

An Investigation of Counterfactual Thinking in Individuals Diagnosed with Diabetes

Jenna Caster, Carly Ng, Sara Mercurio, Evan Jones, Alex Spanos, Kevin Toal, Bailey Faith, & Mary T. DePalma (Faculty Sponsor)

Ithaca College

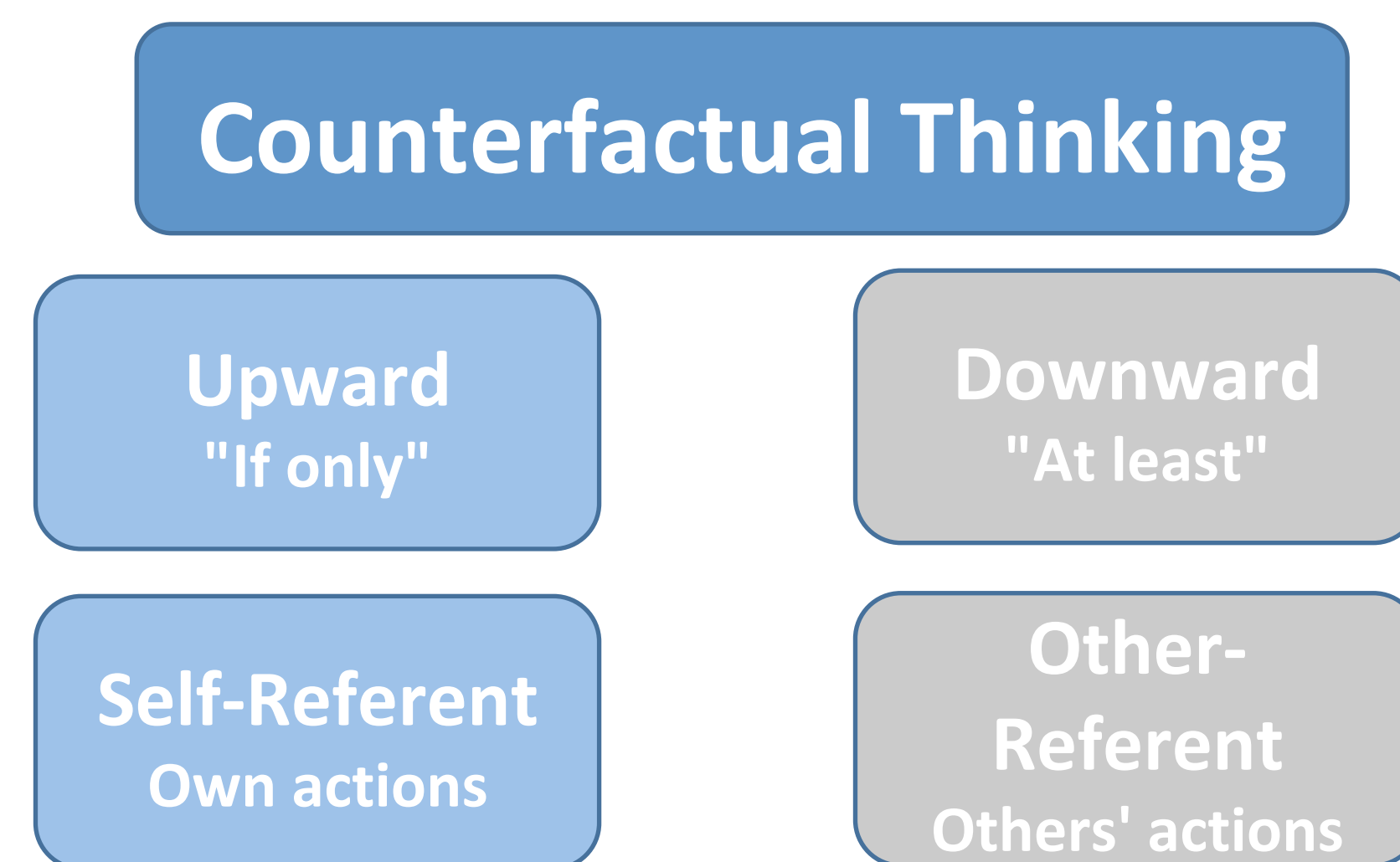
ABSTRACT

Diabetes affects both the physical and emotional well-being of over 29 million Americans. Thus, it is important to investigate the psychological factors that can influence appropriate diabetes self-care. The present study investigates whether counterfactual thoughts might be related to how an individual copes with diabetes. The study utilizes a mixed-methods approach consisting of a quantitative survey assessing psychosocial factors, and a qualitative interview with the participant. The interview includes questions about the participant's thoughts and feelings with their experience of diabetes. Currently, 31 people have completed the protocol. These preliminary results suggest that an increase in counterfactual thinking is marginally associated with higher levels of guilt. Further, these higher levels of guilt are strongly associated with the maladaptive coping mechanisms of self-blame and behavioral disengagement. Notably, high levels of self-blame and behavioral disengagement were marginally associated with lower levels of diabetes self-efficacy. This preliminary evidence suggests that certain types of counterfactual thoughts may undermine appropriate diabetes self-care. Further research on counterfactual thinking may assist in the design of educational initiatives to encourage successful diabetes self-care.

INTRODUCTION

Counterfactual Thinking

- ❖ Counterfactual thinking refers to the thoughts one has regarding alternative outcomes to events that have already happened.



Coping Mechanisms

- ❖ Various ways of coping with a negative stressor include self-blame, planning, behavioral disengagement, and denial (Carver, Scheier, & Weintraub, 1989).

PURPOSE

The study investigated how individuals' thoughts, attitudes, and emotions regarding their diabetes might influence their experience with the disease. Ultimately, this will help us understand what constitutes appropriate diabetes self-care.

METHODS

Participants. Currently, 31 participants (12 males and 19 females) have fully completed the protocol. These participants ranged in age from 19-93 years ($M = 50.6$) and they have lived with the disease for an average of 15.1 years. Fifteen individuals report having type 1 diabetes, and 16 report having type 2 diabetes.

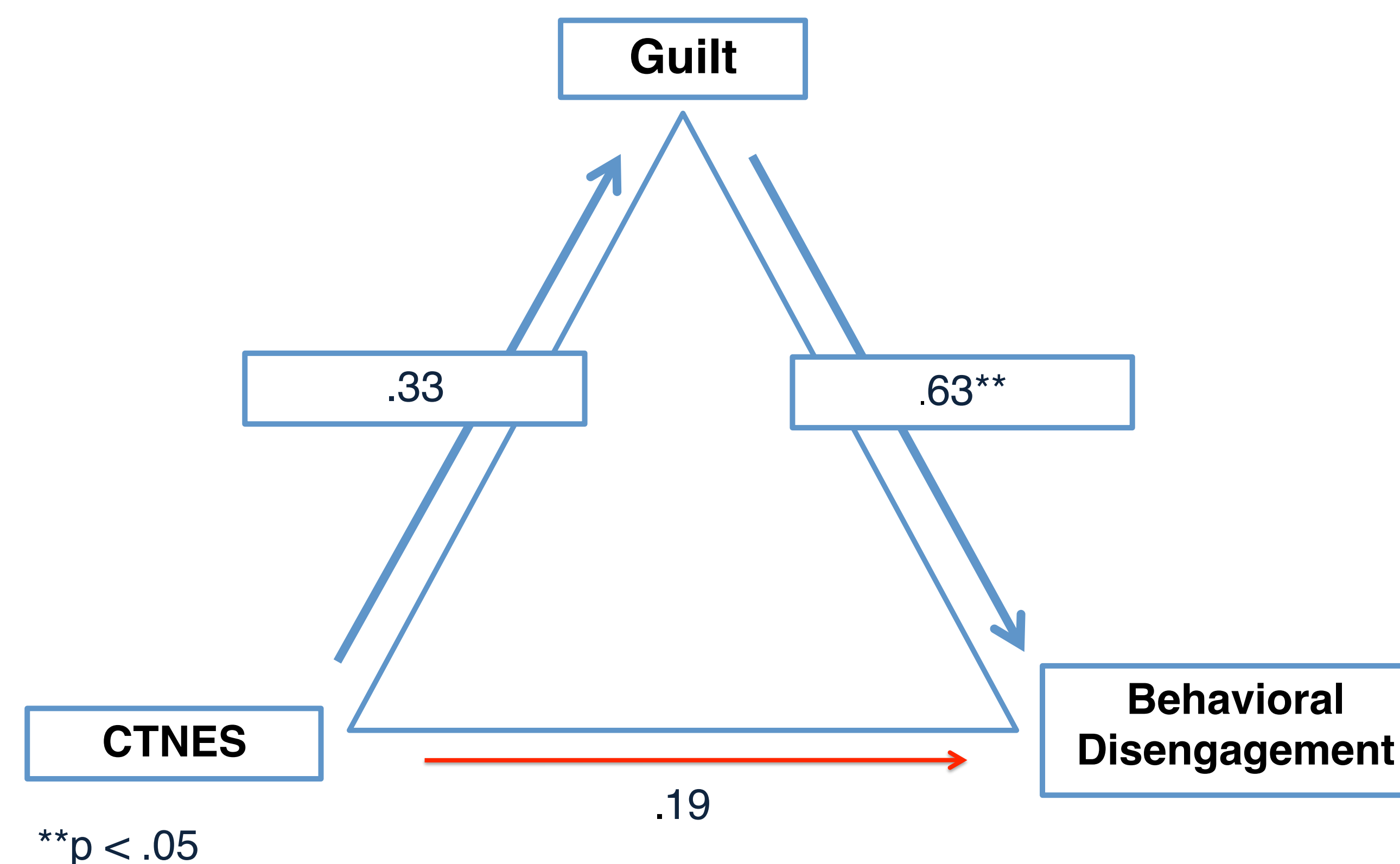
Materials. The administered survey included:

- Counterfactual Thinking for Negative Events Scale (CTNES)
- Diabetes Self-Efficacy (MDQ)
- Summary of Diabetes Self-Care Activities Questionnaire (SDSCA)
- Shame and Guilt Scale
- Brief COPE

Procedure. Participants were recruited from local senior living facilities, diabetes education centers, and through a snowball method. In addition to the quantitative measures, we also conducted a 60-75-minute semi-structured interview to examine each participant's cognitive and affective reactions to their experiences with diabetes. Each participant received a \$25 gift card for their participation.

QUANTITATIVE RESULTS

- ❖ Self-referent upward CFT was marginally associated with increased levels of guilt ($r(29) = .33, p = <.085$).
- ❖ Increased levels of guilt were associated with tendency to cope through behavioral disengagement ($r(29) = .63, p = <.001$).



QUANTITATIVE RESULTS

(CONTINUED)

	CTNES	Guilt	COPE-SB	CES-D	COPEBehDis
CTNES	1.00	.33	.59*	.54*	.19
Guilt		1.00	.69*	.43*	.63*
COPE-SB			1.00	.41*	.53*
CES-D				1.00	.45*
COPEBehDis					1.00

	Type 1	Type 2
Self-efficacy	68.41	55.9
Diet	4.73	4.57
Exercise	3.83	2.73
BGT	5.8	3.53

QUALITATIVE RESULTS

- ❖ "It just makes me feel guilty, but it doesn't change my actions. When I hear people around the table in the dining room, you know, passing up dessert--and a lot of them do--I just think to myself, 'Well, I can't do that.'"
- ❖ "It could lead to my longevity. I mean I know that, and still I don't shape up."
- ❖ "I wish that I could have avoided it, but I didn't so now I have to manage it."
- ❖ "I like to think that my actions and my willingness to take responsibility have had a direct impact on my ability to manage this."

DISCUSSION

- ❖ Counterfactual thinking may be related to feelings of guilt which may lead to coping by behavioral disengagement.
- ❖ The challenge may be to encourage upward counterfactuals without a concomitant increase in guilt.

IMPLICATIONS

- ❖ This research may be of direct relevance to understanding the implications of counterfactual thinking for diabetes patients. However, it is plausible that the effects of information about responsibility for diabetes onset could extend further. These results may be applicable to individuals living with other potentially preventable diseases, such as lung cancer or heart disease.

REFERENCES

- Carver, C. S. (1997). You want to measure coping but your protocol's too long: Consider the Brief COPE. *International Journal of Behavioral Medicine, 4*, 92-100.
- Carver, C. S., Scheier, M. F., & Weintraub, J. K. (1989). Assessing coping strategies: A theoretically based approach. *Journal of Personality and Social Psychology, 56*(2), 267-283.
- Diener, E. D., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment, 49*(1), 71-75.
- Roese, N. J. (2014). *What might have been: The social psychology of counterfactual thinking*. Psychology Press.
- Rye, M. S., Calhoun, M. B., Ali, R. S., & Dattary, T. (2008). Development and validation of the counterfactual thinking for negative events scale. *Journal of Personality Assessment, 90*(3), 261-269.
- Talbot, F., Nouwen, A., Gingras, J., Gosselin, M., & Audet, J. (1997). The assessment of diabetes-related cognitive and social factors: The multidimensional diabetes questionnaire. *Journal of Behavioral Medicine, 20*(3), 291-312.



ACKNOWLEDGEMENTS

We would like to acknowledge the assistance of Research Team 03 members, including Jack Ficcardi, Alyssa Cohen, Ralf Silva-Muniz, Hannah Sarnie and Bonita Ficcardi.