

Lessons learned: Results from two randomized pilots of Internet-based intervention for cancer-related distress

Jason E. Owen, PhD
Erin O. Bantum, PhD
Annette L. Stanton, PhD



Translation of Evidence-Based Interventions for Cancer-Related Distress

- F2F interventions for survivors:
 - Supportive-expressive group therapy has strong empirical support, replicated across trials
 - Cognitive-behavioral elements associated with benefit
 - As a result coping-skills training, SEGTS were prime targets for translation to internet
- development of Internet interventions parallels progress of face-to-face interventions
- Complicated by multitude of methods, very few replications, generally small n & unknown potential for dissemination



Overview

- Goal is to describe 4 key lessons learned from 2 previous trials
 1. Population-level view necessary for dissemination
 2. Treatment elements drive engagement
 3. Patterns of engagement likely linked with outcomes
 4. Tremendous potential to elucidate mechanisms
- Data sources:
 - Survive intervention, $n = 60$ (Owen et al., 2005)
 - Health-space.net, $n = 296$ (Owen et al., *in press*)
 - Retrospective qualitative analysis of:
 - Participants' personal goals, at baseline, for using the intervention ($n = 296$)
 - Barriers to engagement among minimally-engaged users ($n = 25$)



LOMA LINDA UNIVERSITY

The screenshot shows the health-space.net website interface. At the top, the logo "health-space.net" is displayed in white on a blue background. Below the logo, a yellow button reads "Live Chat, Every Wed at 5pm PST". A navigation bar contains links for "Discussion Board", "My Page", "Guidance", "Chat Room", "Facilitator Tools", and "Logout". Below this, a secondary navigation bar includes "Post a Message", "Change Picture", "Show db/Refresh", "Viewing Options", and "Search".

The main content area features a message from a facilitator:

The theme we are encouraging for this week is [Learning to Relax Your Body and Mind](#)
This week's homework: [Relaxation and Imagery](#)

Now Online • • [lason1](#)

Subject: chat tonight
Wednesday, May 23, 2012 6:50 pm Mood: energized 😊 Distress: 3

Ketyne Facilitator
Many thank yous to [ceci](#) and [lilypit](#) who joined the chat tonight! We discussed some of the things that make it hard for cancer survivors to ask for help. But being able to share those feelings with important others, and recognizing not so helpful thoughts and speaking more accurate ones to yourself can be helpful to get the help you need. The homework for this week is now posted, please take some time to post your blog this w ...more...

1 view 0 replies [reply](#) [send private](#) [read more](#)

Subject: Welcome
Thursday, May 17, 2012 4:45 am Mood: Weepy 😞 Distress: 4

lilypit
Welcome adegarrison and Leslie. I hope u join the chat every week as they are so helpful and u make great friends along the way! A temporary goodbye to our graduates. I'll see u in the alumni chat when I graduate. You have all been an inspiration to me!

0 views 0 replies [reply](#) [send private](#)

Dissemination Potential: Sampling Matters

- Recruitment fractions: 24% in registry vs 32% in Internet sampling; follow-through twice as high in Internet sample
- Survivors recruited via population registry compared to Internet sample were less highly educated, closer to time of diagnosis, and less likely to have advanced disease



LOMA LINDA UNIVERSITY

Dissemination Potential: Sampling Matters



LOMA LINDA UNIVERSITY

Owen et al. (in press) *J Behav Med*

Treatment Elements Drive Engagement

- Key assumption is that engagement is important to outcomes; most internet txs don't come close to matching times spent engaged in f2f trials
- Discussion board, even if professionally-facilitated, is associated with very weak engagement
- Weekly, facilitated chat associated with much higher engagement
- Professional facilitation is critical, and the better we got, the more engaged participants got (e.g., alumni group)
- Patients are not however, after facilitation- their goals are primarily around personal connection with other survivors
- Social-networking results in high engagement and is closely linked with engagement with psychoeducational modules, but time spent using social-networking far outweighs time spent engaged with tx modules



LOMA LINDA UNIVERSITY

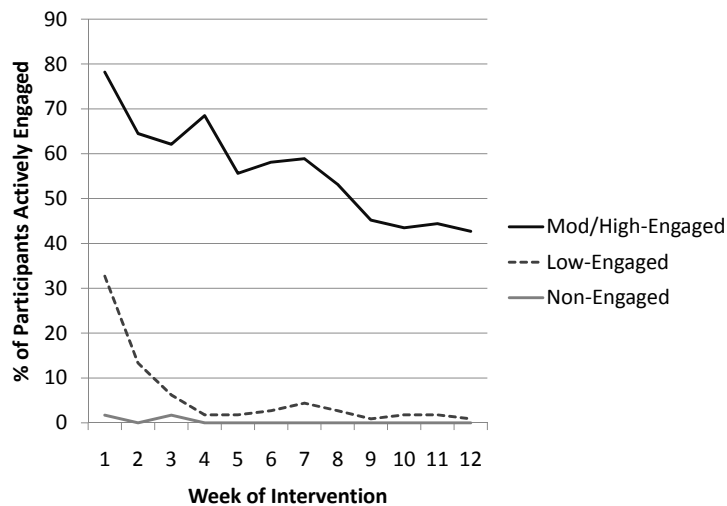
Treatment Elements Drive Engagement

	Non-Engaged Users (n = 59)	Low-Engaged Users (n = 113)	Moderate – Highly Engaged Users (n = 124)	All Users Combined (n = 296)	<i>Between-Group Differences</i>
Social-Networking Components					
Discussion Board	2.2 (2)	29.8 (28)	312.9 (300)	142.9 (243)	***
Personal Pages	0.5 (1)	17.6 (20)	300.0 (303)	132.4 (243)	***
Webmail	0 (0)	0.1 (0.6)	4.1 (9.1)	1.8 (6.2)	***
Structured Intervention Components					
Guidance Modules	0.3 (1)	8.3 (14)	96.0 (82)	43.4 (70)	***
Facilitated Chat	0.1 (0.4)	2.9 (12)	278 (305)	117.7 (240)	***
Total Time Using Intervention	3.1 (3)	58.8 (45)	991.0 (808)	438.2 (703)	***



LOMA LINDA UNIVERSITY

Treatment Elements Drive Engagement



Understanding & Improving Engagement

- Intervention only effectively reaches 42% of survivors
- On average, however, engagement was higher than most common social-networking sites, with the exception of Facebook
- Qualitative analysis tells us quite a bit about what the other 58% might need from I-I:
 - “People like me”
 - More intense assistance in using the site
 - Personal attitudes about internet intervention



LOMA LINDA UNIVERSITY

Elucidating Mechanisms of Action

- Survive linguistics data
- Linguistic predictors of responsiveness from other group members in health-space



Summary

1. How can we better understand how to mix & match treatment elements? *Open sourcing & sharing of evidence-based methodologies in the service of maximizing effect sizes*
2. How can we improve engagement? *Finding a better match between intervention & participant goals, understanding survivors' needs, through participatory research.*
3. How to improve tx effects? *Tremendous, currently unleashed potential for identifying mechanisms of action using linguistic, social-networking, and other behavioral data*

Acknowledgments

Co-Investigators

Erin Bantum, Ph.D.
Annette Stanton, Ph.D.
Noemie Elhadad, Ph.D.

Facilitation

Erin Bantum, Ph.D.
Mitch Golant, Ph.D.
Natalie Kaiser, Ph.D.
Laura Testerman, M.A.
Kristen Richards, M.A.
Ketlyne Sol, M.A.
Amanda Gorlick, M.A.

Research Assistants

Kevin Criswell
Julie Bazzo
Andrea Lewallen
Narineh Hartoonian
Susan Lee
Suranee Abeyesinhe
Laura Boxley

Funding



1R03CA137391-01A1



LOMA LINDA
UNIVERSITY