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GENDER ROLE PRESCRIPTIONS AND APOLOGIES:

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GENDER ROLE PRESCRIPTIONS AND APOLOGIES

MOLLY L. FULLER

ABSTRACT

Malpractice litigations in the medical field are common occurrences. In fact, across specialties, 7.4% of physicians annually have a malpractice claim. Malpractice risk exists for all physicians regardless of their medical training, gender, specialization, or severity of damage caused to patients. Data from nearly 20 years of research revealed that male physicians face malpractice claims at a significantly higher rate than female physicians, but that female physicians pay more in malpractice settlements than their male counterparts. To date, we have found no research that investigates why this gender discrepancy among malpractice settlements occurs. This study examines Social Role Theory and investigates physician- patient apologies to see if physician gender may influence the disparities that are present in indemnity paid in malpractice claims. Using a 2 (male physician vs. female physician) × 2 (remorseful apology vs. apology without remorse) experimental design, 146 participants read a malpractice scenario and rated their levels of apology expectancy, perceived sincerity present in the apology, and forgiveness following the apology. Results indicated no significant relationship between gender role prescriptions and the perceived expectancy and sincerity of apologies presented by physicians following medical malpractice. My results found that the offendee's age, rather than the offender's gender, lead to differences in the perceived sincerity of an apology.

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CHAPTER I

LITERATURE REVIEW

Malpractice litigation is a stressful and exhaustive process that neither the physician

nor the patient want to encounter. Unfortunately, this practice appears to be quite

common. According to a 2010 survey conducted by the American Medical Association,

61% of all physicians reported being sued by late career (Kane, 2010), and of those initial

claims, 25.7% were settled in court (PIAA, 2009). The National Center for State Courts

reported that the median settlement awarded to the plaintiff in malpractice litigations is

roughly $400,000 (Cohen, 2009), and in 2014, malpractice payout amounts nationwide

totaled 3.9 billion dollars (Gower, 2015). As shocking as these numbers may be, even

more shocking is that there appears to be a difference in awarded settlements based on

physician gender. A recent analysis of malpractice litigation court documents revealed

that the average settlement amount awarded to plaintiffs is higher for claims made against

female ophthalmologists than claims against male ophthalmologists (Fountain, 2014).

Why is it that women are paying out more than men in malpractice settlements? I believe

that Social Role Theory (Eagly, 1987) may explain why this discrepancy occurs.

Social Role Theory posits that expectations of acceptable behavior vary based on the

actor's gender, and Social Role Theory is founded on the belief that behavioral

differences between men and women stem from the social roles humans encounter in everyday life (Eagly, 1987). For example, communication styles are one area where men and women take on different roles and behave differently in social situations due to the expectations that society puts on them. However, the role of gender expectations in apology styles has not been studied from a Social Role Theory perspective. Is it possible that genders differ in the extent to which they are expected to apologize? If so, do the violations of these expectations affect malpractice settlements? The purpose of this research is to examine Social Role Theory and how it may be related to apology expectations in order to identify whether gender prescriptions influence the discrepancy that has been found to occur across physician gender in malpractice settlements. In doing so, this research could link Social Role Theory to apologies and this information could be used to help organizations educate their employees on ways to construct successful apologies following an offense.

The aims of this paper are twofold. The first goal is to examine the influence of apology expectancy and apology sincerity to see whether they mediate the relationship between the apologizer's gender and the apology's ability to elicit forgiveness. The second goal is to examine the influence of apologizer gender and the presence of remorse on forgiveness and suggested malpractice settlement awards. I begin by reviewing the trends in malpractice claims and the factors that have been identified as influencing these trends. Next, I examine Social Role Theory to explore the possible role of apology expectancy and apology sincerity as mediators of the relationship between the apologizers' gender and effectiveness of an apology. Following that, I examine the apology component remorse as a potential explanation that may moderate the relationship

between physician gender and apology forgiveness. Finally, I investigate the possibility that forgiveness may mediate the relationship between apologizer gender and indemnity payments among physicians.

Trends in Malpractice Claims

Throughout the literature, different words are used to identify claims settlements that have been awarded to the plaintiff in litigations. One of the words that is commonly used to describe this phenomenon is *indemnity*. Indemnity can be understood as a sum of money paid as compensation for damages or injury suffered by a patient due to a physician's poor or negligent care. In medical malpractice insurance terms, indemnity is described as an insurance company's payment to a plaintiff in settlement or adjudication of a claim. In the context of this paper, it is important for the reader to note that the words settlement and indemnity will be used interchangeably.

Malpractice litigation is a common process. An American Medical Association report on medical liability lawsuits conducted in 2010 concluded that six out of 10 physicians 55 and older have been sued (Kane, 2010). Jena, Seabury, Lakdawalla, and Chandra (2011) analyzed malpractice data from 1991 through 2005 for all physicians in a total of 25 specialties that were covered by a large professional liability insurer with a national client base. During each year of the study period, 7.4% of all physicians had a malpractice claim. The percent of physicians who faced a claim each year ranged from 19.1% in neurosurgery to 2.6% in psychiatry.

The same American Medical Association report concluded that male doctors are twice as likely as their female counterparts to get sued during their medical career (Kane, 2010). In similar findings, data from Physician Insurers Association of America reported

that male physicians were named in a shocking 92% of over 175,000 closed claims between 1985 and 2007 (PIAA, 2008). Furthermore, not only are women sued less often than men, some studies report that women are also less likely to incur a malpractice payment when they are sued (Fountain, 2014; Freeborn, Levinson, & Mullooly, 1999).

As with all civil litigations, the majority of medical malpractice claims are settled before they reach a jury trial, but that does not mean that jurors don't play a significant role in the outcome of many malpractice litigations. Jury trials are quite common in malpractice litigations. The National Center for State Courts reviewed medical malpractice statistics from 2014 and revealed that in one state, up to 15.6% of medical malpractice claims were resolved by jury trials. However, on average, seven percent of all medical malpractice cases end in a jury verdict (LaFountain, Schauffler, Strickland, Holt, & Lewis, 2016).

Not surprisingly, malpractice litigation is a large financial burden. For the malpractice litigations that are settled inside the courtroom, the average awarded settlement has been steadily increasing throughout the years. The National Practitioner Data Bank reported an increase of 4.4% in payout amounts from 2013 to 2014, resulting in settlements reaching nearly four-billion dollars nationwide (Gower, 2015). Cohen (2009) reports that the median settlement awarded to the plaintiff in jury decided cases reached $400,000 following malpractice litigations. Furthermore, several scholars analyzed malpractice data from 1991 through 2005, and concluded that the mean indemnity payment was $274,887, ranging from $117,832 in dermatology to $520,923 in pediatrics (Jena et al., 2011). With the high financial burden that is incurred upon each

malpractice settlement, it is clear that there is an incentive to identify the variables that may influence these costly outcomes.

Factors that Influence Malpractice Litigation

For years, researchers in the medical and academic fields alike have investigated risk factors that impact malpractice claims. Several risk factors that have consistently been identified as affecting malpractice rates among physicians include quality of care, specialization, training and certification, workload, physician gender, and communication style (Feldstein, 1994; Freeborn et al., 1999; Jefferson, Bloor, Birks, Hewitt, & Bland, 2013; Jena et al., 2011; Kielhorn, 1997).

Quality of Care. A review of the medical malpractice data reveals that an overwhelming amount of claims are without merit, while at the same time, many negligent medical errors do not result in malpractice litigation claims (Brennan et al., 1991; Localio et al., 1991; Meadow, Bell, & Lantos, 1997). A thorough exploration of the literature indicates that a poor patient outcome following medical treatment may not be a major factor in determining whether a patient decides to file a malpractice lawsuit. In one study, researchers used observational peer review to judge the quality of care provided by frequently-sued and never-sued obstetrician-gynecologists and reported no difference in the quality of care provided by the obstetrician-gynecologists who were frequently sued and those who were never sued (Entman et al., 1994). In another study conducted by Localio et al. (1991), researchers matched the medical records of a random sample of 31,429 patients hospitalized in New York State with statewide data on medical-malpractice claims to identify patients who had filed claims against physicians and hospitals. The results from this review indicated that only 2% of patients who were

significantly injured due to physician negligence initiated a malpractice claim (Localio et al., 1991). Additionally, other studies have estimated that only 1-3% of patients harmed while under the care of a physician pursue litigation (Lyu et al., 2014). It is clear that poor patient outcomes may be one of the factors that influence a patient to file a malpractice lawsuit but these studies make it clear that it is not the only factor involved.

Specialization. There is a large variation between specializations in the likelihood of encountering a malpractice claim. In one of the most thorough reviews conducted on malpractice risk and physician specialty, Jena et al. (2011) analyzed malpractice data from 1991 through 2005 for all physicians who were covered by a large professional liability insurer with a nationwide client base. The study involved data from 40,916 physicians in 25 high and low risk specialties and indicated that the risk of facing a malpractice claim each year ranged from 19.1% in neurosurgery and 15.3% in general medicine to 2.6% in psychiatry. Another study conducted to look at physician demographics and the risk of medical malpractice analyzed claims data from 9,250 physicians and concluded that specialty was strongly associated with claims rates, with neurosurgery, orthopedics, and obstetrics/gynecology having 7 to 12 times the number of medical malpractice claims per year as psychiatry (Taragin, Wilczek, Karns, Trout, & Carson, 1992). Although the risk of facing malpractice litigation is high in all specialties, the percent of these claims that actually lead to an indemnity payout to the plaintiff is much lower at less than 2%.

Workload. Between clinic encounters, call, research, operating, and the time spent conducting the many other tasks and duties required by the profession, it is well understood that physicians work incredibly long hours. As expected, malpractice rates are

also related to a physician's workload. Freeborn et al. (1999) studied malpractice claims

and measures of burnout. In doing so they administered surveys and collected data from

760 Kaiser Permanente physicians and surgeons. Their analysis of the data indicated that

not only was physician burnout related to physician age and workload, but that sued

physicians worked on average three hours longer per week than physicians who have

never faced a litigation.

Gender. A multitude of studies have investigated the relationship between

physician gender and malpractice claims. Research on malpractice claims unanimously

reports that male physicians in all specialties are significantly more likely to face

malpractice litigations than female physicians (Feldstein, 1994; Freeborn et al., 1999;

Studdert, Bismark, Mello, Singh, & Spittal, 2016). Twenty-five years ago, male

physicians were three times as likely to encounter a malpractice litigation than women

(Taragin et al., 1992), and a shocking claims data analysis conducted in 2014 revealed

that the historical relationship between physician gender and malpractice risk does not

appear to be changing (Fountain, 2014). The claims data analysis reviewed malpractice

claim rates between male and female ophthalmologists from 1990- 2008 and found that

men were sued 54% more often than women (Fountain, 2014). There appears to be an

undeniable relationship between physician gender and malpractice litigation. When trying

to understand why this relationship exists, many researchers suspect that the most likely

explanation for the relationship between gender and malpractice litigation can be

explained by the different physician-patient communication styles that male and female

physicians have with their patients (Taragin et al., 1992).

Communication. Of the risk factors that have been identified as having a major effect on malpractice lawsuits, the majority of studies have identified communication style as the most important factor in a patient's decision to file a malpractice claim (Hickson, Clayton, Githens, & Sloan, 1992). These findings have been so concrete that physicians are now being taught during medical training that fully disclosing to patients the risks and benefits of treatment options and being honest about adverse events can improve patient satisfaction and can reduce the risk of a claim or malpractice lawsuit (Kielhorn, 1997). Communication presents itself in more ways than explicit statement of facts though. When two individuals speak the exact same apologetic phrase, the phrase can be perceived as having different meanings based on several objective clues that are perceived by the recipient. Social role prescriptions that originate from the apologizer's gender may be one of the factors that influence the outcome of the apology.

Social Role Theory and Communication Styles

Social Role Theory describes how one's gender can shape expectations of certain behaviors. I believe that Social Role Theory may also explain how an individual's gender can impact an apology's ability to elicit forgiveness. An apologizer's gender may impact the apology's ability to elicit forgiveness due to the fact that social role prescriptions shape expectations of communication styles. For example, apologies that are identical in all aspects may still be perceived differently if they are given by individuals of different genders.

The dissonance in communication styles between men and women also appears outside of the physician- patient relationship. Sex roles may explain the difference in communication styles that are demonstrated by men and women in varying situations

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across cultures. Sex roles can be understood as society's shared beliefs and expectations about how individuals should behave based on the gender they identify with (Eagly & Karau, 2002). In many situations, men and women exhibit the same behaviors but they are perceived differently because of their sex roles (Eagly, 1987). For example, just as it is socially acceptable for a woman to stay at home to raise a child, when the same behavior is demonstrated by a man, there are several negative judgments attached to this behavior. Yet another example of sex roles becomes apparent when we look at leadership. Men who run for political office are often praised by television reporters for their ability to connect and sympathize with others, but when women demonstrate identical behavior when running for a political office, television network reporters propose the question, "Is she too sensitive to hold this position?" (Stewart, 2014). And most recently, in the 2016 Summer Olympics, when Hungarian swimmer Katinka Hosszu beat the world record and won gold in the Women's 400- Meter Individual Medley, one NBC commentator gave the credit to her husband and coach and said he "was the person responsible for her performance" (Elsesser, 2016). In all of Michael Phelps' 22 gold medals, not once has a commentator given his mother credit for his performance. Michael Phelps is consistently praised for overcoming barriers on his own. These examples illustrate repercussions that often arise when individuals demonstrate a behavior that is not consistent with the expected behavioral characteristics that are prescribed by their sex roles.

Social Role Theory proposes that individuals' beliefs about social groups within their society originate from their interactions with group members that occur within the group member's "typical" roles. These "typical" roles can be understood as roles in

which specific group members are overrepresented relative to their numbers in the general population (Eagly, 1987). Social Role Theory recognizes the historical division in labor between men and women (i.e., men were traditionally the primary bread-winners while women were homemakers).

Two terms that hold a significant importance in Social Role Theory and that are commonly identified when examining sex roles are *agency* and *communion*. These terms have derived from Bakan's (1966) discussion on fundamental dimensions of human behavior. Agency (also known as competence) comprises characteristics that are aimed at emphasizing assertiveness, efficacy, and mastery, and relates to the motive of striving towards demonstrating power and control over others. Communion (also known as warmth), on the other hand, comprises characteristics that emphasize harmony and affiliation and relates to the motive to form and maintain social relationships (Bakan, 1966). Social Role Theory asserts that men are expected to demonstrate agentic behavior while women are expected to demonstrate communal behavior (Eagly, 1987). Taken together, these terms represent behavior that is most often viewed as socially acceptable based on an individual's gender. Bakan's discussion of agency and communion can be used to help explain human behavior that occurs in response to situations similar to the ones illustrated above.

In line with Social Role Theory, research also indicates that employees often rely on stereotypes and biases when evaluating the behavior of men and women at work (Eagly & Karau, 2002; Heilman, 2012). A recent example of this type of research examined gender role prescriptions and reactions to men's and women's work behaviors (Caleo, 2016). In two different studies, undergraduate students reviewed a completed

performance profile of a male or female employee in which the employee either adhered to or violated interactional justice rules. Participants were then asked to provide ratings of the employee's performance and make recommendations concerning organizational rewards. In Study 1, the female employees incurred larger penalties than male employees when they demonstrated behavior that was impolite and inconsiderate. The results of these studies illustrated that women were evaluated more negatively than men for violating interactional justice rules. In a second study that extended upon the first, participants once again reviewed the performance profile of a male or female employee and were asked to report performance ratings and make reward recommendations. In Study 2, however, researchers illustrated that not all types of justice violations are met with different reactions for male and female employees. Researchers manipulated the kind of justice violation (interactional vs. procedural). Findings from this study indicated women received comparable performance ratings and reward recommendations compared to men following violations of procedural justice rules and that violation of procedural justice rules are not related to gender stereotypes. Caleo (2016) concluded that not only do men and women receive different performance ratings when they violate justice roles that are parallel with the components of prescriptive gender stereotypes, but also, interactional justice violations (i.e., showing little care for the well-being of others, being impolite) are judged as less acceptable for female managers than for male managers.

Furthermore, empirical evidence supports the notion that observers are inclined to problematize conflict among women at work relative to conflict among men at work. Sheppard and Aquino (2013) asked participants to read a scenario describing a conflict

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between two men, two women, or a man and a woman. In each scenario the conflict was identical but when the conflict was described as being between two women, the participants viewed the conflict as more damaging. In fact, the conflict between the two women was damaging to the extent that the women were viewed as more likely to quit. The researchers concluded that a workplace argument between men is viewed as a healthy debate while a workplace argument between women is viewed as a catfight.

The research on physician gender and communication style is almost entirely consistent with what one might expect based on Social Role Theory's description of gender differences in communication. An overwhelming amount of empirical research suggests that female physicians display different communication styles than male physicians. In a meta-analytic review, Roter, Hall, and Aoki (2002) revealed that female physicians tend to demonstrate a more patient-centered communication style than male physicians. The meta-analytic research revealed that female physicians' communication includes the large life context of patients' conditions, and that through the use of counseling and questioning female physicians not only address psychosocial issues but they also engage in a more active enlistment of patient input. If research reveals that physician communication styles impact patients' behavior directed back at them, then behavioral differences in the communication styles that male and female physicians demonstrate could be even more important than originally thought.

Due to the patient-centered communication style female physicians foster, it is believed that women are able to relate to, and connect with, their patients differently than men (Roter, Lipkin, & Korsgaard, 1991). In support of this postulation, in an earlier meta-analytic review Jefferson et al. (2013) analyzed 33 empirical studies to review

research on gender differences in the length, style, and content of the communication with patients. Results indicated that female physicians adopt a communication style that is more focused on partnership building, and that they spend on average 2 minutes longer with patients during each consultation. The meta-analysis concluded that female doctors appear to have greater patient engagement and participate in more rapport building behaviors and affective behaviors such as concern, empathy, and sympathy.

Although definitions of patient- centered communication vary throughout the academic literature, all variations describe the patient-centered communication style as containing several core components. At its core, the patient-centered communication demonstrated by female physicians places a strong emphasis on collaboration and rapport building between the patient and the physician. Compared to male physicians, female physicians engage in significantly more positive talk, emotional talk, partnership building, and psychosocial questioning (Roter, 2000). Female physicians also provide more psychological support and are more likely to discuss social issues influencing the patient's life. Additionally, compared with male physicians, female physicians exhibit more empathy and concern for their patient (Jefferson et al., 2013). These core communication characteristics that are demonstrated in the patient-centered communication style have been associated with greater patient satisfaction, greater patient emotional health, and malpractice prevention (Roter, 2000).

Physician Behavior After Medical Errors

As discussed above, physician communication style plays a large role in the physician-patient relationship. In some research on physician communication styles, patients have identified a specific behavior that may be utilized to influence outcomes

following unfortunate medical errors. Vincent and Young (1994) surveyed 227 patients who had brought a malpractice suit against their physicians. Of the 227 respondents, over 70% incurred harm that resulted in long-term effects on work, social-life, and family relationships. The primary interest of this research was to interview the patients to see if any action could have been taken by the physician after the incident occurred to prevent malpractice litigation. Of the patients interviewed, 41.4% of the patients responded "yes, action could have been taken by the physician after the incident occurred to prevent legal action." The top two responses cited by the patients that the physicians could have demonstrated subsequent to the incident occurring to prevent litigation were (1) an explanation and apology, and (2) a correction of the mistake. As documented by this research, it appears that the communication styles demonstrated by physicians greatly influence a patient's behavior directed back at the physician and hold substantial importance, even after a medical error has occurred. Unfortunately, in medical practice today, an explanation and apology is often never received by the patient and legal action that could have been prevented, ensues (Mazor et al., 2012).

The role of an apology is to correct or remedy a mistake. An apology is a statement of regret and responsibility for an act or omission. An apology is an act that constitutes an acknowledgment that social roles have been broken, and in doing so, an apology provides an affirmation of the legitimacy of these rules (Darby & Schlenker, 1982). In an organizational context where unfair acts are committed by people of authority, apologies can be seen as a statement in which the authority accepts full responsibility for the negative event and does not engage in attempts to reduce the negative perception of the unfair event (Schlenker, 1980).

Social Role Theory has implications for apologies. Social Role Theory explains how women are expected to be sympathetic and compassionate (communal), whereas men are supposed to display ambitious, independent, and assertive behaviors (agentic; Eagly, 1987). Because of these gender expectations, women receive more social pressure than men to apologize for mistakes they make (Eagly & Karau, 2002). Since social role prescriptions label women as being more focused on communal attributes such as maintaining relationships and being interpersonally sensitive, it is likely that women will be expected to apologize at a higher rate than men.

Social Role Theory has also revealed that individuals are more likely to be evaluated negatively when they behave in a manner inconsistent with their sex role. More specifically, Heilman and Chen (2005) found this phenomenon to be present following specifically women's behavior in the workplace. Their study revealed that women who refused to help a co-worker were judged negatively but their male counterparts were not judged negatively following the same behavior. In line with these findings, there is reason to believe that a transgressor's gender will impact the expectedness of specific communication styles, specifically ones used when voicing an apology, such as empathy and remorse. Similarly, there is also reason to believe that a transgressor's gender will impact the apology's ability to elicit forgiveness from the victim.

Apology Forgiveness

An effective apology is one that elicits forgiveness. Forgiveness does not require forgetting about the transgression, condoning, or excusing offensive behavior. Forgiveness also not does suggest reconciliation or trust. Finally, forgiveness does not imply releasing offenders from consequences they may legally encounter (Exline,

Worthington, Hill, & McCullough, 2003). Instead, forgiveness is a process that occurs

when victims of a transgression reduce their negative motivations (e.g., avoidance and/or

revenge) and their negative emotions (e.g., fear and/or anger) towards an offender and

restore their positive thoughts regarding the offender (e.g., rather than defining the

offender in terms of the offense, forgiveness would include focusing on the offender's

humanity; McCullough, Worthington, & Rachal, 1997). Forgiveness is defined as a

change from unforgiving emotions, such as feelings of anger, betrayal and bitterness, to

forgiving emotions and motivations (Witvliet et al., 2008).

A significant amount of research has been conducted on the effectiveness of

apologies in eliciting forgiveness. Apologies can be used within organizational contexts

to resolve interpersonal disputes, improve the experience of the consumer, and enhance

the effectiveness of the leader (Liao, 2007; Tucker, Turner, Barling, Rein, & Elving,

2006). The majority of these studies have indicated that apologies result in positive

outcomes for both parties involved. However, empirical research reveals that apologies

are not always effective in that they do not always elicit forgiveness. In consideration of

the foregoing, researchers have identified a few variables that have been shown to impact

the effectiveness of an apology's ability to elicit forgiveness from the victim.

Apology expectancy (which can be understood as the extent to which the offendee

expects an apology) and perceived sincerity are two variables that have been identified as

impacting an apology's ability to elicit forgiveness from the victim. Walfisch, Van Dijk,

and Kark (2013) studied the relationship between apology expectancy and forgiveness

following an apology, and concluded that apology expectancy moderates the relationship

between apologizer's status within the organization and the apology's ability to achieve

forgiveness. Their research revealed that apologies are less expected from managers than from subordinates and that the less expected apologies are more successful in eliciting forgiveness than are apologies that are highly expected to be given. These findings are consistent with Politeness Theory (Brown & Levinson, 1987) which states that people in a lower power position (e.g., subordinates and women) will make more of an effort to maintain a positive evaluation of others. Women today are perceived as having lower social status than men (Levin, 2004), and for this reason, women may feel more of an obligation to apologize for their mistakes. Following this line of argument, I posit that the effectiveness of an apology to elicit forgiveness depends on the expectancy of receiving an apology among other things.

> *H 1: The extent to which the offendee expects an apology will be determined by the offender's gender such that female physicians will be expected to apologize more than male physicians.*
>
> *H2: The extent to which an apology results in forgiveness will be determined by the expectancy of receiving an apology such that apologies that are less expected will elicit more forgiveness.*
>
> *H 3: The expectation of an apology will mediate the relationship between the gender of the apologizer and the effectiveness of the apology in eliciting forgiveness. Thus, a woman's apology will be more expected and will elicit less forgiveness.*

Perceived sincerity has also been identified as impacting the effectiveness of an apology in eliciting forgiveness. Apology researchers agree that sincere apologies are more effective in eliciting forgiveness than insincere apologies, (Basford, Offermann, &

Behrend, 2014; De Cremer & Schouten, 2008), and that the perceived sincerity of the apologizer is an important mediator in the decision of whether to accept or reject an apology (Schmitt, Gollwitzer, Forster, & Montada, 2004; Skarlicki, Folger, & Gee, 2004).

I also believe that there is a relationship between the apologizer's gender and the perceived sincerity of the apology that can only be explained by apology expectancy. Years of research studying behavioral differences between genders has revealed that women apologize and tend to explain themselves more often than men (Allan, Allan, Kaminer, & Stein, 2006; Gonzales, Pederson, Manning, & Wetter, 1990). Women's nurturing characteristic may be one explanation for this phenomenon. However, apologizing too often could have negative consequences for the transgressor. The genuineness behind a phrase may be reduced the more the phrase is repeated. For those individuals who often apologize, it's possible that saying sorry too often can trivialize the act of the apology itself causing the important apologies to appear less sincere. For this reason, I believe that when the source of an apology is a woman, victims of a conflict may not only expect to receive apologies more often but following a transgression, these victims may also take apologies for granted and view them as less sincere.

> *H4: The extent to which an offendee perceives an apology to be sincere will be determined by the expectancy of receiving an apology. Thus, the more an offendee expects to receive an apology, the less sincere the apology is perceived to be.*

> *H5: The expectation of an apology will mediate the relationship between the gender of the apologizer and the perceived sincerity of the apology. Thus, a*

woman's apology will be more expected and will therefore be perceived as less

sincere.

H6: The extent to which an apology results in forgiveness will be determined by
the perceived sincerity of an apology such that the more sincere an apology is,
the more forgiveness it will elicit.

H7: The perceived sincerity of an apology will mediate the relationship between
the expectancy of receiving an apology and the forgiveness elicited by the
apology. Thus, expected apologies will be perceived as less sincere and will elicit
less forgiveness.

It is important to note that only part of expectancy's relationship with forgiveness is mediated by sincerity. There are reasons why apology expectancy may have an impact on forgiveness that has nothing to do with sincerity. Specifically, there are situations in which the sincerity of an apology is not considered when evaluating the effectiveness of an apology in eliciting forgiveness. Guerrero and Bachman (2010) examined how expectancy violations theory works to predict forgiveness following a transgression and concluded that there are times in which the expectation of an apology impacts apology forgiveness without taking sincerity into effect. For example, in their research, victims report more forgiveness following a transgression for several reasons that relate to apology expectancy.

Two reasons why victims may report more forgiveness following a transgression include the quality of the relationship between the transgressor and the victim (i.e., higher quality relationships indicated higher levels of forgiveness) and the severity of the transgression (less severe transgressions indicated higher levels of forgiveness; Guerrero

& Bachman, 2010). Of course, there are several other variables outside of expectancy and sincerity that may help to predict forgiveness following a transgression but I believe I should leave those other variables for future research.

Components of an Apology

Apologies can contain different sets of elements (or components) that often times affect victims' reactions to the apologies (Hill & Boyd, 2015; Scher & Darley, 1997). For many years, scholars have focused on three primary apology components that appear to be particularly relevant in understanding why some apologies are more successful than others. The three components of an apology most cited in the literature include acknowledgment, compensation, and remorse.

Acknowledgment is perhaps the most important component of an effective apology and it involves admitting responsibility for one's actions and behaviors. A review of the literature indicates that when apologies include an admission of wrongdoing, they are often successful (Scher & Darley, 1997). When transgressors acknowledge the violation they have committed, they take a step towards validating the victims' sense of mistreatment, and they reassure victims that further infractions are unlikely.

The second component of an apology, *compensation,* refers to rectifying a wrong and is focused on restoration of equality through exchange. In this component transgressors engage in evident behavior to countervail the transgression that they have inflicted upon the victim (Hill & Boyd, 2015). For example, an automobile manufacturer may place a recall on a vehicle and offer to replace said vehicle when the product is defective. Such an action may modify the public's reaction to the incident. Monetary compensation is another form of tangible retribution that is used more often in apologies.

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Monetary compensation can be used to both restore respect and reputation for the victim of the transgression. Several researchers have documented the efficacy of the compensatory component of an apology in organizational settings (Conlon & Murray, 1996; Okimoto & Tyler, 2007; Schmitt et al., 2004).

The final component is *remorse*. In its simplest sense, remorse (also known as an expression of empathy) is an expression of guilt for a wrongful action (Hill & Boyd, 2015). This component focuses on the relational issues caused by the transgression. Upon displaying remorse, transgressors assume the perspective of the victim and are able to verbally declare their sense of shame as they emotionally display guilt for causing the aggrievement. In this component, transgressors demonstrate recognition of, and concern for, their victims' suffering. For example, when demonstrating the component of remorse in an apology, a transgressor may say "I understand that I hurt you, and I feel awful."

Within the context of apologies, remorse/expression of empathy is the ability to understand or share the feeling of another person's emotions. Social Role Theory explains how gender prescriptions portray women as being more empathetic and understanding than men (Eagly, 1987). In line with Social Role Theory, Prentice and Carranza (2002) explored prescriptive gender stereotypes and concluded that feminine gender roles demonstrate behaviors are more closely related to expressions of empathy/remorse than are male gender roles. These documented communal feminine gender roles included compassion, warmth, sensitivity, affection, and sympathy (Prentice & Carranza, 2002). Researchers, for the past 30 years have concluded that on average, women exhibit more empathic concern for others than men (Davis, 1983). Conversely, Prentice and Carranza (2002) found agentic male gender roles to include behaviors that

are aggressive, forceful, dominant, and assertive. These documented male gender role behaviors are fundamentally different than the communal behaviors of empathy and remorse that are displayed by women. The finding that masculine role qualities are agentic and feminine role qualities are communal is crucial in understanding why women who attempt to compose apologies that do not contain the component remorse may be discriminated against and face harsher punishment, or be less successful in eliciting forgiveness than men.

> *H8: Gender will moderate the relationship between presence of remorse and apology forgiveness such that remorseful apologies will elicit more forgiveness when given by a woman than when given by a man.*

Gender Disparities in Organizations

Throughout the years, empirical studies have documented the persistence of gender disparities in organizations. In a recent study, researchers investigated whether women were targets of more severe punishment than men following both general errors and errors of intentional ethical violations at work. Kennedy, McDonnell, and Stephens (2016) found evidence that even when occupying an identical professional role, and committing identical errors, ethical behavior is more strongly prescribed for women than for men in the workplace.

In one phase of the study, the researchers conducted a laboratory experiment to study the severity of punishments that resulted from identical ethical violations caused by either a man or a woman. The researchers used hypothetical situations to manipulate the gender of a manager and investigated whether women were punished more for intentional ethical violations in the workplace than men. Using a 2 (Employee's gender: Woman,

Man) × 2 (Intentionality: Accidental mistake, Ethical violation) between- participants design, the researchers randomly assigned 194 participants to one of the four conditions and presented each participant with a fallacious script. The script given to each participant documented a situation in which a hospital manager filed a Medicare claim requesting a much larger payment for services than what was actually due. The gender of the hospital manager was manipulated (woman or man), as was the intentionality of filing an incorrect Medicare claim (accident or intentional). Participants were then asked to provide a measure of punishment severity ranging from a 0 to 500-day jail sentence. As expected, participants perceived the intentional filing of an incorrect Medicare claim to be an ethical violation and recommended harsher punishment for intentional false claims regardless of gender (Accident Mistakes: $M = 21.28$ days, $SD = 68.10$; Intentional Ethical Violations: $M = 107.04$ days, $SD = 141.83$). However, for the intentional ethical violations, participants recommended harsher punishment for the female hospital managers (Female Managers: $M = 133.45$; Male Managers: $M = 82.90$). This research documents one scenario in which women face higher levels of expectations in the workplace, and in doing so, helps bring attention to the pervasiveness of disparities that occur in organizations due to gender.

It is possible that these disparities also occur in organizations when a situation arises that results in an apology? Apologies are a useful tool that can lead to resolving a conflict and producing forgiveness following a transgression. Just as women face higher levels of expectations in the workplace following ethical violations, I believe that Social Role Theory can be linked to apologies through social role prescriptions. Because of

social role prescriptions, apologies will produce varying amounts of both forgiveness and consequences based on the gender of the apologizer.

> ***H9: The amount of forgiveness that results following an apology will have a negative effect on indemnity.***
>
> ***H10: The extent to which an apology results in forgiveness will be determined by the gender of the transgressor giving the apology. Thus, an apology given by a man will elicit more forgiveness than an apology given by a woman.***
>
> ***H11: Apology forgiveness will mediate the relationship between the offender's gender and indemnity. Thus, a woman's apology will elicit less forgiveness and will incur higher indemnity payments.***

To test my hypotheses, I designed a 2×2 between subjects apology scenario in which the offender's gender and presence of remorse within an apology are both manipulated and the participant is instructed to indicate levels of perceived apology sincerity, and forgiveness elicited by the apology. The participant is also instructed to recommend punishment levels indicated by financial indemnity. A path diagram has been created to help plan the analysis, and represents the casual connections between the independent, intermediate, and dependent variables that are predicted by the hypothesis listed above (see Appendix A).

CHAPTER II

METHOD

Participants

The sample consisted of 206 participants who registered through Mechanical Turk to take place in this study. Mechanical Turk is a website run by Amazon that allows researchers to have access to large populations of willing participants for research studies. Mechanical Turk has been selected as a recruitment tool because it provides access to a larger, more heterogeneous population than a college campus population. The use of Mechanical Turk will eliminate researcher-participant face-to face interaction, to help lessen any anxiety participants may have due to the nature of the questions. Participants were reminded that their participation in the survey was completely voluntary and they were compensated $.20 for completing this study. The 206 participants were, at the onset of this study, over 18 years of age, English language speakers, and residing in the United States. Observations were excluded from the sample if they did not pass the attention check questions, and if they did not indicate the correct physician gender. These exclusions resulted in a final sample size of $n = 146$. Of the 146 participants, fifty-seven and a half percent were male. Participants ranged from twenty to sixty-eight years of age and had a mean age of thirty-four. Sixteen percent of the

participants were employed in the medical field, and twelve percent of the participants either personally have been involved in medical malpractice or have a close friend/family member who has been involved in malpractice. Twenty-four percent of the participants had no undergraduate degree, fifty-one percent of the participants had some form of undergraduate degree, and twenty-five percent of participants had a graduate degree or above. Significance tests were conducted on the demographic variables provided by the participants who were eliminated from the study. Results indicated that these participants were not significantly different from the participants who were included in the study.

Procedure

Before taking part in the study, the participants were provided an online informed consent agreement, which they were required to read and accept before being able to take part in the study, and all IRB ethical guidelines were respected during the process of the study (see Appendix B). Participants read an introductory page that explained the study and provided basic instructions for completion. A cover letter explaining the purpose and scope of the study assured respondents that the participation in the survey was voluntary and they were reminded that they could withdraw at any time without consequences. According to the information provided, the study focused on physician-patient communication about medical errors. Participants were instructed to review a hypothetical scenario that described a medical malpractice litigation and then the participants were randomly assigned to review a second scenario based on one of the four conditions.

When the participants chose to begin the study, they received a scenario that included a statement of material facts and court proceedings (see Appendix C). After

reading this scenario the participants were then given a measure to indicate apology

expectancy (see Appendix D). After completing this measure, the participants received an

apology from one of the four conditions (see Appendices E and F). After reading the

apology given by the physician following the medical error, the participants were

instructed to complete a questionnaire in which they indicated to what level they forgave

the offender, they indicated a level of sincerity they perceived the apology to have, a

presence of remorse measure, and a manipulation check measure (see Appendix G).

Following the questionnaire, participants were asked to imagine that they were jurors in

this medical malpractice case, and they have been instructed by the judge to indicate the

amount of indemnity (if any) they feel would be appropriate for the patient to receive (see

Appendix G). The participants were given 60 minutes to complete the questionnaire at

their own disclosure, through online access. After reviewing the forms and completing

the study, participants were asked to complete a demographics measure (see Appendix

H). Upon completing the demographics, participants were asked if they personally, or if

anyone close to them has ever been involved in a malpractice litigation (see Appendix I).

Finally, participants were debriefed and they were given a contact email where they had

an opportunity to ask any questions they may have pertaining to the study (see Appendix

J).

     Manipulations. The first component of the vignette provided to participants

consisted of a statement of material facts. This provided a brief description of the

physician error that resulted in the malpractice litigation. The description stated that the

nature of the offending behavior in the study should be perceived as accidental, as the

offender (the physician) unintentionally brought harm to the victim (the patient). In

addition, the nature of the harm endured by the patient was described as causing temporary adverse effects on the patient's work and personal life. The second component of the vignette consists of the court proceedings, which informed participants of how the apology occurred in order to ensure that they did not assume that the offender was forced to provide an apology (see Appendix C).

For this study, two apology vignettes were created. Apology A included an expression of remorse and portrayed a "full-apology" (see Appendix E). Apology B did not include an expression of remorse and, therefore, portrayed a "partial-apology" (see Appendix F). In both apology conditions, the victims experienced identical outcomes.

The gender was manipulated by changing the name of the physician who was involved in the apology. Depending on which group the participants are randomly placed into, they either received an apology from Dr. Christopher Grant or Dr. Christine Grant in total creating four conditions. Other than the name, nothing else about the physician varied between the groups.

Measures

Each participant who agreed to participate in the study read a hypothetical scenario describing a patient/physician interaction that resulted in a medical malpractice litigation. The participants were then asked questions relating to the physician's gender, apology components, apology expectations, and perceived sincerity, and levels of forgiveness following receiving an apology. Finally, the participants were asked to indicate the dollar amount that they would award a victim for indemnity, as instructed by a judge, and they were instructed to answer general demographic questions through a self-report questionnaire. Please refer to Appendix G for the full texts of all of these items.

Gender Manipulation Check. One question was included to confirm participants'
awareness of the apologizer's gender. A chi-square test was conducted to test for the
gender manipulation check. The chi-square result was 39.918 with 1 degree of freedom.
This revealed that there was a significant association between ascribed physician gender
and perceived physician gender. Ninety-nine of the participants received the female
gender level of manipulation. One-hundred and seven participants received the male level
of manipulation. In the male physician manipulation, 89.7% of the participants indicated
the correct gender, but in the female physician manipulation, only 50.5% of the
participants indicated the correct gender. The overall manipulation worked 70.9% of the
time. The manipulation wasn't completely effective, but there is an association between
what gender I assigned and how the participants responded. For this reason, I made the
decision to exclude participants who did not select the correct physician gender. This
resulted in a sample size of $n = 146$. The results of the crosstabulation revealed that there
may be an assumption that doctors are male.

Level of Remorse Manipulation Check. The level of the apologizer's remorse
was assessed using one question proposed by the researcher (to what extent was the
apologizer remorseful). This item was measured using a 5 pt. Likert scale. Independent
samples *t*-tests were performed to examine differences in remorsefulness on full and
partial apologies. *T*-test for equality of means indicated significant results ($p < .05$) for
apology type [$t (204) = 4.478, p = .000$]. Results suggest that full apologies resulted in
higher reported levels of remorse (full apology; $M = 4.19$, partial apology; $M = 3.65$).
The reported standardized mean difference is .627 which is a medium effect size based
on Cohen's *d*.

Apology Forgiveness. An effective apology is one that elicits forgiveness. Forgiveness is a process that occurs when victims of a transgression reduce their negative (avoidance and revenge) motivations towards a transgressor and restore their positive motivations regarding a transgressor (McCullough et al., 1997). Following the apology, the participants were given a measure to indicate levels of forgiveness. Forgiveness was measured by five questions developed by the researcher (e.g., I forgive the physician for the harm that was done to me, I feel resentment towards the physician for the harm that was caused to me, holding a grudge against the physician is not going to change anything). All of these items were measured on a 5 pt. Likert scale, with 1 indicating the lowest level of forgiveness and 5 indicating the highest level of forgiveness. The average forgiveness rating was 3.36 with a minimum value of 1.00 indicating that the majority of participants forgave the offender after receiving the apology but that at least one participant did not forgive the offender at all following the apology.

Expectancy of Apology. The level of apology expectancy was measured by five questions developed by the researcher (e.g., I do not expect the physician to acknowledge the wrongdoing, I would be surprised if the physician did not acknowledge the wrongdoing, I expect the physician to take responsibility for the wrongdoing.) All of these items were measured on a 5 pt. Likert scale, with 1 indicating no expectations of receiving an apology and 5 indicating full expectations to receive an apology. The average expectation of receiving an apology was 4.04 with a minimum value of 1.60, indicating that everyone had at least small expectations of receiving an apology.

Sincerity of Apology. The level of perceived sincerity was assessed using a four-item scale with a five-point Likert response format (*strongly disagree to strongly agree).*

This measure was adapted from Basford et al.'s (2014) perceived sincerity scale. It has been subject to content validation, pilot testing, reliability analysis, factor analysis, and construct validation using a different sample. It was shown to be highly reliable (α= .95). These items were also measured on a 5 pt. Likert scale, with 1 indicating that the apology did not appear to be sincere and with 5 indicating that the apology was very sincere. The average perceived sincerity level of the apology was 3.90 with a minimum value of 1.25, indicating that all participants perceived the apology in the scenario to have at least a small level of sincerity.

Financial Compensation Recommendations. The participants were informed that the financial compensation recommendation is made for punitive-damages. Punitive damages are not used to compensate the victim for any injury. Rather, punitive damages are awarded to the victim and are used to punish the defendant and to deter the defendant from committing a similar conduct in the future. The participants were then asked to indicate how much (if any) financial compensation they feel should be awarded to the victim in this specific case.

Upon analyzing the financial compensation (indemnity) recommendations, it was observed that without applying a transformation, indemnity was positively skewed. I had to use a non-linear transformation (square-root) to take it normal. Using the sample size of $n = 146$, it was not possible to make indemnity normal. For this reason, I created a dichotomous indemnity variable to use when analyzing data with the sample size of $n = 146$. In order to create the dichotomous variable, I placed all of the participants into one of two groups. If participants recommended any indemnity payment over $0.01 USD,

they were placed into the "yes" group. If participants did not recommend a payment, they were placed into the "no" group.

In situations where I had no choice but to use the indemnity recommendation (numerical value), I had to exclude participants from the analysis who did not recommend indemnity payments leaving a sample size of $n = 115$.

The dichotomous indemnity variable must be analyzed with a sample size of 146 and the indemnity variable that takes into account the actual dollar amount (the "original" indemnity variable) must be analyzed with a sample size of 115. For this reason, the hypotheses that are related to the indemnity variable will be analyzed using both the dichotomous indemnity variable ($n = 146$) and the original indemnity variable ($n = 115$), and because these analyses will require different sample sizes, they will mean something slightly different.

Demographic Variables. Respondents were asked to provide information regarding their age, sex, education, employment field, and previous experience with medical malpractice litigation.

CHAPTER III

RESULTS AND DISCUSSION

See Table 1 for descriptive statistics. Means indicate that most participants expected to receive an apology following the transgression, and more than half of the participants recommended an indemnity payment, with the average indemnity recommendation amounting to $110,328 USD.

Forgiveness and Sincerity have a moderate positive correlation $r = .505, p < .01$. Participants' previous experience with malpractice litigation and Sincerity have a marginally significant positive correlation $r = .241, p < .01$. Participants' age $r = .150, p = .071$ and Employment field $r = .158, p = .057$ also have small positive correlations with Sincerity. A positive correlation was also reported between Forgiveness and Participants' age, indicating the older participants were more forgiving $r = .148, p = .075$. These results indicated that participants who have no previous experience with malpractice litigation expect to receive an apology following a transgression more than participants who have had previous experience with malpractice litigation. Results indicate there was a weak positive correlation between Perceived physician gender and Participant gender, $r = .227, p < .01$. Because the groups were randomly assigned, no such relationship should

have existed. It is believed that participants may have mistaken the question "Please indicate your gender" for "Please indicate the physician's gender." It is important to note that this correlation presents a limitation to the study and may negatively impact the validity of the results.

Results indicate that sincerity has a weak negative correlation with Indemnity recommendation (dollar amount) $r = -.185$, $p < .05$, and Apology type (with remorse/without remorse) $r = -.347$, $p < .01$. Both Indemnity recommendation (dollar amount) has a negative relationship with forgiveness $r = -.498$, $p < .01$, and Indemnity recommendation (yes/no) has a weak negative correlation with forgiveness $r = -.306$, $p < .01$.

In order to be conservative, I have included demographics even when they had marginally significant relationships. Based on the results of the zero-order correlations, participants' age will be included as a covariate of sincerity, forgiveness, and indemnity recommendation (dollar amount) when these variables are dependent variables. When physician gender is the dependent variable, participant gender will be included as a covariate. Employment field will be included as a covariate of sincerity when sincerity is a dependent variable. Finally, when apology expectancy and perceived sincerity are dependent variables, past involvement with malpractice litigation will be included as a covariate.

I conducted reliabilities on each of the three individual factors (expectancy, sincerity, and forgiveness) that were identified in the factor analysis. The reliability statistic for the expectancy factor was .659, revealing that this factor was a loose collection of items that weren't all measuring the same thing. In an attempt to

strengthening the reliability of this factor I removed the weakest item based on the inter-item correlation matrix (Q7) and reran reliability statistics. However, results indicated a reliability statistic of .619. Therefore, the decision was made to keep all five items used to create the measure in the factor because this revealed the highest reliability statistic. The reliability statistic for the sincerity factor was .929, indicating a strong measure. Finally, the reliability statistic for forgiveness was .765, indicating an acceptable level of reliability.

A within-scale factor analysis was conducted on just the expectancy items. I used the eigenvalue of 1 as the cutoff in order to determine how many factors to retain, and only a single factor was found. Next, a within-scale factor analysis was then conducted on just the sincerity items and using the same eigenvalue cutoff (1), a single factor was found. Finally, I conducted a third within-scale factor analysis on just the forgiveness items and it too revealed a single factor when using eigenvalue cutoff of 1.

A factor analysis was conducted on the five sincerity items, the four expectancy items, and the five forgiveness items, and the results showed a three-factor solution. The pattern matrix confirmed that all of the items loaded on the factors and the factors were consistent with the constructs I'd intended to measure (see Table 2). The first three factors cover the total cumulative percent of 48.7% of the variance.

Descriptive statistics, including measures of central tendency, measures of variability, skewness, and kurtosis, were calculated on the data set in order to describe the characteristics of the sample, and to ensure that the data met the statistical assumptions required of the statistical tests. Results indicated that all of the variables used were normal except for indemnity. Without applying a transformation, indemnity was

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positively skewed. In other words, enough participants recommended no indemnity payment that the resulting histogram representing the data was skewed to the right. In order to correct for this positive skew, the non-linear transformation "square-root" was applied to indemnity.

This transformation results in a normal variable only when I excluded the participants who recommended "no indemnity payment" ($n = 115$). In other words, I must exclude from the analysis participants who recommended "no indemnity payment" if I wish to make indemnity a normal variable when using the actual dollar amount. As I previously mentioned, I created a dichotomous indemnity variable (indemnity recommendation vs. no indemnity recommendation) that allowed me to test for indemnity recommendations with a sample size that takes into account only participants who recommended an indemnity payment ($n = 115$). However, one must note that the requirement of applying a non-linear transformation in order to reach normality for the indemnity variable presents a limitation to this study.

Effect of Offender's Gender on Expectations of Receiving an Apology

I performed a series of linear regressions to test several of the hypotheses that were proposed in this research. Hypothesis 1 predicted that a victim's expectations of receiving an apology will be determined by the offender's gender, such that female physicians will be expected to apologize more than male physicians. To test this relationship, a linear regression was conducted (see Table 3). In Model 1, apology expectancy was regressed onto the demographic variables participant gender and past experience with malpractice litigation. The overall regression was significant $R^2 = .06$, $p = .02$. In Model 2, I added physician gender to the model and Model 2 was also significant $R^2 = .07$, $p = .02$.

However, the change between Model 1 and Model 2 was not significant $\Delta R^2 = .01$, $p = .23$. Therefore, physician gender does not appear to add to the prediction of expectations of receiving an apology over and above the other variables included in this model.

Expectancy of Receiving an Apology and Forgiveness Following the Apology

The second hypothesis predicted that the forgiveness following an apology will be determined by the expectancy of receiving an apology, such that apologies that are less expected will elicit more forgiveness. Forgiveness was regressed onto participants' age in the first Model, and no significant relationship was reported. The overall regression was not significant $R^2 = .02$, $p = .08$ (see Table 4). I then added expectancy of receiving an apology to the second Model to test if it would add to the prediction of forgiveness. Unfortunately, the results were still not significant $R^2 = .02$, $p = .19$. The change between Model 1 and Model 2 was not significant $\Delta R^2 = .00$, $p = .73$. Therefore, these results indicate that the hypothesis was not supported. Expectancy of an apology does not appear to add to the prediction of forgiveness.

The Mediating Effect of Apology Expectations on the Relationship Between Apologizer Gender and Forgiveness

Hypothesis 3 predicted that the expectation of receiving an apology would mediate the relationship between the gender of the apologizer and the effectiveness of the apology in eliciting forgiveness. More specifically, receiving an apology from a woman would be more expected than receiving an apology from a man, but it will also elicit less forgiveness. Participants' ages and previous experience with malpractice litigation were included as covariates in this analysis. All tests for mediation were conducted using the PROCESS program created by Hayes (2013), and used 5000 bootstraping samples.

However, the PROCESS program does not allow the user to identify which variable is a covariate of mediator and which variable is a covariate of the dependent variable. For this reason, I had to select that the covariates were in models of "both M and Y," when in reality, participant age was a covariate of Y, and participant's previous experience with malpractice litigation was a covariate of M.

The indirect effects of physician gender on forgiveness through expectancy was positive, .0051, but the 95% confidence interval around this estimate ranged from -.02 to .07 and included 0. These results indicated that there was no significant evidence of mediation and therefore, H3 was not supported. Expectation of an apology does not mediate the relationship between the gender of the apologizer and the effectiveness of the apology in eliciting forgiveness.

Expectancy of Receiving an Apology and Perceived Apology Sincerity

It was also predicted in the fourth hypothesis that the extent to which a victim perceives an apology to be sincere will be determined by the expectancy of receiving an apology. Perceived sincerity was regressed onto previous experience with malpractice litigation in the first Model (see Table 5). The overall regression was significant $R^2 = .06$, $p = .00$. Expectations of receiving an apology was added in the second Model and also produced significant results $R^2 = .06$, $p = .01$. The change between the first and second Model was not significant $\Delta R^2 = .00$, $p = .62$. Hence, expectations of receiving an apology does not appear to add to the prediction of perceived apology sincerity over and above previous experience with malpractice litigation.

The Mediating Effect of Apology Expectations on the Relationship Between Apologizer's Gender and Sincerity

H5 also called for a test of mediation. Expectation of receiving an apology was predicted to mediate the relationship between the gender of the apologizer and the perceived sincerity of the apology. I employed the process procedure by Hayes (2013). The results indicated that the indirect effects of physician gender on sincerity through expectancy was positive .0076, but the 95% confidence interval around that effect ranged from -.02 to .08 and included 0. This indicated that there was no significant evidence of mediation, and H5 was not supported. Expectation of receiving an apology does not mediate the relationship between the gender of the apologizer and the perceived sincerity of the apology.

Perceived Apology Sincerity and Forgiveness

The sixth hypothesis predicted that the extent to which an apology results in forgiveness will be determined by the perceived sincerity of an apology. To test this relationship, another linear regression was conducted (see Table 6). In Model 1, forgiveness was regressed onto the demographic variable age, and results revealed a non-significant relationship $R^2 = .02$, $p = .08$. Next, I added perceived sincerity to Model 2 and the results were significant $R^2 = .26$, $p = .00$. Perceived sincerity did add to the prediction of forgiveness. The change in prediction between Model 1 and Model 2 also proved to be significant $\Delta R^2 = .24$, $p = .00$. Therefore, results revealed that there is a significant linear relationship between apology forgiveness and perceived sincerity. Perceived sincerity of an apology accounts for 24% of the variance in forgiveness following an apology. Therefore, apologies that are more sincere, elicit more forgiveness.

The Mediating Effect of Perceived Sincerity on the relationship between Apology Expectancy and Forgiveness

A test of mediation was also conducted to analyze whether the perceived sincerity of an apology mediates the relationship between the expectancy of receiving an apology and the forgiveness elicited by the apology. The indirect effects of expectancy on forgiveness was .0206 through sincerity. However, the 95% confidence interval around that effect ranged from -.07 to .02 and included 0. Therefore, these results indicate that there was no significant evidence of mediation and H7 was not supported.

The Moderating effect of Apologizer Gender on the Relationship Between Apology Remorse and Forgiveness

It was hypothesized in H8 that the transgressor's gender would moderate the relationship between the presence of remorse in an apology and the amount of forgiveness that resulted following receiving the apology. In Model 1, forgiveness was regressed onto participant age (see Table 7). The results did not reveal a significant relationship between participant age and forgiveness $R^2 = .02, p = .08$. In Model 2, physician gender and apology type (remorse present/no remorse present) were also added to the model. Similar to the first model, no significant results were reported to be found $R^2 = .03, p = .21$. The change between Model 1 and Model 2 was not significant $\Delta R^2 = .10, p = .50$.

In the final Model, I included the interaction physician gender × remorse in the model, and the predictors were still found not to be significant $R^2 = .04, p = .25$. The change between Model 2 and Model 3 was also not significant, $\Delta R^2 = .01 \ p = .35$. At no point in these models did the hierarchical regression conducted to test this relationship produce significant results. Therefore, it appears that the gender of the apologizer does not moderate the relationship between presence of remorse in an apology and the amount

of forgiveness that results following receiving the apology. I reran this hierarchical regression two times first replacing forgiveness with sincerity and then replacing forgiveness with expectancy of receiving an apology. In both analyses the results were nearly identical, and no significant results were reported.

Forgiveness and Indemnity Recommendations

H9 predicted that when a transgression occurs and is followed by an apology, the amount of forgiveness that results following the apology will have a negative effect on indemnity. A logistic regression was conducted to test for this relationship (see Table 8 and 9). I ran the analysis using the dichotomous variable indicating intent to recommend indemnity payment. Because participant age had a marginally significant relationship with indemnity, in Block 1, I regressed intent to recommend an indemnity payment onto the demographic variable participant age. In the first step, the demographic variable age did not significantly predict intent to recommend indemnity payment, Nagelkerke R^2 =.02, p = .18. In the second step, I added forgiveness to the model. The addition of forgiveness improved the prediction of indemnity recommendation, Nagelkerke R^2 =.19, p = .00, ΔR^2 = .17, p = .00. As shown in Table 7, people who recommended no indemnity payments had higher levels of forgiveness. Thus, Hypothesis 9 was supported.

H9 was also analyzed using the continuous indemnity variable. In order to test this hypothesis, a linear regression was conducted. (See Table 10). I again regressed indemnity recommendation (the non-linear transformed square root indemnity variable) onto the demographic variable participant age. The overall regression was not significant R^2 = .04, p = .37. Next, I added forgiveness to Model 2 and the results were significant R^2 = .24, p = .00, indicating a negative relationship. Forgiveness does add to the

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prediction of indemnity recommendations. As a forgiveness increases, indemnity recommendations decrease. The change between Model 1 and Model 2 was also significant $\Delta R^2 = .20$, $p = .00$, and H9 was supported.

Apologizer's Gender and Forgiveness

Forgiveness resulting from an apology was predicted to be determined by the gender of the transgressor who made the offense and delivered the apology to the victim. To test the tenth hypothesis, I regressed forgiveness onto the demographic variables participant gender and participant age (see Table 11). The overall regression was not significant $R^2 = .02$, $p = .18$. In Model 2, I added physician gender and this too did not add to the prediction of forgiveness $R^2 = .02$, $p = .32$. The change between Model 1 and Model 2 was not significant $\Delta R^2 = .00$, $p = .73$. Therefore, these results do not support the hypothesis and there is no relationship between the apologizer's gender and the amount of forgiveness that elicited following an apology.

Forgiveness' Mediating Effect on the Relationship Between Transgressor's Gender and Indemnity

A final test of mediation was conducted to test if the relationship between the offender's gender and indemnity was mediated by apology forgiveness. The results indicated that the indirect effects of physician gender on indemnity was .0316 through forgiveness. However, the 95% confidence interval around that effect ranged from -.26 to .35 and included 0. Therefore, Hypothesis 11 was not supported because there was no significant evidence of mediation. Apology forgiveness does not mediate the relationship between the offender's gender and indemnity.

Follow-Up Analyses

For the analyses above, an arbitrary decision was made to test all of the hypotheses on a filter that included participants who were paid and who selected the correct physician gender ($n = 146$). Following the initial analyses, rather than excluding participants who selected the incorrect physician gender, the hypotheses were retested based on the physician gender that was perceived by the participant. This filter yielded a larger sample size ($n = 206$).

The analyses reveled slightly different results, as the analyses yielded greater success for the hypotheses. First, for Hypothesis 2, perceived expectancy was significantly positively related to forgiveness over and above the effect of participant age, $R^2 = .038, p = .021, \Delta R^2 = .03, p = .02$. Although the results indicated a significant relationship, I had predicted that perceived expectancy was significantly negatively related to forgiveness. Therefore, the direction of the relationship is in the opposite direction of my prediction. For Hypothesis 4, significant results were reported. Perceived expectancy was significantly positively related to perceived sincerity over and above the effect of previous exposure to malpractice litigations $R^2 = .07, p = .01, \Delta R^2 = .03, p = .01$. All p values and R^2 values reported were from Model 2 of the regressions.

Even thought it was not hypothesized, due to the significant relationship between perceived sincerity and forgiveness, and forgiveness and indemnity, I decided to conduct a test for mediation to see if forgiveness would mediate the relationship between perceived sincerity and indemnity. To test for this mediation, I used the PROCESS program created by Hayes (2013). The indirect effects of perceived sincerity on indemnity through forgiveness was negative, -.3393, and the 95% confidence interval around this estimate ranged from -.57 to -.17 and did not surround 0. These results

indicated that there was significant evidence of mediation and it was concluded that forgiveness does mediate the relationship between perceived sincerity and indemnity.

Discussion

Not many of the hypotheses had significant results. It is believed that this is because gender was not strongly correlated with any of the other variables. However, my research did produce several key results. First, my findings indicate that forgiveness following an apology was found to be influenced by the perceived sincerity of the apology. Thus, if the goal of an apology is to get the victim to forgive the transgressor, it is very beneficial to craft apologies that not only contain a display of remorse but also are sincerely delivered. Often times emotions can run high following a transgression. For this reason, it would be proactive for individuals to learn about techniques that help incorporate remorse and sincerity into apologies before the transgression occurs. That way, when an apology must be given, the transgressor already knows the crucial elements that must be included in an apology if their goal is for the victim to forgive them.

My findings also indicate that the amount of indemnity that is recommended following a transgression is influenced by the amount of forgiveness that the apology elicits. Moreover, I found that forgiveness mediates the relationship between perceived sincerity and indemnity. The more sincere the apology is perceived to be, the less indemnity that is recommended as a form of retribution. Next, my analysis revealed that the perceived sincerity of an apology is significantly influenced by the age of the victim on the receiving end. Older people perceive apologies to be more sincere than younger people. Do these sincerity perceptions translate to things other than just apologies? For instance, do older people perceive others to have higher levels of sincerity in all of their

actions (e.g., giving praise, thanks, condolences)? It's important to look at how this translates to outcomes as well. Not only does age have a positive correlation with sincerity, but it is also positively correlated with forgiveness, and through this research we have just learned that forgiveness has a significant relationship with indemnity following a medical malpractice transgression. Further research should investigate this relationship as the results may prove to be beneficial for jury selection.

Apology researchers agree that sincere apologies are more effective in eliciting forgiveness than insincere apologies (Basford et al. 2014; De Cremer & Schouten, 2008). My findings are consistent with this line of research, concluding that perceived sincerity of an apology accounts for 24% of the variance in forgiveness following an apology. If the perceived sincerity of an apology accounts for 24% of the variance in forgiveness following an apology, it is crucial to find different methods that can be implemented to increase the perceived (and actual) levels of sincerity of an apology when it is being delivered.

Consistent with the Ryan et al. (2010) meta-analysis, the gender of the offendee did not influence the effectiveness of an apology in eliciting forgiveness. However, some unexpected results were also revealed from this data. Inconsistent with current apology research, my results indicated that apologies that contain the component remorse are not significantly more effective in eliciting forgiveness than apologies that do not contain a remorseful component. Similarly, Walfisch et al. (2013) concluded that a woman is expected to apologize more than her male counterpart. Contrary to their results and my hypothesis, I found that the gender of the offender does not add to the prediction of a participant's expectations of receiving an apology over and above the offendee's gender

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and the past experience with malpractice litigation. Walfisch et al. (2013) also found that women were less willing to forgive a woman who apologized than a man who apologized. However, my analysis found no differences in gender (both offender or offendee gender) and forgiveness. But, we know that the gender manipulation effect in this study did not work 100% of the time. Therefore, it is possible that participants were not paying attention to the gender and randomly chose either male or female when asked to indicate the physician gender and for that reason they did not consider the gender of the apologizer when indicating levels of forgiveness. Thus, one can assume that developing a study using a stronger, more reliable, way to manipulate the gender of the apologizer could lead to significant findings between this variable and forgiveness. Also, it's believed that an individual does not experience the same emotions when reading a hypothetical scenario as they would experience when encountering a real-life transgression. Therefore, real-life outcomes could result in significant differences.

Finally, while exploring demographic variables, I found that participants who work in the medical field perceived the apologies to be less sincere. However, we do not know if these results would be replicated using a scenario where the transgression and apology occurred in an organizational setting outside of the medical field. To answer these questions, it is important to find better methods of studying transgressions and apologies using ethical standards that don't sacrifice the quality of the data.

CHAPTER IV

CONCLUDING REMARKS

Limitations

Given that I obtained my results using hypothetical scenarios and self-report

methods through an online sample base, this study is not without limitations. Consistent

results must be replicated and obtained using different scenarios and wording, as well as

real life situations in additional populations. For example, in real life situations, emotions

often run high following transgressions, and when a participant is simply asked to read a

scenario and more or less "role-play" it can be difficult for a participant to imagine how

the participant might feel if the transaction actually occurred. Also, several variables that

would occur naturally in a real-life apology cannot be taken into consideration with a

scripted apology read on a paper. For example, the apologizer's tone of voice, amount of

eye-contact, or mannerisms could all affect how sincere the apology is perceived to be.

Unfortunately, these are variables that cannot be manipulated in a text-based hypothetical

scenario. I believe that if I had been able to study these variables with real-life apologies,

I would have found results supporting my hypotheses. Specifically, I am confident that

consistent with the current research, I would have found a significant positive

relationship between remorse and forgiveness.

Additionally, not all of the variables used in this research were normal, and some required transformations. The variable Indemnity was largely positively skewed so I had to use a non-linear transformation (square-root) to take it normal. Using the sample size of $n = 146$, it was not possible to make indemnity normal. For this reason, I created a dichotomous indemnity variable to use when analyzing data with the sample size of $n = 146$. In situations where I had no choice but to use the indemnity recommendation (numerical value), I had to exclude participants from the analysis who did not recommend indemnity payments leaving a sample size of $n = 115$. (Z skew for transformed indemnity was 1.73 with sample size of 115 and Z skew for transformed indemnity was 2.54 with sample size of 146.) Larger samples increase the chance of finding significant results which supports why a larger number of hypotheses were supported when I analyzed the data with a sample size of 206 participants, compared to when I analyzed the data with a sample size of 146 participants. It would be ideal to recreate this study and have a sample where all 200+ participants selected the correct physician gender in order to see which hypotheses were supported.

It is important to note that the results that were reported with $n = 206$ might not be as valid as the results that were reported with $n = 146$. One can assume that the 50 participants who did not select the correct gender were not paying close enough attention to the scenario and therefore, may not have been paying close attention to the answers that were being asked either. For this reason, the validity of these responses is likely to be lower. There is another possibility though. The 50 incorrect gender responses could also could mean that the participant was imagining the opposite gender when responding to

the questions. This may explain why significant results were not found when analyzing physician gender as the predictor variable.

Also, it must be noted that the measures used to create the variables sincerity, expectancy, and forgiveness were constructed by the researcher specifically for this research, and have not previously been used. The reliability statistic for sincerity was good (.929), and the reliability statistic for forgiveness was acceptable (.765). However, the reliability statistic for expectancy was lower than I had hoped (.659). This low reliability level presents another limitation to this study. The low reliability level indicates how well the items on a test measure the same construct or idea, and it is possible that the measuring tools created may not yield stable. The lack of internal consistency reliability means there are limits to the potential validity of the item, and this may account for the lack of results that were found in this reserach.

I tested for mediation using the PROCESS program created by Hayes (2013). However, this program was not without limitations. Due to limitations of the software when testing for effects of mediation, it should be noted that I was forced to select "covariate of both M and Y" when in fact, the covariates represented in the analysis were of "either M or Y." Though it is not believed that this resulted in a significant change in results, it must be noted nonetheless.

Finally, with self-reported data participants may vary regarding their understanding or interpretation of particular questions, and my study is no exception. The results indicated that there was a relationship between physician gender and participant gender. No such relationship should have existed because the groups were randomly assigned. For this reason, it is believed that least some of the participants misinterpreted at least one

question, (e.g., they misinterpreted "Please indicate your gender" for "Please indicate the gender of the physician") and it is possible that other questions may also have been misinterpreted and consequently could have impacted the results of this study.

Direction for Future Research

In this study, I sought to respond to a number of research questions relating to how the gender of a transgressor and presence of remorse in an apology impact perceived expectancy, perceived sincerity, and forgiveness following an apology. Due to the lack of previous research on this specific topic, I can offer numerous directions for future research.

To begin, future research should explore these variables using research methods that don't involve presenting transgressions and apologies through the use of hypothetical situations. It's not known if these results would be duplicated if the participants actually encountered this scenario in real life. Of course, for ethical reasons researchers could not intentionally harm a participant and then apologize to study forgiveness. In order for this research to have practical implications, future researchers need to find a way to study forgiveness outside of the laboratory. However, this is no easy feat.

Additionally, it is important for future research to explore variables other than just sincerity, apology expectations, and forgiveness. My research revealed that forgiveness was found to mediate the relationship between sincerity and indemnity, but future research should explore other variables see if they too have a mediating relationship with these variables. For instance, time (e.g., time that passes between when a transgression occurs and when an apology is given) is a variable that may have a great impact on forgiveness. Would the time that has lapsed between a transgression and an apology have

a relationship with forgiveness? For example, does time have more or less of an impact in interpersonal relationships in which apologies are given compared to in organizational/professional relationships? This could depend on the norm of offending and apologizing. Let's imagine that for an organization, the norm of offending and not apologizing is practiced. One can imagine that if that norm changes and the organization apologizes, the effect of the apology will be positive regardless of how much time has passed between the offense and the apology. However, let's imagine another scenario where there is an interpersonal relationship and the norm is for an apology to occur following a transgression. Since the moment that an individual begins to apologize for a transgression that resulted from their mistake, they will be expected to apologize in the future, and we can imagine that future apologies will be expected to be received at a reasonable time following the transgression. If the elapsed time between a transgression and an apology continues to grow with subsequent transgressions, the effect of the apology in eliciting forgiveness is most likely going to decrease.

Next, my research also revealed that age was positively correlated with perceived sincerity. Older participants rated apologies to be more sincere. Another interesting direction for future research would be to expand on these findings by exploring the relationship between sincerity, cynicism, and age. However, this may not always be the case. According to Mazella (2007), the standard definition of the modern cynic is "One who shows a disposition to disbelief in the sincere goodness of human motives and actions" (p. 182). In fact, it is commonly said that people become more cynical as they age, but does the research support this? My research appears to have revealed just the opposite. Older participants showed a greater disposition to the belief in the sincere

goodness of the transgressor's apology. Based on the definition of the modern cynic provided above, this could also be stated as saying "the older participants were less cynical." It is important to note that I did not intend to measure cynicism in this line of research, and my constructs were not intended to do so when they were developed. However, due to the potential relationship between sincerity and cynicism, I encourage future researchers to explore levels of cynicism following apologies in all ages of adults to see if a relationship does in fact exist.

Lastly, there is a great deal of research investigating status and apologies. Walfisch, Van Dijk, and Kark (2013) revealed that apologies are less expected from managers than from subordinates, and that the less expected apologies are more successful in eliciting forgiveness than are apologies that are highly expected to be given. However, there is not as much research exploring the impact that the formality of the apology has on forgiveness. For example, an exploration of the different communication media that could be used to deliver apologies may yield interesting results. I encourage future research to identify and explore different types of apologies and how different media used when delivering an apology (i.e., in person, over phone, direct vs. indirect- through 3rd person, private vs. public) impact forgiveness outcomes.

In the hypothetical scenario described in my research, it was stated that the apology was delivered in person by the physician (offender) to the patient (offendee), and it was delivered in a public setting (a courtroom). In my study, 64% of the offendees reported a forgiveness level of at least 3.0/5.0, with a mean of 3.36 and a mode of 3.6. It is not known whether the media used to deliver the apology impacted the forgiveness levels, but one can speculate that because more than half (64%) of the offendees reported a

forgiveness level of at least 3.0/5.0, the media used to deliver the apology didn't have a drastic negative effect on forgiveness levels. Future research should explore the different media that could be used to deliver apologies to see if they in fact impact forgiveness levels. As a result, organizations could use this information to craft more effective apologies following incidences where an apology is warranted.

Conclusion

Crafting effective apologies is important in both personal and professional relationships and understanding the variables that influence forgiveness is a key factor achieving this goal. I contributed to this research by showing that following a transgression, forgiveness impacts indemnity (restitution), and that the perceived sincerity of an apology is an important factor that is taken into consideration when people are deciding whether or not to forgive an offender following a transgression. These findings have implications for in all situations where forgiveness is the ultimate goal of delivering an apology.

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TABLES

Table 1.
Correlations and summary statistics

Variable	M	SD	1	2	3	4	5	6	7	8	9	10	11
1.Sincerity	3.89	.79											
2. Forgiveness	3.36	.78	.51**										
3.Expectancy	4.04	.72	.10	.05									
4. Physician Gender	1.34	.47	.11	.02	-.10								
5. Indemnity recommendation (numerical value square root)	.33	286.49	-.19*	-.50**	.17*	-.01							
6. Indemnity recommendation (dichotomous)	.79	.41	-.03	-.31**	.08	-.09	.60						
7. Presence of remorse	1.49	.50	-.35**	-.10	.01	-.05	-.00	.04					
8. Perceived physician gender	1.34	.48	.11	.02	-.10	1.0**	-.01	.09	-.05				
9. Participant age	34.4	10.13	.15	.15	.12	.01	-.08	.11	-.02	.01			
10. Participant gender	1.43	.50	.01	-.02	.01	.23**	-.07	.04	-.13	.23**	.16		
11. Employment field	1.84	.37	.16	.09	.08	.13	.07	.04	.03	.13	.03	-.11	
12. Previous experience with malpractice	1.88	.33	.24**	.03	.24	-.04	.04	.06	.04	-.04	.24	.03	.37

$* p < .05; ** p < .01$ Note: Indemnity Recommendation dichotomous is coded 0=Should not pay, and 1=Should pay. Presence of remorse is coded 1 = Remorse Present, 2=No Remorse Present. Participant gender is coded 1=Male, and 2=Female. Physician Gender is coded 1 = Male, and 2 = Female. Perceived Physician Gender is coded 1=Male, and 2=Female. Employment field is coded 1=Medical Field, 2=Other. Previous Experience with Malpractice Litigation is coded 1=Yes, 2=No.

Table 2.

Pattern Matrix for Sincerity, Expectancy, and Forgiveness Items

		Factor		
		1	2	3
Q3	I do not expect the physician to acknowledge the wrongdoing.	-.022	.180	.401
Q4	I would be surprised in the physician did not acknowledge the wrongdoing.	-.021	.046	.545
Q5	I believe that the physician will acknowledge the wrongdoing.	-.087	.072	.676
Q7	I expect the physician to take responsibility for the wrongdoing.	.062	-.181	.559
Q8	I expect the physician to empathize with the pain and suffering I endured from this medical mistake.	.052	-.065	.560
Q12	My physician's apology was sincere.	.824	.046	-.027
Q13	My physician sincerely apologized for the incident.	.900	-.049	.061
Q14	My physician sincerely apologized for the harm or ill-will caused to me.	.878	-.001	-.066
Q15	My physician felt genuine remorse for the harm or ill-will caused to me.	.923	-.034	.024
Q16	I do not have negative emotions (such as fear) toward the physician.	.050	.615	-.055
Q17	I forgive the physician for the harm that was caused to me.	.107	.666	.075
Q18	I feel anger or resentment towards the physician for the harm that was caused to me.	-.183	.688	-.063
Q19	Any negative emotions that I may have had towards the physician have been reduced.	.244	.593	-.020
Q20	Holding a grudge against the physician is not going to change anything.	.008	.468	.081

Note: Extraction Method: Principal Axis Factoring.
Rotation Method: Promax with Kaiser Normalization

Table 3.

Linear Regression of Expectancy onto Participant Gender, Previous Malpractice Litigation, and Physician Gender

Variable	R^2	ΔR	B	Std. Error of the Estimate	p	t
Model 1	.06	.06				
Constant			3.24**	.40	.00	7.61
Pervious malpractice litigation experience			.50**	.18	.01	2.85
Participant Gender			.04	.12	.72	.36
Model 2	.07	.01				
Physician Gender			-.15	.13	.23	-1.21

*$p < .05$; **$p < .01$. Regression coefficients, p values, t values, and standard errors are from Model 2.

Note: Sample includes 146 participants who completed the survey. Previous Experience with Malpractice Litigation is coded 1=Yes, 2=No.

Table 4.

Linear Regression of Forgiveness onto Participant Age and Apology

Variable	R^2	ΔR	B	Std. Error of the Estimate	p	t
Model 1	.02	.02				
Constant			2.85**	.41	.00	6.99
Age			.01	.01	.09	1.74
Model 2	.02	.00				
Apology Expectations			.03	.09	.73	.35

*$p < .05$; **$p < .01$. Regression coefficients, p values, t values, and standard errors are from Model 2.

Note: Sample includes 146 participants who completed the survey

Table 5.

Linear Regression of Sincerity onto Previous Malpractice Litigation and Apology Expectations

Variable	R^2	ΔR	B	Std. Error of the Estimate	p	t
Model 1	.06	.06				
Constant			2.67**	.47	.00	5.68
Pervious malpractice litigation experience			.56**	.20	.01	2.77
Model 2	.06	.00				
Expectancy			.05	.09	.62	.50

*p < .05; **p < .01. Regression coefficients, p values, t values, and standard errors are from Model 2.

Note: Sample includes 146 participants who completed the survey. Previous Experience with Malpractice Litigation is coded 1=Yes, 2=No.

Table 6.

Linear Regression of Forgiveness onto Participant Age and Perceived Sincerity

Variable	R^2	ΔR^2	B	Std. Error of the Estimate	p	t
Model 1	.02	.02				
Constant			1.28**	.32	.00	4.04
Age			.01	.01	.31	1.02
Model 2	.26	.24				
Sincerity			.48**	.07	.00	6.79

*$p < .05$; **$p < .01$. Regression coefficients, p values, t values, and standard errors are from Model 2.

Note: Sample includes 146 participants who completed the survey

Table 7.

Regression of Forgiveness onto Physician Gender and Presence of Remorse

Variable	R^2	ΔR^2	B	Std. Error of the Estimate	p	t
Model 1	.02	.02				
Constant			3.65**	.63	.00	5.82
Age			.01	.01	.07	1.86
Model 2	.03	.01				
Physician Gender			-.36	.42	.40	-.84
Presence of Remorse			.02	.22	.93	.09
Model 3	.04	.01				
Physician Gender × Presence of Remorse			-.26	.27	.35	-.94

*p < .05; **p < .01. Regression coefficients, p values, t values, and standard errors are from Model 3.

Note: Sample includes 146 participants who completed the survey. Presence of remorse is coded 1 = Remorse Present, 2=No Remorse Present. Physician Gender is coded 1 = Male, and 2 = Female.

Table 8.

Logistic Regression of Indemnity Recommendation onto Participant Age and Forgiveness

Variable	R^2	ΔR^2	Exp(B)	p
Step 1	.02	.02		
Constant			1.40**	.00
Age			1.03	.18
Step 2	.19	.17		
Forgiveness			.29**	.00

$**p< .01$ Regression coefficients, and p values are from Step 2.

Note: Sample includes 146 individuals who completed the survey.

Table 9.

Group Statistics on Indemnity Recommendation and Forgiveness

	Indemnity Recommendation (Y/N)	*N*	*Mean*	*Std. Deviation*	*Std. Error Mean*
Forgiveness	Should Not Pay	31	3.81	.81	.15
	Should Pay	115	3.23	.72	.07

Table 10.

Linear Regression of Indemnity Recommendation onto Participant Age and Forgiveness

Variable	R^2	ΔR^2	B	Std. Error of the Estimate	p	t
Model 1	.04	.04				
Constant			1037.91**	111.13	.00	9.34
Age			-2.59	2.08	.216	-1.24
Model 2	.24	.20				
Forgiveness			-162.65**	30.01	.00	-5.42

*$p < .05$; **$p < .01$. Regression coefficients, p values, t values, and standard errors are from Model 2.

Note: Sample includes 115 participants who completed the survey.

Table 11.

Linear Regression of Forgiveness onto Participant Gender and Physician Gender

Variable	R^2	$\varDelta R$	B	Std. Error of the Estimate	p	t
Model 1	.02	.02				
Constant			3.00**	.31	.00	9.61
Age			.01	.01	.07	1.86
Participant Gender			-.08	.14	.56	-.59
Model 2	.02	.00				
Physician Gender			.05	.14	.74	.34

*$p < .05$; **$p < .01$. Regression coefficients, p values, t values, and standard errors are from Model 2.

Note: Sample includes 146 participants who completed the survey. Participant gender is coded 1=Male, and 2=Female. Physician Gender is coded 1 = Male, and 2 = Female.

Appendix A: Anticipated Path Diagram
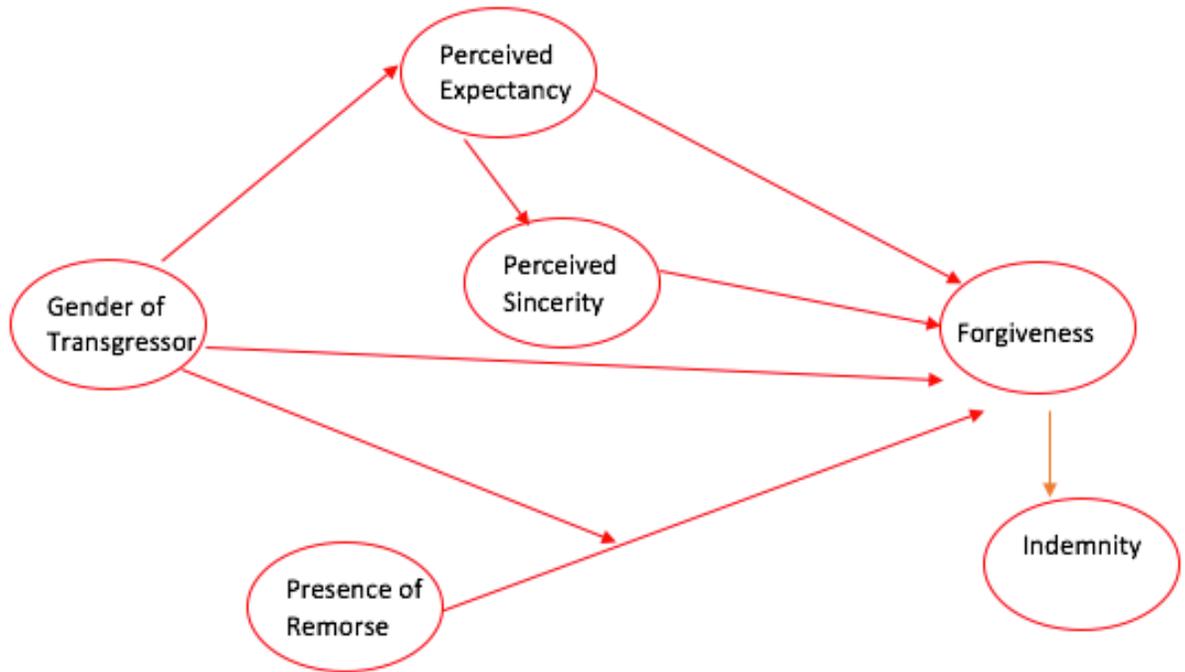
Appendix B: Informed Consent Form

Dear Participant:

We are Dr. Michael Horvath (216-687- 2574) and Ms. Molly Fuller (740-974-6756), Associate Professor and graduate student. We work in the Department of Psychology at Cleveland State University. We are asking you to participate in this research study. This study is about reactions to medical errors.

As a participant, you will be asked to read a short story. Then, you will be asked to complete a survey based on the story you have read. We hope that information from this survey will add to better healthcare decisions. This study should take about 15 minutes to complete.

There are minimal risks with participating in this study. The main risk is that responses could be revealed to people besides the researchers. To minimize the chance of this happening, your responses will be treated in an anonymous manner. Your name and other identifying information will not be linked with the data collected. Also, complete privacy will be guaranteed. Your Mechanical Turk Worker ID will be used to deliver payment to you. Your Mechanical Turk Worker ID will not be stored with the research data we collect from you. Also, the researchers will keep the information safe. Any information collected will be kept in files on locked computers. Only the researchers will have access to these locked files. Any other risks associated with participating in this research are not greater than those of daily living.

There are also benefits to participating in this study. Participants who complete this HIT will receive a $0.20 Amazon credit. This study has a number of checks. These checks make sure that the tasks are being finished honestly and completely. If you read the instructions and complete the tasks, your HIT will be approved, and you will be paid for your participation. If you fail these checks, your HIT will be rejected, and you will not receive payment.

Participation in this study is voluntary. You may quit this study at any time by closing the browser window to withdraw from the study.

For questions about this research, you may contact:
Molly Fuller at (740) 974-6756, email: m.l.fuller21@vikes.csuohio.edu, or
Dr. Michael Horvath at (216) 687- 2574, email: m.horvath59@csuohio.edu.

For questions about your rights as a research participant, you may contact the Cleveland State University Institutional Review Board at (216) 687-3630.

If you agree to consent, please select the box below that says "I give my consent." In doing so, you are stating the following:

"I understand that I am free to withdraw from further participation at any time, without explanation or penalty."

"I am 18 years or older and have read and understood the consent form and I agree to participate in this online research study."

Appendix C: Scenario

Please read the following scenario which includes a Statement of Material Facts and Court Proceedings. After reading the information provided in this scenario, you will be asked to respond to a questionnaire. For the following questions, you will be asked to imagine that you are the patient who was described in the medical malpractice litigation who was harmed due to the physician's care.

Scenario

Statement of Material Facts

You are a 55-year-old patient who underwent a medically necessary standard surgical procedure performed by a licensed ophthalmologist, Dr. Christine Grant/ Dr. Christopher Grant to have your cataracts removed. After the surgery, you were informed that there was a mistake and your physician operated on the wrong eye. For this reason, you have to return to surgery to have the correct eye operated on.

As a result of the surgical procedure, the physician's mistake did not cause any permanent damage to your eye. The surgical error was accidental and it was not caused intentionally. However, due to the nature of the care provided by your physician during the surgery, the procedure resulted in temporarily adverse effects to both your work and personal life that otherwise would not have occurred.

Court Proceedings

Following the procedure and upon learning of the physician's mistake, you filed a lawsuit against your physician. You have already been reimbursed for your injures in a separate court proceeding. This court proceeding is to award punitive damages. Punitive

damages are used to punish the defendant for outrageous conduct and to deter the defendant and others from similar conduct in the future.

At trial it was established that the harm you incurred was a direct result of your physician's care. You are also informed that this was the physician's first medical malpractice lawsuit, and that such error has never been committed before by this physician. At the advice of your attorney, you have not been in contact with your physician since the operation and this trial will be your first interaction with or communication with the physician since your operation.

Appendix D: Expectancy Measure

For the following statements, please indicate your level of agreement using the

following scale

1= Strongly Disagree   2= Disagree   3= Neutral   4= Agree   5= Strongly Agree

---

1. I do not expect the physician to acknowledge the wrongdoing.

2. I would be surprised if the physician did not acknowledge the wrongdoing.

3. I believe that the physician will acknowledge the wrongdoing.

4. I expect the physician to take responsibility for the wrongdoing.

5. I expect the physician to empathize the pain and suffering I endured from this

    medical mistake.

Appendix E: Apology A

While in court, your physician Dr. Christine Grant/ Dr. Christopher Grant

admitted to the error, explained to you that the error was accidental, and

voluntarily apologized for the harm that was caused.

During the trial, your visibly shaken physician Dr. Christine Grant/ Dr. Christopher Grant

offered you the following apology:

"I am truly sorry for the error I made and the harm that it has caused you. I

understand that I hurt you and I feel awful. I know that this is not the

outcome that we had anticipated and I am going to do everything I can to

make things right, and to ensure that this never happens again."

Appendix F: Apology B

While in court, your physician Dr. Christine Grant/ Dr. Christopher Grant

admitted to the error, explained to you that the error was accidental, and

voluntarily apologized for the harm that was caused.

During the trial, your physician Dr. offered you the following apology:

"I am sorry this has happened to you. I know that this is not the outcome

that we had anticipated and I will do what I can to ensure this does not

happen again. Unfortunately, mistakes happen sometimes."

Appendix G: Questionnaire

Manipulation Checks

1. Please indicate the gender of the physician

   ○ Male

   ○ Female

2. For the following statement, please use the scale to indicate your level of agreement.

1= Strongly Disagree   2= Disagree   3= Neutral   4= Agree   5= Strongly Agree

1. The apologizer was remorseful.

Questionnaire

Forgiveness Measure

Please take the physician's apology into consideration when answer the following questions.

For the following statements, please indicate your level of agreement using the following scale

1= Strongly Disagree   2= Disagree   3= Neutral   4= Agree   5= Strongly Agree

1. I do not have negative emotions (such as fear) toward the physician.

2. I forgive the physician for the harm that was done to me.

3. I feel resentment towards the physician for the harm that was done to me.

4. Any negative emotions that I may have had towards the physician have been reduced.

5. Holding a grudge against the physician is not going to change anything.

6. The physician needs to pay for the physical damage that was done to me.

Apology Sincerity Measure

For the following questions, please use the following scale to indicate your agreement with each of the statements.

1= Strongly Disagree   2= Disagree   3= Neutral   4= Agree   5= Strongly Agree

1. My physician's apology was sincere.

2. My physician sincerely apologized for the incident.

3. My physician was truly sorry for the harm or ill-will caused to me.

4. My physician felt genuine remorse for the harm or ill-will caused to me.

Financial Compensation

For the following section please imagine that you are no longer the patient but rather, you are a member of the jury in this trial.

The judge has asked you to determine a "punitive- damages" award. The judge informs you that through a separate proceeding, the patient has already been compensated for their injuries, including medical expenses and pain and suffering. The judge instructs you that your role now is to determine a "punitive damages" award. The judge explains that punitive damages are "damages awarded not to

compensate the plaintiff for any injury, but to punish the defendant for outrageous conduct and to deter the defendant and others from similar conduct in the future. You are not required to award punitive damages. The judge emphasizes that "there is no exact standard for determining punitive damages, and you should consider the defendant's behavior in response to the misconduct."

Additionally, the judge informs you that in previous similar cases juries have determine awards for punitive damages in the amounts ranging from $120,000 – $520,000. The judge indicates that this information regarding prior awards is intended as guidance only, and that you may use (or not use) the information as you see appropriate. The judge also informs you that the state requires that the punitive damages cannot exceed $1,000,000.

If you feel that punitive damages should be awarded in this case, please write down the dollar amount that you believe the physician should be ordered to pay, as instructed by the judge. If you do not feel that punitive damages should be award, please type "$ 0"

As a reminder, the maximum awarded amount for punitive damages cannot exceed $1,000,000

Awarded amount: $_____

Appendix H: Demographics

Demographic Information

Please provide the following demographic information:

1.) Please indicate your age: _____

2.) Please indicate your gender
- o Male
- o Female
- o Other

3.) Please indicate whether you or someone close to you has been the victim of medical malpractice
- o Yes
- o No
- o Prefer not to answer

4.) Please indicate your highest level of education completed
- o None
- o Some high school
- o High School Graduate/ GED
- o Some College
- o Bachelor's Degree
- o Master's Degree
- o Law Degree
- o Medical Degree
- o Doctorate Degree

5.) Please indicate your employment status
- o Unemployed
- o Employed Full-Time
- o Employed Part- Time
- o Student
- o Retired
- o Other

6.) Please indicate your employment field
- o Medical
- o Other

7.) Community Type
- o Urban
- o Suburban
- o Rural
- o Don't know

Appendix I: Malpractice Litigation Exposure

Have you personally, or has anyone close to you ever been involved in a

malpractice litigation?

○ Yes
○ No

Appendix J: Debriefing and Contact Information

Debriefing Form

Study Title: Gender Role Prescriptions and Apologies

Thank you for participating in this study. In order to get the information we were looking for, we withheld some information about some aspects of this study. Now that the experiment is over, I would like to describe to you the real purpose of this study, answer any of your questions, and provide you with the opportunity to make a decision on whether you would like to have your data included in this study.

The researchers of this study were interested in investigating the ways in which expectations of receiving certain types of apologies may vary based on the gender of the transgressor. Specifically, the researchers were investigating whether victims of a transgression expect an apology from a female transgressor to contain different levels of remorse compared to an apology given by a male transgressor. The researchers were also interested in investigating consequences following a transgression. For example, do the recommended consequences vary across genders?

If you have any questions regarding the study or you would like the information you provided to not be included in this study, please email the researcher at m.l.fuller21@vikes.csuohio.edu.