The workplace, social isolation, and health outcomes

Justin Moore, MD, FACP
At the end of this talk, you should be able to:

• Define social isolation and loneliness
• Understand that social isolation and loneliness are risk factors for poor health and death
• Identify risk factors for isolation, including workplace-related factors
• Propose potential personal and workplace interventions for social isolation
Disclosures/caveats:
Not an engineer
Not an economist
Not a psychologist
Not a sociologist
I do treat patients
I have been isolated
30% of those over age 65 live alone
50% over age 85
“Now and then, especially at night, solitude loses its soft power and loneliness takes over. I am grateful when solitude returns.”

- Donald Hall

Social isolation: lack of contact between an individual and society

Loneliness: social connections fall short of what you desire
Both are bad for you

• Social isolation: 29% increased mortality
• Loneliness (subjective or objective): 26% increased mortality
• Living alone: 32% increased mortality
  • The sicker you are otherwise, the stronger the association
  • The younger you are, the more predictive the association
The prototypical lonely/isolated person

- Male
  - Masculine
- Elderly
- Unemployed
- Gig economy
- Ill
- Divorced/widowed
- Summertime (not Christmas)

Humans aren’t cats, we’re bees
What fuels the engine of loneliness?
SON: Ed, now eight is only allowed to walk on his own to the end of his street (300 yards).

GRANDFATHER: Jack aged eight in 1950. Able to walk about one mile on his own to the woods.

GREAT-GRANDFATHER: George aged eight in 1910. Allowed to walk six miles to go fishing.

MOTHER: Vicky aged eight in 1979 was allowed to walk to the swimming pool alone half a mile away.

What fuels the engine of loneliness?

“On average, children aged 10 to 16 now spend only 12.6 minutes a day on vigorous outdoor activity compared with 10.4 waking hours being relatively motionless.”

Arch Pediatr Adolesc Med 2012, PMID: 22473885
“Since 1970, the average age of onset of “regular” screen use has gone from 4 years to just four months.”

• 12th-graders in 2015 left the house less often than eighth-graders did in 2009

• 56% of high-school seniors in 2015 went out on dates
  • 85% of their parents did as seniors

• Sexual activity among 9th graders is down 40% since 1991
  • Teen birth rate hit an all-time low in 2016, down 67% since 1991
The average teenager checks her phone 95 times per day (nine hours’ worth, not including talking).

Kids’ default, network setting is social cognition

- What you think about when you’re bored:
  - Yourself
  - Others
  - Your relationship to others
- True of newborns even before they can recognize faces
- <3 seconds to activate
- Loss of social activity is painful

Fig. 2. Exposure-response relationship between electronic device use and having at least one suicide-related outcome, bivariate and with demographic controls for race, sex, and grade, 9–12th graders, Youth Risk Behavior Surveillance Survey (YRBSS), 2009–2015.

The Social Suite

• Love
• Friendship
• Cooperation
• Teaching

• Consistent worldwide, in urban and rural populations both technical and primitive
• Violated in forms of communication that don’t allow for social cues
Falling suicide rates – for most

Between 2000 and 2012, the number of suicides per 100,000 individuals fell for most western European countries except the Netherlands. Meanwhile, the U.S. rate rose by 24.2 percent.

<table>
<thead>
<tr>
<th>Country</th>
<th>2000</th>
<th>2012</th>
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<tbody>
<tr>
<td>Spain</td>
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</tr>
<tr>
<td>United Kingdom</td>
<td>7.8</td>
<td>6.2</td>
</tr>
<tr>
<td>Netherlands</td>
<td>8.2</td>
<td>7.9</td>
</tr>
<tr>
<td>United States</td>
<td>12.1</td>
<td>9.8</td>
</tr>
<tr>
<td>Germany</td>
<td>11.1</td>
<td>9.2</td>
</tr>
<tr>
<td>Norway</td>
<td>11.5</td>
<td>9.1</td>
</tr>
<tr>
<td>Sweden</td>
<td>11.5</td>
<td>11.1</td>
</tr>
<tr>
<td>Denmark</td>
<td>12.0</td>
<td>8.8</td>
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<tr>
<td>Luxembourg</td>
<td>13.3</td>
<td>8.7</td>
</tr>
<tr>
<td>France</td>
<td>14.9</td>
<td>12.3</td>
</tr>
<tr>
<td>Switzerland</td>
<td>15.6</td>
<td>9.2</td>
</tr>
<tr>
<td>Austria</td>
<td>16.3</td>
<td>11.5</td>
</tr>
<tr>
<td>Belgium</td>
<td>18.0</td>
<td>14.2</td>
</tr>
<tr>
<td>Finland</td>
<td>20.8</td>
<td>14.8</td>
</tr>
</tbody>
</table>

*Rate standardized by age.*

Chart: The Conversation, CC BY-ND - Source: World Health Organization - Get the data

2015: 22% of men without a college education had not worked at all in the prior 12 months

2000: <10% of such men were in similar circumstances

What’s happening to the excess time?

- Of the rise in leisure time, 75% was accounted for by video games.

- Newly ubiquitous mind-altering drugs may challenge us further on this point.

- “Gaming disorder” now has a diagnosis code.
• Heaviest social media users are Gen X (ages 35-49):
  • ~7 hours/week
  • Increases by 17 minutes/year

Keynes: “Economic Possibilities for our Grandchildren”

• The 21st century 15-hour workweek:
  • “For the first time since his creation man will be faced with his real, his permanent problem, how to occupy the leisure.”

• Work was: a means of material production

• Work is: For some, a religion, a source of identity. Maybe their only source of community

What are young men missing out on?

• ~30% of Americans like their work\(^1\)
  • 52% are “sleepworking”
  • 18% hate or fear their work

• 40% feel physically and emotionally isolated in the workplace\(^2\)

• One-fourth of \textit{employed} adults are paid sub-poverty wages\(^3,4\)

• Almost half of full-time \textit{employed} adults in this country are eligible for food stamps\(^5\)

• The “gig economy” never shuts off

• Roughly half of existing jobs will be replaced by computers or robots within 20 years\(^6\)

\(^1\)http://news.gallup.com/poll/165269/worldwide-employees-engaged-work.aspx, accessed 4/24/18;
\(^2\)https://hbr.org/2019/02/the-surprising-power-of-simply-asking-coworkers-how-theyre-doing, accessed 3/6/19;
\(^3\)https://aeon.co/essays/what-if-jobs-are-not-the-solution-but-the-problem, accessed 4/3/18;
Tribe

Identity

Status that is understood by the other players
Electronic devices are drug-like

- Substance use = poor decision making
- Increased social media use = worse performance on the Iowa Gambling Task\(^1\)
- Forced discontinuation of social media leads to long-term discontinuation\(^2\)

\(^1\)J Behav Addict. 2019, PMID: 30626194
\(^2\)http://web.stanford.edu/~gentzkow/research/facebook.pdf, accessed 2/14/19
*findings similar for life satisfaction and body mass index

Am J Epidemiol 2017 PMID: 28093386
New Poll Finds Public Becoming More Skeptical Of Profit-Driven Corporate Data Mine Powered By Human Misery
Why?

• We don’t see the real person; we see a stylized version of the person\(^1\)
• Negative social comparisons → increased “rumination” → depressive symptoms\(^1\)
• Endless scrolling contributes to a feeling of having “wasted time”\(^2\)
• People commit a “forecasting error” by expecting to feel better after phone use\(^2\)

\(^1\) Psychology of Popular Media Culture, 2(3), 161-170. [http://dx.doi.org/10.1037/a0033111](http://dx.doi.org/10.1037/a0033111), accessed 3/29/18

\(^2\) Computers in Human Behavior, 35, 359-363. [https://doi.org/10.1016/j.chb.2014.03.003](https://doi.org/10.1016/j.chb.2014.03.003), accessed 3/29/18
How many friends could you call on in a crisis?

• Average # Facebook friends: ~150

• Average # Facebook friends you “could depend on during an emotional crisis”: 4.1

• Average # of Facebook friends who you would express "sympathy" toward: 13.6

http://rsos.royalsocietypublishing.org/content/3/1/150292, accessed 4/23/18
What is social media worth?

• Your employees’ privacy, attention, and time are valuable
• 50 minutes daily on Facebook = ~2 years of life over the next 50 years
  • at minimum wage = ~$110,000

• Median compensation to give up Facebook = ~$40-50
  • Most highly valued among women and elderly

What can we do about any of this?
Decreasing social isolation of kids

• Let them seek real experiences, outdoors and away from screens
  • Sports are good; minimally supervised, unstructured play with other kids is better

• Even the presence of a phone on the table alters interaction:
  • Create “sacred spaces” to reclaim conversation and non-verbal cues
    • Kitchen
    • Dining room
    • Bedroom

• “The greatest favor you can do your sister, mother, lover, professor, student is to put away your phone.”

“Conversation-centric” Communication

• Look for opportunities to hear or see “advanced analogue cues”:
  • Face-to-face (facial expressions)
  • Video chat (facial expressions)
  • Phone call (tone of voice)

• Social media, email, and text/IM do not count as conversations
Religious attendance may actually make us healthier and wealthier

“Doubling the rate of religious attendance raises household income by 9.1 percent, decreases welfare participation by 16 percent from baseline rates, decreases the odds of being divorced by 4 percent, and increases the odds of being married by 4.4 percent.”

- Living with co-religionists may lead to better economic outcomes through increased religious participation:
  - Increased number of social interactions in a way peculiar to religious settings
  - Financial and emotional "insurance" that help people mitigate setbacks
  - Religious schools may confer a small advantage

- Religious faith may simply improve well-being directly by enabling the faithful to be "less stressed out" by the problems of every day life

http://www.nber.org/papers/w11377, accessed 10/18/17
NHS “Befriending Project”

- No effect on loneliness *per se*
- No effect on depression
- Overall improvement in patient-reported outcomes

BMJ Open 2017, PMID: 28446525
Guidelines for setting up a program here:
### Table 3. Mean comparisons for loneliness and quality of life.

<table>
<thead>
<tr>
<th>Outcome</th>
<th>Group</th>
<th>Baseline</th>
<th>1 Week post</th>
<th>6 Weeks post</th>
<th>12 Weeks post</th>
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<th>p</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
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<tr>
<td>Loneliness (R-UCLA)</td>
<td>LISTEN</td>
<td>46.00</td>
<td>5.33</td>
<td>43.57</td>
<td>5.89</td>
<td>7.10</td>
<td>41.19</td>
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<tr>
<td></td>
<td>Control</td>
<td>51.79</td>
<td>9.55</td>
<td>48.08</td>
<td>10.47</td>
<td>45.42</td>
<td>11.43</td>
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<tr>
<td>Quality of life (VAS)</td>
<td>LISTEN</td>
<td>7.07</td>
<td>1.94</td>
<td>7.33</td>
<td>1.59</td>
<td>7.26</td>
<td>1.98</td>
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<tr>
<td></td>
<td>Control</td>
<td>7.41</td>
<td>1.91</td>
<td>6.33</td>
<td>2.10</td>
<td>6.79</td>
<td>3.08</td>
</tr>
</tbody>
</table>

Note: R-UCLA is the revised 20-item UCLA Loneliness Scale (scores range from 20 to 80). VAS is the Visual Analog Scale for Quality of Life (scores range from 0 to 10). * = p < 0.05.

| Outcome                        | LISTEN         | 137.63   | 14.41       | 126.93       | 13.62         | 6.43| *0.02|
|                                | Control        | 132.67   | 20.84       | 130.00       | 18.33         |     |      |

| Outcome                        | LISTEN         | 77.98    | 8.18        | 75.00        | 9.03          | 1.92| 0.18|
|                                | Control        | 77.33    | 11.95       | 74.58        | 9.13          |     |      |

| Outcome                        | LISTEN         | 29.94    | 7.93        | 29.52        | 7.97          | 2.61| 0.12|
|                                | Control        | 30.67    | 5.91        | 29.53        | 7.97          |     |      |

Note: Variables are presented in order of presentation in the PNI model (Fig. 1). * = p < .05, ** = p < .01. GDS is the 5-item Geriatric Depression Scale.
Case study: CareMore “Togetherness Program”

• Unit of Anthem insurance
• Outreach workers (led by a social worker) connect with clients by phone
• “Friendly visitor” program of home visits
• Waiting areas repurposed social spaces for “drop-ins”
  • “If you’re a patient with chronic disease and you’re going to the care center for social interaction, you’re more likely to ask for your blood sugar or weight to be checked.” —Dr. Sachin Jain
• Senior-focused gyms (“Nifty After Fifty”) at most care centers

https://www.statnews.com/2017/05/08/loneliness-seniors-anthem-caremore/, accessed 1/18/18
Deactivating social media makes adults happier

http://web.stanford.edu/~gentzkow/research/facebook.pdf, accessed 2/14/19
Fig. 2. Exposure-response relationship between electronic device use and having at least one suicide-related outcome, bivariate and with demographic controls for race, sex, and grade, 9–12th graders, Youth Risk Behavior Surveillance Survey (YRBSS), 2009–2015.


Even one week of increasing *composed, directed* social media posts may actually increase happiness.

Soc Psychol Personal Sci. 2013 PMID: 24224070
Increased targeted, composed communication, especially to/from close friends and family

- People who get targeted, composed messages feel better
- “Likes,” status updates, or information from unknown people → no change

Table 4: Estimated changes in psychological well-being from Facebook communication.

<table>
<thead>
<tr>
<th></th>
<th>Model A</th>
<th>Model B</th>
<th>Model C</th>
<th>Model D</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Overall Comm.</td>
<td>Strong vs. Weak</td>
<td>Composed vs.</td>
<td>Communication</td>
</tr>
<tr>
<td></td>
<td>Coef SE p-value</td>
<td>Coef SE p-value</td>
<td>One-Click vs.</td>
<td>Type X Tie</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Broadcast</td>
<td>Strength</td>
</tr>
<tr>
<td>Intercept</td>
<td>0.03 0.04 0.43</td>
<td>0.03 0.04 0.37</td>
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<td>0.03 0.04 0.42</td>
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<td>Lagged well-being</td>
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<td>0.85 0.01 0.00***</td>
<td>0.85 0.01 0.00***</td>
<td>0.85 0.01 0.00***</td>
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<tr>
<td>Controls</td>
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<td>Wave</td>
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<td>0.01 0.01 0.13</td>
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<td>Age (years)</td>
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<td>0.02 0.00 0.00***</td>
<td>0.02 0.00 0.00***</td>
<td>0.02 0.00 0.00***</td>
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<tr>
<td>Active on FB prev day</td>
<td>0.00 0.02 0.93</td>
<td>0.00 0.02 0.93</td>
<td>0.01 0.02 0.71</td>
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<td>Facebook friends within past week</td>
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<td>0.01 0.01 0.13</td>
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<tr>
<td>Overall health</td>
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<td>0.08 0.01 0.00***</td>
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<td>Facebook communication received or viewed</td>
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<td>From strengths</td>
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<td>Composed communication</td>
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<td>From weaknesses</td>
<td>From strengths</td>
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<td>One-click communication</td>
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<td>From weaknesses</td>
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<tr>
<td>Broadcast communication</td>
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<td></td>
<td>From strengths</td>
<td>From weaknesses</td>
<td>From strengths</td>
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<tr>
<td>AIC/BIC</td>
<td>3214.51 / 3311.3</td>
<td>3228.62 / 3321.06</td>
<td>3214.07 / 3333.3</td>
<td>3233.87 / 3351.7</td>
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<td>Log Likelihood</td>
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<td>−1548.01</td>
<td>−1603.8</td>
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<td>Adj R-squared</td>
<td>0.28</td>
<td>0.28</td>
<td>0.28</td>
<td>0.27</td>
</tr>
</tbody>
</table>

Justin’s Happiness Rules for Recalcitrant Mobile Tech Users

• Kill notifications on your phone
• Gray out your phone screen
• Delete social media apps
  • Use your desktop exclusively if you want to check in
• Unfollow everyone you don’t know in real life or haven’t personally talked to in >1 year
  • Or reach out to them**
• Unfollow news organizations and get your news more deliberately
  • Magazines
  • Local newspapers
  • Evening news
  • Do not “like” posts
  • Do not seek “likes”

A good “Third Place”

• Neutral ground
• Accessibility and accommodation
• Conversation is the main activity
• Regulars
• Leveling place (social status is irrelevant)
• Playful mood
• Home away from home
• Plainness/low profile

The “cure” for loneliness may be *mutual aid*

- Spending money on others makes us happier than spending it on ourselves\(^1\)
- Acting equitably makes us happier than acting selfishly\(^2\)
- Expressing gratitude makes us happier than expressing disdain\(^3\)

\(^1\)Science 2008, PMID: 18356530
Give your employees opportunities to help others

• Organizational volunteering is associated with 24% reduced mortality\(^1\)
  • As public religiosity increases, the relationship becomes stronger
  • Relationship stronger if volunteers profess “other-oriented” reasons\(^2\)

\(^1\)Psychol Aging 2013, PMID: 23421326
\(^2\)Health Psychol 2012, PMID: 21842999
Take opportunities to help your employees

• “39% of respondents [felt] the greatest sense of belonging when their colleagues check in with them”:

• Seize small opportunities to connect: “How are you doing? How can I support you?”

• Check bias at the door: Do not debate or try to persuade
  • Acknowledge their point of view
  • Ask them to tell you more: “Tell me more about it,” or “I never thought about it from that perspective, but I do realize we can experience the same situation in different ways, so I appreciate you explaining that for me.”

• Assume positive intent: Pause and ask clarifying questions: “I am pausing because I want to learn more from you.”

• It’s OK to be vulnerable: Seek feedback from those who are junior to you, and demonstrate your trust by acting on their feedback

• Be consistent and accountable: Expect, reinforce, and reward the accountability of others
  • For example, offer a conversation to team members when a difficult event occurs

You will make yourself and others happier simply by talking to them

• 50% of people estimated their neighbor would be willing to talk
  • ~100% actually were willing
Consider increasing break time with the rule of synchronized breaks with little or no phone use

- Decreased nursing turnover\(^1\)
- Common socializing more restorative than snacking or emailing\(^2\)
  - Walking, reading, and chatting are the most effective forms of recharging
- Ideal work-to-break ratio was 52 minutes of work, followed by 17 minute\(^3\)
- Or try a five-minute “gratitude” break\(^4\)
  - via a quick note or call/visit

\(^4\)https://www.tandfonline.com/doi/abs/10.1080/17439760701228938, accessed 4/25/18;
Make sure employees have access to green space

• Nature is more restorative than indoor environments\(^1\)
• Psychoterratic: “earth related (terra) mental health (psyche) states or conditions”\(^2\)
• Even a view of greenery may speed surgical recovery\(^3\)

<table>
<thead>
<tr>
<th>Analgesic strength</th>
<th>Number of doses</th>
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<tbody>
<tr>
<td></td>
<td>Days 0–1</td>
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<tr>
<td></td>
<td>Wall group</td>
</tr>
<tr>
<td>Strong</td>
<td>2.56</td>
</tr>
<tr>
<td>Moderate</td>
<td>4.00</td>
</tr>
<tr>
<td>Weak</td>
<td>0.23</td>
</tr>
</tbody>
</table>

\(^3\)Psychol Sci. 2011, PMID: 21828351; \(^2\)http://www.psychoterratica.com/, accessed 3/6/19; \(^3\)Science 1984, PMID: 6143402
What else?

• Enforce new norms around technology use
  • No devices at meals or meetings
    • “Is everything okay?”

• Have a workshop for employees to change their notification settings
  • Work with employees on day planning

• Shut off Slack and email notices after hours

• Don’t mandate social media use
  • Have “analog” ways to connect
Conclusions

• Social isolation is a state of being; loneliness is a perception of that state of being
• Risk factors are diverse and cross demographic lines
• Social isolation has a profound effect on the mortality rate of elders, and that social isolation is trickling into younger age groups
  • Video games, smartphones and social media may be paradoxically (?) causing this
• Volunteering and church engagement may improve quality of life and quantity of life
• Intentional engagement seems the easiest initial intervention
Questions?

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“We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next 10.”

- BILL GATES