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Session: Cutting Edge Science for Clinicians: Where
is Addiction Treatment Going?

**Cell Phone Text Messaging Connecting Clients
with Treatment Support Services**

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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 by contacting CiPHR for further information.



Acknowledgements

Two projects will be discussed today.

The first, SMS Turkey, is a collaboration between CiPHR and Hacettepe University in Ankara, Turkey. I'd like to acknowledge my co-investigators:

- Dr. Salih Emri
- Dr. Tulay Bagci-Bosi, and
- Dr. Nazmi Billir

Dr. Jodi S. Holtrop at Michigan State University was an integral contributor to the intervention content.

The second is SMS USA. My co-investigators are:

- Dr. Jodi Holtrop at Michigan State University
 - Dr. Hossein Rahbar at the University of Texas at Houston
- Drs. Amanda Graham and David Strong are consultants on the project.

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Roadmap

1. Rationale for using text messaging as a delivery method
2. Design considerations
3. Target populations

Rationale for cell 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

Rationale for cell phones as an intervention delivery method

- Scalable
- Cost effective to scale up (fewer personnel and infrastructure costs)
- Tailoring while maintaining the fidelity of the program

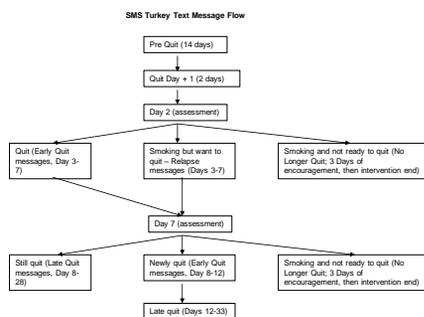
Design considerations

Design considerations: Don't recreate the wheel

Text messaging is a new technology, but your target is an old behavior

What has been done in traditional settings that can be translated?

Design considerations: Have a plan





Design considerations: Have a plan

Messages throughout the day should be like a "discussion". One message can refer to previous message.

- Start a smoking "diary" to find when and why you smoke. Keep track: of when you smoke each cigarette, what you're doing, how you're feeling, and your level of 'need' for it.
- How is your diary going? Put the "diary" paper on the wrapper of your cigarette pack with a rubber band so you'll have it with you every time you smoke. Every time you have a cigarette, fill out one line.



Design considerations: Tailor, but not too much

- Resist the urge to (try to) tailor on *everything*!
- Instead, pick 1 or 2 things and do them well:
 - Smoking program tailored on where in the quitting process: pre-quit, Quit Day, post-quit
 - Tailored by content AND # of messages
 - Different "paths" based on smoking status: 2- day and 7-day post quit date



Design considerations: Tone

Preference towards messages that are **positive**, '**forward thinking**', and not on why they have failed in the past.

- "You can make it another day without smoking",
- "Each day is easier",
- "It's okay to slip up, jump back on and we will help".



Design considerations: Tone

Dislike for negative messages, or those that are lecturing or sound like they are talking to adults like they are 'kids'

- "Some messages seem to focus more negativity of failing than others. Optimism is a better way to go."



Design considerations: Tone

Actionable information is key

- Have messages with ideas on what to do when you want to smoke, and
- Ones that affirm/validate a person's feelings. (e.g., "I bet you are feeling cranky and annoyed right now. That's normal and you can do it!")



Design considerations: # of messages

- Text messaging **habits vary greatly** – from sending 10-400 texts per day (some were not able to able to even estimate amount of texts sent) to receiving 10-300 text per day (again some where not able to even estimate amount of text sent)
- **Some save texts** with important information or from important people. Ways of saving text messages include backing up text to iTunes system, 'locking' messages so they cant be deleted. Others have their phone automatically delete the text once they view message
- Most **read messages as soon as they receive** them – with the exception being if they are in situation where they can not respond



Design considerations: # of messages

- Liked the idea of having messages spaced out throughout the day
- A bit of disagreement on the optimal number of program messages:
 - One participant who texts a lot (200-400) thought that the 'blast' of messages on the quit day should be 15-20.
 - Another participant who texts a lot less thought that 3 per day may be sufficient.



Target Populations

Demographics of teen cell phone users

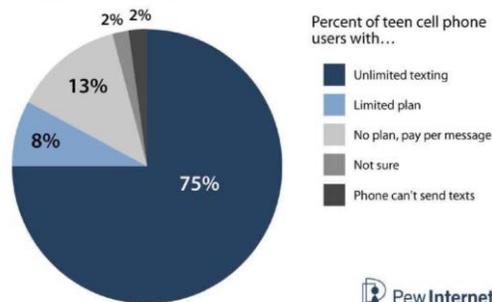
the % of teens in each demographic group who have a cell phone

	% of teens		% of teens
Total teens	75%	Race/ethnicity	
		White, non-Hispanic	78%
Sex		Black, non-Hispanic	75
Boys	74%	Hispanic (English-speaking)	68
Girls	77	Household income	
Age		Less than \$30,000/yr	59%
12-13	66%	\$30,000-\$49,999	76
14-17	80	\$50,000-\$74,999	73
		\$75,000+	87



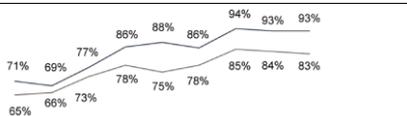
<http://www.pewinternet.org/Presentations/2010/Jun/How-do-they-even-do-that-A-Pew-Internet-guide-to-teens-cell-phones-and-social-media.aspx>

The vast majority of teen cell phone users have unlimited texting



<http://www.pewinternet.org/Presentations/2010/Jun/How-do-they-even-do-that-A-Pew-Internet-guide-to-teens-cell-phones-and-social-media.aspx>

Target populations: Adults



72% send or receive text messages

■ Young adults 18-29
■ All adults 18+

% who own cell phones

- <http://www.pewinternet.org/Presentations/2010/Jun/How-do-they-even-do-that-A-Pew-Internet-guide-to-teens-cell-phones-and-social-media.aspx>
- <http://www.pewinternet.org/Reports/2010/Mobile-Access-2010.aspx>

Target populations: Developing countries (e.g., Turkey)

- 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)



Musings



Text messaging-based programs *can* affect behavior

- Based upon an intent-to-treat analysis, **13.3%** of participants (n=10) were continuously 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.



Take-aways (and cautionary notes)

Text messaging represents an exciting new avenue of intervention delivery.

It is associated with behavior change

And is relatively inexpensive to scale up



Take-aways (and cautionary notes)

BUT...

- Technology is **not** always the answer
- Technology is **not** the intervention. It is simply the delivery mechanism.



Take-aways (and cautionary notes)

Technology has not changed the rules. You still need to:

1. Identify your target audience
2. Figure out where they are (and where they're not)
3. And, *then* determine whether technology is a fit somewhere.