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Reactions to Physician-Inspired Shame and Guilt

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Participants reported attributions and responses to shame (Study 1 and Study 2) and guilt (Study 2) experienced during an interaction with a physician. These emotional interactions elicited both negative and positive reactions. Regardless of whether the person felt guilt or shame, self-condemnation and the perception that the physician intentionally induced the emotion were associated exclusively with negative outcomes (e.g., ceasing physician visits), whereas negative attributions about one's behavior (rather than the self as a whole) were associated with primarily beneficial outcomes (e.g., positive impact). We discuss how these data bear on theories of shame and guilt.

Although modern medicine has made tremendous advancements in terms of quality of care and treatment of disease and illness, more than one third of all deaths in the United States are still essentially preventable and largely due to unhealthy patient behavior (Mokdad, Marks, Stroup, & Gerberding, 2004). For example, in the United States approximately 18% of deaths are due to tobacco use, 17% to poor diet and physical inactivity, and 4% to alcohol consumption (Mokdad et al., 2004). According to a recent study of health risk factors, if America's unhealthy lifestyles continue, one third of life expectancy gains could be lost within 20 years, mostly due to health problems related to obesity (Cutler, Glaeser, & Rosen, 2007). Recently, the U.S. Surgeon General has recommended that physicians address weight issues with their patients and emphasize the importance of proper nutrition and exercise (U.S. Department of Human Services, 2010).

Inherent in the Surgeon General's recommendations is the assumption that patients will benefit from having frank conversations with their physicians. However, recent empirical work has raised the possibility that such interactions do not always have the intended outcome. Harris and Darby (2009) asked a large adult sample if they ever had an experience where a physician said something that made them feel shame. They found that more than half of respondents had experienced such shame, most commonly over unhealthy patient behaviors such as exercise, sexual practices, and smoking habits. Of interest, patients' responses to these shameful encounters varied greatly. Forty-five percent of those experiencing shame reacted negatively, including terminating treatment with, avoiding, or subsequently lying to their physician as a result of the incident. However, 33% reported positive reactions such as improving their health-related behaviors. Moreover, women were more likely than men to report shaming experiences, and their reactions to these events were more negative. These findings raise the question of why shame in medical interactions produces such disparate responses.

The current work explores possible explanations for the divergent responses, focusing primarily upon the affective cognitions and situational perceptions that might have precipitated different responses. We investigate (a) how people's attributions, specifically whether they make global attributions that the self is bad versus specific attributions that just the behavior itself was bad, differentially impact reactions to shame as well as guilt (in Study 2) in medical interactions; (b) the nature of men and women's reactions to shame and guilt interactions, and whether gender differences are due to differences in the specific and global attributions men and women make about the behavior and about themselves; and (c) what effect perceptions regarding whether physicians were intentionally trying to induce shame and guilt have upon patients' reactions. We present two studies. The first study focuses on shame in a college-age sample. The second study extends the findings of the first in a large adult

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population by examining not only shame interactions but guilt interactions as well.

THE MOTIVATIONS OF SHAME AND GUILT

As just noted, Harris and Darby (2009) found that a large portion of respondents reported negative reactions to a shaming medical event. Other lines of research indicate that such negative reactions to shame are not unique to medical settings. Theorists generally agree that shame is an unpleasant, negative emotion that arises from a personal failure or transgression (H. B. Lewis, 1971; C. A. Smith & Ellsworth, 1985; Tangney & Dearing, 2002). Several researchers have noted that feelings of shame can be associated with self-recrimination, shrinking away, feeling small, and withdrawing (H. B. Lewis, 1971; Lindsay-Hartz, 1984; Tangney, Miller, Flicker, & Barlow, 1996).

One prominent theoretical conceptualization of shame is that it involves cognitions of intense self-blame in which the fault of the transgression is attributed to the whole self (H. B. Lewis, 1971; C. A. Smith & Ellsworth, 1985). The dispositional tendency to indict the whole self, also known as self-condemnation, has been connected with several forms of poor psychological functioning such as maladaptive anger (Furukawa, Tangney, & Higashibara, 2012; Tangney, Wagner, Fletcher, & Gramzow, 1992; Tangney, Wagner, Hill-Barlow, Marschall, & Gramzow, 1996), depression (Crossley & Rockett, 2005), and psychological distress (Leith & Baumeister, 1998). Dispositional shame of this nature also has been linked with risky problem behaviors including drug and alcohol abuse (Dearing, Stuewig, & Tangney, 2005), admitted likelihood of driving drunk and shoplifting (Tibbetts, 1997), and attempts to externalize the cause of problem behaviors (Ferguson, Stegge, Miller, & Olsen, 1999).

Given the negative view that the field has taken regarding shame, one might well wonder why people reported any positive consequences as a result of feeling shame while interacting with their physician (Harris & Darby, 2009). One possible explanation is that the people who reported positive consequences may have focused more on condemning their behavior as bad rather than indicting their whole self. Past research examining the dispositional tendency to make negative attributions specifically about the behavior has been linked with several positive responses including more perspective taking for the victim of one's misdeeds (Leith & Baumeister, 1998), less self-reported criminal behavior (Tibbetts, 2003), and less drug and alcohol abuse (Dearing et al., 2005). These positive reactions to behavior condemnation raise the possibility that the beneficial responses reported in Harris and Darby's (2009) examination of physician-inspired shame might be attributable to people condemning their behavior rather than their whole selves.

A possible objection to this proposition is that behavior condemnation has been proposed to be characteristic of guilt and not shame. In fact, some researchers argue that the focus on the self versus the behavior is *the* primary difference between guilt and shame (H. B. Lewis, 1971; Tangney et al., 1996; Tangney, Stuewig, & Mashek, 2007). Although this view is common (Tangney & Dearing, 2002; Tangney et al., 2007), it is challenged by research arguing for other differences (e.g., public vs. private, proscriptive vs. prescriptive transgressions, etc.; Benedict, 1946; Fontaine et al., 2006; Gausel & Brown, 2012; Giner-Sorolla, Piazza, & Espinosa, 2011; Sabini, Garvey, & Hall, 2001; Sheikh & Janoff-Bulman, 2010; R. H. Smith, Webster, Parrott, & Eyre, 2002; Wallbott & Scherer, 1995; Wolf, Cohen, Panter, & Insko, 2010). There is also evidence that behavior condemnation may not be limited to guilt and, similarly, self-condemnation may not be limited to shame. In fact, one of the studies often cited as evidence for linking shame to self and guilt to behavior demonstrates that self-condemnation and behavior condemnation occur in both emotions (Niedenthal, Tangney, & Gavanski, 1994).

Furthermore, research on the situations that precipitate shame and guilt seem to indicate that there are few situations that can be clearly labeled "shame" and not "guilt," and vice versa (e.g., Stearns & Parrott, 2012; Tangney, 1992; for opposing views see Benedict, 1946; R. H. Smith et al., 2002). Like shame, the phenomenological experience of guilt is unpleasant and negative, and it arises from self-blame for a personal failure or transgression (C. A. Smith & Ellsworth, 1985; Tangney et al., 1996). Guilt and shame often co-occur in social transgressions (Schmader & Lickel, 2006), and U.S. subjects use the terms *shame* and *guilt* somewhat interchangeably (Fessler, 2004). Thus, the co-occurrence and overlap of these emotional states seem to provide further support for the conclusion that both shame and guilt can be associated with behavior condemnation as well as self-condemnation.

We hypothesize that the ability of a person feeling shame or guilt to experience both self- and behavior condemnation might provide a straightforward explanation for the disparate responses to physician-inspired shame reported by Harris and Darby (2009). Negative reactions may arise when an individual's dominant response is to indict the whole self, whereas positive reactions may arise when the individual's dominant response is to indict just the negative behavior. In particular, we propose that when doctors criticize their patients' unhealthy behaviors and the patients feel shame, the patients who primarily condemn the behavior, not the self, will positively change their health behaviors. The patients who feel shame but primarily condemn themselves, not the behavior, will react negatively. One of the overarching goals of the present work is to test this hypothesis by examining these

different types of cognitions that occur when shame and guilt are induced by interactions with physicians.

INTENTIONALLY INDUCED SHAME AND GUILT

Another factor that may predict the outcomes of a shame or guilt encounter is whether the individual feels that the other person was intentionally trying to induce the emotion. Although several studies have intentionally induced shame (e.g., Donatelli, Bybee, & Buka, 2007; Ferguson & Dempsy, 2010; Millar, 2002; Rakow et al., 2009; Vangelisti, Daly, & Rudnick, 1991), it is not clear whether the person feeling shame in these studies thought that the emotion was intentionally induced. To our knowledge, no study has directly explored the effects of the perception that someone is intentionally trying to induce shame, especially in a medical domain. One possibility is that perceptions that a physician is intentionally inducing shame (regardless of the medical professional's actual intentions) might lead to increased *psychological reactance*—in which people respond counter to the desires of another when they perceive that the other person is trying to restrict their freely chosen behaviors (Brehm, 1966). Such attributions could lead to reduced compliance and more psychological distress.

CURRENT RESEARCH

The current work is among the first to examine shame and guilt within a doctor–patient interaction (an exception is Harris & Darby, 2009) and the first to focus on the possible differential effects of attributions of self-condemnation versus behavior condemnation within such experiences. In two separate studies, several questions concerning physician-inspired shame and guilt and the theoretical underpinnings of these emotions are addressed. We examine whether attributions that the whole self is bad (i.e., self-condemnation) relate to different health outcomes than attributions that the behavior is bad (i.e., behavior condemnation). Furthermore, we compare men and women's reactions to physician-inspired shame and explore whether differences between the genders might be due to differences in degree of self- and behavior condemnation. Finally, we assess whether perceptions that the physician was intentionally trying to induce shame or guilt lead to negative patient reactions.

STUDY 1

To explore these issues, college-age participants were asked whether they had ever experienced shame when interacting with a physician, and if they had, to report on their emotional and behavioral reactions, as well as their appraisals of their physician. The degree of self- and behavior condemnation felt during the incident was measured by having participants rate items from the State Shame and Guilt Scale (SSGS; Marschall, Sanftner, & Tangney, 1994). The SSGS consists of three subscales that purportedly measure state pride, guilt, and shame. However, the Guilt and Shame subscales are based on the assumption that guilt is best assessed through behavior condemnation and shame is best assessed through self-condemnation, and they measure these constructs accordingly. Neither subscale uses the term "shame" or "guilt"; instead, the scales assess the extent to which participants' emotional responses to an incident are focused on indicting the self or bad behavior. Therefore, the scales provide a vetted way of measuring degree of self- and behavior condemnation and are ideal for the purposes of the present work. For clarity, we refer to the Shame subscale of the SSGS as "self-condemnation" and the Guilt subscale as "behavior condemnation," and we use the terms "shame" and "guilt" to refer to the type of emotional event that participants recalled.

Method

Participants

Four hundred ninety-one undergraduate students from the University of California, San Diego, individually completed a survey in exchange for course credit (380 female, 110 male, 1 unreported gender; age: $M = 20.3$, $SD = 1.96$). The ethnicities of the sample were as follows: Asian or Asian American (295), Caucasian (81), Hispanic (64), and other including African American, Native American, and Pacific Islander (51).

Measures

Before completing the questionnaire, participants were assured of the confidentiality of their responses by the experimenter and an informed consent form. After completing basic demographic information, participants completed a measure of dispositional shame and dispositional guilt, the Test of Self-Conscious Affect–3 (Tangney, Dearing, Wagner, & Gramzow, 2000).[1] They also answered some additional questions that were not

[1]Dispositional shame predicted having a shaming experience, $r(483) = .13$, $p = .003$. However neither dispositional shame nor dispositional guilt significantly predicted any of the other dependent measures. (Here, as elsewhere in the study, Holm-Bonferroni corrections were used.) We therefore do not report further on the Test of Self-Conscious Affect.

relevant to the specific goals of the current article and so are not reported here.

Next, participants were asked for the approximate time since their last visit to the physician, the frequency of their visits, and whether they had ever experienced shame while interacting with a medical professional (henceforth referred to as the physician). Participants who remembered a shaming interaction indicated the number of such experiences, and then answered additional questions regarding their most recent shaming encounter. The additional questions compose six categories: description of the event, attributions about the event, overall impact of the event, affective and motivational reactions, behavioral reactions, and appraisals of the physician.

Description of the event. Participants were asked to report the specialty of the physician and to indicate the topic of the shaming encounter from a list of possible health topics. This list included the topics that were most frequently reported in previous work (Harris & Darby, 2009) as well as additional items. Possible shaming topics included weight, smoking, not taking prescribed medication, sexual practices, hygiene, exercise, alcohol or substance use, failure to get exams (including checkups, self-exams, testing, etc.), not following physicians instructions, care of teeth, doctor insinuating that symptoms are not true/made up, mental health, improper management of medical condition, pregnancy or birth control related, behavior/attitude/care of someone else (e.g., child), or other.

Self-condemnation and behavior condemnation. Self- and behavior condemnation were assessed using the SSGS (Marschall et al., 1994), a 15-item scale that uses composite scores to measure attributions during an event.[2] Participants in our study were asked to retrospectively report how they felt at the moment the incident took place. Examples of self-condemnation questions from the SSGS are "I felt like I was a bad person" and "I felt worthless, powerless." Examples of behavior condemnation questions are "I felt bad about something I had done (or not done)" and "I felt tension about what I had done (or not done)." All items were on a Likert-type scale from 1 (*not at all*) to 5 (*very much so*). The Cronbach's alpha for the measure of self-condemnation was .75 and for behavior condemnation was .81. (We also included some additional exploratory items that are not reported here but are available from the authors.)

Intentional shame. We also assessed patients' perceptions that the physician was intentionally trying to induce shame. To do so, patients rated the degree to which they agreed with the statement, "The doctor was purposely trying to make you feel shame"[3] from 1 (*not at all*) to 7 (*a great deal*).

Outcome measures. Overall impact of the event. To assess the impact of the experience on the participants' physical health, participants were asked to report whether, as a consequence of the incident, the behavior or condition (e.g., health problem) became worse, stayed the same, or improved. To assess the subjective impact of the event from the patient's point of view, which could include other aspects of the experience besides physical repercussions, participants were asked to rate "overall, how would you say this experience impacted you" on a scale from 1 (*very negative impact*) to 7 (*very positive impact*).

Affective and motivational reactions. Negative affect was assessed by having participants rate how much the experience bothered them (*not at all* to *very much*) and how long the experience bothered them (*no time at all* to *still bothers*). The negative affect questions were combined into one measure ($\alpha = .71$).

Measures of positive affective and motivational reactions to the event were assessed on a 7-point scale (*not at all* to *a great deal*). Positive affect was measured by how much appreciation patients felt toward their doctors. Possibility of change was assessed by how motivated participants were to change their health behaviors because of the incident and how much they felt they could change the behavior or condition (averaged together, $\alpha = .53$).[4]

Behavioral reactions. Participants were then given a list of possible behavioral reactions (adapted from Harris & Darby, 2009) and asked to endorse all that applied (either *yes* or *no*). Three theoretically different categories of behavior were assessed (yes responses within a category were summed to create a composite score): *avoidance behaviors* (stopped seeing that physician, stopped seeing all physicians, avoided seeing any physician to some degree), *lying behaviors* (lied about health related behaviors to avoid similar encounters, lied about frequency of certain behaviors, hid details about health-related behaviors), and *positive behaviors* (followed the physician's advice, improved health-related behaviors, became more careful/conscientious with health-related behaviors, became more knowledgeable about health, and disclosed more information about health to physician).

Appraisals of the physician. Participants rated a number of possible appraisals of the physician's

[2]One item was inadvertently excluded from our measurement of self-condemnation.

[3]As an exploratory question for our next study, we also asked, in a separate question, whether doctor was purposely trying to induce guilt. The results were nearly identical to those produced by the question about purposefully inducing shame, and the correlation between these items was extremely high, $r(111) = .79$, $p < .001$. This suggests that most patients felt that their doctor was trying to induce both shame and guilt.

[4]Although this alpha level is low, the two items show similar results when analyzed individually. The construct of "possibility of change" is assessed more extensively in Study 2 with six similar items ($\alpha = .87$).

TABLE 1
Study 1 Correlations Among Outcome Measures and Time

	Subjective Impact	*Condition Improved*	*Possibility of Change*	*Positive Affect*	*Negative Affect*	*Positive Behavior*	*Avoidance Behavior*	*Lying Behavior*	*Appraisal of Physician*	*Months Since Incident (Log)*
Subjective impact	—	.39***	.44***	.61***	−.31***	.32***	−.36***	−.23*	.61***	−.09
Condition improved		—	.41***	.32***	−.03	.25**	−.28**	−.22*	.28**	−.03
Possibility of change			—	.55***	−.03	.42***	−.18	−.03	.28**	−.04
Positive affect				—	−.30**	.41***	−.21*	−.24*	.57***	−.13
Negative affect					—	−.09	.43***	.20*	−.53***	.11
Positive behavior						—	−.27**	−.18	.21*	−.09
Avoidance behavior							—	.09	−.48***	.16
Lying behavior								—	−.25**	−.07
Appraisal of physician									—	−.16
Months since incident (log)										—

Note. Months since incident uses the natural log of the time since the shame incident occurred.
*$p < .05$. **$p < .01$. ***$p < .001$, uncorrected.

intentions and motives from 1 (*not at all*) to 7 (*a great deal*). Appraisals included the following: the physician was attempting to act in their best interest, the physician's assessment of the situation was accurate/correct, the physician was trying to understand the circumstances, the physician was judging them (reverse-scored), the physician was judging them negatively as a person (reverse-scored), and the physician was judging the behavior as unhealthy/bad (reverse-scored). These were averaged together for a composite measure of appraisal of the physician ($\alpha = .78$).

Results

Sample and Event Descriptions

Of the full sample of 491, 23% ($n = 115$) reported that they had experienced a shaming encounter with a physician. In this full sample, more women (26%, $n = 98$) than men (15%, $n = 16$) reported that they had experienced shame over an interaction with a physician, $\chi^2(1, N = 490) = 6.04$, $p = .014$.[5] One person did not report gender. There was no significant association between ethnicity and whether the participant had experienced shame in a medical encounter, $\chi^2(3, N = 489) = 3.80$, $p = .28$.

The remaining analyses focus on participants who experienced a shaming event. Four participants failed to complete additional questions regarding their shaming encounter. Therefore, the remaining analyses are based on the responses of 111 individuals (95 female/15 male/one no gender response).

Of the participants who had a shame experience, 41% ($n = 46$) reported having experienced one shaming encounter, whereas 59% ($n = 65$) reported more than one such encounter. The most frequent shaming topics were sex (24%, $n = 27$), teeth (23%, $n = 25$), and weight (18%, $n = 20$). Note that participants were able to check more than one topic,[6] and some participants (24%, $n = 27$) declined to report a topic. The most common specialties of the shaming physicians were family practice physicians (31%, $n = 34$), gynecologists (23%, $n = 25$), and dentists (21%, $n = 23$).

Behavioral reactions to the shaming interaction were both positive and negative. Seventy-one percent of participants reported at least one positive behavioral consequence, and 51% reported at least one negative reaction (avoiding, lying, or both). Table 1 presents the correlations between the various outcome measures.

The time since the incident occurred ranged from 0 months to 12 years, with a mean of 2 years. Because the distribution of the time since the incident was right

[5]Due to the relatively small number of men that reported a shaming encounter, we did not initially examine gender differences. In response to an anonymous reviewer's inquiry, we did so. Women tended to have more negative reactions and men more positive reactions on outcome measures, although none of these were statistically significant after Holm-Bonferroni alpha correction.

[6]To assess whether outcomes varied by the topic of the shame incident, we attempted to examine the responses of participants who reported that the event focused exclusively on one topic. However, even in the three most common types of incidences, samples sizes were too low to perform these analyses (weight $n = 10$, sex $n = 17$, teeth $n = 15$).

skewed, we took the natural log of these data to create a more normal distribution for correlational analyses. As can be seen in Table 1, log of time was not correlated with any of the outcome measures, nor with either feelings of self-condemnation, $r(110) = -.02$, $p = .85$, or behavior condemnation, $r(110) = -.06$, $p = .52$, suggesting that appraisals and outcomes were not affected by time since the incident. Therefore, time since incident is not discussed further in this study.

Self-Condemnation and Behavior Condemnation

Our next series of analyses focus on our key questions regarding how attributions condemning the self and condemning the behavior are related to outcomes in response to medical shame.

First, as predicted, we found that in these shame encounters, participants reported feeling not only self-condemnation ($M = 3.05$, $SD = 1.04$) but also behavior condemnation ($M = 3.17$, $SD = 1.02$). The two forms of condemnation were correlated, $r(111) = .59$, $p < .001$, and occurred at roughly equal levels, $t(110) = -1.39$, $p = .17$. Thus, self-condemnation and behavior condemnation can co-occur, and both states can be elicited in what are labeled "shaming" encounters. This supports the importance of examining both of these attributions and their relationship to outcomes in doctor-inspired shame.

We now turn to analyses of the possible differential impact of self-condemnation and behavior condemnation. Given our primary interest in the unique contributions of self- and behavior condemnation to health behavior (i.e., behavior condemnation without self-condemnation and self-condemnation without behavior condemnation), we present semipartial correlations between one attribution type and the outcome variable while controlling for the other attribution type. This method has been used in previous work examining the unique effects of emotions on behaviors (Tangney et al., 1996; Tangney et al., 1992). However, because there is an existing debate between the use of partial correlations and zero-order correlations (Ferguson & Stegge, 1998), we also present Pearson's zero-order correlations between the outcome variables and the two attribution types. To protect against Type 1 errors, we applied a Holm-Bonferroni correction within the nine outcome comparisons made for each attribution type; for ease of interpretation, we report adjusted p values here so that the reader can interpret all p values with $p < .05$ as the significance criterion.[7] The semipartial and zero-order correlations are presented in Figure 1 and described next.

To understand the relationship of self-condemnation and behavior condemnation to outcomes, we examined the overall impact of the event, and then the specific reactions to the event, which include affective and motivational reactions, behavioral reactions, and appraisals of the shaming physicians. Next we summarize the part correlations displayed in Figure 1, and then afterward discuss the zero-order correlations separately.

Part correlations. Overall impact. As can be seen in Figure 1 (upper panel), in the part correlations, self-condemnation was significantly correlated with greater negative impact of the event, whereas behavior condemnation was significantly related to more positive impact, providing some support for our hypothesis. However, neither form of attribution was significantly related to reports of improvement in the condition.

Affective and motivational reactions. This set of analyses explored the relationship between self- and behavior condemnation, and the affective and

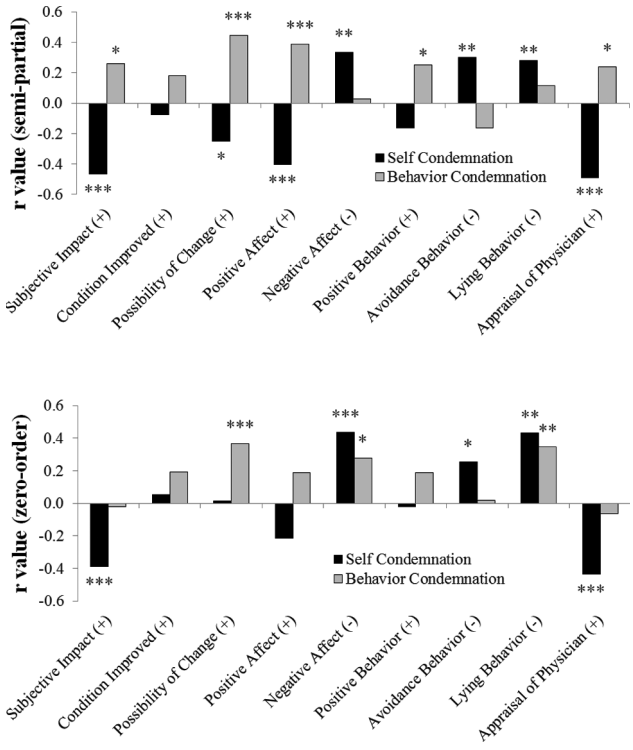

FIGURE 1 Study 1 semipartial and zero-order correlations among affective cognitions and outcomes ($n = 111$). *Note.* The strength of the correlation is shown on the y-axis. Outcomes are designated as positive (+) or negative (–) responses. The top panel shows semipartial correlations between outcomes and self-condemnation (controlling for behavior condemnation) or behavior condemnation (controlling for self-condemnation). The bottom panel shows the zero-order correlations between outcomes and self or behavior condemnation. *$p < .05$. **$p < .01$. ***$p < .001$ after a Holm-Bonferroni stepwise correction, indicating a significant correlation between the outcome and attribution type.

[7]This correction caused some effects that would otherwise be significant to no longer reach statistical significance. However, Study 2 shows a strikingly similar pattern of results.

motivational reactions to the shameful experience, namely, potential for change, positive affect, and negative affect. As can be seen from Figure 1, the semipartial correlations show that self-condemnation was significantly, and exclusively, associated with worse reactions on all three outcomes. In contrast, behavior condemnation was associated with more positive reactions in terms of possibility of change and positive affect and was not related to negative affect.

Behavioral reactions. Our next analyses focused on self-condemnation and behavior condemnation as they related to three types of behaviors—increases in positive health behaviors, avoidance of physicians, and lying to physicians. Self-condemnation was exclusively, and significantly, associated with negative behavioral reactions, specifically more avoidance and more lying. In contrast, behavior condemnation was significantly correlated with engaging in more positive behaviors but was not significantly related to negative behavioral reactions. (These results also emphasize the importance of not simply combining positive and negative behaviors into one dimension, as the predictors of positive behaviors can be different than the predictors of negative behaviors.)

Appraisals of the physician. Self-condemnation was significantly associated with less favorable appraisals of the physician, and behavior condemnation was significantly related to more favorable appraisals.

Zero-order correlations. As can be seen in Figure 1, the pattern for the zero-order correlations of the outcome measures and the two forms of attribution is overall similar, but generally weaker, than those seen for the part correlations. There are a few notable differences, however, primarily in behavior condemnation. In zero-order correlations, behavior condemnation was correlated with negative affect and lying, but this association disappeared in the part correlations. In the zero-order correlations, behavior condemnation was not related to subjective impact and appraisal of physician (but was in part correlations). There was only one difference across whole and part correlations for self-attribution; possibility of change was not related to self-condemnation in the zero-order correlation. In sum, in both zero-order and part correlations, we see evidence that self-condemnation in shame events is associated generally with negative outcomes and behavioral condemnation with positive outcomes.

Intentionally Induced Shame

The next analyses examine the impact of the perception that the physician was intentionally trying to induce shame (referred to as intentionally induced shame). Pearson's correlations were performed between the outcome variables and subjects' ratings of how much they agreed with the statement that the physician was intentionality trying to induce shame. As with the previous set of analyses, we analyzed the overall impact of the event, specific affective and motivational reactions, behavioral reactions, and physician appraisals. These analyses were also protected against Type 1 error with a Holm-Bonferroni correction.

As can be seen in Table 2, the more that participants agreed with the statement that the physician was intentionally trying to induce shame, the more negative their reactions were on a number of measures (i.e., subjective impact, negative affect, avoidance behaviors, and appraisals of the doctor). There were no positive reactions when patients perceived that shame was intentionally inflicted.

The final set of analyses investigated whether the negative effects associated with physician intentionality were mediated by self- or behavior condemnation. There was little support for this hypothesis. The perception that the physician had intentionally induced shame was not significantly correlated with behavior condemnation, $r(111) = .14$, $p = .13$, though it was correlated with self-condemnation, $r(111) = .39$, $p < .001$. When intentionality and self-condemnation were entered into regressions predicting the four outcome variables that showed a significant relationship with intentionality (see Table 2), as per the mediation analysis procedures described by Baron and Kenny (1986), intentionality remained a significant predictor for subjective impact, avoidance behaviors, and appraisals of the doctor, indicating that self-condemnation did not fully mediate the effect of intentionality on these variables. Only the relationship between intentionality and negative affect was completely mediated by self-condemnation ($\beta = .12$, $p = .20$). A bootstrap analysis with 5,000 resamples also confirmed significant mediation with a 95% confidence interval [.0423, .1824] (Preacher & Hayes, 2008; Zhao, Lynch, & Chen, 2010). Thus, self-condemnation only mediated the negative feelings

TABLE 2
Correlations Between Outcomes and the Perception That the Physician Intentionally Induced the Emotion in Study 1

Outcome	*r*
Subjective impact (+)	–.49***
Condition improved (+)	.08
Possibility of change (+)	–.11
Positive affect (+)	–.22
Negative affect (–)	.27*
Positive behavior (+)	–.10
Avoidance behavior (–)	.36***
Lying behavior (–)	.14
Appraise doc (+)	–.60***

Note. Outcomes are designated as positive (+) or negative (–) responses. The *r* values describe the zero order correlation between each outcome and the degree to which the doctor was perceived as intentionally inflicting shame.
*$p < .05$. ***$p < .001$, after a Holm-Bonferroni stepwise correction.

associated with intentionality and not any of the attitudinal or behavioral reactions (e.g., subjective impact, avoidance, and appraisals of the doctor).

Discussion

Past work often has assumed that having a positive affective reaction to a medical visit will be beneficial to patients' health behaviors, whereas a negative affective reaction will be detrimental (Kane, Maciejewski, & Finch, 1997; Pascoe, 1983; Sitzia & Wood, 1997). However, the current research suggests that such a general classification of negative affect may be mistaken. Almost one fourth of this college sample reported one or more shame experience with reactions ranging from harmful to beneficial. Although a large portion of participants reported negative reactions such as avoiding the shaming physician and lying about their behavior or condition, an even larger number reported positive consequences such as following the physician's instructions and becoming more careful about health-related behaviors. It seems, then, that contrary to many researchers' claims, feelings of shame are not solely related to negative outcomes.

The data suggest that an individual's attributions may be important predictors of outcomes, particularly in the domain of patient–physician interactions. We found that behavior condemnation was largely associated with positive behavioral and motivational reactions, such as greater motivation to change the behavior. In sharp contrast, self-condemnation was exclusively associated with negative reactions such as greater negative affect and avoidance of physicians. Ignoring the distinctions between these affective cognitions would have missed one of the most unique contributions of this study—that some of the negative thoughts and feelings associated with shame may potentially lead to positive change.

When participants felt that shame was intentionally induced, participants reported more psychological distress as well as more negative behaviors, a pattern consistent with reactance theory. This suggests that obvious shaming attempts and other observable forms of intentionally inducing shame are likely not effective means of getting people to engage in more healthy behaviors, at least when the targets of the induction notice them.

This study also replicated some of the gender differences seen in past medical shame research (Harris & Darby, 2009); women in this study were more likely to report a shaming incident than men. Unfortunately, because of the small number of men reporting a shame incident, we could not investigate whether reactions to the incident also depended on one's gender. We do so in the next study.

Theoretical Issues

One prominent theoretical view proposes that behavioral condemnation typifies guilt while self condemnation typifies shame (H. B. Lewis, 1971). However, in the shaming experiences reported here, behavior condemnation was as common as self-condemnation. These results suggest that behavior condemnation may not be the characteristic that best distinguishes between these two types of emotional states, consistent with several past studies that have also found that self- and behavior condemnation are not limited to shame and guilt, respectively (e.g., Niedenthal et al., 1994; Tangney, 1992). It is important, though, that our findings suggest that self-condemnation and behavior condemnation are important constructs regardless of their theoretical relationship with shame or guilt. In particular, these attributions have utility in predicting positive and negative outcomes. However, Study 1 only examined responses to experiences labeled "shame," leaving the possibility that "guilt" experiences may show a different pattern of relationships between attributions and outcomes. Study 2 tests this possibility.

STUDY 2

Study 2 has several goals. First, we assess both shame and guilt experiences to determine whether participant reactions to feeling guilt with a physician were different than reactions to feeling shame—in particular, whether shame produces worse consequences than guilt (H. B. Lewis, 1971). Second, we examine whether the effects of self- and behavior condemnation depended upon the emotion the participants felt. Do self- and behavior condemnation lead to different outcomes when the person feels shame than when the person feels guilt? Or do the effects of these types of condemnations predict outcomes regardless of the specific emotion?

Our third goal is to assess the role that a person's motivation to change has on behavioral reactions to physician-inspired guilt or shame. Theorists have hypothesized that when the problem is attributed to the whole self, the most effective resolution may be to remove oneself from the situation entirely (Tangney, 1991; Tangney et al., 2007; Wolf et al., 2010); hence, self-condemnation may produce avoidance behaviors. In contrast, when a specific behavior is seen as being the root of the problem, the most effective resolution may be to fix or make amends for that behavior (Cryder, Springer, & Morewedge, 2012; Tangney, 1991; Tangney et al., 2007; Wolf et al., 2010); hence, behavior condemnation may produce approach or amends making behaviors. Thus, attributions of control may play a role in motivational differences between self-condemnation and behavior condemnation, such that attributions of control mediate the relationship that

self- and behavior condemnation have with avoidance behaviors and positive behavioral responses, respectively.

Our fourth goal is to examine possible gender differences in reactions to shame and guilt. The one previous study on shame in doctor–patient interactions found that women had worse reactions to shame (Harris & Darby, 2009). We explore this more thoroughly in the present study using more extensive measures of affective and motivational reactions. Perhaps more important, we also examine possible gender differences in experiences and reactions to guilt in medical interactions, which to our knowledge has not been done in any previous work. We also test whether gender differences might be accounted for by differences in the degree of self- and behavior condemnation.

Our final aim was to assess again whether perceptions that the doctor was intentionally inducing the emotion were exclusively associated with negative outcomes not only when the emotion induced was shame, as in Study 1, but also when guilt was induced. In addition, Study 2 involves a more diverse population.

To assess these questions, participants completed surveys about past experiences with either guilt or shame in an interaction with a medical professional, similar to those completed in Study 1. As in Study 1, those participants who reported having experienced their target emotion then described their subsequent affective and motivational responses and perceptions of the physician, as well as their self-condemnation and behavior condemnation during the experience.

Method

Participants

Four hundred seventeen participants (258 female/154 male/five no response; age: $M = 34.5$, $SD = 13.9$, range = 18–75) were recruited from two online sources: (a) Mechanical Turk and (b) our laboratory's online research subject pool, which include adults of various ages and socioeconomic backgrounds, providing a more representative panel of subjects than is common in laboratory studies (Gosling, Vazire, Srivastava, & John, 2004; Peterson, 2001). Participants received payment for participation. To ensure that participants were paying attention to the content of the survey questions, two validation questions were incorporated into the questionnaire (computing a simple arithmetic problem, answering what the phrase "pipe down" meant). Seventeen (12 female/five male) participants answered one or both of these questions incorrectly and were excluded from further analysis, leaving a sample size of 400 (246 female/149 male/five no response). The ethnicities of the final sample were as follows: Asian or Asian American (82), Caucasian (254), Hispanic (14), Black or African American (31), and other (19).

Measures

After informed consent, participants completed an online questionnaire. Similar to Study 1, participants reported basic demographic information, the approximate time since their last visit to the physician, and the frequency of their visits. Then participants were randomly assigned to one of two emotion conditions in which they were asked whether they had ever experienced shame (shame condition) or guilt (guilt condition) during an interaction with a medical professional. As in Study 1, those who remembered experiencing such an interaction indicated the number of such incidents and answered questions about the most recent incident, comprising the same five categories used in Study 1: description of the event, attributions about the event (self-condemnation and behavior condemnation), overall impact of the event, affective and motivational responses, behavioral reactions, and appraisals of the physician. Most specific items were answered on a 7-point scale from 1 (*not at all*) to 7 (*very much or a great deal*), and any exceptions are noted in the item descriptions next.

Manipulation Check

As a manipulation check, participants rated the extent to which they felt guilty and ashamed.

Description of Event

As with Study 1, participants reported on the specialty of the physician and topic of the emotional encounter. We used the same list of possible health topics as Study 1.

Self-Condemnation and Behavior Condemnation

As in Study 1, self- and behavior condemnation were measured with SGSS subscales, although a 7-point scale was used to be consistent with the other survey items. Cronbach's alpha for self-condemnation was .90 and for behavior condemnation was .85.

Outcome Measures

Overall impact of the event. To assess the overall impact of the event, we used similar measures to Study 1, with some minor changes. Participants were asked to rate the overall impact of the even from 1 (*very negative impact*) to 7 (*very positive impact*) and how the condition changed as a result of the experience, from 1 (*got worse*) to 7 (*improved*). We extended this measure from the three choice alternatives in Study 1 to a continuous rating scale to attempt to better assess degrees of change in condition.

Affective and motivational reactions. Affective and motivational reactions were examined by presenting

items used in Study 1 along with new items in order to create composite measures of the key constructs. Negative affect ($\alpha = .91$) was assessed by having participants rate how much the experience bothered them, how intensely they experienced negative feelings over the interaction, how distressing the experience was, and how long the experience bothered them (endpoints *no time at all* and *still bothers*). Positive affect ($\alpha = .81$) was assessed by having participants rate how intensely they experienced positive feelings, admired the physician, and appreciated the physician. Participants reported on their attributions of control ($\alpha = .87$) by rating the degree to which they felt like they could have changed the health issue/behavior, could improve the health issue/behavior if they took the correct actions, were in control of the health issue/behavior, wanted to change the health issue/behavior, felt inspired to alter their behavior, and were motivated to change.

Behavioral reactions. Items from Study 1 for the three categories of behavioral reactions were used: avoidance, lying, and positive behaviors. The avoidance composite also included one additional item—participants were asked to indicate if they avoided health care visits that might make them feel the target emotion (shame or guilt) in the future. Answers were in the form of yes/no, and the three composite scores were taken by summing the number of "yes" responses in each category.

Appraisals of the physician. Appraisals of the physician were assessed by having participants rate four items ($\alpha = .81$): the degree to which the medical professional offered helpful advice, was attempting to act in the patient's best interest, was accurate/correct in their assessment, and was judging the participant (reversed).

Intentional Shame and Guilt

We again assessed patients' perceptions that the physician was intentionally trying to induce shame or guilt. Rather than answering on a 7-point scale of agreement as in Study 1, in this study participants answered yes or no to the statement "The doctor was purposely trying to make you feel (shame/guilt)," which seemed a more intuitive way to answer this question. Participants reporting on a shame experience saw the word "shame," and participants reporting on a guilt experience saw the word "guilt."

Results

Analysis Overview

We first present basic descriptive information about the shame and guilt incidents (frequency, topic of the interaction, specialty of physician). We then examine whether reactions to shame and guilt experiences differ. Our next analyses test whether the effects of self- and behavior condemnation from Study 1 replicate in a more mature, diverse sample. Then possible differences between men and women on the frequency of and reactions to shame and guilt experiences are examined. The final analyses assess whether perceptions that the shame and guilt were intentionally induced produce negative reactions.

Incident Description

Of the 189 participants who were asked whether they had ever experienced shame in an interaction with a physician, 43% ($n = 81$) responded yes. Of the 211 participants who were asked if they had ever experienced guilt in an interaction with a physician, 52% ($n = 109$) responded yes. A 2 (emotion condition: shame vs. guilt) $\times$ 2 (recalled an experience: yes vs. no) chi-square analysis did not reveal evidence of more people recalling experiencing guilt than experiencing shame, $\chi^2(1, N = 400) = 3.10$, $p = .08$. Thus, both shame and guilt appear to be rather common experiences in this adult population. Moreover, a good percentage reported that they had experienced such emotions more than once in encounters with doctors (36% for shame; 59% for guilt).

Table 3 shows the percentage of respondents reporting each type of incident and type of medical professional involved in the shame and guilt situations. As seen in the table, these emotions are produced over a wide range of health issues. Weight was the most common topic for guilt and, along with sex, was also the most common topic for shame. Although there was some variability in the percentage of people in each emotion condition selecting any particular topic, as shown in Table 3, there was no type of incident that was exclusive to one type of emotion. For both shame and guilt, Family Practice was the category of physician most frequently selected as being involved in the incident. Although this might appear to reflect something about that type of physician, we think it more likely that these are the types of doctors seen most frequently.

The time since the incident occurred ranged from within the last month to 30 years in the shame condition and 33 years in the guilt condition. Because these data showed a skewed distribution with an extended right tail, we took the natural logarithm of the months since the incident in order to form a more normal distribution. An independent samples t test did not find a significant difference in amount of time that had passed since the shame incidents ($M = 3.27$, $SD = 1.65$) versus the guilt incidents ($M = 3.04$, $SD = 1.23$), $t(142) = 1.05$, $p = .30$.

Condition

For our manipulation check, we focus only on people who reported having a shame or guilt experience. Participants in the shame condition reported feeling significantly more shame ($M = 4.6$, $SD = 2.0$) than those in

TABLE 3
Study 2 Percentages of Participants Reporting Types of Incidents and Medical Professional by Emotion Condition

Type of Incident	*Shame Condition*[a]	*Guilt Condition*[b]	*Type of Medical Professional*	*Shame Condition*[a]	*Guilt Condition*[b]
Weight	22%	27%	Family practice	40%	39%
Sex	22%	7%	Gynecologist	16%	9%
Made up symptoms	16%	10%	Dentist	9%	9%
Improper management	12%	7%	Obstetrician	5%	4%
Exercise	11%	16%	Internist	4%	6%
Mental health	11%	6%	Cardiologist	1%	5%
Care of teeth	9%	17%	Dental hygienist	1%	6%
Hygiene	7%	4%	Other	25%	23%
Pregnancy/ Birth control	7%	8%			
Smoking	7%	20%			
Not following instructions	6%	9%			
Someone care for	6%	5%			
Failure to get exams	5%	9%			
Alcohol	4%	5%			
Meds	2%	5%			
Other	14%	8%			

Note. For type of incident, participants could choose more than one option. Categories were not mutually exclusive, hence entries sum to more than 100%. The "Other" category includes both people who chose the option "other" and people who chose a type of incident or medical professional reported by less than 5% of participants in both conditions.
[a]$n=81$. [b]$n=109$.

the guilt condition ($M=3.8$, $SD=2.1$), $t(179)=2.8$, $p=.006$, and participants in the guilt condition reported feeling significantly more guilt ($M=4.4$, $SD=1.9$) than those in the shame condition ($M=3.6$, $SD=2.1$), $t(160)=-2.7$, $p=.009$. Thus, the recall condition was successful in eliciting more of the target emotion. It is important to note, however, that both emotion recall conditions elicited a fair amount of both shame and guilt and the intensity with which participants reported feeling these two emotions was significantly correlated, $r(189)=.67$, $p<.001$. The co-occurrence of these emotions in a single situation is consistent with previous research (e.g., Niedenthal et al., 1994; Schmader & Lickel, 2006).

We next examined the theoretical proposition that self-condemnation would be stronger in a shame experience and behavior condemnation would be stronger in a guilt experience. This hypothesis was only partially supported. Participants in the shame condition reported significantly greater self-condemnation ($M=4.2$, $SD=1.8$) than participants in the guilt condition ($M=3.6$, $SD=1.8$), $t(188)=2.24$, $p=.03$. However, participants in the guilt condition were not different from people in the shame condition in their ratings of behavior condemnation (guilt: $M=3.6$, $SD=1.6$; shame: $M=3.5$, $SD=1.6$), $t(188)=-.56$, $p=.58$. Although self-condemnation occurred more strongly when people reported on shame (vs. guilt), these findings indicate that, as predicted, self- and behavior condemnation occur in both emotions. Of importance, the prevalence of these attributions in both the shame and guilt conditions further highlights the importance of examining the effects of both forms of condemnation (self and behavior) within these emotional experiences. This is further supported by the finding that feelings of guilt and shame were significantly correlated with greater self-condemnation—guilt, $r(189)=.49$, $p<.001$; shame, $r(190)=.68$, $p<.001$—and greater behavior condemnation—guilt, $r(189)=.77$, $p<.001$; shame, $r(190)=.66$, $p<.001$.

To explore the possible differences between guilt and shame on outcomes, we performed *t* tests protected by a Holm-Bonferroni alpha correction. There was only one significant difference between these two types of emotional encounters—people experiencing guilt reported that they had more positive appraisals of the physician than people experiencing shame (see Figure 2). There were no significant condition effects on the other eight outcome variables. Therefore, the remaining analyses collapse across condition. Table 4 presents the correlations between the various outcome measures.

Self-Condemnation and Behavior Condemnation

The next series of analyses investigates our key hypothesis that self-condemnation and behavior condemnation are differentially linked with negative and positive outcomes, respectively. To assess the relative effect of each

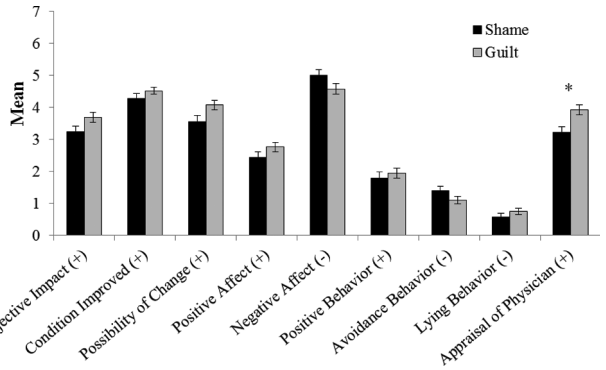

FIGURE 2 Mean outcomes by condition. *Note.* Error bars show standard error. Outcomes are designated as positive (+) or negative (–) responses. For positive, avoidance, and lying behaviors, the mean indicates the mean number of behaviors reported within those categories. All other means are from 7-point Likert-type scales. *$p < .05$, after a Holm-Bonferroni stepwise correction was applied among the nine *t*-test comparisons and indicating a significant difference between the two conditions on that outcome.

form of condemnation, we present part correlations as well as zero order correlations as we do in Study 1. A comparison between Figure 1 and Figure 3 shows striking similarities in the findings across the two studies for both part and zero order correlations. As shown in Figure 3, these data provide strong support for the hypothesis that self-condemnation is associated with negative responses and that behavioral condemnation is associated with positive responses over doctor–patient interactions involving shame and guilt.

Part correlations between outcome variable and type of condemnation (partialling out the other condemnation type) are presented in the top panel of Figure 3. Part correlations for self-condemnation reveal significant effects in the predicted direction for eight of the nine outcome variables, with negative outcomes being positively associated with self-condemnation and positive outcomes being negatively associated with self-condemnation. These results are virtually identical to those presented in Study 1, with the exception of lying (in Study 1, this relationship was statistically significant; here it is not).

Part correlations also reveal that the relationship between behavioral condemnation and reactions is consistent across the two studies for all nine outcomes. In the present study, behavioral condemnation was significantly correlated with eight of the nine variables. All of these were in the predicted direction, with the exception of lying, which showed a positive relationship with behavioral condemnation.

As seen in the bottom panel of Figure 3, the pattern of results for the zero-order correlations is, though often weaker, generally consistent with that found for the part correlations, with a few exceptions. The zero-order correlations are also remarkably similar to the pattern found for zero-order correlations in Study 1 with one exception (behavioral condemnation was not significantly related to appraisal of doctor in the previous study).

In sum, across studies and outcomes, we find robust evidence for the hypothesis that self-attributions are exclusively negative and that behavioral attributions are generally positive. This pattern is particularly strong when part correlations were examined.

Mediation. Greater behavior condemnation is theorized to affect approach behaviors through a perception of greater possibility of change. To assess this, we conducted a mediation analysis using the same procedures described in Study 1 (see Baron & Kenny, 1986; Preacher & Hayes, 2008; Zhao et al., 2010). As previously described, behavior condemnation was correlated with both possibility of change ($r = .46$, $p < .001$) and positive behaviors ($r = .24$, $p = .001$). However, when both possibility of change and behavior condemnation are entered in a model predicting positive behaviors, only possibility of change

TABLE 4
Study 2 Correlations Among Outcome Measures and Time

	Subjective Impact	*Condition Improved*	*Possibility of Change*	*Positive Affect*	*Negative Affect*	*Positive Behavior*	*Avoidance Behavior*	*Lying Behavior*	*Appraisal of Physician*	*Months Since Incident (Log)*
Subjective impact	—	.59***	.49***	.61***	–.40***	.38***	–.39***	–.04	.51***	–.19*
Condition improved		—	.50***	.45***	–.15*	.38***	–.24***	–.16*	.34***	–.14
Possibility of change			—	.63***	–.15*	.52***	–.27***	–.02	.58***	–.04
Positive affect				—	–.36***	.41***	–.32***	.02	.72***	–.19**
Negative affect					—	–.04	.40***	.12	–.55***	.30***
Positive behavior						—	–.09	.07	.32***	–.16*
Avoidance behavior							—	.25***	–.43***	.25***
Lying behavior								—	.03	.01
Appraisal of physician									—	–.23**
Months since incident (log)										—

Note. No alpha correction applied. Months since incident uses the natural log of the time since the shame or guilt incident occurred.
*$p < .05$. **$p < .01$. ***$p < .001$.

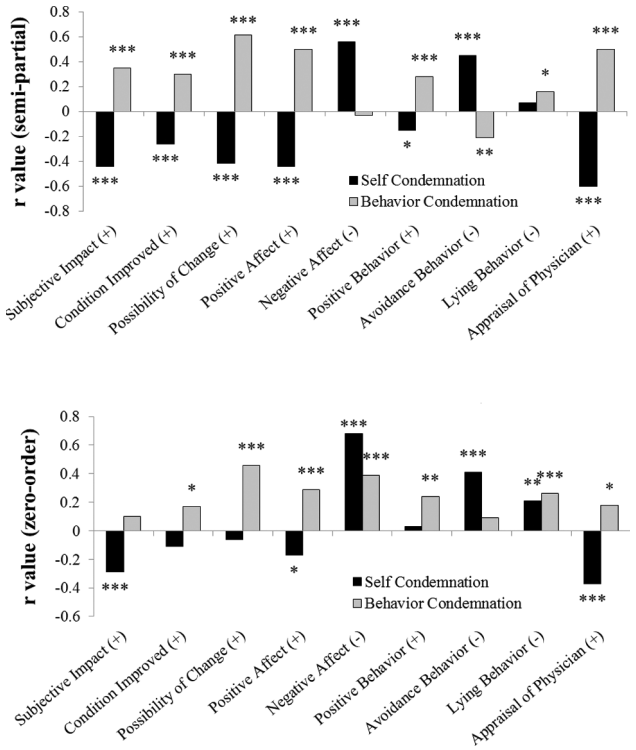

FIGURE 3 Study 2 semipartial and bivariate correlations between affective cognitions and outcomes ($n=190$). *Note*. The strength of the correlation is shown on the y-axis. Outcomes are designated as positive (+) or negative (–) responses. The top panel shows semipartial correlations between outcomes and self-condemnation (controlling for behavior condemnation) or behavior condemnation (controlling for self-condemnation). The bottom panel shows the zero-order correlations between outcomes and self- or behavior condemnation. *$p<.05$. **$p<.01$. ***$p<.001$, uncorrected, indicating a significant correlation between the outcome and the self or behavior attribution.

remains as a significant predictor ($\beta=-.001$, $p<.001$); behavior condemnation is no longer significant ($\beta=.52$, $p=.992$). Using a bootstrapping analysis with 5,000 resamples, we found significant mediation with a 95% confidence level [.1601, .3534].[8] Although the relationship between self-condemnation and avoidance behaviors might be mediated by motivation to change theoretically, we did not find a significant correlation between self-condemnation and possibility of change. Therefore, within traditional models of mediation, possibility of change was not a candidate for mediating the effects of self-condemnation within our data (Baron & Kenny, 1986).

Gender

Next we assessed whether women were more prone to shame/guilt experiences than men. In the sample as a whole, a greater proportion of women (53%) than men (38%) reported that they had experienced shame/guilt over an interaction with a physician, $\chi^2(1, N=395)=9.14$, $p=.003$. These data add to the emerging pattern from Study 1 and other research (Harris, 2006; Harris & Darby, 2009) that more women than men report these types of affective experiences in medical situations.

We then examine whether the genders differ in their reaction to such experiences. A series of t tests were performed to test whether women have more negative responses to shame/guilt experiences and men more positive experiences (see Figure 4). The predicted gender differences were found for eight of the nine outcome measures—the two exceptions were avoidance and lying behaviors, which did not show significant differences. In sum, men overall reported more positive reactions such as being more capable of changing, greater improvement in the condition, and more positive affect and appraisals of the physician while women reported more negative reactions.

One possibility is that the differences between the genders are due to women and men making different attributions about their behavior or selves. We did not see evidence for this. Women and men did not significantly differ on self-condemnation (men $M=3.4$, $SD=1.7$; women $M=4.0$, $SD=1.9$), $t(185)=-1.95$, $p=.053$, or behavioral condemnation (men $M=3.6$, $SD=1.5$; women $M=3.6$, $SD=1.7$), $t(185)=.05$, $p=.96$.

Intentionally Induced Shame and Guilt

We next tested whether the perception that the doctor was intentionally trying to elicit the shame/guilt was associated exclusively with negative outcomes as in Study 1 (see Figure 5). Consistent with our hypothesis, those who

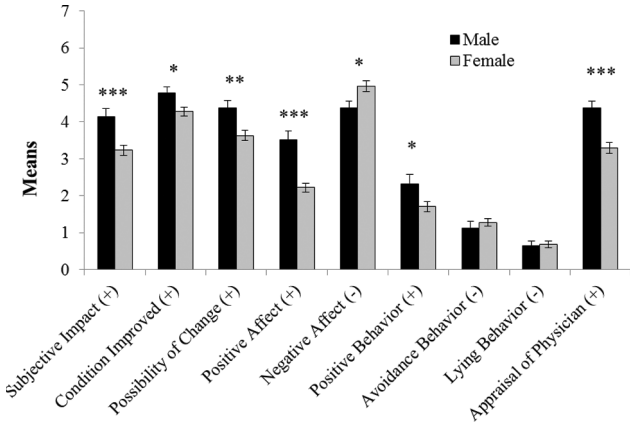

FIGURE 4 Study 2 mean outcomes by gender. *Note.* Error bars show standard error. Outcomes are designated as positive (+) or negative (–) responses. For positive, avoidance, and lying behaviors, the mean indicates the mean number of behaviors reported within those categories. All other means are from 7-point Likert-type scales. *$p<.05$. **$p<.01$. ***$p<.001$, uncorrected and indicating a significant difference in t tests between the two genders on that outcome.

[8]These effects remained significant when self-condemnation was added to the model as a covariate.

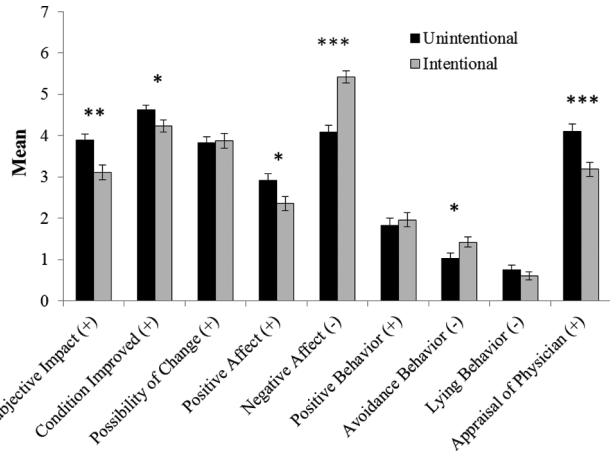

FIGURE 5 Study 2 mean outcomes by the perception that the physician intentionally induced the emotion. *Note*. Error bars indicate standard error. Outcomes are designated as positive (+) or negative (–) responses. For positive, avoidance, and lying behaviors, the mean indicates the mean number of behaviors reported within those categories. All other means are from 7-point Likert-type scales. *$p < .05$. **$p < .01$. ***$p < .001$, uncorrected and indicating a significant difference in t tests between perceiving intentionality on that outcome.

believed that the emotion was intentionally induced reported significantly greater negative impact of the event, less improvement in the condition, less positive affect, greater negative affect, less positive appraisals of the physician, and more avoidance behaviors. These results also closely resemble the pattern of results of Study 1 (with the exception that in Study 1 perceived intentionality was not significantly related to improvement or positive affect). Furthermore, as in Study 1, perceptions of intentionality did not predict differences in perceived possibility of change, positive behaviors, or lying behaviors.[9] In summary, when participants perceived that shame or guilt was intentionally induced, their reactions tended to be much more negative than when the feeling was perceived to be unintentionally induced.

Discussion

The results of Study 2 show that the findings in Study 1 are not only robust but also generalize to an older and more diverse population. There was only one outcome variable, lying to the physician, that did not consistently show the predicted relationship to self- and behavior condemnation. Unlike other negative outcomes, increased lying was associated with both forms of condemnation. Moreover, in the part correlations, lying remained significantly correlated to behavioral condemnation but not to self-condemnation. Although lying is considered a negative outcome (clearly, lying to one's doctor is not beneficial), it appears to be different from other negative affective and behavioral reactions. The one previous study on the effect of shame in medical contexts also supports this conclusion (Harris & Darby, 2009). That study found that although most negative reactions were correlated with one another and inversely correlated with positive reactions, lying showed a much weaker relationship with other reactions, often showing no correlation at all. This pattern also appeared in the present work. One interpretation of these findings is that people are motivated to lie for diverse reasons. This seems an important topic for future studies given its potential consequences for patient treatment.

We also found that women, relative to men, reported more negative and fewer positive effects than men in reaction to these emotional interactions. No evidence was found to suggest that this is due to the different types of attributions, as men and women did not significantly differ on ratings of self- and behavior condemnation. Further research is needed to determine what the mechanism is for these divergent responses.

GENERAL DISCUSSION

This research shows that shame and guilt are common in doctor–patient interactions, with roughly one fourth of our younger sample and half of our more mature sample reporting having had these experiences. Despite their frequent occurrence, there is a surprising lack of research examining shame and guilt in these settings (Harris & Darby, 2009). The current work suggests that behavior condemnation, self-condemnation, and perceptions of intentionality may play an important role in patient experiences. In both studies, across a wide age range and diverse ethnicities, we found that behavior condemnation was largely correlated with positive reactions to physician-inspired shame and guilt, whereas self-condemnation was linked with negative reactions. We also found that when patients believed that the physician was intentionally attempting to induce shame or guilt, reactions were uniformly negative.

Of importance, these findings were consistent regardless of whether the incident was labeled "shame" or "guilt." In fact, our results suggest that the emotional label attached to the situation (e.g., whether people reported guilt vs. shame) did not readily differentiate people's reactions; responses to the two emotional experiences

[9]We found the same pattern of results that were seen in Study 1 when we tested the possibility that condemnation mediated the effects associated with intentionality.

were quite similar. Rather, it was the attributions underlying shame and guilt that were the strong predictors of responses. These findings suggest that it may be particularly important to assess such attributions, rather than general labels for the emotion experience, when predicting whether patients will have negative or positive reactions. This work also more generally highlights the difficulty of relying exclusively on the terms that people assign to their emotional experience ("shame" vs. "guilt") when researching these often overlapping emotional states.

Theoretical Implications

The current research also bears on various theoretical propositions in the literature. In her seminal theory, Lewis argues that shame is a more detrimental emotion to an individual (and to others) than guilt (H. B. Lewis, 1971; Tangney et al., 2007). Our data generally failed to find support for this aspect of her theory as there were not strong differences in negative and positive outcomes across emotions (as discussed in Study 2). This finding is consistent with the studies that fail to find differences between shame and guilt in relevant outcome measures such as avoidance motivations (Frijda, Kuipers, & ter Schure, 1989; Roseman, Wiest, & Swartz, 1994). However, our data do provide support for Lewis's underlying premise that indictment of the whole self produces negative responses and indictment of just the behavior produces more positive responses.

As discussed previously, one hypothesis regarding why behavior condemnation is associated with more positive outcomes is that this type of attribution may be more likely to elicit the perception that change is possible, because behaviors are perceived to be controllable, at least relative to the self. Self-condemnation, on the other hand, is believed to be associated with negative outcomes precisely because the self is perceived to be immutable (Ferguson, Brugman, White, & Eyre, 2007; Tangney, 1991; Tangney et al., 2007; Wolf et al., 2010). This view is also consistent with de Hooge and colleagues' hypothesis that shame can motivate an individual to restore the damaged self-image (e.g., make amends) when such options are available but to protect against further negative evaluation (e.g., avoid) when amending is not an option (de Hooge, Zeelenberg, & Breugelmans, 2010, 2011).

Our findings provide some support of this hypothesis, at least with regards to behavior condemnation. In Study 2, we examined positive health behaviors, which most closely resemble amends-making behaviors (e.g., followed the physician's advice, improved health-related behaviors, disclosed more information about health to physician). We found that the relationship between behavior condemnation and positive health behaviors was completely mediated by feeling capable of change.[10] However, the perceived possibility of change was not significantly related to self-condemnation, and therefore does not appear to be the factor that motivates avoidance behaviors in the current work. Nevertheless, there is clearly a relationship between self-condemnation and negative reactions, and exploring the mechanisms of this association further would be a potentially fruitful area of future research.

Intentional Shame and Guilt

One of the aims of the present work was to explore the repercussions of perceiving that a physician is trying to intentionally induce shame and guilt. Our data are consistent with reactance theory and other research on negative social control (e.g., Tucker, Orlando, Elliott, & Klein, 2006), suggesting that attempting to influence patients by inducing these emotions may not be an advisable strategy for physicians. Both of our studies found that perceptions that a physician was intentionally trying to induce shame or guilt were related exclusively to negative outcomes. We found not a single perceived benefit of such an encounter. Considering that patient adherence is one of the largest obstacles for modern physicians, this finding seems very important for physicians who are routinely confronted with attempting to change and curtail a patient's unhealthy behavior.

Our data address how perceptions of whether the doctor was intentionally inducing shame and guilt affect patients' reactions, rather than the doctor's actual intentions. To understand the effectiveness of shame and guilt as methods of behavioral influence in a medical context, it certainly would be interesting to know more about the intentions of the physicians involved in these interactions. However, it seems doubtful that one could study this directly; few physicians probably would admit to deliberately trying to evoke shame and guilt even if they sometimes do so. Regardless of whether physicians actually hold the intention to induce these emotions, the results of this work do imply that medical professionals should be aware of how their patients are interpreting their interactions. Negative outcomes are associated with the patient's perception that the physician has intentionally made them feel bad, whether or not that was actually the physician's

[10]In Study 1, before correcting for alpha inflation, perception of control also mediated the relationship between behavior condemnation and positive health behaviors. However, after we employed Holm-Bonferonni alpha protection, behavior condemnation was not significantly related to specific positive health behaviors; thus, mediational analysis was not performed. We used this as an exploratory analysis to motivate the more expanded measure of possibility of change developed for Study 2.

intent. Future research should elaborate on this finding in order to make more specific recommendations to physicians on how to communicate medical information in such a way as to avoid this perception, while still encouraging the motivation to change the behavior. This work also suggests the importance of monitoring patients' subsequent reactions to shame and guilt.

Future research might also examine the role of the audience in such encounters. Emerging research on the consequences of public condemnation and humiliation indicates that intentional exposure of a transgression to an audience can cause the transgressor to feel anger and hostility (Combs, Campbell, Jackson, & Smith, 2010). Whether this plays a role in the negative reactions associated with intentionality is an unanswered but potentially important question.

Practical Implications

This work highlights the potential dangers that physicians face when they are attempting to broach a potentially sensitive topic with a patient. How might physicians reduce reactance? One possibility might be open-ended, guided communication that allows patients to reach their own conclusions about unhealthy behaviors. This is similar to the motivational enhancement interventions used to treat individuals for alcohol and substance abuse (Rollnick & Miller, 1995). According to Miller and Sanchez (1994), the basic principles are (a) provide personalized feedback, (b) emphasize the patient's responsibility to change, (c) give advice on how to change, (d) provide options (a menu) for change, (e) express empathy, and (f) emphasize self-efficacy. This type of intervention has been purported to be among the most effective treatments for alcohol dependence (Miller, 2000). For physicians, applying this type of approach when trying to change patient behaviors may be an effective way of promoting more positive health responses. Because motivational enhancement interventions are focused primarily on the problem behavior rather than condemning the individual, they should elicit more approach-motivated responses than avoidance-motivated responses and may be accompanied by better patient outcomes. Future research should investigate the use of such techniques for the more common problems of weight control, sexual practices, and even the care of one's teeth.

Limitations

The retrospective nature of the design in these studies prevents us from drawing strong conclusions about causation. Unfortunately, more conclusive answer to the issues explored here would require patients be randomly assigned to receive shame-provoking and guilt-provoking interactions and then to assess their reactions. However, it seems doubtful that such a study would be judged either feasible or ethical. Thus, we cannot be certain that self-condemnation, behavior condemnation, or perceptions of intentionality are causing the effects seen here.

One possibility is that the final outcomes influence how participants recall feeling about the incident. A person who failed to change a problem behavior may then attribute the root of the problem to the self, and a person who succeeded may then attribute the problem to the behavior. Some of our findings would argue against this. Distortions in memory would most likely occur for events that are more temporally distant. To minimize this possibility, we had participants report on the most recent event, and we examined how long ago this event occurred. The length of time since the event did not relate to self-reported levels of self and behavior condemnation in Study 1 or did not affect the relationship between self- and behavior condemnations and the nature of reported outcomes in Study 2. Thus, temporal distance from the event cannot account for the differences found here between self- and behavior condemnation. In addition, asking participants to report on specific past events (as done in the present studies) has been argued to minimize the influence of current global attitudes and feelings (Harris & Darby, 2009; Reis et al., 2008).

The present studies also do not address what precipitates self-condemnation versus behavior condemnation. These cognitions may have resulted from the doctor's actions, the patient's prior experiences, or a dispositional response of the patient. The connection between a patient's cognitions and subsequent behaviors may be better understood by investigating how self- and behavior condemnation are differentially elicited.

Concluding Remarks

Taking into account the findings of the present work, future research on shame and guilt may benefit from focusing more specifically on the cognitions often shared across these emotions that predict behaviors such as amends making or avoidance. It would also be fruitful to explore how engaging in these motivated behaviors affects the life cycle of the emotion. We suspect that amends making would reduce the feelings of shame or guilt, whereas avoidance would prolong the experience, but our current data do not speak to this possibility.

In summary, although this study is not without limitations, it does provide a unique and informative look at the emotional, motivational, and health consequences of shaming interactions with a physician. This study marks one of the first to show distinct differences in the health implications of self- and behavior condemnation. These findings not only further the theoretical understanding of shame and guilt but also are informative to working physicians. As physicians are given broader mandates to

change unhealthy patient behavior, it seems increasingly important to understand the interpersonal dynamics and affect that occur in physician–patient interactions.

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