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SMS Turkey: Harnessing the power of
TXT messaging to promote smoking
cessation

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* Thank you for your interest in this presentation. Please note that analyses included herein are preliminary. More recent, finalized analyses may be available

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Background: Smoking Prevalence

- Between 51-65% of Turkish men and 24-49% of Turkish women 15 years of age and older are smokers (Corrao, Guindon et al., 2000; Emri et al., 2003; Sabah-PIAR Statistical Institute, 1988).
- From 1990-1999, Turkey had the 2nd highest smoking rate increase in the world (52% increase) (Corrao, Guindon et al., 2000)

Background: Morbidity

- Lung cancer is the leading cancer-related cause of death for both men and women (Firat, 1996)
- 83% of deaths from lung cancer is attributed to cigarette smoking in 1995 (Corrao, Guindon et al., 2000)

Background: Mobile phone use

- Cell phones are 2.7 times more common than land-line telephones in Turkey
- In 2008, an estimated 66 million Turkish people were using cell phones.
- Turkey ranks 15th in the world for mobile phone use.

(Central Intelligence Agency, 2010)

Mobile phones as an intervention delivery method

- Scalable
- Cost effective (fewer personnel and infrastructure costs).
- Tailoring of the program

Mobile phones as an intervention delivery method

- 'Always on' capability reach people wherever they are
- Active vs. reactive
- Attract smokers who might otherwise not utilize traditional smoking cessation services.

Cebiniz bırakın diyor

- 6 week program
 - 2 weeks pre-quit
 - 4 weeks post-quit

Program tailored on where in the quitting process: pre-quit, post-quit, relapse

Program tailored on smoking status: 2-day and 7-day post quit date

Cebiniz bırakın diyor

Pre-quit day:

- 3 messages per day, 5 messages on the final day
- Focused on preparing the participant to quit
 - "Congratulations!! The hardest part – deciding to quit – is already behind you. Write down all of the reasons why you want to quit."
 - "When & why do you smoke? Start a smoking diary. Keep track of when you smoke, what you're doing (the activity), how you're feeling, and your craving (from 1-3)."

Cebiniz bırakın diyor

Quit day:

8 message "blitz"

Congrats - today is your special day! It is your first day without cigarettes. Keep yourself busy & without a cigarette today. Think NOPE: Not One Puff Ever!

If you're taking nicotine replacement therapy such as the patch or gum, start using it today! It will help curb cravings for nicotine.

Cebiniz bırakın diyor

After Day 2 and Day 7, participants contacted by the RA to assess their smoking status:

- At Day 2:
 - If Quit – Move to Relapse prevention
 - If not quit – Move to Recommitment to quitting
- At Day 7:
 - If Quit – Continue on to Relapse prevention
 - If not quit (but quit at Day 2) – Move to Recommitment to quitting
 - If not quit (and not quit at Day 2): Encouragement to try again at a later time

Cebiniz bırakın diyor: Relapse prevention

Focused on helping them make the behavior change permanent

Treat every day like your quit day. Pretend like it is the first day without cigarettes and be ready for temptation. (Day 3 post-quit)

Make a list of the new activities that you've started doing now that you're not smoking. For example, walking or other exercise, relaxation, reading. (Day 8 post-quit)

Whether you smoke or not, life gets stressful. Working on the problem instead of hiding the problem (by smoking) feels better. What can you do to handle stress? (Day 26 post-quit)



Cebiniz bırakın diyor: Recommit to quitting

Encouraging person to think about why they smoked, and how to do it differently next time (4 days long)

Have you slipped and had a cigarette? Learn from it. To help stop it from happening again, ask yourself what were you doing when you had your cigarette? (Day 3 post-quit)

Still feel the urge to smoke? You're no longer in physical withdrawal. The urges you feel now are due to your reaction to stress. Have a plan for what to do. (Day 7 post-quit)



Cebiniz bırakın diyor: Encouragement to try again

For those who are smoking at Day 2 **and** Day 7, they receive 3 days of encouragement messages

"Most smokers try to quit 6-7 times before they quit for good. Don't quit quitting!"

"Medicines that treat craving can double your success. Try medicine next time you quit. If you used medicine, try a different one next time. Ask your doctor."



Pilot study

- 75 currently smokers recruited
- Shopping malls and flyers
- Eligibility criteria:
 - Have a cell phone and send/receive text messages
 - Seriously thinking about quitting in the next 30 days
 - Daily smoker
 - No serious health condition (emphysema, heart disease, lung disease)



Pilot study: Participant characteristics

- Half (n=37) were female (by design)
- Age ranged 19-62 years (M: 37.6, SD: 10.8 years)
- 48% married
- Median income: 2000-4000 YTL (avg: 1100)
- 100% texted every day / almost every day

Pilot study: Participant characteristics

- 18.6 cigarettes per day on average
- Average importance of quitting: 10 on a scale of 1-10
- Average confidence in quitting: 6 on a scale of 1-10
- 72% have their first cigarette within the first hour of waking
- Average number of quit attempts in the past year: 2.9

Feasibility: Recruitment and retention

- 4 months of recruitment
- 182 people expressed interest
 - 166 met initial eligibility criteria.
 - 77 (46%) were enrolled.
 - Two were censored prior to program initiation, resulting in a final sample of 75 participants.
- Participant retention was high:
 - Few (1 participant) dropped out of the intervention;
 - Follow-up response rates were high: 63 participants provided carbon monoxide data at 12-week post-quit date.

Acceptability

Half (38) completed the likeability survey questions at 4-weeks

- 78% said the program text messages talked about what they were experiencing and feeling;
- 71% said they were somewhat or very likely to recommend the program to someone else; and
- 39% agreed that the intervention made it easier to quit smoking;

Preliminary cessation data

- Based upon an intent-to-treat analysis, **13%** of participants (n=10) were quit at **12-weeks post-quit** day (i.e., reported having 5 or fewer cigarettes since their quit date and had a CO reading of 8ppm or less).
- **Among those** who completed the 12-week follow up survey and were **still smoking** (n=46), the **number of cigarettes smoked per day was reduced by an average of 5.1 cigarettes** (SD: 6.8 cigarettes) since study enrollment.



Reflections on experience

It was difficult to get people back into the office to complete the feasibility data at 4-weeks. Is there a way to automate / make data collection less burdensome for participants?

CONCLUSION: Data suggest that it's feasible to recruit people into a text messaging-based smoking cessation program. The program is acceptable; many liked it and only one person actively disenrolled.