Social Support for Weight Loss in a Public Internet Community

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Society of Behavioral Medicine
Montreal
April 24, 2009
Social interactions affect body weight

- Obesity spreads through social network\(^1\)
- Social support (SS) facilitates weight loss and weight loss maintenance\(^2-5\)

Many individuals lack SS for weight loss\(^6-8\)

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BACKGROUND

- No universal definition of SS
- Commonly recognized SS types
  - Informational
  - Emotional
  - Instrumental (tangible)
  - Appraisal (feedback)

BACKGROUND

- Internet weight loss communities offer new opportunities to access SS via discussion forums & blogs
- Little is known about this source of SS
OBJECTIVE

To explore themes relevant to SS for weight loss as exchanged among members of a large Internet weight loss community
METHODS

- Members of the SparkPeople Internet weight loss community
- Qualitative
  - Online surveys
  - Telephone interviews
  - Review of discussion forum messages
- Quantitative tabulation of social support types
METHODS

SparkPeople weight loss community

- Free
- Publicly available
- >250,000 members log in monthly
- Nov 2008: 3rd most visits among weight loss websites and 5th most pages viewed among health websites
<table>
<thead>
<tr>
<th>Topic</th>
<th>Starter</th>
<th>Posts</th>
<th>Last Post</th>
</tr>
</thead>
<tbody>
<tr>
<td>Today I will not...</td>
<td>KELLYSHERRON</td>
<td>577</td>
<td>BROOKECLEM 4/19/07 2:00 A</td>
</tr>
<tr>
<td>What are you going to do TODAY?</td>
<td>KAWS73</td>
<td>1595</td>
<td>NINAMORE 4/19/07 1:37 A</td>
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<tr>
<td>crystal light</td>
<td>KADIJUNEBUG</td>
<td>4</td>
<td>KADIJUNEBUG 4/19/07 1:28 A</td>
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<tr>
<td>Finally realizing the benefits of daily exercise!</td>
<td>GPIELSTICK</td>
<td>851</td>
<td>AMBERCAT2 4/19/07 1:04 A</td>
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<tr>
<td>dieting while greiving</td>
<td>ARMYWIFEWELCH</td>
<td>5</td>
<td>SHADOWFUP 4/19/07 1:25 A</td>
</tr>
<tr>
<td>Do you ever just feel too tired to do exercise</td>
<td>LISAHURREN</td>
<td>49</td>
<td>NADIATION 4/19/07 1:54 A</td>
</tr>
<tr>
<td>My favorite part of my body today is...</td>
<td>WANNAFAILOSER</td>
<td>2079</td>
<td>NADIATION 4/19/07 1:29 A</td>
</tr>
<tr>
<td>Finish this sentence...Today I'm Thankful For...</td>
<td>WANNAFAILOSER</td>
<td>4278</td>
<td>THINSPIRED_ME 4/19/07 1:24 A</td>
</tr>
<tr>
<td>Signs of progress other than the scale</td>
<td>GGMYFULLNESS</td>
<td>1689</td>
<td>HOWARD MOORE 4/19/07 1:21 A</td>
</tr>
<tr>
<td>When You don't get the support you need from home</td>
<td>GOOBERLISHOUS</td>
<td>27</td>
<td>NADIATION 4/19/07 1:38 A</td>
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<tr>
<td>&quot;What have you done today to make you feel proud?&quot;</td>
<td>WANNAFAILOSER</td>
<td>7771</td>
<td>HOWARD MOORE 4/19/07 1:37 A</td>
</tr>
<tr>
<td>I really do want to do this for myself... so what</td>
<td>BRANDYM2</td>
<td>2</td>
<td>NADIATION 4/19/07 1:24 A</td>
</tr>
<tr>
<td>What Made You SMILE?</td>
<td>SMYLEERED</td>
<td>199</td>
<td>VEGPUNK 4/19/07 11:52 A</td>
</tr>
</tbody>
</table>
METHODS - Surveys

- SurveyMonkey tool
- Recruitment messages posted on forums and sent by email
- Eligibility: ≥ 18 years and received support for weight loss from SparkPeople members in past 4 weeks
METHODS - Surveys

- Demographic & clinical characteristics
- Use of SparkPeople SS features
- Viewpoints on other members
- “What kinds of things have SparkPeople members said or done to help with your weight loss effort in the past 4 weeks?” - up to 10 free text answers
METHODS - Interviews

- Random selection of survey respondents who indicated interest in interview
- Telephone interview
- Open-ended questions about SS experiences
- Recorded & transcribed
METHODS – Forum messages

- 9 weight loss forums
- Analyzed threads started on a randomly selected day from 1/1 to 3/31, 2008
- *Not* restricted to survey/interview participants
METHODS – Identifying SS themes

- Data sources: surveys, interviews, forums
- Inductive, grounded theory approach
  - Reviewers read data and met for discussion
  - Repeated until saturation
  - Codebook compiled
METHODS – Tabulating SS types

- 2 reviewers categorized survey responses into major SS types from codebook
- Kappa: 0.83 – 1.00
- Differences resolved by consensus
RESULTS - Surveys

Demographic & clinical data

- 193 SparkPeople members
- 893 responses to open-ended question
- Age 37.3 (SD 11.5)
- Female 93.8%, white 91.4%
- BMI 30.9 (SD 7.5), 75% obese/overweight
- 48.1% ≥ 1 weight-related comorbidity
RESULTS - Surveys

Use of SS features, \textit{daily or more frequently}

- Read weight loss messages 56.8%
- Replied to weight loss messages 36.1%
- Started discussion 18.5%
RESULTS - Surveys

View of other members, agree or strongly agree

- Available for help: 91.7%
- Respond quickly to questions: 86.0%
- Understand situation: 99.0%
- Make me feel part of a group: 92.2%
- More helpful than other people: 60.2%
RESULTS - Interviews

- 121 survey respondents indicated initial interest in interview
- 28 were randomly invited
- 13 completed telephone interviews
RESULTS – Forum messages

- 1924 messages within 217 threads
RESULTS – SS themes

Major themes

- Information
- Encouragement & motivation
- Shared experiences
RESULTS – SS themes

Major theme: Information

- Information, advice, and tips related to weight loss via several channels
  - Information in response to question they posted on a forum
  - Observing interactions on forums and blogs without posting messages ("lurking")

- Topics: diet/nutrition and exercise/fitness
RESULTS – SS themes

Major theme: **Encouragement & motivation**

- Helps with
  - Persisting with the lifestyle changes
  - Recovering from mistakes
  - Overcoming barriers

- Sources
  - *Testimony* about someone else’s efforts, success
  - Receiving *recognition for success*
  - Keeping each other *accountable* with regards to nutrition and physical activity behaviors
Major theme: Shared experiences

- Common goals, struggles, experiences
- Produces empathy
- *Friendly competition* to strive towards a specific goal
- *Non-judgmental interactions* and accountability
- Belonging to a team or family
RESULTS – SS themes

Sub-themes

- Testimonies
- Recognition for success
- Accountability
- Friendly competition
- Humor
- Face-to-face interaction
RESULTS – SS characteristics

Cross-cutting, unique characteristics

- Anonymous
- Non-judgmental
- Convenient
RESULTS – SS characteristics

Characteristic: Anonymous

- Freedom to discuss sensitive topics in an honest fashion
- Facilitates non-judgmental interactions
RESULTS – SS characteristics

Characteristic: Non-judgmental

- Other members don’t judge them negatively when they report failures or struggles
- No judgment based on physical appearance
- Related to anonymity
RESULTS – SS characteristics

Characteristic: Convenient

- Dynamic environment - responses to questions at any time, often within minutes or hours
- Overcomes geographic barriers
“What kinds of things have SparkPeople members said or done to help with your weight loss effort in the past 4 weeks?”

- Encouragement & motivation 87.6%
- Information 58.5%
- Shared experiences 42.5%
DISCUSSION

Key findings

- Members of a large, publicly-available Internet weight loss community share SS in the form of encouragement and motivation, information, and shared experiences.

- Members cherish unique aspects of Internet-mediated SS, such as convenience, anonymity, and the non-judgmental nature of interactions.
DISCUSSION

Strengths

- Multiple data sources
- Inductive, “ground up” approach
- Rich and multifaceted understanding of SS exchanged within the community
DISCUSSION

Limitations

- Only 1 community
- Mostly white women - consistent with the general SparkPeople membership and other online health communities
- Selection bias? - Survey respondents more active in the community or had more positive SS interactions
  - Respondents similar in age and gender to general membership
  - Analyzed forum messages from a broader sample of members
  - Potential SS benefit - best evaluated by studying active participants?

DISCUSSION

Implications

- Internet weight loss communities may be a valuable resource for clinicians to recommend to patients
- Study shows potential benefit that participants can receive
- Since weight loss depends more on persistence with caloric reduction and physical activity rather than selecting “correct” diet, many individuals might benefit more from SS than from professional counseling
DISCUSSION

Future research

- Clarify optimal role of Internet weight loss communities
- Prospective studies to determine who will participate in and benefit from Internet weight loss communities
- Develop questionnaire for Internet-mediated SS for weight loss
Conclusions

- Internet weight loss community
  - prominent and unique role in participants’ weight loss efforts
  - merits further evaluation as a weight loss resource
- Understanding participants and benefits of these communities → evaluate, build, harness, and manipulate SS for weight loss
Acknowledgements

- Angela Green & Roseann Cannon – data review
- David Heilmann – SparkPeople
- Lynn Medeiros – transcription

Funding
- Clinical Investigator Award (Center for Clinical Research and Evidence-Based Medicine)
- Pilot Project Award (Center for Clinical and Translational Sciences)