

## Gender Analysis and Social Support Teaching Example

Developed in Women, Gender and Health 207: Advanced Topics in Women, Gender, and Health  
Harvard T.H. Chan School of Public Health, Spring 2017  
Course Instructed by Allegra R. Gordon and Avanti Adhia

Teaching Example Authored by Rachel Bishop

### Appropriate Courses:

This teaching example is designed for the Harvard Chan core course SBS 201 (Society & Health) for the TA session entitled “Social Networks and Social Support.” It could also be used in any introductory epidemiology, social epidemiology, or social & behavioral sciences courses within schools of public health, or any course that addresses the role of social networks and social support in population health.

### Background for Instructor:

- Social networks can influence health via social influence/behavioral regulation, social engagement/participation, and social support.
- There are three major subtypes of social support: emotional, instrumental, and informational.<sup>1</sup>
  - Emotional support- love, caring, sympathy, understanding or esteem
  - Instrumental support- assistance with tangible needs, ie providing money, labor
  - Informational support- knowledge or advice given to help meet a need
- Social support has been shown to correlate with numerous health measures, such as lower heart rates after stressful tasks, and lower mortality after a heart attack.<sup>23</sup>
- Romantic partners are an important source of social support (as well as social influence) impacting health. This is true in straight and in gay, lesbian, or queer couples. For example, married women have lower levels of depressive symptoms than unmarried women, regardless of their sexual orientation.<sup>4</sup>

This teaching example refers specifically to the paper: Kirschbaum, C., Klauer, T., Filipp, S., Hellhammer, D. (1995) Sex-Specific Effects of Social Support on Cortisol and Subjective Responses to Acute Psychological Stress. *Psychosomatic Medicine*. 57:23-31. Subjects were told they would need to complete a public-speaking task in front of an audience, where they would adopt the role of a job applicant introducing themselves to company representatives. During the 10 minute waiting period before the task, participants received either no social support, social support from an “opposite-sex” stranger, or social support from their “opposite sex” partner. Support providers were instructed to enact both instrumental support (e.g., providing advice on effective public speaking) and emotional support (e.g., giving affirmations). Subjects were then taken to a room with a video camera and microphone, where a panel of 3 male and female “company representatives” were sitting at a table. Subjects gave a 5 minute talk and were then asked to subtract serially the number 17 starting from 2013 as quickly and accurately as possible for 5 minutes, and then cortisol levels were assessed. Results were that men’s cortisol levels were highest with no support, lower with stranger support, and lowest with partner support. For women, on the other hand, cortisol was lowest with no support and stranger support, and highest with partner support.

- For an explanation of how to apply gender analysis in social epidemiology, read: Krieger, N. (2003) Genders, sexes, and health: what are the connections—and why does it matter?. *International Journal of Epidemiology*. 32 (4): 652-657.
- For a glossary of LGBTQ terms, visit: <http://www.transstudent.org/definitions>

### Learning Objectives for Students:

After this activity, students will be able to...

1. Understand the difference between sex and gender
2. Recognize that the different dimensions of sex and gender can have distinct impacts on health outcomes
3. Describe multiple ways by which gender can moderate the effects of social support on health

### Teaching Methods:

Anticipated Time to Complete: 15 min

Ideal Class Size: 5-30 students

Short Lecture (~5 min)

- *Refer to Teaching Example Slide Deck*
- Slide 1: Gender Analysis of Social Support
  - **Introduce the class to gender analysis.** Gender analysis in public health is the practice of determining the ways that gender might affect a health outcome, and how that might differ from the effect of biological sex.
  - **Review the dimensions of gender.** Gender is complicated. The gender unicorn demonstrates some different components that are important to keep in mind during gender analysis. Gender is a social construct that has to do with culturally defined roles, behaviors, and relations between women and men and boys and girls. Sex, on the other hand, is a biological construct that has to do with physical characteristics that enable sexual reproduction, such as genitals and chromosomes. Neither of these categories are binary. We usually assume someone's gender from their assigned sex, but in fact they don't align this way for everyone. Someone may identify as a man, express that gender as masculine with their clothes and posture, be assigned female sex at birth, be physically and emotionally attracted to men, women, and other genders.
  - **Talk about the common conflation of sex and gender.** (*click for slide animation*) Unfortunately, lots of research studies conflate sex and gender. You'll often see the terms sex and gender or female and woman used interchangeably. This is important for two reasons. First, it invisibilizes people who are trans or whose gender is non-binary. Second, it obscures the reality that sex and gender can have different impacts on health. For example, once a person experiences a heart attack, cisgender women have poorer survival than cisgender men.\* This cannot be understood solely as due to sex-linked differences in biology. Also at issue is a legacy of excluding women from medical research, or having them be under-represented, which has meant that the diagnostic criteria for heart attacks is based chiefly on symptoms in men. The gender survival disparity thus arises also on account of how physicians and other health professionals view and treat people of different genders, and not principally or solely from biological differences between sexes.
- Slide 2: Cortisol and Partner Social Support Study
  - **Remind students of the study.** We saw this study in class this week. The researchers wanted to see how social support could affect cortisol responses after a stressful task. The study participants

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\*cisgender/cis – term for someone who exclusively identifies as their sex assigned at birth. The term cisgender is not indicative of gender expression, sexual orientation, hormonal makeup, physical anatomy, or how one is perceived.<sup>5</sup>

transgender/trans – encompassing term of many gender identities of those who do not exclusively identify with their sex assigned with birth. The term transgender is not indicative of gender expression, sexual orientation, hormonal makeup, physical anatomy, or how one is perceived.<sup>5</sup>

were all heterosexual couples, and whoever was supporting the participant was instructed to give both emotional and informational support. The researchers found that men's cortisol levels were highest with no support, lower with "opposite sex" stranger support, and lowest with "opposite sex" partner support. For women, on the other hand, cortisol was lowest with no support and stranger support, and highest with partner support. What's up with this? (*click for slide animation*) Are boyfriends just awful at giving social support? Let's apply a gender analysis to probe a bit deeper.

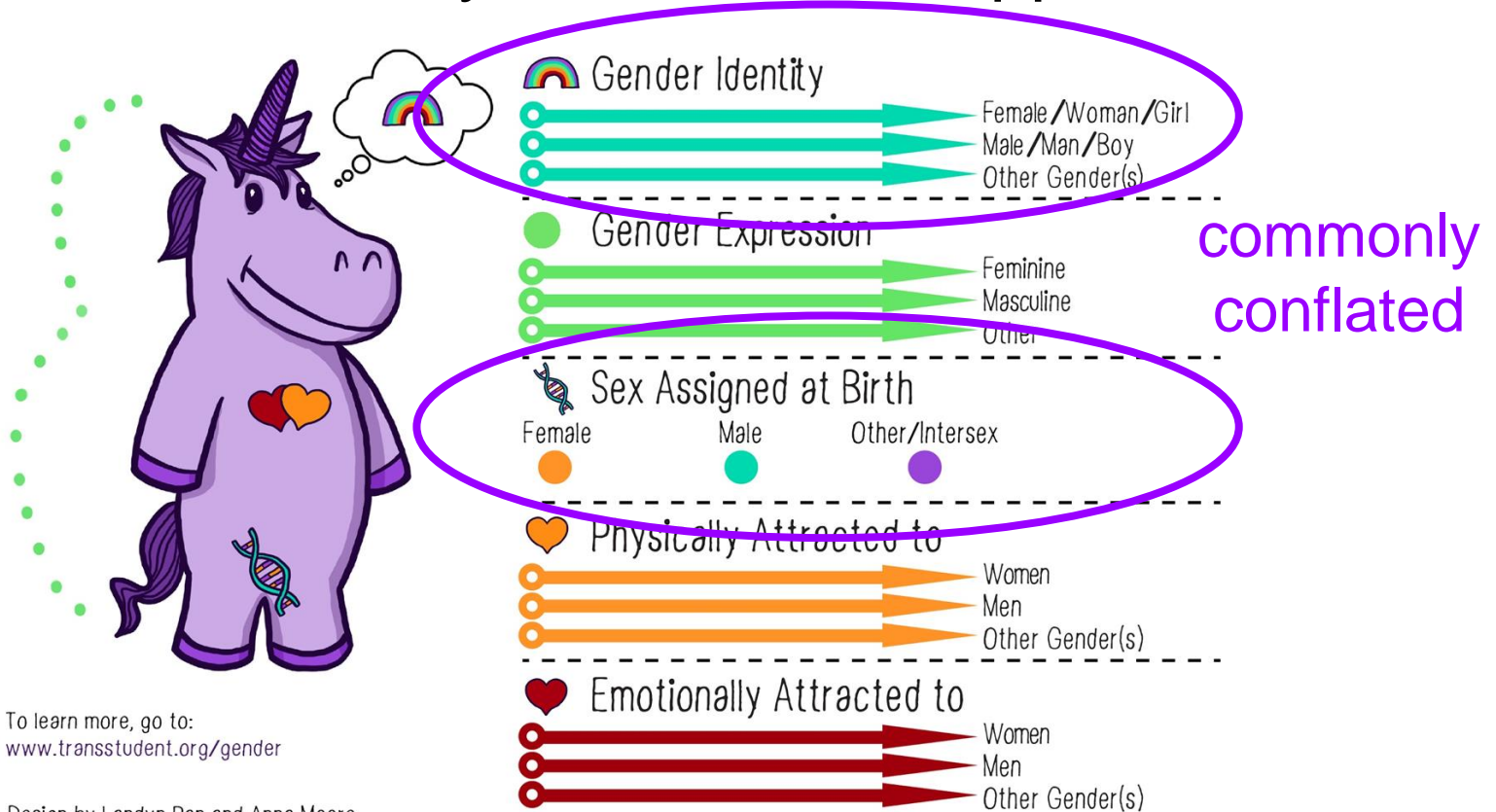
Paired Discussion (~10 min)

- Slide 3: Questions
  - **Read the three questions on the slide.** How might gender shape reactions to the social support? How might gender shape provision of emotional or informational support? How might these results look for gay, lesbian, or other same-gender couples?
  - **Ask students to discuss with a partner.** Turn to the person next to you and discuss these three questions. You'll have about 3 minutes.
  - **Facilitate a group share.** Somebody tell me how your group thought about the effect of gender on receiving social support. (*Call on a pair if nobody answers*) Any different ideas? What about for giving emotional vs informational support? Did any group talk about the potential effects of biological sex? (*Point out that this study conflates sex and gender*). How did you think results would look if this study were done in gay, lesbian, or other same-gender couples? (*Point out that this study conflates gender and sexual orientation*). What groups are left out of this study? (*ie people who are in same-gender relationships or whose gender is non-binary. People who are bisexual or transgender may be in this study but not identified*)
- Slide 4: Takeaways
  - **Summary.** These are really thoughtful answers. As you go through the rest of this course, and beyond, keep in mind that gender and sex are two different constructs, and they can have distinct impacts on pathways mediating health. Whenever you see results stratified by gender (or sex!), think about what causal pathways might be at play, and who's getting left out. Gender analysis will be really helpful not just for thinking about social support and health, but for many other topics in this course.

#### References:

1. Cohen, S. (2004). Social Relationships and Health. *American Psychologist*. 59 (8), 676-84
2. Kamarck, T.W., Manuck, S.B., Jennings, J.R. (1990). Social Support Reduces Cardiovascular Reactivity to Psychological Challenge: A Laboratory Model. *Psychosomatic Medicine*. 52(1), 42-58.
3. Berkman, L.F., Leo-Summers, L., Horwitz, R.I. (1992). Emotional Support and Survival after Myocardial Infarction: A Prospective, Population-based Study of the Elderly. *Annals of Internal Medicine*. 117(12),1003-9.
4. Kornblith, E., Green, R.J., Casey, S., Tiet, Q. (2016). Marital status, social support, and depressive symptoms among lesbian and heterosexual women. *Journal of Lesbian Studies*. 20(1):157-73.
5. LGBTQ+ Definitions. *Trans Student Educational Resources*. <http://www.transstudent.org/definitions>

# Gender Analysis of Social Support

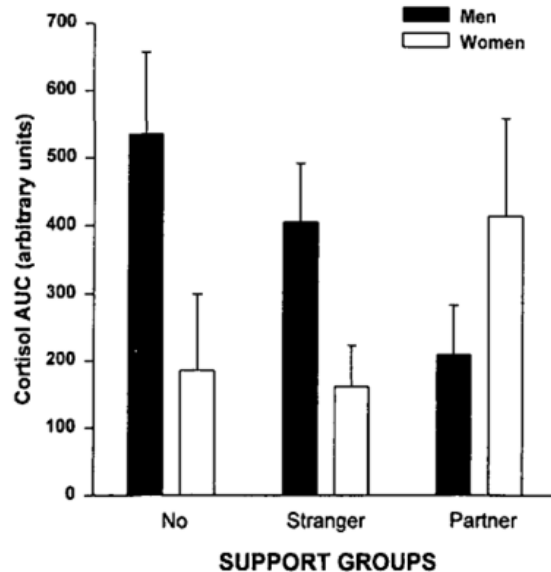


To learn more, go to:  
[www.transstudent.org/gender](http://www.transstudent.org/gender)

Design by Landyn Pan and Anna Moore

# Sex-Specific Effects of Social Support on Cortisol and Subjective Responses to Acute Psychological Stress

CLEMENS KIRSCHBAUM, PhD, THOMAS KLAUER, PhD, SIGRUN-HEIDE FILIPP, PhD,  
AND DIRK HELMUT HELHAMMER, PhD



Are boyfriends just terrible social supports?

Fig. 1. Mean cortisol responses in unsupported, stranger-supported, and partner-supported male and female subjects before, during, and after exposure to psychological stress of public speaking and mental arithmetic expressed as AUC (arbitrary units  $\pm$  SE).

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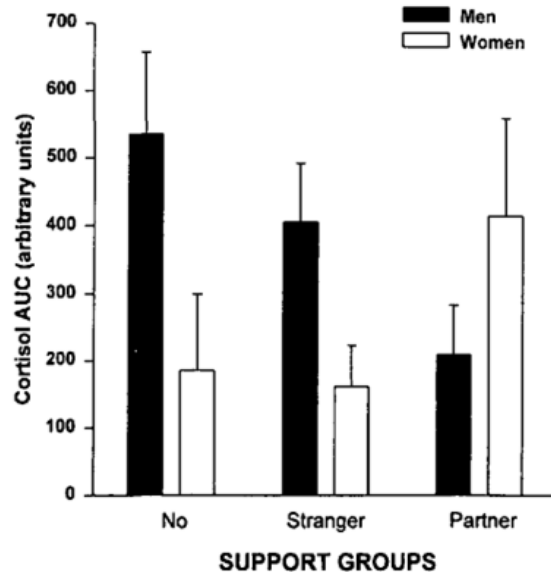


Fig. 1. Mean cortisol responses in unsupported, stranger-supported, and partner-supported male and female subjects before, during, and after exposure to psychological stress of public speaking and mental arithmetic expressed as AUC (arbitrary units  $\pm$  SE).

- How might gender shape reactions to the social support?
- How might gender shape provision of emotional or informational social support?
- How might these results look for gay, lesbian or other same-gender couples?

# Take-away Points:

- 1. Sex ≠ Gender-** Don't conflate the two. They can have distinct effects on health.
- 2. Think about who's left out-** Does a study of "men and women" really just include a subset who are cis-gender and straight? Does it capture people whose gender is non-binary?
- 3. Keep gender analysis in your toolkit-** It will help you better understand causal pathways, especially when you see sex or gender-based differences in health outcomes.