

# Let's Talk About Stress!

## Exploring Physiological Arousal While Discussing Relationship Problems

The College of Health and Human Performance  
Department of Human Development and Family Science  
East Carolina University

Braden J. Brown, MA  
Lauren Rainone  
Jakob Jensen, PhD  
Matthew Fish, PhD

### Background

- Conflict between partners in a romantic relationship is inevitable (Zeidner & Kloda, 2013) and partners often seek support from friends when experiencing romantic challenges (Helms et al., 2003).
- Some benefits of talking to friends about relationship problems may include gaining a new perspective, obtaining social support, and building communication skills, so long as these conversations do not *replace* talking with one's partner (Jensen & Rauer, 2015; Proulx et al., 2004).
- Partners who frequently discuss romantic trials with friends, but rarely with one another, experience greater marital conflict (Proulx et al., 2004) and less romantic happiness, commitment, and love (Jensen & Rauer, 2015).
- Gender may play a role when sharing relationship challenges with peers, given that females are socialized to be more expressive, whereas males are often discouraged from sharing interpersonal problems with others (Brown, 2012).

### Purpose

- Although researchers have highlighted links between romantic relationship communication and psychophysiological distress (i.e., heart rate, skin conductance), no research has assessed changes in psychophysiological stress when speaking with friends about romantic challenges.
- The aim of this study was to explore if gender plays a role in the psychophysiological distress—measured by Galvanic Skin Response (GSR), Heart Rate (HRT), and Respiration (RSP)—of partners when talking about romantic problems with partners and friends.
- Specifically, we sought to answer the following research question: Are males or females more stressed out when engaging in discussions about romantic challenges with partners and friends?



### Methods

- Participants included 71 groups of four people—two partners in a heterosexual relationship and a friend of each partner ( $N = 284$ ). Participants were predominantly White non-Hispanic (79%) with ages ranging from 18-30 ( $M = 20.77$ ,  $SD = 2.04$ ).
- The vast majority of participants reported being in a “committed relationship” with their partner (87%), with the remaining 13% identifying some other type of relationship status.
- Partners and their friends participated in a lab visit lasting approximately two hours in which they engaged in various communication tasks with partners and friends. Each partner received a \$50 gift card and each friend received a \$35 gift card.
- GSR (skin conductance or sweating) was measured using electrodes placed on the partners’ fingertips. Higher GSR scores indicate greater distress.
- HRT (heart beats per minute) was measured using a sensor attached to the partners’ index finger. HRT tends to increase when an individual is stressed.
- RSP (breaths per minute) was measured using a strain gauge belt positioned around the partners’ abdomen. Increased RSP indicates higher stress.

### Lab Visit Procedure

1. Partners selected relationship conflict topic to discuss from a 24-item Areas of Disagreement scale (e.g., “I wish we went on more dates together”)
2. Partner A's baseline GSR, HRV, and RSP were captured during a 5-minute resting period (T1)
3. Partner's A and B engaged in a 5-minute conversation about Partner A's selected area of disagreement (T2)
4. Partner A and Friend A engaged in a 5-minute conversation about Partner A's selected area of disagreement (T3)
5. Partner B completed the same protocol, this time discussing a different area of disagreement with Partner A and Friend B
6. All participants completed an online questionnaire that assessed individual, romantic, and social functioning

### Data Analysis Plan

- To investigate our research question, we first examined and compared mean scores of study variables.
- Next, we computed paired  $t$ -tests to investigate whether males or females became more psychophysiologicaly aroused when discussing relationship challenges with partners and friends.
- Cohen's Delta was used to assess effect size changes (0.2 = small effect, 0.5 = moderate effect, 0.8 = large effect).

### Results

#### Psychophysiological Gender Differences at Baseline

- Males had significantly higher GSR scores than females
- Females had significantly higher HRT scores and RSP rates than males

#### Psychophysiological Gender Differences During Partner Conversation

- Males had significantly higher GSR scores than females
- Females had significantly greater HRT scores than males
- No significant gender differences in RSP rates

#### Psychophysiological Gender Differences During Friend Conversation

- Males had significantly higher GSR scores than females
- Females had significantly greater HRT scores than males
- No significant gender differences in RSP rates

**Table 1: Psychophysiological Scores by Gender**

	Time	Female Group Mean (SD) Score	Male Group Mean (SD) Score	Mean Diff. (SD Diff.)	$t(df)$	Cohen's $d$
GSR	T1	1.45 (0.92)	2.15 (1.20)	0.70 (0.28)	3.87**(62)	.49
	T2	2.24 (1.32)	3.22 (1.60)	0.98 (0.28)	4.27**(66)	.52
	T3	2.61 (1.38)	3.68 (1.78)	1.07 (0.40)	4.26**(66)	.52
HRT	T1	83.97 (13.23)	75.82 (11.76)	8.15 (1.47)	3.67**(69)	.44
	T2	91.76 (10.71)	82.29 (11.65)	9.47 (0.94)	4.66**(67)	.57
	T3	91.96 (10.77)	83.95 (13.23)	8.01 (2.46)	3.69**(68)	.44
RSP	T1	17.69 (4.43)	15.81 (3.48)	1.88 (0.95)	2.84**(69)	.34
	T2	23.14 (7.76)	21.58 (2.97)	1.56 (4.79)	1.78 (67)	.22
	T3	23.45 (6.32)	22.07 (2.80)	1.38 (3.52)	1.74 (67)	.21

T1 = Baseline; T2 = Conversation with Partner 2; T3 = Conversation with Friend; \* $p < .05$ ; \*\* $p < .01$ ; \*\*\* $p < .001$ .

### Discussion/Conclusions

- Females experiencing greater HRT scores across all tasks may be attributed to females' worry that male partners will be emotionally unresponsive during conversations about relationship concerns (Gottman & Silver, 2016).
- Although males typically have lower GSR scores than females (Fernández et al., 2012), we found that males exhibited higher GSR scores across all tasks. This may be explained by the anticipatory stress experienced by males when even thinking about discussing relationship problems and the potentially distressing nature of such interactions for males who have often been socialized to overlook relational and emotional issues (Brown, 2012; Engert et al., 2013).
- Due to the variability in our psychophysiological findings between genders, researchers should continue investigating how females and males uniquely experience stress while discussing romantic challenges. Future research should examine the psychophysiological stress response between individuals in LGBTQ relationships when discussing romantic challenges.