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An Experimental Investigation into the Impact of Crisis Response Strategies and Relationship Management in the Pharmaceutical Industry

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An Experimental Investigation into the Impact of Crisis Response Strategies and Relationship
Management in the Pharmaceutical Industry

by

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A thesis submitted in partial fulfillment
of the requirements for the degree of
Masters of Arts
with a concentration in Strategic Communication Management
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ABSTRACT

This study investigates how millennials view their relationship with the pharmaceutical industry and if that relationship changes when exposed to different crisis messaging strategies. The pharmaceutical industry is currently dealing with a preventable crisis because of companies in the industry, such as opioid companies, causing death, distrust, and lawsuits. Coombs suggests the rebuild message strategies will result in a stronger relationship between the industry and their publics. This study will test that theory. The millennial participants that contributed to this study were all born between 1980-1996. Their relationships were measured through the variables of trust, satisfaction, control mutuality, commitment, communal relationships, and exchange relationships. The experiment was conducted online through Qualtrics and distributed participants into four groups, each with a different crisis response strategy in place. Those strategies were, denial, apology, silence, and a control group. The experiment yielded results that the crisis messaging strategies did not affect how participants viewed their relationship with the industry. The result enforced that within the millennial generation their relationship with the pharmaceutical industry is deeply rooted in their beliefs and cannot be influenced by a single message. This study also reinforced the accuracy in measuring a relationship and showed there is still much to learn about millennials and the pharmaceutical industry.

CHAPTER ONE:

INTRODUCTION AND PURPOSE

The purpose of this research is twofold. First, it aims to extend understanding of situational crisis communication theory and organization-public relationship theory by applying an integrated study within the pharmaceutical industry. This study will also use situational crisis communication theory to see what is the most effective crisis response strategy that will produce the best end relationship between the pharmaceutical industry and its external publics among millennials. This study hopes to establish a baseline of effective message strategies when the pharmaceutical industry is faced with a crisis.

The term “big pharma” has been thrown around in the media by the New York Times, Reuters, Washington Post, NPR, CNN, ABC, and many others. While the coverage over the years has been a mix of positive and negative stories many of them have headlines of court trials rather than medical breakthroughs. With major news sources having these type of headlines, it may be enforcing a lack of trust within the pharmaceutical industry. According to Edelman’s 2019 Trust Barometer, the Pharmaceutical industry is the least trusted industry of healthcare. Healthcare trust inequality has reached a record high with the gap between informed publics and the mass population reaching a 10-point gap. This means that while the informed publics of the whole healthcare industry have a 75% trust rate, the mass population only has a 65% trust rate. While the subcategory of pharmaceuticals has gained two more trust points since last

year, it is still the lowest of all the subcategories of the healthcare industry at only a 57% trust rate. Since the 2015 Edelman study, the Pharmaceutical industry has continuously been the least trusted industry of healthcare (2019). This lack of trust is one variable of the problem that is facing the industry, and that is the possible lack of a relationship with the industries external publics. This study will elaborate on how the pharmaceutical industry is currently in a preventable crisis that has been established by different companies that are represented in the industry, such as opioid companies. The fall out of this crisis have been deaths, distrust, and lawsuits. Many of these factors affect the publics relationship with the industry and can create a devastating impact for the industry

Background

When it comes to the pharmaceutical industry in the media, they are mostly seen in commercial advertisements for their medications. These medications range in treatments for rare diseases, pain, stimulants, and many others. While this type of media looks to drive business for the pharmaceutical industry, there are many other sources of media that do not show the industry in a positive light. This can range from legal ads fighting misuse of the medications to headlines such as “How Johnson & Johnson companies used a ‘super poppy’ to make narcotics for America’s most abused opioid pills (Peter Whoriskey, 2020), “Report: Purdue Pharma involved in kickback investigation (Paul Schott, 2020), and “Purdue Pharma Tentatively Settles Thousands of Opioid Cases (Jan Hoffman, 2019). There have also been many streaming service shows and movies showing a negative perception of the industry, such as Netflix’s *The Pharmacist*, which looks at a first-hand encounter of how the opioid crisis can

affect people's lives and the conspiracy's within the industry. Another media platform that has broadcasted a negative image of the pharmaceutical industry is through politics. Popular among millennials, candidate Bernie Sander regularly voiced strong opinions against the industry and referred to them as corrupt "big pharma."

There are many different ways that people can learn about an organization. They can learn from personal experience, from what they have heard about it through family and friends, or they could learn about it from the media. More and more, the world is learning and defining their relationships with organizations based on second-hand experience they are learning from the media. In particular, many millennials grew up in the time period where technology and the media were emerging and becoming the dominant source of information. Authors Howe and Strauss even refer to the millennial group as "digital natives" (Howe & Strauss, 2009). Millennials grew up in both a world without modern technology and a world where they have as much information at their fingertips as they want. According to an article by Lenhart, "millennials are one of the main groups that use and understand media. They grew up in a world that's connected through media and technology that gives them the opportunity to receive immediate information" (Lenhart et al., 2010). Knowing how connected the millennial generation is with media plays a key role for many organizations when building relationships with them.

The distrust with the industry is just one part of the crisis the pharmaceutical industry is currently facing. Coombs defines a crisis as "a sudden and unexpected event that threatens to disrupt an organization's operations and poses both a financial and a reputational threat" (2007, p. 164). Due to the amount of court cases that have reached the media, including certain

companies such as Johnson & Johnson and Purdue Pharma, the public has seen these companies have to pay over \$500 million or even go bankrupt. During the recent democratic presidential debate candidates such as Bernie Sanders continue to reinforce to the public that he will “stand up to the greed, corruption, and price fixing of the pharmaceutical industry”. (Sanders, 2019). Examples like these depict how the industry is being shown to the public and how their reputation and relationship with the public is in crisis. Without a strong relationship between the industry and its publics funding for future medicines could be halted and it could become a lot harder for people to receive the medicines they need. If the industry is able to build a better relationship with its publics “it will save the industry money by reducing the costs of litigation, regulation, legislation, pressure campaigns, boycotts, or lost revenue that result from bad relationships. It will also help the industry make money by cultivating relationships with donors, consumers, shareholders, and legislators who are needed to support organizational goals” (Hon & Grunig, 1999).

Theoretical Framework

A relationship between an organization and its publics can vary depending on multiple factors. A relationship is defined as “the connection between an organization and its public(s) that needs to be build and maintained over time because of its strengths to impact the economic, social, cultural, or political well-being of the other” (Ledingham, 2003, p. 184). For this study, the focus will be on a relationship seen between an organization, the pharmaceutical industry, and one of its publics, millennials. According to John Migliaccio, millennials are defined as “anyone who was born between the years of 1980-1996” (Migliaccio, 2019). While

there is a debate about which years encompass generation Z, this study will be using the years defined by Migliaccio. Situational crisis communication theory, which will be described further in the literature review, will be used to decide on the types of messages that should be used during a crisis. Since the crisis being examined in this study is a preventable one, Coombs suggests that the rebuild strategy will yield a stronger relationship between the public and the industry (Coombs, 2007). The SCCT framework will be tested on its use within the eyes of the pharmaceutical crisis and potentially expand on the theory.

Importance of Study

This study is not only important to test the theories and frameworks in use but to begin a discussion around the communication strategies used in the pharmaceutical industry. The significance of this study will shed light on the industries reputation and their current relationship with external publics. With the type of statistics coming from Edelman, the crisis of relationship management in the industry needs to be addressed and researched further. If this study can show a base line of how the public feels their relationship is with the industry, and different response strategies are tested, then there is potential for the industry to regain trust. Seeing how millennials view their trust and relationship with the pharmaceutical industry will bring new light to how this will affect the industry. Millennials are the future generation that will be making decisions for the industry, including regulations. In 2017 the US Census Bureau “announced that there are currently 92 million millennials, and this makes them the largest living generation” (Gerhardt & Peluchette, 2018). For researches, this is important because they can see not only how millennials, the largest demographic, measures their trust with the

industry but how they are being exposed to the industry and if that has any correlation with their trust. For the pharmaceutical industry, it is important to know about the relationship all stakeholders have but especially how the future generation sees themselves in the eyes of an industry that is known to be distrusted.

Outline of Study

Chapter two will examine the theoretical frameworks applied in this study. It will define the theories, explain how they are used, and why they are being used in the study. Chapter three will discuss the methodology that was chosen and why, along with the key components that will be used. Chapter four will look at the results of the data analysis, which will lead to the discussion of the results in chapter five. Finally, chapter six will conclude the study by going into detail about further research on the topic and limitations that were involved.

CHAPTER TWO

LITERATURE REVIEW

Organization - Public Relationship Theory

One of the key components between a company, organization, or industry is its relationship with its stakeholders. The quality of between the two can significantly affect both parties. A relationship is defined as “the connection between an organization and its public(s) that needs to be build and maintained over time because of its strengths to impact the economic, social, cultural, or political well-being of the other” (Ledingham, 2003, p. 184). Knowing the importance of the relationship between an organization and its publics allows communicators to manage their messages strategically. Many researchers have defined this theory and explained how it is used in different situations. “Organization-public relationship theory works to create and manage a mutually beneficial relationship that takes the common interest and goals of the organization and public(s) and uses effective communication tools to better the organization and create a mutual understanding” (Cutlip, Center, & Broom, 1994; Ledingham, 2003; Maxwell & Carboni, 2014). “Organization-Public Relationship theory shows that by leveraging and making the most use of an organization’s relationship with its publics, it can be a key tool for the organization to reach its goals and be prosperous. By taking the time to build the relationship, the strength between the organization and key stakeholders will

create a more profitable and enjoyable environment” (Dozier, Grunig, & Grunig, 1995; Ledingham & Bruning, 1998; Ledingham, 2003).

Building a better relationship and maintaining and managing it is extremely important for a distrusted organizational entity such as the pharmaceutical industry. While public relationship management theory is excellent for understanding what a relationship is and how to manage it strategically, the next step is to know how to measure it to see where the relationship stands. To address this, Hon and Grunig created guidelines for measuring relationships in public relations. To evaluate how individuals view an organization there has to be a way of measuring to see where the organization needs to put more focus and attention to further the short and long term outcomes of the relationship. Hon and Grunig state that the way to measure an organization’s relationship with key publics and stakeholders is by focusing on six elements of the relationship. The six elements mentioned are control mutuality, trust, satisfaction, commitment, exchange relationship, and communal relationship (Hon & Grunig, 1999). These elements can then be used in a questionnaire that is strong enough to measure the relationship.

To thoroughly evaluate each variable Hon and Grunig defined them. Control mutuality is, “as the name suggests, the amount of power or control each party has over the other. While there should be some natural control balance, stable relationships require both parties each have some give and take” (Hon & Grunig, 1999). Trust is, “the level of confidence that the organization and the public have with one another. It is also the level to which the other organization feels comfortable to completely open up to the other. To measure trust, one has to look at the ‘underlying dimensions’” (Grunig, 2002). Those dimensions are integrity,

dependability, and competence. If there is a sole purpose to measure trust, each of those factors can be measured separately. Satisfaction is, “the how much each party feels the other is reaching their goals and expectations in a proper way. A satisfying relationship is one where the benefits outweigh the costs” (Hon & Grunig, 1999). Commitment is, “how much time and energy each party is willing to put into the relationship to maintain it and help it grown. There are two dimensions of commitment, which are continuance commitment, referring to a certain line of action, and affective commitment, which is an emotional orientation” (Hon & Grunig, 1999). An exchange relationship is, “when one party gives benefits to the other only because the other has provided benefits in the past or is expected to do so in the future” (Hon & Grunig, 1999). The last variable measured is a communal relationship, which is, “when both parties provide benefits to the other because they are concerned for the welfare of the other -- even when they get nothing in return. For most public relations activities, developing communal relationships with key constituencies is much more important to achieve than would be developing exchange relationships” (Hon & Grunig, 1999). These six variables have been thoroughly tested and are used as a reliable scale when measuring relationships between an organizational entity and its stakeholders.

Situational Crisis Communication Theory

Situational Crisis Communication Theory (SCCT), can be used as a framework for post-crisis strategic messaging to maximize reputational protection (Coombs, 2007). This framework allows practitioners of crisis communication to use these crisis response strategies to protect their organizations and build a better relationship with their publics and stakeholders. Situational

crisis communication theory is rooted in Attribution theory, which “posits that people search for the causes of events (make attributions), especially those that are negative and unexpected (Weiner, 1985; Weiner 1986, 2006). Attribution Theory “provides the rationale for the relationship between many of the variables used in SCCT” (Coombs, 2007).

Variables that are integral to SCCT include attribution of crisis responsibility, crisis history, and prior relationship reputation. According to SCCT, if stakeholders attribute a greater crisis responsibility to the organization, their perception of the organization’s reputation will decline; showing a negative relationship (Coombs and Holladay, 1996, 2001). If there is prior crisis history for the organization and a negative relationship reputation, then it will increase the reputational threat. Based off of how each variable is seen in the case, the crisis can then be categorized into a specific crisis type. If the organization is also a victim of the crisis and there is weak attribution of crisis responsibility a little to no history, then it is in the victim cluster. If the organizational actions leading to the crisis were unintentional and has minimal attributions of crisis responsibility, then it is in the accidental cluster. If the organization knowingly places people at risk or took inappropriate actions or violet a law/regulation and has strong attributions of crisis responsibility paired with a string crisis history, then it is in the preventable cluster. (Coombs, 2007). Knowing which cluster the crisis that is being dealt with fits into, a crisis response strategy can be selected. “Crisis response strategies are used to repair the reputation, to reduce negative affect, and to prevent negative behavioral intentions. This has been studied extensively in management and communication (eg,Bradford and Garrett, 1995; Marcus and Goodman, 1991; Coombs, 2007; Siomkos and Shrivasta, 1993; Allen and Caillouet, 1994; Benoit, 1995). Based on the previous factors, the pharmaceutical industry can currently be seen in the preventable cluster

since they have a strong attribution of crisis responsibility, a crisis history, and the industry has knowingly placed people at risk and violated laws and regulations.

Situational crisis communication theory also shares beliefs with Image Restoration Theory in that the ways we communicate can be very powerful (Benoit, 1995). “Image Restoration Theory offers no conceptual links between the crisis response strategies and elements of the crisis situation. The SCCT draws upon the crisis response strategies articulated in Image Restoration Theory by integrating those strategies into a system that predicts how stakeholders should react to the crisis and the crisis response strategies used to manage the crisis” (Coombs, 2007).

There are three primary crisis response strategies. These include denial, diminish, and rebuild. The first strategy of denial is defined by Coombs as, “a strategy that seeks to establish a crisis frame. Deny strategies attempt to remove any connection between the organization and the crisis. In rumor and challenge crises, managers need to argue that there is no ‘real’ crisis. Managers deny the truth to the rumor or refute the charges of immoral conduct. If stakeholders, including the news media, accept the no crisis frame of denial, the organization is spared any reputational harm” (Coombs, 2007). The type of strategies that can be used to express denial would be to attack the accuser, deny that there is a crisis, or use a scapegoat.

The second primary strategy is diminish. “The diminish crisis response strategies argue that a crisis is not as bad as people think or that the organization lacked control over the crisis. Diminish strategies are most effective when reinforcing existing crisis frames” (Coombs, 2007). Two strategies for implanting the diminish response are using an excuse to minimize the organizations responsibility and justification to minimize the perceived damage.

The third primary response is the rebuild response strategy, which “should be used for crises with strong attributions of crisis responsibility (preventable crises) regardless of history or prior relationship reputation” (Coombs, 2007). Types of rebuild crisis response strategies are compensation, where the crisis manager offers money or other gifts to victims, and/or apology, where the crisis manager indicates the organization takes full responsibility for the crisis and asks stakeholders for forgiveness (Coombs, 2007). The SCCT variables crisis history, prior relationship reputation, and attributed crisis responsibility will determine which cluster the crisis will fall under. After that the best response strategy will be selected based on perceptions of accepting outcomes.

For this study, the industry is facing a preventable crisis due to the long prior history, a negative relationship reputation, and a high attributed crisis responsibility. As mentioned before this is due to the fact that there have been deaths, distrust, and lawsuits in relation with opioid companies and the ‘opioid’ crisis. Based on Coombs framework, the rebuild crisis strategy should yield the best end result relationship for the industry and their publics.

Research Hypothesis

H1: Crisis response message strategies for the pharmaceutical industry will influence and effect relational outcomes.

P1.1: Rebuild strategy will produce higher levels of trust in publics of the pharmaceutical industry than denial or silence.

P1.2: Rebuild strategy will produce higher levels of control mutuality in publics of the pharmaceutical industry than denial or silence.

P1.3: Rebuild strategy will produce higher levels of satisfaction in publics of the pharmaceutical industry than denial or silence.

P1.4: Rebuild strategy will produce higher levels of commitment in publics of the pharmaceutical industry than denial or silence.

P1.5: Rebuild strategy will produce a stronger communal relationship in publics of the pharmaceutical industry than denial or silence.

P1.6: Rebuild strategy will produce a stronger exchange relationship in publics of the pharmaceutical industry than denial or silence.

CHAPTER THREE

METHODOLOGY

This chapter explains the methodology that was used in this study. It will discuss the type of research chosen, how it was designed, the procedures used, the instrumentation used to measure the variables of interest, and the data analysis procedures used. This study employs a 3 x 1 + control post-test only experimental design based on crisis response strategies and measuring relationships. The crisis response strategies used will be rebuild, deny, and silence. The relationship variables measured will be trust, control mutuality, commitment, satisfaction, exchange relationships, and communal relationships.

Context of Study

To test the SCCT crisis response strategies and see if rebuild, denial, or silence strategies yield the strongest relationship with the pharmaceutical industry an experiment is needed. The type of crisis chosen for this experiment was a preventable one. Many of the cases that have been highlighted in the media about the pharmaceutical industry are those that are court cases where the industry is at fault and, therefore, must pay settlements. With other factors coming into play, based on the SCCT framework, such as attributed responsibility and crisis history, using a preventable crisis will replicate the current real industry environment. There will be four conditions with two manipulated variables, an experimental control, and a true control

conducted. Each condition is further explained in the instrumentation section. The variables used to measure the relationship between the respondents, and the organization will be a 5 point Likert-scale.

Study Respondents

The sample population used for this study was 125 millennials with different backgrounds. They varied in age, gender, race, and geographical location. The importance of conducting this study with the younger and upcoming generation is to see how they feel their relationship is with the pharmaceutical industry after being exposed to a preventable crisis and seeing a response. This generation of millennials will be the future people who may make deciding factors on the industry itself.

Procedures

The study received USF IRB approval prior to launching. After approval was obtained, participants who fit the millennia criteria were recruited through social media channels to participate in the study. The recruitment method used was a social media advertisement located in Appendix A.

With this study using the pharmaceutical industry, some of the respondents may already have prejudgments towards a particular company, within the industry. Knowing this and to decrease, possible bias, the study will focus on the industry as a whole. While the scenarios that are used to simulate the preventable crisis will be based on a real pharmaceutical crisis the name of pharmaceutical companies will not be noted.

Once participants selected the link to participate, they were able to read more about the study and were asked to read an informed consent statement and select that they agreed to participate before moving forward. As stated before, there were four conditions. The conditions were given in a randomized order through the USF Qualtrics system. The first one featured the cover of a newspaper with a paragraph describing the court case trial involving the pharmaceutical industry. The court case was based on the recent Johnson & Johnson opioid case, which established credibility by using a real-world case. The newspaper article is based with a quote from a CBS news article published on August 27th of 2019 (CBS News, 2019). On the next page of the newspaper article an advertisement was taken out by PhRMA, a board of pharmaceutical CEO's, with a quote from the Chairman of the board responding to the crisis using the rebuilding strategies of compensation an apology. The second condition has the same newspaper article describing the crisis situation, but the advertisement on the next page has the Chairman using denial response strategies. The denial response is the exact response that Johnson & Johnson gave after the exact case that is mentioned in the fake newspaper. The third condition, and the experimental control, will use the same newspaper article describing the situation but will have no response from the Chairman of PhRMA, which will test silence. Silence is different than testing no response because choosing to stay silent is for a strategic and thought out purpose. The last condition and the true control will only be the relationship questionnaire of the industry, which will test for the population's feelings without a stimulus and will serve as the baseline of this study.

After the newspaper and advertisement are given, respondents received a questionnaire to measure their relationship with the industry. The questionnaire was derived

from Hon and Grunig (1999) guidelines for measuring relationships. The variables that were measured were trust, control mutuality, commitment, exchange relationship, and communal relationship. The questionnaire was measured with a 5-point scale on how much the responded agreed or disagreed with each statement in relation to their relationship. This scale has been tested during a pre-test of the study for validity and reliability and is strong enough to be used in the context of measuring relationships.

After the participants filled out their responses and answer unidentifiable demographic information they were shown a debriefing statement that informed them about the nature of the study and enforced that what they read was manipulated for the study. They then had the opportunity to withdraw all of their responses if they felt they wanted to. All versions of the questionnaire can be found in Appendix B, C, D, and E.

Instrumentation

The following statements have been derived from Hon and Grunig's guidelines for measuring a relationship. Each statement below has been adapted from their work (Grunig & Hon, 1999).

"Trust will be measured with the following statements:

- 1) The pharmaceutical industry treats people like me fairly and justly.
- 2) Whenever the pharmaceutical industry makes an important decision, I know it will be concerned about people like me.
- 3) The pharmaceutical industry can be relied on to keep its promises.

4) I believe that the pharmaceutical industry takes the opinions of people like me into account when making decisions.

5) I feel very confident about the pharmaceutical industry's skills.

6) The pharmaceutical industry has the ability to accomplish what it says it will do.

Control Mutuality will be measured with the following statements:

1) The pharmaceutical industry and people like me are attentive to what each other say.

2) The pharmaceutical industry believes the opinions of people like me are legitimate.

3) In dealing with people like me, the pharmaceutical industry has a tendency to throw its weight around.

4) The pharmaceutical industry really listens to what people like me have to say.

5) The management of the pharmaceutical industry gives people like me enough say in the decision-making process.

Commitment will be measured with the following statements:

1) I feel that the pharmaceutical industry is trying to maintain a long-term commitment to people like me.

2) I can see that the pharmaceutical industry wants to maintain a relationship with people like me.

3) There is a long-lasting bond between the pharmaceutical industry and people like me.

4) Compared to other industries, I value my relationship with the pharmaceutical industry more.

5) I would rather work together with this industry than not.

Satisfaction will be measured with the following statements:

- 1) I am happy with this industry.
- 2) Both the industry and people like me benefit from the relationship.
- 3) Most people like me are happy in their interactions with this industry.
- 4) Generally speaking, I am pleased with the relationship this industry has established with people like me.
- 5) Most people enjoy dealing with this industry.

Exchange relationships will be measured by the following statements:

- 1) Whenever this industry gives or offers something to people like me, it generally expects something in return.
- 2) Even though people like me have had a relationship with this industry for a long time, it still expects something in return whenever it offers us a favor.
- 3) This industry will compromise with people like me when it knows that it will gain something.
- 4) This industry takes care of people who are likely to reward the industry.

Finally, communal relationships with me measured by the following statements:

- 1) This industry does not especially enjoy giving others aid.
- 2) This industry is very concerned about the welfare of people like me.
- 3) I feel that this industry takes advantage of people who are vulnerable.
- 4) I think that this industry succeeds by stepping on other people.
- 5) This industry helps people like me without expecting anything in return" (Grunig & Hon, 1999).

Manipulation Check

To ensure that the manipulated variables are correctly being used, a manipulation check will be added to the questionnaire. To test the response strategies three original questions were added about the denial strategy and the rebuild strategy. Based on the definition on the denial strategy, these three statements will be measured on the same scale as the rest of the questionnaire and were tested during a pre-test of the study:

- 1) The industry attempted to remove connection between the themselves and the crisis.
- 2) The industry argued that there was no 'real' crisis.
- 3) The industry denied the truth to the crisis and refuted the charges of immoral conduct.

Based on the definition of rebuild strategy, these three original statements will be measured as well:

- 1) The industry offered material and/or symbolic forms of aid to victims.
- 2) The industry offered compensation or a full apology.
- 3) The industry said and did things to benefit stakeholders.

Data Collection

Once the data was collected through Qualtrics, SPSS was for the statistical analysis of the data. A One-Way ANOVA was used to check validity and reliability. It was also used to compare each of the relational variables with the crisis messaging strategies.

CHAPTER FOUR

RESULTS

This study set out with the intention to test and expand on the organization-public relationship theory by Hon and Grunig and see how it upheld when combined with situational crisis communication message strategies from Coombs within the scope of the Pharmaceutical Industry. The variables that makeup a relationship were tested with hypothesis in mind that there would be effected by the separate crisis communication message strategies of denial, rebuild, and silence. The results section will show the findings of this study and will show who the participants were. It will go over the manipulation check, the reliabilities, descriptive statistics, and hypotheses results.

Demographics

Table 1 shows results of the demographics of respondents by sex, race, and age. Based on the data collected, the respondents were predominantly female (n=91) of the 125 participants. They were also mostly Caucasian (n=108) with Hispanic (n=6) and Other ethnicities (n=6) as the second majority. Most respondents were between the ages of 24 – 27 (n=73) but all still fall in the age range of a millennial.

Table 1. Demographic profile of study respondents.

What is your sex?

		Frequency	Percent
Valid	Female	91	72.8
	Male	33	26.4
	Other	1	.8
	Total	125	100.0
Total		125	100.0

What is your ethnicity?

		Frequency	Percent
Valid	Hispanic	6	4.8
	African American	1	.8
	Caucasian	108	86.4
	Asian	4	3.2
	Other	6	4.8
	Total	125	100.
Total		125	100.0

What is your age? (please enter a whole number in years)

		Frequency	Percent
Valid	23	9	7.2
	24	19	15.2
	25	25	20
	26	13	10.4
	27	16	12.8
	28	7	5.6
	29	7	5.6
	30	6	4.8
	31	2	1.6
	32	2	1.6
	33	2	1.6
	34	2	1.6
	35	4	3.2
	36	3	2.4
	37	3	2.4

Table 1 (Continued)

38	2	1.6
39	1	.8
40	2	1.6
Total	125	100.0

Manipulation Checks

Once demographic information was analyzed to understand who the participants were, the manipulation checks were analyzed for reliability and significance. Based on the below data in Table 2 and Table 3, both the items used to measure the manipulations showed no internal consistency so they were analyzed separately. The manipulation check questions were original items and may be the reason for the lack of reliability in this study.

Table 2. Manipulation Check – Denial.**Reliability Statistics**

Cronbach's Alpha	N of Items
.611	3

Item Statistics

	Mean	Std. Deviation	N
MCD-The pharmaceutical industry argued that there was no 'real' crisis.	3.46	1.241	125
MCD-The pharmaceutical industry attempted to remove the connection between themselves and the crisis.	3.64	1.253	125
MCD-The pharmaceutical industry denied the truth to the crisis and refuted the charges of immoral conduct.	3.78	1.013	125

Item-Total Statistics

Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted

Table 2 (Continued)

MCD-The pharmaceutical industry argued that there was no 'real' crisis.	7.42	3.585	.394	.551
MCD-The pharmaceutical industry attempted to remove the connection between themselves and the crisis.	7.24	3.555	.392	.556
MCD-The pharmaceutical industry denied the truth to the crisis and refuted the charges of immoral conduct.	7.10	3.975	.490	.434

Table 3. Manipulation Check – Rebuild.**Reliability Statistics**

Cronbach's Alpha	N of Items
.055	3

Item Statistics

	Mean	Std. Deviation	N
MCR-The pharmaceutical industry said and did things to benefit stakeholders.	4.26	.888	125
MCR-The pharmaceutical industry offered compensation or a full apology.	2.26	.968	125
MCR-The pharmaceutical industry offered material and/or symbolic forms of aid to victims.	2.86	.995	125

Item-Total Statistics

	Scale Mean if Deleted	Scale Variance if Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Deleted
MCR-The pharmaceutical industry said and did things to benefit stakeholders.	5.13	2.661	-.218	.551
MCR-The pharmaceutical industry offered compensation or a full apology.	7.12	1.477	.172	-.407 ^a
MCR-The pharmaceutical industry offered material and/or symbolic forms of aid to victims.	6.52	1.397	.184	-.472 ^a

a. The value is negative due to a negative average covariance among items. This violates reliability model assumptions. You may want to check item codings.

After the reliability was determined for both manipulation checks, a One-Way ANOVA was conducted. As a result, the One-Way ANOVA was adjusted to look at differences in treatments individually. While there were individual significances of less than .05 in some treatments it did not work in the hypothesized way, as seen in table 4. Future research may look at adapting these original questions that did show significance and elaborating on them.

Table 4. Manipulation Check – One-Way ANOVA.

Descriptives

		N	Mean	Std. Deviation	Std. Error
MCD-The pharmaceutical industry argued that there was no 'real' crisis.	CONTROL-BRAND ONLY	49	2.98	1.031	.147
	ARTICLE+DENIAL	54	3.39	1.156	.157
	ARTICLE+APOLOGY	44	3.36	1.432	.216
	ARTICLE+SILENCE	42	3.93	.947	.146
	Total	189	3.40	1.192	.087
MCR-The pharmaceutical industry said and did things to benefit stakeholders.	CONTROL-BRAND ONLY	49	4.08	.909	.130
	ARTICLE+DENIAL	54	4.26	.828	.113
	ARTICLE+APOLOGY	44	4.11	.945	.143
	ARTICLE+SILENCE	42	4.43	.859	.133
	Total	189	4.22	.888	.065
MCD-The pharmaceutical industry attempted to remove the connection between themselves and the crisis.	CONTROL-BRAND ONLY	33	3.36	1.141	.199
	ARTICLE+DENIAL	46	3.67	1.012	.149
	ARTICLE+APOLOGY	40	3.50	1.359	.215
	ARTICLE+SILENCE	33	4.09	1.208	.210
	Total	152	3.65	1.197	.097
MCR-The pharmaceutical industry offered compensation or a full apology.	CONTROL-BRAND ONLY	33	2.52	.870	.152
	ARTICLE+DENIAL	46	2.39	.881	.130
	ARTICLE+APOLOGY	40	2.17	1.083	.171
	ARTICLE+SILENCE	33	1.88	.992	.173
	Total	152	2.25	.978	.079
	CONTROL-BRAND ONLY	27	3.04	1.126	.217

Table 4 (Continued)

MCR-The pharmaceutical industry offered material and/or symbolic forms of aid to victims.	ARTICLE+DENIAL	37	2.70	.996	.164
	ARTICLE+APOLOGY	33	2.91	.980	.171
	ARTICLE+SILENCE	28	2.86	.891	.168
	Total	125	2.86	.995	.089
MCD-The pharmaceutical industry denied the truth to the crisis and refuted the charges of immoral conduct.	CONTROL-BRAND ONLY	27	3.04	.854	.164
	ARTICLE+DENIAL	37	3.81	.811	.133
	ARTICLE+APOLOGY	33	3.91	1.156	.201
	ARTICLE+SILENCE	28	4.32	.819	.155
	Total	125	3.78	1.013	.091

ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
MCD-The pharmaceutical industry argued that there was no 'real' crisis.	Between Groups	20.458	3	6.819	5.112	.002
	Within Groups	246.780	185	1.334		
	Total	267.238	188			
MCR-The pharmaceutical industry said and did things to benefit stakeholders.	Between Groups	3.344	3	1.115	1.425	.237
	Within Groups	144.761	185	.782		
	Total	148.106	188			
MCD-The pharmaceutical industry attempted to remove the connection between themselves and the crisis.	Between Groups	10.047	3	3.349	2.401	.070
	Within Groups	206.472	148	1.395		
	Total	216.520	151			
MCR-The pharmaceutical industry offered compensation or a full apology.	Between Groups	8.011	3	2.670	2.896	.037
	Within Groups	136.489	148	.922		
	Total	144.500	151			
MCR-The pharmaceutical industry offered material and/or symbolic forms of aid to victims.	Between Groups	1.839	3	.613	.614	.607
	Within Groups	120.849	121	.999		
	Total	122.688	124			
MCD-The pharmaceutical industry denied the truth	Between Groups	23.695	3	7.898	9.236	.000
	Within Groups	103.473	121	.855		

Table 4 (Continued)

to the crisis and refuted the charges of immoral conduct.	Total	127.168	124			
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Relational Reliabilities

After the manipulation checks resulted in a different manner than hypothesized, each individual relational variable was tested for reliability. Trust ($\alpha=.771$) can be found in table 5, commitment ($\alpha=.705$) in table 6, satisfaction ($\alpha=.783$) in table 7, and control mutuality ($\alpha=.733$) in table 8.

Table 5. Trust – Reliability**Reliability Statistics**

Cronbach's Alpha	N of Items
.771	6

Item Statistics

	Mean	Std. Deviation	N
Trust_I believe that this pharmaceutical industry takes the opinions of people like me into account when making decisions.	1.97	1.085	125
Trust_The pharmaceutical industry treats people like me fairly and justly.	2.13	.907	125
Trust_The pharmaceutical industry has the ability to accomplish what it says it will do.	3.98	1.107	125

Table 5 (Continued)

Trust_Whenever the pharmaceutical industry makes an important decision, I know it will be concerned about people like me.	1.96	1.035	125
Trust_The pharmaceutical industry can be relied on to keep its promises.	1.94	.936	125
Trust_I feel very confident about the pharmaceutical industry's skills.	3.06	1.297	125

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Trust_I believe that this pharmaceutical industry takes the opinions of people like me into account when making decisions.	13.07	14.164	.471	.749
Trust_The pharmaceutical industry treats people like me fairly and justly.	12.91	14.145	.618	.717
Trust_The pharmaceutical industry has the ability to accomplish what it says it will do.	11.06	15.537	.277	.797

Table 5 (Continued)

Trust_Whenever the pharmaceutical industry makes an important decision, I know it will be concerned about people like me.	13.08	13.026	.681	.695
Trust_The pharmaceutical industry can be relied on to keep its promises.	13.10	14.087	.601	.720
Trust_I feel very confident about the pharmaceutical industry's skills.	11.98	12.629	.529	.738

Table 6. Commitment – Reliability

Based on the reliability acceptable Cronbach's Alpha the number of items was dropped to the remaining four alphas.

Reliability Statistics

Cronbach's Alpha	N of Items
.705	4

Item Statistics

	Mean	Std. Deviation	N
Committment_ Compared to other industries, I value my relationship with the pharmaceutical industry more.	2.05	1.156	125
Committment_I can see that the pharmaceutical industry wants to maintain a relationship with people like me.	2.87	1.314	125

Table 6 (Continued)

Committment_I feel that the pharmaceutical industry is trying to maintain a long-term commitment to people like me.	2.67	1.183	125
Committment_I would rather work together with the pharmaceutical industry than not.	3.50	1.261	125
Committment_There is a long-lasting bond between the pharmaceutical industry and people like me.	2.49	1.248	125

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Commitment Compared to other industries, I value my relationship with the pharmaceutical industry more.	11.53	11.929	.440	.632
Commitment can see that the pharmaceutical industry wants to maintain a relationship with people like me.	10.70	10.984	.467	.619
Commitment feel that the pharmaceutical industry is trying to maintain a long-term commitment to people like me.	10.90	11.233	.523	.596

Table 6 (Continued)

Commitment would rather work together with the pharmaceutical industry than not.	10.08	12.784	.267	.705
Commitment There is a long-lasting bond between the pharmaceutical industry and people like me.	11.09	11.016	.507	.601

Table 7. Satisfaction – Reliability**Reliability Statistics**

Cronbach's Alpha	N of Items
.783	5

Item Statistics

	Mean	Std. Deviation	N
Satisfaction_ I am happy with the pharmaceutical industry.	2.15	1.108	125
Satisfaction_Generally speaking, I am pleased with the relationship the pharmaceutical industry has established with people like me.	1.98	1.032	125
Satisfaction_Both the pharmaceutical industry and people like me benefit from the relationship.	2.86	1.266	125
Satisfaction_Most people enjoy dealing with the pharmaceutical industry.	1.69	.865	125

Table 7 (Continued)

Satisfaction_Most people like me are happy in their interactions with the pharmaceutical industry.	2.37	1.133	125
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Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Satisfaction_I am happy with the pharmaceutical industry.	8.90	9.926	.672	.702
Satisfaction_Generally speaking, I am pleased with the relationship the pharmaceutical industry has established with people like me.	9.07	10.503	.640	.716
Satisfaction_Both the pharmaceutical industry and people like me benefit from the relationship.	8.19	10.334	.480	.776
Satisfaction_Most people enjoy dealing with the pharmaceutical industry.	9.37	12.283	.464	.771
Satisfaction_Most people like me are happy in their interactions with the pharmaceutical industry.	8.69	10.410	.568	.739

Table 8. Control Mutuality – Reliability

Based on the reliability acceptable Cronbach's Alpha the number of items was dropped to the remaining four alphas.

Table 8 (Continued)**Reliability Statistics**

Cronbach's Alpha	N of Items
.733	4

Item Statistics

	Mean	Std. Deviation	N
Control_The pharmaceutical industry really listens to what people like me have to say.	1.75	.956	125
Control_The management of the pharmaceutical industry gives people like me enough say in the decision-making process.	1.70	.959	125
ControlR_In dealing with people like me, the pharmaceutical industry has a tendency to throw its weight around.	4.04	.797	125
Control_The pharmaceutical industry believes the opinions of people like me are legitimate.	2.33	1.091	125
Control_The pharmaceutical industry and people like me are attentive to what each other say.	2.42	1.123	125

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted
Control_The pharmaceutical industry really listens to what people like me have to say.	10.49	5.478	.512	.358
Control_The management of the pharmaceutical industry gives people like me enough say in the decision-making process.	10.54	5.428	.523	.351
ControlR_In dealing with people like me, the pharmaceutical industry has a tendency to throw its weight around.	8.20	9.516	-.298	.733
Control_The pharmaceutical industry believes the opinions of people like me are legitimate.	9.91	5.145	.475	.367
Control_The pharmaceutical industry and people like me are attentive to what each other say.	9.82	5.404	.387	.431

Hypotheses

After seeing that all of the individual relational variables were reliable, the data was tested for the hypotheses. First, a set of descriptive statistics were collapsed to test and compare mean scores. Trust, commitment, control mutuality, and satisfaction all produced

means less than an average of 3 of out the 5 point scale. The data also showed aspects of both exchange and communal relationships.

Table 9. Hypotheses Descriptives

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Trust	125	1.00	4.17	2.5067	.72999
COMMITMENT2	125	1.00	4.75	2.5200	.89386
CM2	125	1.00	4.20	2.1056	.79700
Satisfaction	125	1.00	4.00	2.2112	.79608
Exchange2	152	1.50	5.00	3.9671	.84898
COMMUNal2	125	3.00	5.00	4.4000	.61892
Valid N (listwise)	125				

Descriptives

		N	Mean	Std. Deviation	Std. Error
Trust	CONTROL-BRAND ONLY	27	2.6975	.63387	.12199
	ARTICLE+DENIAL	37	2.5495	.72421	.11906
	ARTICLE+APOLOGY	33	2.4293	.78950	.13743
	ARTICLE+SILENCE	28	2.3571	.74358	.14052
	Total	125	2.5067	.72999	.06529
Satisfaction	CONTROL-BRAND ONLY	27	2.3333	.75447	.14520
	ARTICLE+DENIAL	37	2.3081	.78258	.12866
	ARTICLE+APOLOGY	33	2.2909	.87191	.15178
	ARTICLE+SILENCE	28	1.8714	.69966	.13222
	Total	125	2.2112	.79608	.07120
COMMITMENT2	CONTROL-BRAND ONLY	27	2.4815	.82312	.15841
	ARTICLE+DENIAL	37	2.4865	.83945	.13800
	ARTICLE+APOLOGY	33	2.6364	.94185	.16395
	ARTICLE+SILENCE	28	2.4643	1.00165	.18929
	Total	125	2.5200	.89386	.07995
CM2	CONTROL-BRAND ONLY	27	2.3556	.63811	.12280
	ARTICLE+DENIAL	37	2.1568	.92272	.15169
	ARTICLE+APOLOGY	33	2.0727	.73624	.12816
	ARTICLE+SILENCE	28	1.8357	.77756	.14695

Table 9 (Continued)

	Total	125	2.1056	.79700	.07129
Exchange2	CONTROL-BRAND ONLY	33	3.9697	.84723	.14748
	ARTICLE+DENIAL	46	3.9674	.76305	.11251
	ARTICLE+APOLOGY	40	4.0000	.83972	.13277
	ARTICLE+SILENCE	33	3.9242	1.00095	.17424
	Total	152	3.9671	.84898	.06886
COMMUNal2	CONTROL-BRAND ONLY	27	4.2222	.65535	.12612
	ARTICLE+DENIAL	37	4.4595	.61665	.10138
	ARTICLE+APOLOGY	33	4.3939	.67033	.11669
	ARTICLE+SILENCE	28	4.5000	.50918	.09623
	Total	125	4.4000	.61892	.05536

An ANOVA was then conducted to accept or reject the studies hypotheses. Based on the data in table 10 and no significance below .05 the ANOVA can conclude that there was no significant difference between message groups.

Table 10. Hypotheses – ANOVA**ANOVA**

		Sum of Squares	df	Mean Square	F	Sig.
Trust	Between Groups	1.875	3	.625	1.178	.321
	Within Groups	64.203	121	.531		
	Total	66.078	124			
Satisfaction	Between Groups	4.192	3	1.397	2.273	.084
	Within Groups	74.392	121	.615		
	Total	78.584	124			
COMMITMENT2	Between Groups	.615	3	.205	.252	.860
	Within Groups	98.460	121	.814		
	Total	99.075	124			
CM2	Between Groups	3.859	3	1.286	2.078	.107
	Within Groups	74.907	121	.619		
	Total	78.766	124			
Exchange2	Between Groups	.104	3	.035	.047	.986
	Within Groups	108.731	148	.735		
	Total	108.836	151			

Table 10 (Continued)

COMMUNal2	Between Groups	1.265	3	.422	1.104	.350
	Within Groups	46.235	121	.382		
	Total	47.500	124			

CHAPTER FIVE

DISCUSSION

While the overall hypotheses of this study did not show that the message strategies would have an effect on millennials relationship with the pharmaceutical industry the data does show other important information. It shows how millennials feel about the industry in different relational aspects, its shows how deep rooted relationships are, and it shows the strong foundation of organization-public relationship theory.

As discussed in the background of this study, millennials are a generation that tend to be invested in different forms of media. Many of these media platforms provide this generation and others with news, articles, and other forms of information that help people shape their feelings and relationships with organizations. For the millennial generation who may not have direct contact with the pharmaceutical industry this may be their only resource for shaping their relationships. Knowing this information and looking at the data and means from table 9 show that no matter what message the respondents were exposed to they had an overall less strong relationship in each of the core relationship variables. While the manipulation check showed that the denial and apology tactics did not translate when the study was transferred to an online format the data was then able to show that this populations relationships may be too deep rooted to be effected by one message. While the data also showed that there were

aspects of both a communal and exchange relationship the pharmaceutical industry should aim to strengthen the communal relationship with this demographic.

While the crisis message strategies produced by Coombs did not take effect in this study to change relationships, Hon and Grunig's organization-public relationship theory was upheld. The descriptive data was collapsed into variables for the hypothesis test and composite mean scores. A series of ANOVAS also determined that there was no significance in terms of the crisis messaging strategies. However, each relational variable that was produced by Hon and Grunig yielded reliable results with Cronbach alpha's all above .7. While this study was unable to expand on the theory it was able to reinforce the variables that make up a relationship and are used to measure one. This theory is mostly seen in practice for individual organizations and in fields other than pharmaceuticals. Testing this theory in a new area and with an industry as a whole shows that these principles for measuring a relationship are sound.

CHAPTER SIX

CONCLUSION

In conclusion, if the pharmaceutical industry sees the importance in having the millennial generation as a key stakeholder the industry will have to work hard to change their current relationship with them. Many studies have not been done to look at the millennial generation and organizations such as the pharmaceutical industry. While this study did not show that different crisis message strategies could help build a stronger relationship between the two groups it showed just how negatively millennials see their relationship with the industry and that those beliefs are deeply rooted. With millennials being the next generation to create change for this industry it is vital that the industry focuses their attention on millennials and begins to build better and stronger relationships.

Limitations

This study was conducted during the 2020 Coronavirus pandemic. This caused what was supposed to be an experiment designed to be conducted in person for full effect to be moved into an online format. The original study had to not only be changed to fit an online Qualtrics format, but the target population had to change as well to a group that would be reachable during the pandemic virtually. Another limitation was that the questionnaire had to be shared on social media. This is a limitation because while it was being shared the questionnaire was

cyber attacked by a bot that caused blank results to be entered into the system. Once those blank answers were removed a smaller sample size than desired was left to work with. Another limitation was the use of original manipulation check questions. While they held up during the pre-test that was conducted, they did not manipulate the messages in the way they were supposed to for this study.

Areas for Further Research

Future research on this topic is needed for expanding the theory and field of mass communication but also for insights into an industry and population that has not been compared before. Research could also continue in the qualitative field by looking at all aspects of a relationship with other populations such as the elderly or with baby boomers and compare relationships amongst age groups. Another aspect that could be added to those studies is looking at cultural and ethnical backgrounds and compare relationships there as well. Research could also look at how millennials or different groups find their information about the industry that helps them develop their relationships.

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APPENDICES



Calling all

MILLENNIALS

If you were born between 1980-1996, then you're eligible to participate in a research study by the University of South Florida.

Share your opinion through a 10-15 minute online questionnaire.

To learn more, visit: <https://bit.ly/USFthesis>

For questions, contact Nikoletta Pappas at nikolettap@usf.edu

Study #000437



UNIVERSITY OF SOUTH FLORIDA

Appendix B: Relationship Questionnaire - Denial

Thank you for agreeing to participate in this study!

We are interested in your personal opinions regarding your relationship with the pharmaceutical industry. Please take a few minutes to review the next pages. Next, you will be presented with a series of statements about your opinions. Please indicate your level of agreement with each statement by selecting the appropriate response based on the scale provided, next to each statement.

Please answer as honestly as possible. There are no right or wrong answers. Your responses to this questionnaire will remain completely anonymous. The questionnaire will take about 10 minutes.

Thank you in advance for participating in this study!

Informed Consent Statement

You are being asked to take part in a research study. The information in this document should help you to decide if you would like to participate. This study is being led by Nikoletta Pappas, who is a Graduate student at/in Mass Communication at the University of South Florida. This person is called the Principal Investigator. She is being guided in this research by Dr. Kelly Werder. Other approved research staff may act on behalf of the Principal Investigator. This study is being conducted at Qualtrics and is supported/sponsored by Dr. Kelly Werder. The purpose of the study is to further research on crisis messaging and its effect on relationships amongst millennials with the pharmaceutical industry. This research will include a 10-15 minute questionnaire that will be taken on Qualtrics. You are being asked to take part because you are considered a millennial, being born between 1980-1996. Your participation is voluntary. You do not have to participate and may stop your participation at any time. There will be no penalties or loss of benefits or opportunities if you do not participate or decide to stop once you start. We do not know if you will receive any benefit from your participation. There is no cost to participate. You will not be compensated for your participation. This research is considered minimal risk. Minimal risk means that study risks are the same as the risks you face in daily life. Even if we publish the findings from this study, we will keep your study information private and confidential. Anyone with the authority to look at your records must keep them confidential.

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Figure A. Daily Newspaper:

Please read the selected front page of the newspaper.



PHRMA PUBLIC STATEMENT

Pharmaceutical Research and Manufacturers of America (PhRMA) Chairman of the Board, Peyton Taylor

Public Statement

"WHEN YOU'RE RIGHT, YOU FIGHT," SAID PHRMA CHAIRMAN OF THE BOARD. "AND THAT'S WHAT YOU'RE SEEING HERE. WE SYMPATHY FOR THOSE WHO SUFFER FROM SUBSTANCE ABUSE, BUT THE PHARMACEUTICAL INDUSTRY DID NOT CAUSE THE OPIOID CRISIS IN THIS COUNTRY".

Figure B. PhRMA Pubic Statement Denial

Please read the following ad taken out by Pharmaceutical Research and Manufacturers of America (PhRMA) in the newspaper.

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Appendix C: Relationship Questionnaire - Apology

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Informed Consent Statement

You are being asked to take part in a research study. The information in this document should help you to decide if you would like to participate. This study is being led by Nikoletta Pappas, who is a Graduate student at/in Mass Communication at the University of South Florida. This person is called the Principal Investigator. She is being guided in this research by Dr. Kelly Werder. Other approved research staff may act on behalf of the Principal Investigator. This study is being conducted at Qualtrics and is supported/sponsored by Dr. Kelly Werder. The purpose of the study is to further research on crisis messaging and its effect on relationships amongst millennials with the pharmaceutical industry. This research will include a 10-15 minute questionnaire that will be taken on Qualtrics. You are being asked to take part because you are considered a millennial, being born between 1980-1996. Your participation is voluntary. You do not have to participate and may stop your participation at any time. There will be no penalties or loss of benefits or opportunities if you do not participate or decide to stop once you start. We do not know if you will receive any benefit from your participation. There is no cost to participate. You will not be compensated for your participation. This research is considered minimal risk. Minimal risk means that study risks are the same as the risks you face in daily life. Even if we publish the findings from this study, we will keep your study information private and confidential. Anyone with the authority to look at your records must keep them confidential.

Millennials are being asked to participate because there is limited research on their relationship with the industry and it is something that should be looked into, since they will be the future generation to make decisions for the industry. If you take part in this study, you will be asked to complete a survey online through Qualtrics. The study will take between 10-15 minutes to complete. All data will be anonymous. You do not have to participate in this research study. You should only take part in this study if you want to volunteer. You should not feel that there is any pressure to take part in the study. You are free to participate in this research or withdraw at any time. There will be no penalty or loss of benefits you are entitled to receive if you stop taking part in this study. You will receive no benefit from this study. This research is considered to be minimal risk. We will do our best to keep your records private and confidential. We cannot guarantee absolute confidentiality. Your personal information may be disclosed if required by law. Certain people may need to see your study records. The only people who will be allowed to see these records are the principal investigator, research team, advising team, and the USF Institutional Review Board (IRB). It is possible, although unlikely, that unauthorized individuals could gain access to your

responses because you are responding online. Confidentiality will be maintained to the degree permitted by the technology used. No guarantees can be made regarding the interception of data sent via the Internet. However, your participation in this online survey involves risks similar to a person's everyday use of the Internet. If you complete and submit an anonymous survey and later request your data be withdrawn, this may or may not be possible as the researcher may be unable to extract anonymous data from the database. Your personal information collected for this research will be kept as long as it is needed to conduct this research. Once your participation in the research is over, your information will be stored in accordance with applicable policies and regulations. Your permission to use your personal data will not expire unless you withdraw it in writing. You may withdraw or take away your permission to use and disclose your information at any time. You do this by sending written notice to the Principal Investigator at the following address: 8903 Citrus Village Drive, Apt 206, Tampa, FL 33626. While we are conducting the research study, we cannot let you see or copy the research information we have about you. After the research is completed, you have a right to see the information about you, as allowed by USF policies. If you have concerns about the use or storage of your personal information, you have a right to lodge a complaint with the data supervisory authority in your country.

If you have any questions, concerns or complaints about this study, call Nikoletta Pappas at (302)-757-6069. If you have questions about your rights, complaints, or issues as a person taking part in this study, call the USF IRB at (813) 974-5638 or contact the IRB by email at RSCH-IRB@usf.edu.

We may publish what we learn from this study. If we do, we will not let anyone know your name. We will not publish anything else that would let people know who you are. You can print a copy of this consent form for your records. I freely give my consent to take part in this study. I understand that by proceeding with this survey, I am agreeing to take part in research and I am 18 years of age or older.

Instructions: Using the scale below, please indicate your level of agreement with the following statements by writing the appropriate number in the blank provided.

<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
Strongly				Strongly
Disagree				Agree

TRUST

- ___ 1. This industry treats people like me fairly and justly.
- ___ 2. Whenever this industry makes an important decision, I know it will be concerned about people like me.
- ___ 3. This industry can be relied on to keep its promises.
- ___ 4. I believe that this industry takes the opinions of people like me into account when making decisions.
- ___ 5. I feel very confident about this industry's skills.
- ___ 6. This industry has the ability to accomplish what it says it will do.

CONTROL MUTUALITY

- ___ 7. This industry and people like me are attentive to what each other say.
- ___ 8. This industry believes the opinions of people like me are legitimate.
- ___ 9. In dealing with people like me, this industry has a tendency to throw its weight around.
- ___ 10. This industry really listens to what people like me have to say.
- ___ 11. The management of this industry gives people like me enough say in the decision-making process.

COMMITTMENT

- ___ 12. I feel that this industry is trying to maintain a long-term commitment to people like me.
- ___ 13. I can see that this industry wants to maintain a relationship with people like me.
- ___ 14. There is a long-lasting bond between this industry and people like me.
- ___ 15. Compared to other industries, I value my relationship with this industry more.
- ___ 16. I would rather work together with this industry than not.

SATISFACTION

- ___ 17. I am happy with this industry.
- ___ 18. Both the industry and people like me benefit from the relationship.
- ___ 19. Most people like me are happy in their interactions with this industry.
- ___ 20. Generally speaking, I am pleased with the relationship this industry has established with people like me.
- ___ 21. Most people enjoy dealing with this industry.

EXCHANGE RELATIONSHIPS

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___ 22. Whenever this industry gives or offers something to people like me, it generally expects something in return.

___ 23. Even though people like me have had a relationship with this industry for a long time, it still expects something in return whenever it offers us a favor.

___ 24. This industry will compromise with people like me when it knows that it will gain something.

___ 25. This industry takes care of people who are likely to reward the industry.

COMMUNAL RELATIONSHIPS

___ 26. This industry does not especially enjoy giving others aid.

___ 27. This industry is very concerned about the welfare of people like me.

___ 28. I feel that this industry takes advantage of people who are vulnerable.

___ 29. I think that this industry succeeds by stepping on other people.

___ 30. This industry helps people like me without expecting anything in return.

DENIAL MANIPULATION CHECK

___ 31. The industry attempted to remove connection between the themselves and the crisis.

___ 32. The industry argued that there was no 'real' crisis.

___ 33. The industry denied the truth to the crisis and refuted the charges of immoral conduct.

REBUILD MANIPULATION CHECK

___ 34. The industry offered material and/or symbolic forms of aid to victims.

___ 35. The industry offered compensation or a full apology.

___ 36. The industry said and did things to benefit stakeholders.

DEMOGRAPHICS

Instructions: Listed below are a few demographic questions about you that will help us to understand your answers. Please write or select the appropriate response.

48. What is your age? _____

49. What is your sex? _____ Female _____ Male _____ Other

50. What is your ethnicity?

Caucasian

African-American

Hispanic

Pacific Islander

American Indian

Asian

Other

Thank you for your help in better understanding perceptions of your relationship with the pharmaceutical industry!

This study investigated the effects of different crisis response messages. The scenarios you were exposed to were created exclusively for this study, are hypothetical, and in no way reflect the organization. After knowing the true nature of the study, you may choose to withdraw your answers by selecting “yes” or your responses may be used in the study by selecting “no”. Thank you again for your time.