

Assignment 3

MAS S63 Tools for Wellbeing

Due 9pm Friday 9/19. Do not forget to include your name and email address in your submission.

Please follow the the following name convention to name your files:

<FirstNameLastName-Assignment3>. For example JohnDoe-Assignment3.pdf.

You should upload your file here: <http://bit.ly/WXX6y5>

1 READ

1. Cohen, S., Tyrrell, D. A., and Smith, A. P. (1991). **Psychological stress and susceptibility to the common cold**. The New England Journal of Medicine 325(9), 606-12.
<http://www.nejm.org/doi/full/10.1056/NEJM199108293250903>
2. Healey, J., Picard, R.W. **Detecting Stress During Real-World Driving Tasks Using Physiological Sensors**, IEEE Trans. on Intelligent Transportation Systems, Volume 6, No. 2, June 2005, pp. 156-166.
<http://affect.media.mit.edu/pdfs/05.healey-picard.pdf>
3. McDuff, D., Gontarek, S., Picard, R. W., **Remote Measurement of Cognitive Stress Via Heart Rate Variability**, In the 36th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), Chicago, August, 2014.
http://affect.media.mit.edu/pdfs/14.McDuff_et_al-EMBC.pdf
4. **Peripheral Paced Respiration by Moraveji et al.**
<http://vis.stanford.edu/files/2011-PPR-UIST.pdf>
5. Paredes P., Gilad-Bachrach R., Czerwinski M., Roseway A., Rowan K., and Hernandez J., **PopTherapy - Coping with Stress through Pop-Culture**, In Proceedings of the 8th International Conference on Pervasive Technologies for Healthcare, Oldenburg, Germany, May 2014.
http://affect.media.mit.edu/pdfs/14.Paredes_et_al-PH.pdf

2 WATCH

Watch **Kelly McGonigal's**, TED Talk with somebody and have them email masS63-assignments@media.mit.edu that you watched and discussed it together:

<http://bit.ly/1ctvXdp>

Background: Keller, Litzelman, Wisk et al 2012 Univ of Wisconsin

<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3374921/>

3 WRITE

In all your answers please show respect for privacy, while giving real-world examples. For example you can tell us that "I" may or may not refer to you, or use a pseudonym for the actor. (You can also be frank or open with us; however, we don't want anybody to feel pressure to tell the staff things that are personal).

1. Reflect on the nature of "bad" stress you saw this week (from your own life or from that of someone you've observed): Give a salient example of stress.
 - a) What was its effect?
 - b) How might the effect be mitigated?
2. Sometimes stressors are not immediately apparent but they can still powerfully affect us. Can you think of an example that was an annoying background thing, e.g. faint construction noise outside or something uncertain hanging over a situation?
 - a) What was its effect?
 - b) How might the effect be mitigated?
3. Focus on the nature of "good" stress (Eustress) that you saw this week (from your life or someone around you). Give three examples and what made each one good.
 - a) Example 1 & why good?
 - b) Example 2 & why good?
 - c) Example 3 & why good?
4. Your friend writes, 'Stop getting stressed, stress makes you sick!' How should you respond to educate your friend? Be very precise in how you word your answer and support it using the Cohen and Keller references. (Extra credit: bring in other references.) Try to respond in a strong way with no more than two paragraphs.
5. Decreasing heart rate variability and increasing electrodermal activity (usually measured as skin conductance) are two common autonomic indications of stress. Using one or both of these, recommend some intervention (ideally, that involves technology in some way) that you think improves upon something you've seen in this week's readings. Pick something you think might work in your life.

- a) Describe this improved intervention and what you would like better about it. It can be a small refinement of something you read, or it can be radically different.
- b) How would you test if it worked? Make sure your test is good enough to convince somebody who doesn't know you (who requires evidence stronger than you saying 'it reduced my stress').