"Panic Attackers!" A Digital Card Game to Educate College Freshmen about Anxiety Disorders

Ashley R. Simons and Robert O. Duncan, *Department of Behavioral Sciences*

YORK College

CU NY The City University of New York

INTRODUCTION

The American Psychological Association has identified anxiety as the leading mental health issue in the United States. Previous research has observed the correlation between the major anxieties and the appropriate therapies used treat these various anxieties especially on college campuses. Anxiety disorders are seen in approximately 40 million adults in the United States and, by the age of 22, 75 percent of those adults have already encountered their first anxiety episode (Gunnlaugson, 2014). Matriculating college freshmen are considered "at risk" for anxiety because they lack coping methods to manage the various novel stressors that college brings. Consequently, we developed a game to inform matriculating students about the types of anxiety and their respective therapies.

Games are effective because they encouraging practice, provide immediate feedback, and adjust challenges to meet the needs of the individual learner. A digital version of our board game "Panic Attackers!" (Bashir et al., 2013) was created to bring this lesson to a national audience. All objectives were identical to the board game. It is predicted that students who play the digital game will have (1) higher scores on independent assessments of knowledge about anxiety compared to students who were given text-based assignments, and (2) lower scores on independent assessments of anxiety than students who did not play the game.

METHODS

Apparatus

Cards were used to represent 8 major types of anxiety and 11 therapies (**Figure 1**). All content was modeled from the Problem Effectiveness Chart in the Anxiety and Phobia Workbook (Bourne, 2010) (**Figure 2**). Cards defined an anxiety or therapy, and therapy cards possessed information about which anxieties they related to. Cards also possessed icons that represented their value or cost in the game. Treasure Cards were used as resources in the game to be spent.

Game Objective

Players receive the following instructions to clarify the game objective: "Life is full of challenges, and sometimes those challenges bring stress and anxiety! In this digital card game, you will do battle with your opponent using Anxiety Cards and Therapy Cards. When a challenger presents you with an Anxiety Card, you must choose the proper Therapy Card to protect yourself from anxiety. If you defend yourself, you win a card. If you don't, you loose a card. The first player to win 50 Action Cards wins!" The following procedures are implicit in the game.

Procedure

Round of Play (Figure 3)

- Each turn has an Action Phase, a Buy Phase, and a Clean-Up Phase. Just remember A-B-C!
  - Action Phase
    - 5 cards are drawn from your deck. This is your hand.
    - Players can play one Anxiety Card or Therapy Card.
    - When a player lays down an Anxiety Card, the opposing player must defend against the attack by laying down the appropriate Therapy Card.
    - If you successfully defend, both cards are placed into your discard pile. If you do not defend, forfeit one card from your hand to the attacker's discard pile.
    - When a player lays down a Therapy Card and the opponent lays down an Anxiety Card that is not defeated by the Therapy Card in play, the opponent that played the Anxiety Card wins the battle.
  - Buy Phase
    - Players can buy either 1 Attack or 1 Therapy card using the Treasure Cards in their hand.
    - Purchased cards are placed into the player's discard pile.
  - Clean-Up Phase
    - All cards in your hand and play area go into the discard pile.
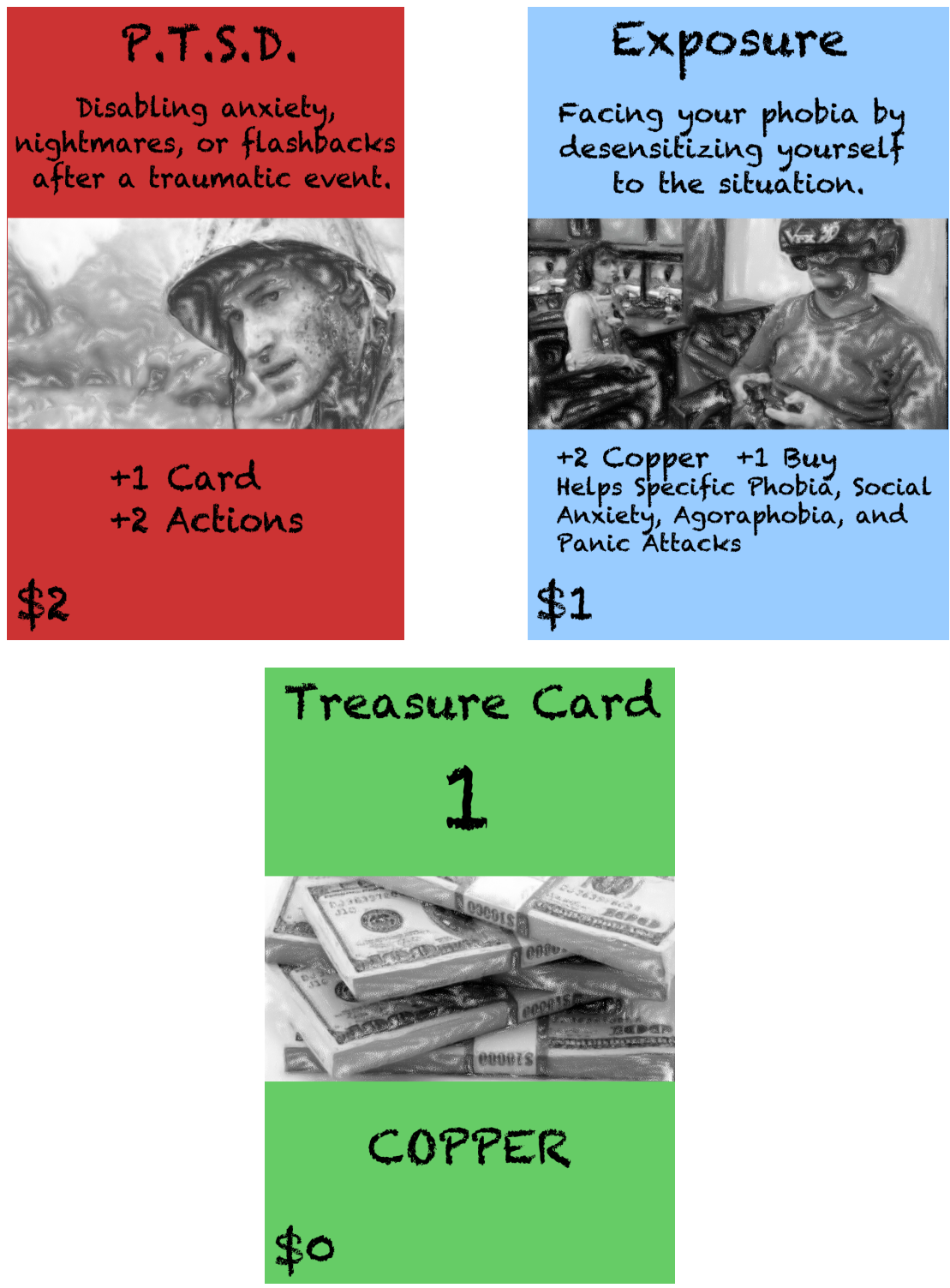
FIGURE 1

P.T.S.D. — Disabling anxiety, nightmares, or flashbacks after a traumatic event. +1 Card, +2 Actions $2

Exposure — Facing your phobia by desensitizing yourself to the situation. +2 Copper +1 Buy Helps Specific Phobia, Social Anxiety, Agoraphobia, and Panic Attacks $1

Treasure Card 1 COPPER $0

FIGURE 2

	Ordinary Anxiety	Post-Traumatic Stress Disorder	Obsessive-Compulsive Disorder	Generalized Anxiety Disorder	Specific Phobia	Social Phobia	Agoraphobia	Panic Attacks
Relaxation	X	X	X	X	X	X	X	X
Exercise	X	X	X	X	X	X	X	X
Coping Techniques for Panic							X	X
Exposure					X	X	X	X
Self Talk	X	X	X	X	X	X	X	X
Mistaken Beliefs	X	X	X	X	X	X	X	X
Expressing Feelings	X	X	X	X		X	X	X
Assertiveness						X	X	
Self Esteem	X	X		X	X	X	X	X
Nutrition	X	X	X	X	X	X	X	
Medication		X	X					X

FIGURE 3

Action Phase
- Draw 5 cards
- Play Anxiety/Therapy Card
- Defend Attack
- Win/forfeit Cards

Buy Phase
- Buy Anxiety/Therapy Card

Clean-up Phase
- Cards are placed in Discard Pile

FIGURE 4

Assertiveness — Using self-awareness to express your needs and desires. +2 Cards Helps Social Phobia and Agoraphobia $1

Discard / Deck / Deck / Discard

METHODS (CONTINUED)

Assessment

Subjects will be recruited from the York College Research Pool. Experimental subjects will play the game online via a password protected web site. Control subjects will spend the same amount of time with a text. Subjects will complete a self-assessment of anxiety (Bourne, 2010). Subjects will also complete a post-test to determine their knowledge about anxiety using a blank version of the chart in Figure 2.

Digital Development

The digital version of the game is being created in Unity3d, a commercial game engine that supports object oriented development in the C# programming language. The Unity3d environment supports publication to multiple platforms that students use including iOS and Android. Our current development target is the Apple iPad, which will allow students to play against the computer or with a friend.

DISCUSSION

The next phase will then be to collect data on the effectiveness of this game on the retention of college students. The data will be analyzed and compared to similar traditional teaching studies in order to observe the effectiveness of this game compared to traditional teaching methods. The results of this study are expected to determine whether there were higher scores on independent assessments of knowledge about anxiety compared to students who were given text-based assignments, and whether students would have lower scores on independent assessments of anxiety than students who did not play the game.

Future studies can observe the effectiveness of this game on college students that are diagnosed with anxiety disorders instead of the general collegiate student population. This may help figure out of people that suffer from anxiety incorporate the information they learned from this game into their own situations. Future studies can also observe how this game affects other age groups to determine whether there is a correlation between the data collected for each age group. Another study could be conducted on the whether "Panic Attackers!" can decrease the occurrence of anxieties later in life if introduced to this game at a younger age since stressors can appear during the developmental stages when a person may be less physiologically prepared to handle the effects of stress.

REFERENCES

Bourne, E.J. (2010). *The Anxiety and Phobia Workbook (5th Ed)*. Oakland, CA: New Harbinger Publications, Inc.

Bashir, B., Mokrue, K., and Duncan, R.O. (2013). Panic Attackers! A Card Game to Educate Students About Anxiety Disorders. Poster presented at the Fourth Annual York College Summer Research Program, Jamaica, NY.

Gunnlaugson, O., Sarath, E., Scott, C., & Bai, H. (2014). Student Stress: What the Studies Show. In *Contemplative learning and inquiry across disciplines* (p. 177). SUNY Press.

ACKNOWLEDGEMENTS