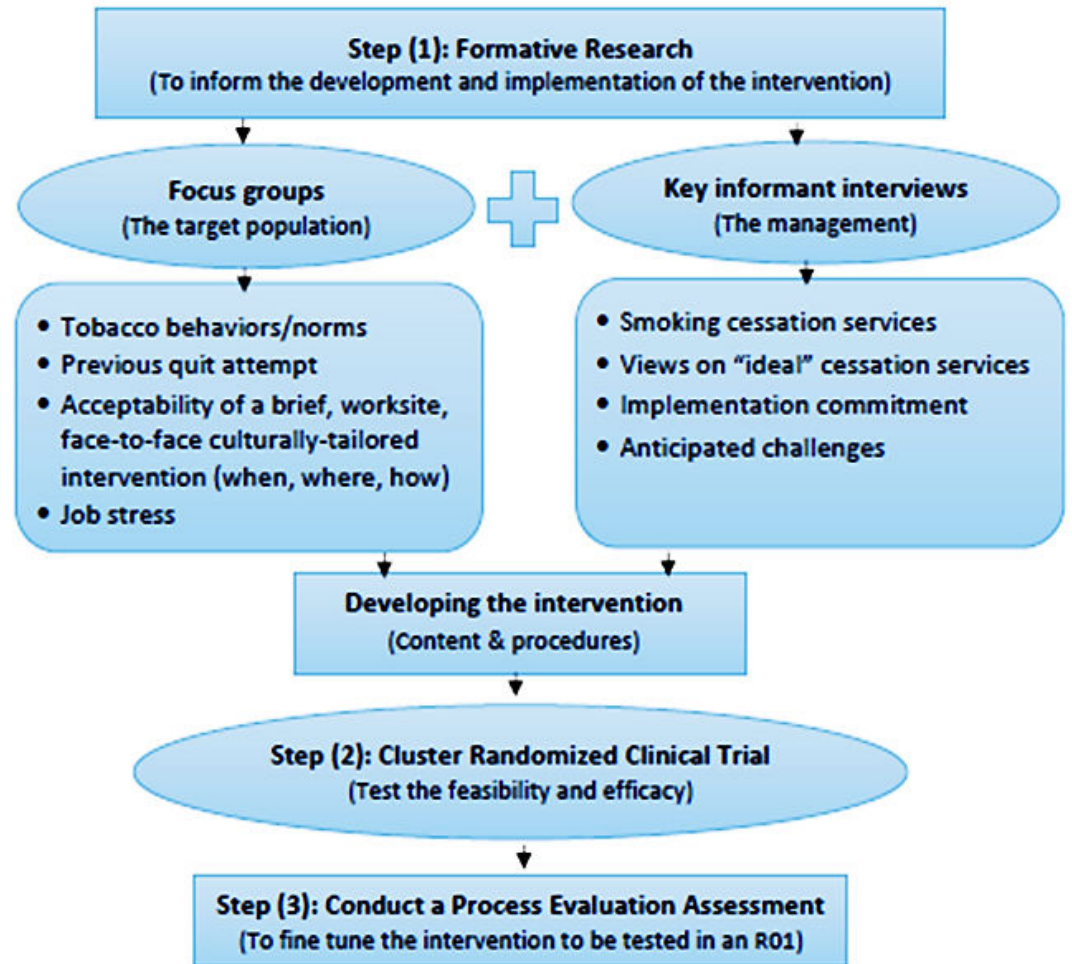
How to increase Hispanic/Latino construction workers' access to cessation services?

- ❑ Provide the service at the construction worksite.
- ❑ Use the “lunch truck” as the intervention delivery modality (Caban-Martinez AJ et al., 2011).
- ❑ Adapt the intervention to their culture and work/life circumstances.



Our Plan

- ❑ **Study (1):** Focus groups with smoking Hispanic workers.
- ❑ **Study (2):** Key informant interviews with key personnel.
- ❑ **Study (3):** Test the feasibility and effectiveness of a developed smoking cessation intervention.

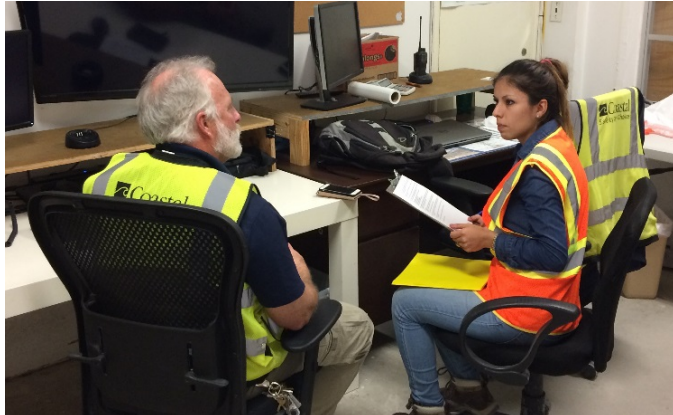


Asfar, T., et al. (2018). "A cluster randomized pilot trial of a tailored worksite smoking cessation intervention targeting Hispanic/Latino construction workers: Intervention development and research design." *Contemporary clinical trials* 67: 47-55.

Results from Focus Groups

- ❑ Most workers tried to quit smoking by their own without assistance and without nicotine replacement treatment.
- ❑ Workers were open to a worksite face-to-face group cessation intervention.
- ❑ Best time would be before/after work, or during the breakfast/lunch break.
- ❑ No need to tailor the intervention to Hispanics/Latinos –except that the intervention should be delivered in Spanish.
- ❑ Workers reported tremendous job stress.





Results: Key Informant Interviews

Objective

Explore their management's views about implementing sustainable worksite smoking cessation services

Methods

- ❑ Semi-structured, 45-minute interviews with 24 key personnel at 6 construction companies were conducted.
- ❑ Interviews were recorded, transcribed, and analyzed thematically.



Results

Most appropriate service

- Self-help material + free medications
- Intervention should be provided in Spanish
- Best time to provide the intervention was in the morning before work

Challenges


- Smoker's low interest in quitting
- Time restriction during work hours
- The cost of the service

Recommendations

- Mandate the service by the State/County
- Obtain company approval and involve safety managers/subcontractors
- Integrate the service into other health promotion programs (e.g., safety and injury prevention)
- Provide the service during the employment orientation training

Intervention Development

□ Test two interventions:

- Enhanced Care: A brief (15 min), face-to-face intervention in group setting + 2 phone calls + 6 weeks NRT + referral to Florida Tobacco Quitlines (FTQs).
 - Minimal Care: 6-week NRT + referral to tobacco FTQs.
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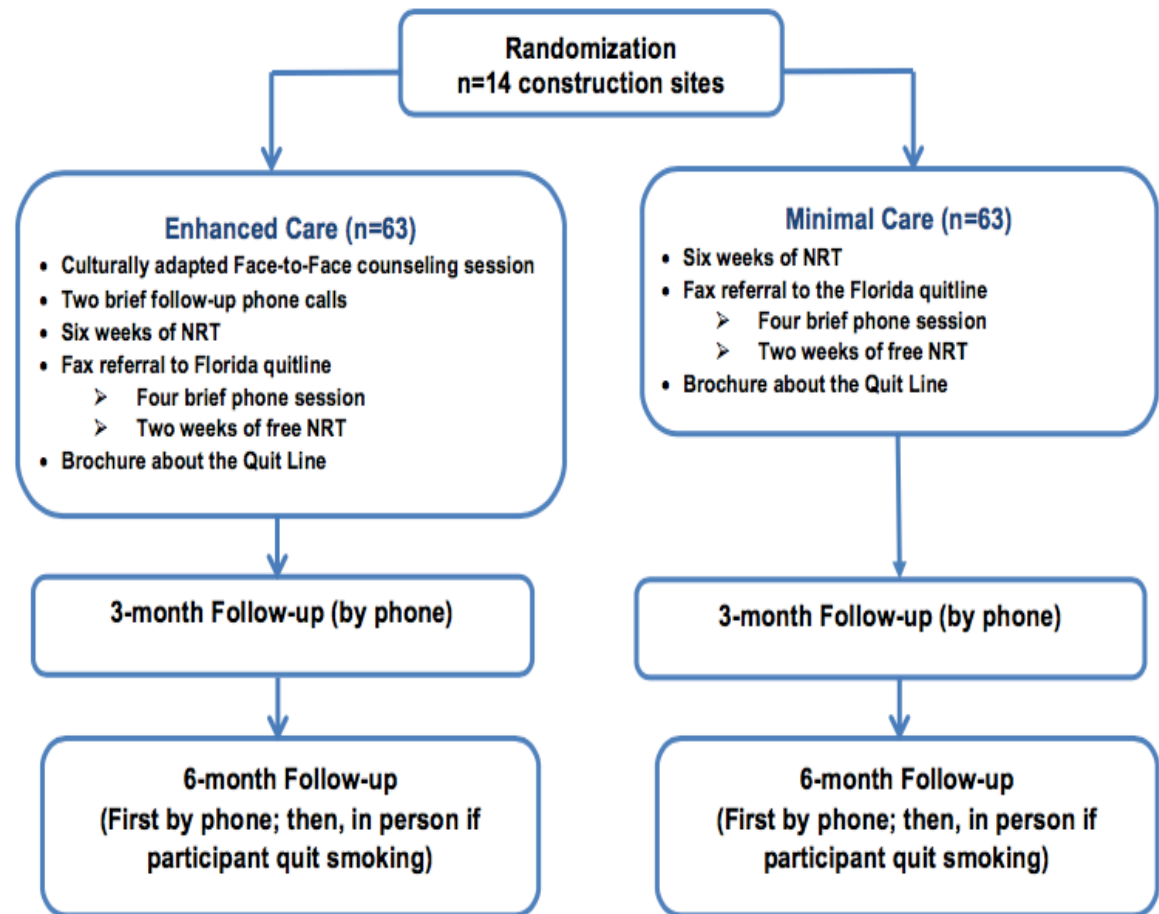


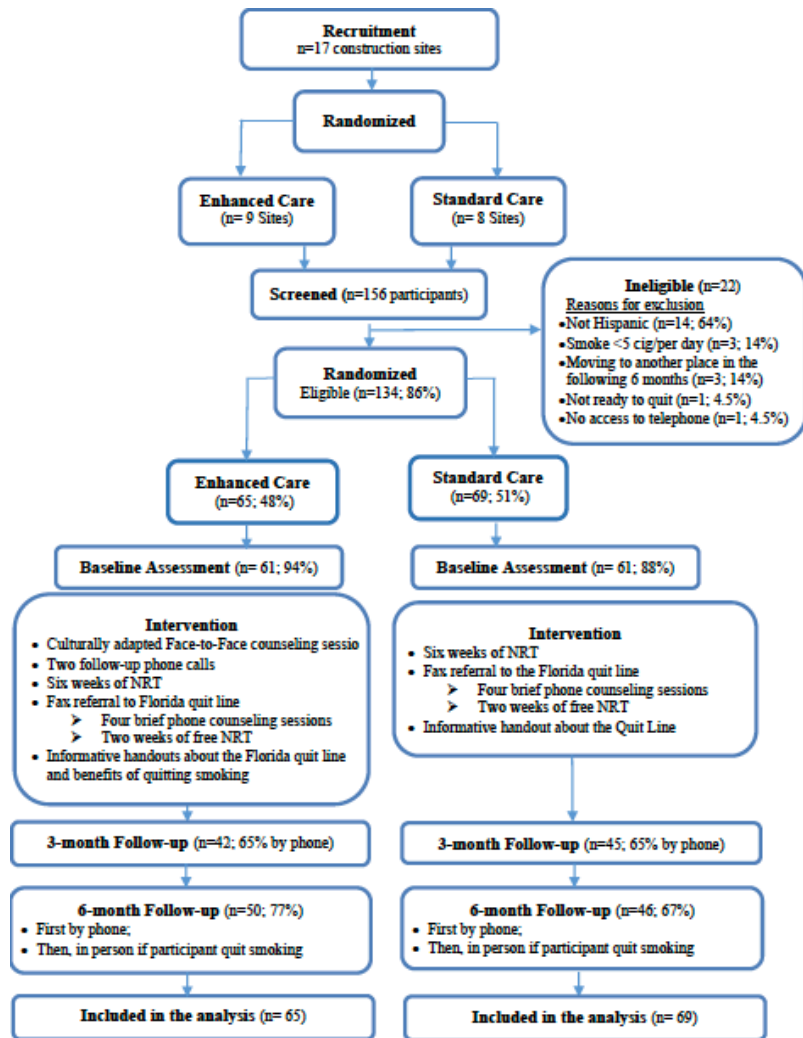
Procedures

- ❑ All study activities occurred during breaks around the lunch truck over two consecutive days to avoid disturbing the workflow.
- ❑ In the first day, we completed screening, enrollment, and baseline assessment.
- ❑ In the second day, we provided the intervention in separated groups, in English or Spanish based on participant's preference.
- ❑ Include techniques for stress management.
- ❑ Involve the site's management and safety managers in the study coordination.



Cluster Randomized Clinical trial






Results


Asfar, T., et al. Implementing A Novel Workplace Smoking Cessation Intervention Targeting Hispanic/Latino Construction Workers: A Pilot Cluster Randomized Trial. Health Education & Behavior. 2020:1090198120960395.




Feasibility

- ❑ Out of 156 adult construction workers who were screened, 22 did not meet the eligibility criteria. Enrollment efficiency was 85.9%.
 - ❑ A total of 134 participants were enrolled and randomly assigned to the EC (9 sites; 65 smokers), or UC (8 sites; 69 smokers).
 - ❑ Six-month follow-up rates were 82.0% and 75.4% in EC and UC, respectively.
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Adherence to treatment

- ❑ In the EC, 93.8% received workplace intervention, 49.2% were contacted by QL, of whom 59.4% were enrolled in the service and 79.0% completed at least one phone call counseling session.
 - ❑ In the SC group, 88.4% received referral to tobacco QL, 40.6% were contacted by the QL, of whom 57.1% were enrolled in the service and 50.0% completed at least one session.
 - ❑ Everyday use of NRT was also higher in the EC group (70.8%) than SC (56.5%)
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Efficacy outcomes

- ❑ Verified prolonged abstinence rates in the EC and SC were 44% and 38% at 3 months.
 - ❑ Verified prolonged abstinence rates in the EC and SC were 27.7% and 20.3% at 6 months.
 - ❑ Seven-day point prevalence abstinence in the EC and SC were 53% and 47% at 3 months, and 27.7% and 20.3% at 6 months, respectively
 - ❑ Participants who did not quit smoking reduced the number of cigarettes smoked per day by 13.4 ± 1.5 (EC), and by 11.5 ± 1.3 (SC).
 - ❑ Between-group differences for the three outcomes were not statistically significant (all $p > .05$).
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Predictors of abstinence

- ❑ The only baseline variable to significantly predict smoking abstinence at 6 months was having higher self-efficacy to resist smoking in social situations (OR = 0.41; 95 % CI, 0.17-0.99]).
- ❑ Although not statistically significant, having a higher motivation to quit smoking marginally predicted abstinence (OR = 0.69; 95 % CI, 0.47-1.02).


Program evaluation

- ❑ Most participants (83.0%) rated the intervention quality as excellent, 85.4% were extremely satisfied with the program, and 85.4% reported that the intervention was very helpful.
 - ❑ Most participants (80.5%) reported that they learned a lot about how to quit smoking, and 87.8% reported that they totally agreed that the program fit their life/work circumstances.
 - ❑ Among those who were successful in quitting smoking, 73.2% followed the program instructions, 56.1% still remembered the content of the intervention, and 58.5% were confident that they could stay off cigarettes for good.
 - ❑ All participants reported that they would recommend the intervention to a friend.
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Previous smoking cessation trials

- ❑ **“Tool for Health,”** tested a telephone-based intervention to promote smoking cessation among construction workers in collaboration with their unions (Sorensen, 2007). The 6-month smoking abstinence rate was 19% based on self-reported point-prevalence abstinence.
- ❑ **“MassBuilt,”** tested a more intensive smoking cessation intervention (8 weekly group sessions + free NRT) delivered to apprentices in collaboration with unions (Okechukwu, 2009). The 6-month abstinence rate was very low (9%) and was also based on self-reported point-prevalence abstinence.
- ❑ Compared to these studies, our intervention achieved the highest 6-month quit rate (27.7%) relative to these studies. This could be explained by two factors:
 1. The intervention was delivered at the WORKSITE and during work hours in a group setting, which might help increase access to treatment and change the social norm about smoking within the organization, encouraging smokers to quit smoking (Biener, 1999).
 2. The intervention was implemented in COLLABORATION with company leadership and workers were introduced and invited to participate in the study directly by their safety managers.

Conclusion

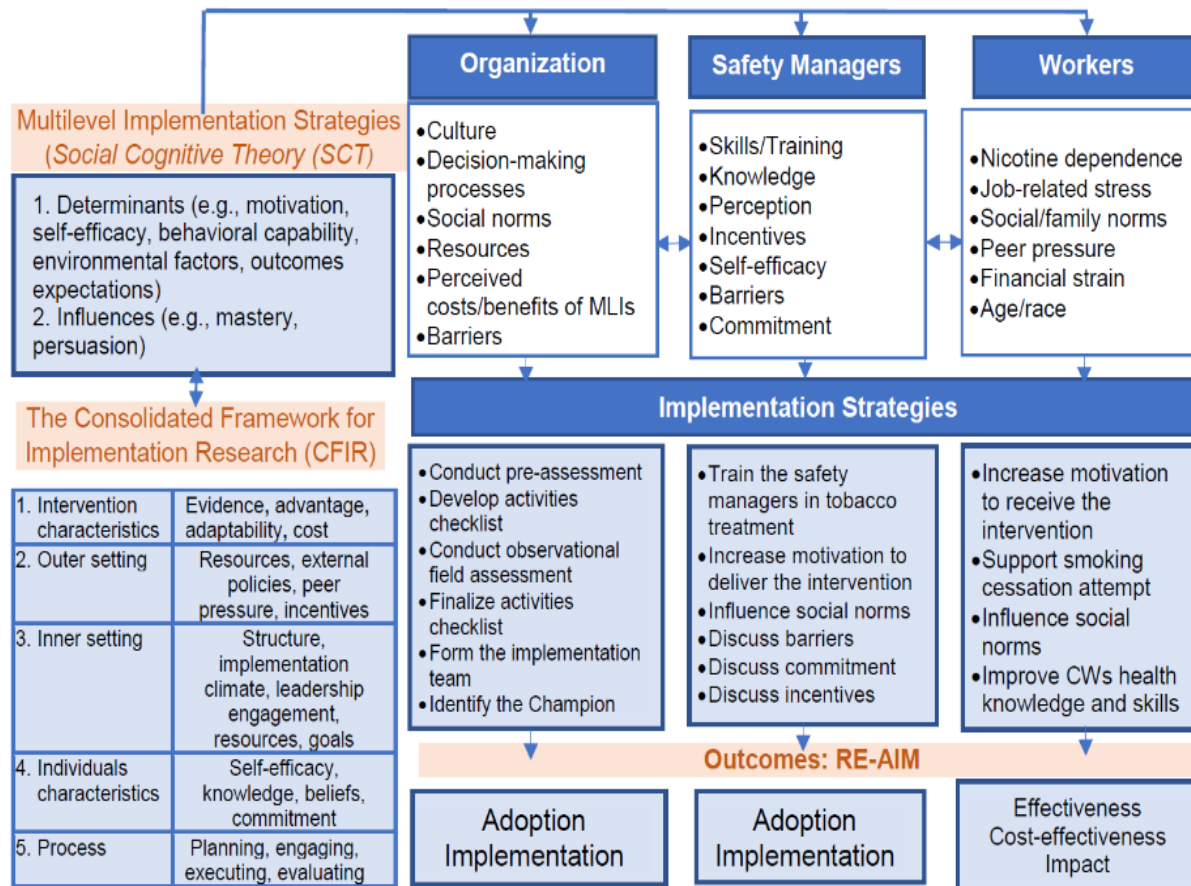
- ❑ Implementing the intervention in the construction worksite was feasible, acceptable, and substantially improved smoking cessation among HCWs (27.7% abstinence rate at 6 months).
 - ❑ Participants were very satisfied with the program and carried out most of the recommended strategies.
 - ❑ Workers with high self-efficacy to resist smoking in social situations were more successful in quitting smoking at 6 months
 - ❑ More efforts and larger trials are needed to optimize strategies to integrate sustainable smoking cessation services in the construction sector.
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Next Step

Scaling Up a Novel Worksite Evidence-based Smoking Cessation program to Reduce Smoking among Construction Workers

Figure 1. Conceptual Framework

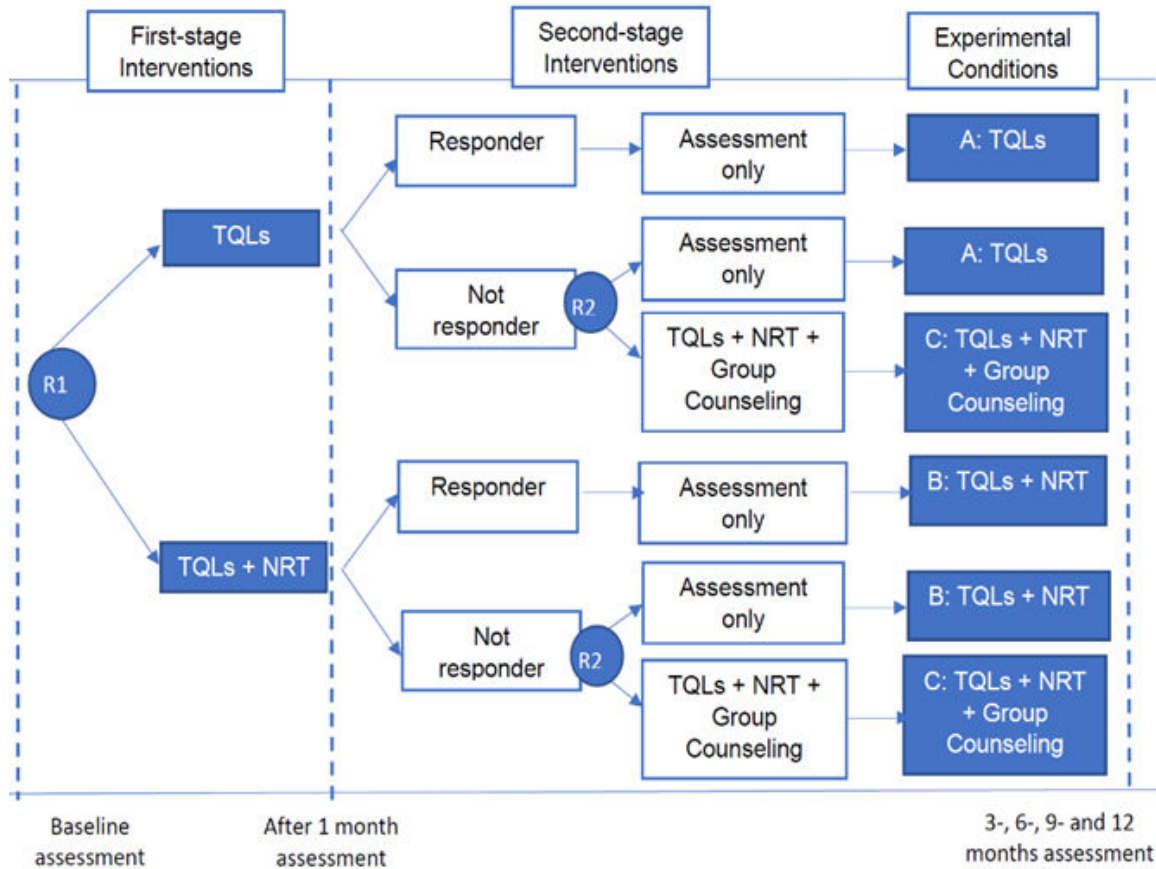


Leveraging R21: Scaling Up a Novel Worksite Evidence-based Smoking Cessation program to Reduce Smoking among Construction Workers.

Aim 1: Develop and Evaluate MLIs of Workplace Smoking Cessation Programs Delivered by Safety Managers in the Construction Sector.

Aim 2: Examine the Implementation, Effectiveness, and Cost-Effectiveness of the 3 Programs Proposed by Company Leaders in SMART

Figure 2. Study SMART Design (Aim 2)



Aim 2

Testing 3 programs with increasing intensity delivered onsite by the safety manager to identify the optimal adaptive program for integration in the construction sector:

A: TQL

B: TQL + NRT

C: (our program) TQL + NRT + 1 group behavioral counseling session

Thank you!

