



Anger, Fear, and Sadness: Differences in Genetic Counseling Student Responses to Intense Patient Affect

Rachel (Simon) Keppers, MS, CGC¹, Pat McCarthy Veach, PhD², Ian M. MacFarlane, PhD², Lynn Schema, MS, LGC³ and Bonnie LeRoy, MS, LGC²

¹Department of Clinical Genomics, Mayo Clinic Health System, Eau Claire, WI, USA; ²Department of Genetics, Cell Biology, and Development, University of Minnesota, Minneapolis, MN, USA; ³M Health – Fairview, Minneapolis, MN, USA

Background & Purpose

Purpose: Determine how genetic counseling students respond to hypothetical scenarios involving patient expression of different emotions and whether their responses are related to empathy ability, tolerance of negative affect, and select demographics.

Background: Research indicates anger, fear, and sadness are commonly experienced patient emotions during genetic counseling sessions and can be challenging for health professionals¹⁻⁴. Studies also show patients' situations elicit genetic counselor empathy which produces emotions within the counselor^{5,6}. Some research suggests tolerance of one's own negative feelings may be related to empathy. No studies to date have investigated both tolerance of negative emotions and empathy ability in healthcare providers and none have investigated how genetic counseling students respond to patient affect.

Sample Demographics

Table 1: Demographics (N=151)

	n	%	Mean	Median	SD	Range
Age			24.86	24.0	3.52	21-48
Gender						
Female	144	95.4				
Male	7	4.6				
Year in Program						
1 st	71	47.0				
2 nd	79	52.3				
Other	1	0.7				
Racial Identity						
Caucasian/White	122	80.8				
Asian American	13	8.9				
Hispanic/Latino(a)	10	6.6				
Multiracial	5	3.3				
African American	1	0.6				
Relationship Status						
In committed, long-term relationship	78	51.7				
Single	53	35.1				
Married	19	12.6				
Have Children						
Yes	10	6.7				
No	140	93.3				
Clinical Training						
Rotations Completed ^a			2.88	2.0	2.8	0-11
Pts Observed			46.70	22.5	63.73	0-400
Pts Counseled			36.64	30.0	44.67	0-300

Note. ^aIncludes rotations participants were engaged in at the time of the survey

Methods

Sample and Procedures: Genetic counseling graduate students enrolled in ACGC-accredited programs completed an electronic survey comprising demographic questions, validated measures of empathy ability and tolerance of negative affect, and hypothetical prenatal patient scenarios. Scales and scenarios were counterbalanced to control for order effects.

Interpersonal Reactivity Index (IRI)⁷: 28-item measure of empathy ability. There are four subscales: Perspective Taking, Fantasy, Empathic Concern, and Personal Distress.

Tolerance of Negative Affective States Scale (TNASS)⁸: 21-item measure of the degree to which individuals are able to withstand or endure their own negative emotions without trying to avoid or change them. There are six subscales: sadness-depression, anger, fear-distress, disgust, anxious-apprehension, and negative social emotions.

Acknowledgements

- Survey participants
- Individuals who piloted my survey

Methods (cont.)

Hypothetical Scenarios: Participants responded to three investigator-derived prenatal patient scenarios, identical with the exception of the final patient statement in which the patient expresses either anger, fear, or sadness. Each scenario began as follows:

Jessica is being seen in your maternal-fetal medicine clinic. Her pregnancy has been followed due to her advanced maternal age. During one of her initial ultrasounds, bilateral choroid plexus cysts and a 2 vessel cord were found. You counseled her on the risk that the fetus may have Trisomy 18 due to these findings, however, she declined your offer of serum screening and diagnostic testing. At her 28 week follow-up ultrasound, the choroid plexus cysts were still present. Additional findings of clenched fists and intrauterine growth restriction were present as well. At this time she chose to undergo amniocentesis and the results returned positive for Trisomy 18.

Final patient statements are as follows:

Anger: *In a raised voice, Jessica says, "I wouldn't have continued with this pregnancy had I known! If only you'd told me something was wrong and I wouldn't be able to end the pregnancy if I waited!"*

Fear: *Jessica inhales sharply and says, "So you mean there's something wrong with my baby. It sounds really bad. If she's not ok, and there's no way to fix her, I don't know what to do!"*

Sadness: *Jessica begins to cry and says, "Oh, my poor baby. I was really hoping everything would turn out to be okay. I can't stand that this is happening to her. I don't know how I'll get through this."*

Participants were asked to: respond to each scenario as if they were the genetic counselor; indicate what emotion they thought the patient was feeling; and note which scenario was the most challenging to respond to and why.

Data Analyses:

Quantitative Data: Descriptive statistics were calculated for survey items. The Helping Skills Verbal Response System (HSVRS)⁹ was used to code participant responses to the scenarios. The HSVRS assesses the types of responses rather than the quality of their responses. MANCOVA was used to analyze effects of participant demographics, empathy ability, tolerance of negative affect, and scenario on the types of responses given by participants.

Qualitative Data: Participant's descriptions of patient emotions were content analyzed for consistency with the emotion depicted in each scenario. Thematic analysis was used to code participant explanations of why they selected a particular scenario as most challenging.

Results

Most Frequent Response Types: Written response types varied by scenario. For the anger scenario, the most common responses were affect (reflecting feelings the patient had not directly labeled), and information (providing facts or resources). For the fear scenario, information was the most common response type. For the sadness scenario, influencing responses (statements attempting to alter patient views, provide genetic counselor opinion, or give encouragement) were most common. Examples of participant responses are provided in Figure 1.

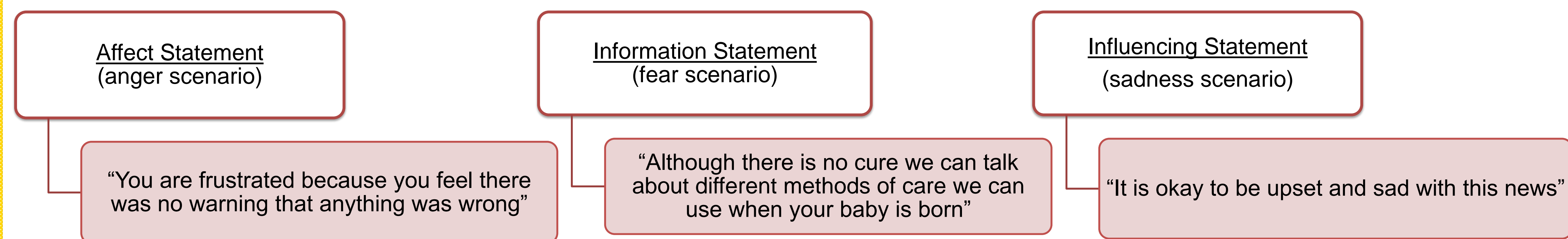
Predictors of Participant Responses: Relationship status, race/ethnicity, number of patients observed, and number of patients counseled differentially affected the types of responses to the patient. Specific effects can be found in Figure 2. There were no significant effects due to empathy or tolerance of negative affect.

Most Difficult Scenario and Why: Most participants (82.1%) noted the anger scenario was most difficult for them to respond to. Figure 3 illustrates four themes for reasons they found a scenario most difficult: Discomfort with the situation/emotion, Uncertain how to respond, Negative counter-transference, and Feelings of inadequacy or not doing their job correctly.

Perceptions of Patient Emotions: About three-fourths (75.3%) of the sample accurately identified patient anger, 87.1% accurately identified sadness, and 38% accurately identified fear for each respective scenario. Emotions noted by the 62% who did not identify fear included despair, overwhelmed, hopelessness, confusion, distress, and helplessness.

Most Frequent Response Types

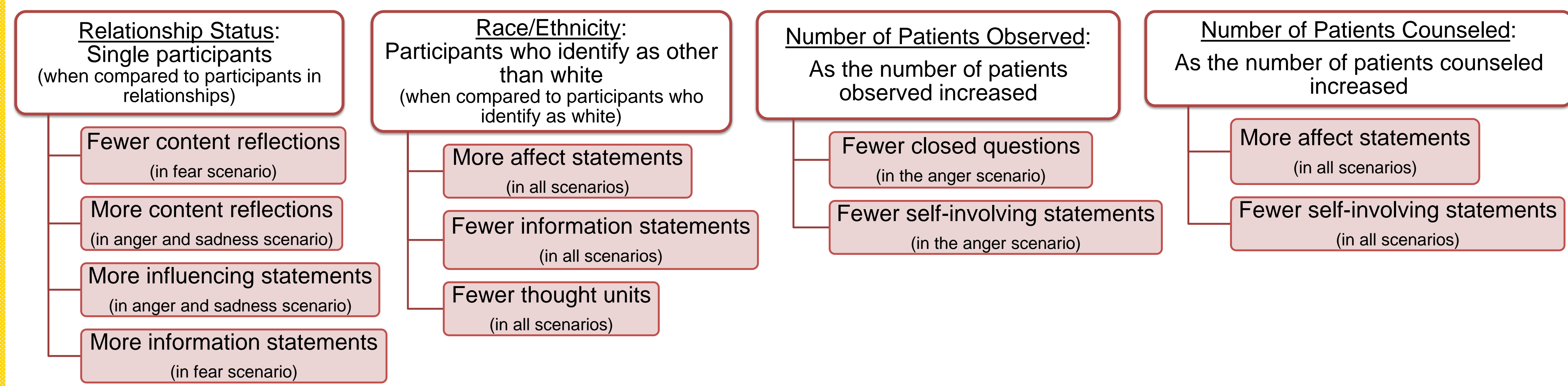
Figure 1: Examples of the most common response type(s) for each scenario



Note: These are examples of a single thought unit. Throughout the sample, there was a range of participants using as low as one and up to twelve thought units. The average response included approximately three thought units.

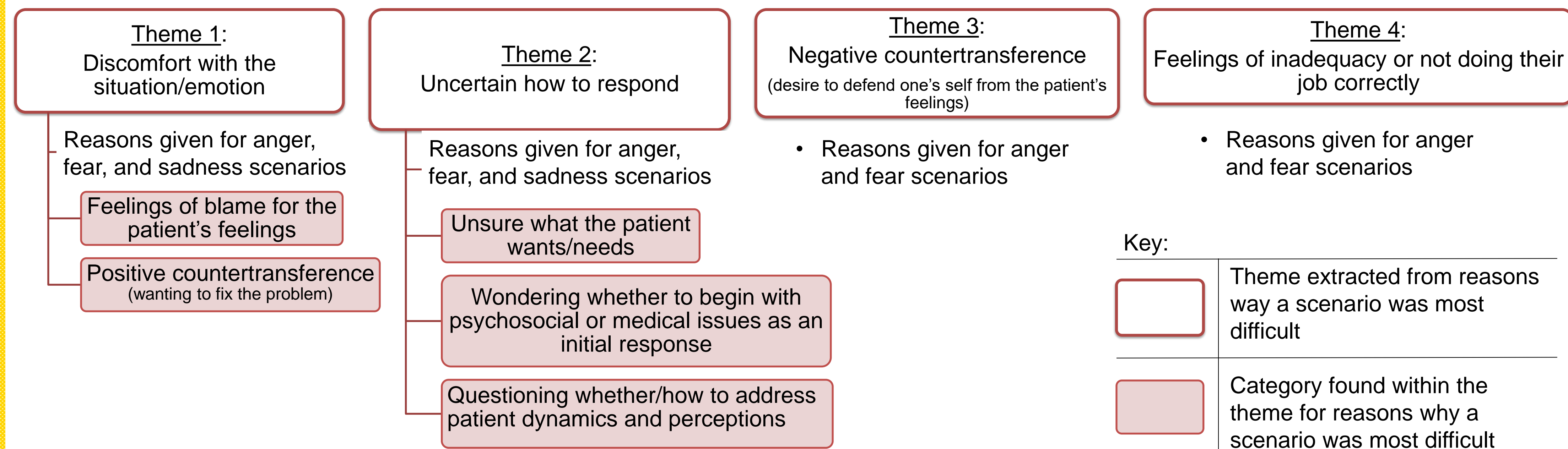
Predictors of Participant Response Type

Figure 2: Significant demographic predictors of frequency of response types for hypothetical patient scenarios



Reasons a Scenario was Most Difficult

Figure 3: Themes and corresponding categories extracted from reasons why a scenario was most difficult



Conclusion and Discussion

This study of genetic counseling student written responses to hypothetical prenatal scenarios depicting strong patient emotions and select factors affecting their responses yielded no significant differences in response types as a function of empathy ability or tolerance of negative affect. There were significant, though primarily small, differences within and across scenarios for student race/ethnicity, relationship status, and clinical experience. A vast majority of students indicated the anger scenario was most difficult. Prior research indicates patient anger generally is challenging for genetic counselors¹.

Study Limitations:

- Response rate (~27.3%) limits generalizability of results.
- Hypothetical scenarios may not elicit "true" reactions and responses

Implications and Research Recommendations:

- Training and supervision should help students learn ways to respond to strong patient emotions and recognize and manage countertransference.
- Future research involving face-to-face, simulated genetic counseling sessions in different practice specialties will increase understanding of how students respond to patient affect.

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