

Running head: SURFACE ACTED EMPATHY

Effects of Surface Acted Empathy on Providers of Emotional Support

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A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of Bachelor of
Science with Honors in BCN from the University of Michigan 2016

Abstract

The present study examined whether surface acted empathy led to decreased burnout among providers of emotional support without adversely affecting recipients. Measures were tested via an in-lab simulated conversation between strangers and through an online survey asking participants about real-life conversations. Study 1 (95 pairs of female participants) had manipulation failure, but still partially supported our hypothesis since faking empathy did not lead to increased burnout. Study 2 (136 male, 136 female) supported our hypothesis since faking empathy generally led to decreased burnout among providers but did not affect recipients. Our findings differ from previous research and have important implications for practicing empathy in healthcare settings.

Key Words: Affective empathy, emotional regulation, surface acting, emotional support, healthcare

Effects of Surface Acted Empathy on Providers of Emotional Support

In response to recent findings on the benefits of empathy in healthcare (for a review, see Decety, Smith, Norman, & Halpern, 2014), American medical schools have started overhauling their curriculums in order to produce more empathic physicians. However, while feeling and displaying empathic emotions lead to positive health outcomes in patients and high job satisfaction among physicians, they can also be difficult and emotionally taxing for physicians to produce (for a review, see Larson & Yao, 2005). What is unknown is whether physicians can emulate empathic emotions to benefit both patients and themselves, without encountering difficulty or emotional exhaustion. If so, this could be an important technique for medical schools to teach future doctors. The present studies were designed to test the effects of showing but not feeling empathy on the provider of it.

Many definitions of empathy exist, such as attempting to understand and feel a person's emotions (Post et al., 2014), sharing the emotional experiences of others (Beeney, Franklin, Levy & Adams, 2011), and understanding someone's experiences, concerns, and perspectives (Hojat et al., 2011). Here, however, we use *empathy* to refer to warm, tender, and compassionate emotions directed toward a person in need (Batson, Early, and Salvarini, 1997).

Empathy can be separated into two broad categories: affective and cognitive. Our current work is primarily concerned with the former. Affective empathy occurs when someone matches another person's emotions, such as when a physician responds emotionally to a distraught patient (Hojat et al., 2009). In contrast, cognitive empathy involves conveying understanding of another person's problems without showing emotion (Post et al., 2014). For example, a cognitively empathic physician would try to understand that a patient is distressed, and communicate that understanding with the patient without showing distress (Hojat et al., 2009).

In the past, medical curriculums emphasized the importance of cognitive empathy due to perceived benefits of this technique. First, detachment was seen as necessary so that patients' problems would not overwhelm physicians and prevent them from carrying out their work (Post et al., 2014). Second, patients with cognitively empathic physicians have been found to have better immunological responses than those without empathy (Hojat et al., 2011), as well as higher satisfaction and greater compliance with medication (Kim, Kaplowitz, & Johnston, 2004).

Employing affective empathy, however, can have additional benefits in medicine. Overly detached doctors sometimes come across as uncaring, leading to more closed-off communication with patients (Post et al., 2014). In contrast, patients who *perceive* their doctors as affectively empathic tend to disclose more about their disease and take more initiative with addressing health problems (Larson & Yao, 2005). As a result, doctors who feel for their patients tend to make more accurate diagnoses and develop a better rapport with their patients than those who practice cognitive empathy (Decety, et al., 2014).

While affective empathy can be extremely beneficial for patients, it can have negative consequences for healthcare providers. A common risk for empathic health workers is burnout, a generalized, gradual form of emotional exhaustion (Stebnicki, 2000). Particularly relevant to the present research is empathy fatigue, a specific type of emotional exhaustion that leads to less compassionate responding. This frequently occurs in groups such as medical workers who must regularly deal with the pain of others (for a review, see Stebnicki, 2000). In contrast, when professionals make themselves emotionally unavailable to their patients, they do not experience empathy fatigue (Stebnicki, 2000).

Although physician empathy has been emphasized as beneficial to patients, patients' *perceptions* of their doctors might be even more important, as the recipient's beliefs about levels

of empathy being provided can be more important than reality. Kim et al. (2004) found that patient perception of doctors' empathic communication skills, rather than physicians' perceptions of their own empathy, greatly influenced satisfaction and compliance.

Recent work in our lab suggests that perceptions of empathy are driven less by the emotions that providers of support feel and more by the behaviors and non-verbal signals they display (Porter, Preston, & Kross, in-prep 2016). If perceptions are in fact more important than reality as previous research suggests (Kim et al., 2004), and if empathy is not truly needed to create these perceptions as our lab has found, then healthcare professionals might be better served by learning the behaviors themselves, rather than how to feel an emotion which could then motivate these behaviors.

Research in the domain of industrial organizational psychology, however, has found that such "faked" emotions can sometimes lead to worse outcomes for employees. Many jobs require that employees display emotions that they do not actually feel (e.g., flight attendants must smile even when not cheerful), and these display requirements have been labeled as *emotional labor* (Hochschild, 1983). Two techniques have been described for generating these required displays: *deep acting*, in which providers try to artificially experience the emotion and then display what they are now feeling, and *surface acting*, in which providers fake emotional displays during times they cannot access genuine feelings (Song & Liu, 2010). Surface acting is especially beneficial when actors truly do not comprehend a person's feelings, or feeling empathy towards someone's problems conflicts with the actor's own personal beliefs (Larson & Yao, 2005). In general, however, deep acting is recommended due to its relationship with greater job satisfaction (Blau, Bentley, & Eggerichs-Purcell, 2012) and less emotional exhaustion for providers (Song & Liu, 2010) compared to surface acting. Because surface acting requires

people to constantly modify outer expressions, they use up more energy and become more exhausted than if they practiced deep acting, where they have to regulate inward emotions (Song & Liu, 2010). However, we are still interested in examining possible emotional benefits of surface acting on the provider because results may differ in highly emotionally draining healthcare settings compared to other occupations. Although the Song & Liu (2010) results match those of other studies (Blau et al., 2012), mildness of the problem at hand may have impacted results. Blau et al. (2012) examined Emergency Medical Service professionals, but despite working in a healthcare setting, this group was generally happy, meaning they reported low levels of exhaustion and surface acting overall. In addition, both studies used a cross-sectional design, making causal inferences harder to support than they would be in an experimental research design. For example, rather than surface acting causing emotional exhaustion, employees with emotional exhaustion may have turned to surface acting as a way to avoid further burnout.

Ultimately, we were interested in finding a technique for physicians to practice empathy that would maximally benefit their patients and themselves. Because surface acting goes unnoticed by recipients (Porter, Preston, & Kross, in-prep 2016) and has unclear results for providers, the present research attempted to further investigate whether surface acted empathy had emotionally protective benefits for providers. Overall, we hypothesized that providers who faked empathy through surface acting would feel less burnt out after hearing a problem than providers who practiced genuine empathy. Because a large sample size of physicians was difficult to gather for our study, we simulated doctor-patient interactions in a lab setting. In Study 1, pairs of undergraduate students conversed about a problem to examine effects of faking versus feeling empathy on the provider's emotions. We predicted that surface acted empathy

would have some emotional benefits for providers compared to genuine empathy, but we could not test these results due to manipulation failure. While our results still had important implications for practicing empathy in medicine, we conducted a second study to examine empathy in situations that more closely resembled doctor-patient relationships. Study 2 was an online study where we asked participants to recall real-life experiences providing and receiving empathy for different types of problems and relationships. In both studies, we found that faked empathy either benefited or had no effect on provider's emotions, thus supporting our overall hypothesis.

Study 1

Method

Participants. Data from 95 pairs of female participants was used during this study. Data from an additional six participants was excluded because participants either guessed the purpose of the experiment as measured through a suspicion probe, or they failed to follow the instructions of the experiment, as measured through a manipulation check. Participants were recruited from the subject pool at a large midwestern university and compensated with course credit.

Materials. This study was conducted in adjacent study rooms in the University of Michigan psychology department building. A survey was created on Qualtrics and administered to each pair of participants on desktop personal computers in the separate rooms. The survey included a measure adapted from the PANAS (Positive Affect, Negative Affect Schedule) scale (Watson & Clark, 1988), as well as the IOS (Inclusion of Other in the Self) scale (Aron, Aron & Smollan, 1992). Conversations among pairs took place at a table in one of the rooms, and interactions were recorded using two video cameras placed on shelves on either side of the table.

Subjects were shown a humorous *Sesame Street* video clip from Youtube at the end to help recover positive affect.

Design. A 2 (Participant Role: Recipient, Provider) x 2 (Provider Empathy Instructions: Feel It, Fake It) mixed design was used to vary the conditions for each pair of participants. Between subjects, participants were randomly assigned to either speak about a distressing personal issue or listen to (i.e. provide support for) the recipient's problem. Within providers, participants were randomly assigned to either *feel* an empathic response or *fake* an empathic response toward the speaker. Our empathy and emotional regulation instructions were closely modeled after directions frequently used in previously published research. In the Feel It condition, the provider was instructed to imagine how the recipient currently felt and how she felt when the problem first occurred (Batson et al., 1997). In the Fake It condition, the provider was instructed to think about the speaker's situation from a detached, emotionally neutral third-party perspective (Gross, 2002). To aid with clarity during analysis, the Feel It group was relabeled as empathic listeners, while the Fake It group was relabeled as detached listeners.

Procedure. Two participants were brought into the lab together where they gave informed consent for the experiment and optionally for future use of the video recordings. Each participant was randomly assigned a desktop computer in separate rooms, which had been randomly assigned ahead of time to display either the recipient survey or one of the two provider surveys. Random assignment of rooms and study roles was determined by coin flip; assignment of empathy providers to condition was determined by the survey.

The overall experiment consisted of a pre-survey, an eight-minute conversation between the recipient and the provider, a post-survey, a funneled suspicion probe, an emotionally

neutralizing video clip, and a debrief. The experimenter waited in the hallway during the survey and conversation portions so as not to influence results.

For the recipient pre-survey, the participants were asked to think of a moderately distressing personal topic that they would be willing to discuss with a stranger, then rate the personal distress level of the topic on a scale from 1 (*Not at all*) to 6 (*Extremely*), and briefly describe the problem in a few sentences. Next, they were asked to rate their current emotions on the PANAS scale from 1 (*Not at all*) to 7 (*Extremely*). Emotions that were measured consisted of the following: *guilty, hostile, positive, upset, anxious, nervous, neutral, afraid, distressed, scared, irritable, enthusiastic, connected, ashamed, and exhausted*. The remaining four questions were randomized to prevent question order bias. The recipients reported whether they had spoken to others about this problem, from 1 (*Never*) to 7 (*A lot*). They then answered the following questions from 1 (*Not at all*) to 7 (*Completely*): *I feel this problem is easily solvable, I have already reached resolution with this problem, and I feel comfortable talking to people I don't really know*. Finally, the recipients were told to inform the experimenter that they had finished this portion of the survey.

For the provider pre-survey, the participants were told that the other person would be sharing a personal problem, and their role would be to listen to and discuss the problem. Providers assigned to the Feel It group were told to *imagine how the other person feels now and how she must have felt going through it at the time* while interacting. Providers assigned to the Fake It group were told *think about the situation as if you were a detached, third-party observer, and be emotionally neutral* while interacting. As a manipulation check, both provider groups checked a box saying they had read the instructions, and were asked to describe the instructions in their own words on a separate page. Providers rated their current emotions using the same

PANAS scale as the recipients. Finally, they were told to inform the experimenter that they had finished this portion of the survey.

Upon completing the pre-survey portion, recipients and providers reconvened in the original room, where the experimenter told them to discuss a problem in the recipient's life for eight minutes while the video cameras recorded the conversation. The participants were told to find the experimenter in the hall if they finished discussing the problem before the end of the eight minutes.

For the recipient post-survey, participants were told to answer twelve items, starting with how they felt after discussing the problem from 1 (*Much worse*) to 7 (*Much better*). Next, recipients rated their new emotions on the same PANAS scale as before. PANAS *pre* responses were later subtracted from PANAS *post* responses to create a PANAS *change* score. Recipients then used the IOS scale to rank the person in their lives with whom they felt most connected, followed by the person whom they discussed the problem with, from 1 (*non-overlapping circles representing the least connection*) to 7 (*highly overlapping circles representing the most connection*). The remaining seven items consisted of true/false questions on a scale of 1 (*Not at all true*) to 7 (*Very true*), each pertaining to the recipient's perception of the provider's level of helping. Because we were only interested in provider responses for this study, recipient answers were set aside for analysis in future studies. True/false questions were randomized to prevent order bias.

For the provider post-survey, participants were told to answer twenty items, starting with the same PANAS scale as before. Providers then used the same IOS scale as the recipients to rate closeness with the closest person in their lives as well as the other person in the survey. Next, providers used the same true/false scale used for recipients to answer four questions, which were

randomized to prevent question order bias. A sample item is, *I could identify with the other person's situation.*

Next, the providers filled in the blank for the following statement from 1 (*Much Worse*), to 7 (*Much Better*): *I think the other person felt _____ after talking today.* The providers then answered eleven true/false questions using the same scale as before, which were randomized to prevent question order bias. The following items were analyzed in our results:

I put in real effort to show support for the other person with her problem,

I truly felt sympathetic or compassionate about the other person or her problem,

I tried to convey more sympathy than I actually felt,

I was only pretending to care about their problem,

While talking to the other person, I was able to keep my emotions under control and remain detached,

The instructions for how to interact with the other person were easy to carry out while listening to their problem.

All survey questions were displayed on separate pages to prevent a given participant's previous answers from biasing later answers. Participants were able to skip questions and move backward and forward in the survey to change answers.

Subjects then reconvened, where they were given a funneled suspicion probe and shown the emotionally neutralizing video clip. Finally, subjects were debriefed on the purpose of the study.

Results

Because we were interested in the effects of empathic interactions on the provider, we analyzed results from the provider survey only. First, we wanted to know whether our

manipulation for differences in the provider conditions worked. [Figure 1](#) illustrates a series of independent *t*-tests that were conducted to determine whether both listener groups followed our instructions. Significance was determined at the .05 level and equal variance was not assumed between groups because sample sizes were different. We predicted that both listener groups would show equal support, while the detached group would feel less sympathy and would report higher levels of faking empathy. Several responses conflicted with our predictions, indicating that the manipulation failed. For “*I put in real effort to show support for the other person with her problem,*” a statistically significant difference was found between the empathic group ($M = 6.00$; $SD = .90$) and the detached group ($M = 5.13$; $SD = 1.67$), $t(90.98) = 3.24$, $p = .002$. For “*I truly felt sympathetic or compassionate about the other person or her problem,*” no statistically significant difference was found between the empathic group ($M = 5.58$; $SD = 1.25$) and the detached group ($M = 5.75$; $SD = 1.45$), $t(74.48) = .608$, $p = .562$. For “*I tried to convey more sympathy than I actually felt,*” a statistically significant difference was found between the empathic group ($M = 3.06$; $SD = 1.84$) and the detached group ($M = 2.22$; $SD = 1.39$), $t(52.55) = 2.30$; $p = .025$. For “*I was only pretending to care about their problem,*” no statistically significant difference was found between the empathic group ($M = 1.73$; $SD = 1.10$) and the detached group ($M = 1.40$; $SD = .74$), $t(48.41) = 1.53$; $p = .13$. For “*While talking to the other person, I was able to keep my emotions under control and remain detached,*” no statistically significant difference was found between the empathic group ($M = 3.85$; $SD = 2.02$) and the detached group ($M = 4.32$; $SD = 1.70$), $t(57.21) = 1.13$, $p = .263$. For “*The instructions for how to interact with the other person were easy to carry out while listening to their problem,*” a statistically significant difference was found between the empathic group ($M = 5.27$; $SD = 1.39$)

and the detached group ($M = 3.73$; $SD = 1.79$), $t(80.41) = 4.58$, $p = .000$. While all indicative of manipulation failure, these results still had important implications for practicing empathy.

Second, we wanted to examine the effect of our two listener conditions on changes in PANAS emotions in providers. Originally, we predicted that detached listeners would have greater increases in positive emotions and greater decreases in negative emotions compared to empathic listeners after hearing a problem, since our overall hypothesis was that surface acted empathy would prevent burnout and other adverse emotions that occur in genuine empathy. Because manipulation failure occurred, our original predictions for these results could not be tested. However, we were still interested in understanding general differences that *did* occur between provider groups and how they influenced emotional changes for the provider after versus before the conversation. To analyze these differences, we conducted independent t -tests comparing composite scores (i.e. averages) for all changes in *positive* PANAS emotions (*positive*, *enthusiastic*, and *connected*) with composites for all changes in *negative* PANAS emotions (*guilty*, *hostile*, *upset*, *anxious*, *nervous*, *afraid*, *distressed*, *scared*, *irritable*, *ashamed*, and *exhausted*), as well as changes in the *neutral* PANAS emotion. [Figure 2](#) illustrates differences between listener groups for each composite emotion. For change in composite *negative* scores, no statistically significant difference was found between the empathic group ($M = -.68$; $SD = .81$) and the detached group ($M = -.43$; $SD = .53$), $t(49.50) = -1.59$, $p = .117$. For change in composite *positive* scores, a statistically significant difference was found between the empathic group ($M = 1.41$; $SD = 1.30$), and the detached group ($M = .61$; $SD = 1.13$), $t(60.46) = 3.013$, $p = .004$. For change in *neutral* scores, no statistically significant difference was found between the empathic group ($M = -.58$; $SD = 2.20$) and the detached group ($M = -.49$; $SD = 2.07$), $t(65.05) = .835$. Results generally showed that the empathic group had greater increases in

all positive emotions after discussing the problem versus before discussing the problem compared to the detached group, but no differences in neutral or negative emotions between groups.

To understand factors that predicted *positive* composite change scores, we conducted correlation tests comparing the *positive* composite scores with responses to several questions. Table 1 illustrates correlations between changes in *positive* composite emotions and question responses. A statistically significant positive correlation was found between the composite *positive* change score and “*I think the other person felt _____ after talking today*” (with higher scores for the blank space corresponding with feeling better), $r(95) = .311, p = .002$. A marginally significant positive correlation was found between the composite *positive* change score and “*I put in real effort to show support for the other person with her problem,*” $r(95) = .191, p = .064$. No significant correlation was found between the composite *positive* change score and “*I tried to convey more sympathy than I actually felt,*” $r(95) = -.055, p = .600$. No significant correlation was found between the composite *positive* change score and “*I was only pretending to care about their problem,*” $r(95) = -.044, p = .675$. Results generally showed that trying to help and thinking the other person improved both predicted increases in all positive emotions after versus before discussing the problem, whereas faking empathy did not predict emotional differences between groups.

Discussion

In Study 1, we wanted to understand how surface acted empathy influenced the provider’s emotions after listening to a problem. Provider survey responses indicated that our manipulation failed, leading to detached listeners pretending *not* to care rather than faking empathy by pretending *to* care. We wanted both listener groups to show sympathy, with only

empathic listeners actually feeling it. We therefore predicted that detached listeners would convey more sympathy than they felt and would only pretend to care about the recipient's problem. Instead, both groups *felt* sympathetic, but only empathic listeners showed it. The empathic listeners rather than the detached listeners conveyed more sympathy than they felt. Since the empathic listeners felt highly sympathetic, we believe they were conveying *even more* sympathy than the high sympathy they felt rather than conveying sympathy *without* feeling. Both groups only pretended to care the same amount, conflicting with our prediction that the detached group would only pretend to care more. Since the empathic group showed and felt empathy at expected levels and also followed instructions more easily than the detached group, we concluded that only the detached manipulation failed. Adding a control group in future studies would help us support this conclusion.

The results for detached listeners fit findings on expressive suppression rather than surface acting. Expressive suppression is a form of emotional regulation in which people try to hide their emotions after an event takes place, leading to high cognitive costs (Richards & Gross, 2000). These costs occur because of the mental resources needed to down-regulate automatic, external emotions (Richards & Gross, 2000). Although previous research found costs to be associated with memory (Richards & Gross, 2000), our results suggested that emotional costs occurred.

Despite manipulation failure, listener group differences had important implications for incorporating empathy into healthcare practices. Genuinely empathic listeners felt more positive after hearing a problem compared to listeners using expressive suppression. Increased positivity was predicted by believing the recipient felt better and showing support for the recipient, but was not adversely affected by showing empathy more than feeling. Therefore, faking empathy would

likely not be problematic for physicians trying to protect their own emotions. However, physicians trying to fake empathy through surface acting would have to be careful not to accidentally practice expressive suppression, since this mistake occurred in our study despite our manipulation checks and led to less of a boost in positive emotions compared to those who practiced genuine empathy.

Limitations & Further Research

Because the manipulation failed, we could not directly test surface acted empathy, though our results indicated that showing empathy more than feeling did not negatively impact emotions. In future studies, we would like to test differences between provider groups without manipulation failure and with controls to ensure that negative emotions such as guilt did not increase when providers purposely deceived recipients through surface acted empathy. The fact that our manipulation failed suggested that getting people to practice surface acted empathy is difficult, which is important to keep in mind when teaching doctors about surface acting because they could misinterpret instructions and practice expressive suppression instead, leading to worse emotional outcomes for themselves.

Study 1 was also limited because we could not measure the impact of different empathy techniques on long-term factors found in healthcare workers, such as burnout, because our lab simulation only examined brief conversations. Although we would have preferred to survey physicians directly, finding enough doctors to participate in our study was challenging. Instead, we created an online survey for Study 2 asking participants about their experiences providing empathy to different people with different types of problems, as well as receiving empathy from their physicians. Study 2 results had important implications for the effects of surface acted empathy on both the provider and recipient.

Study 2

Many types of doctor-patient relationships exist, which may have different effects on how a doctor chooses to convey empathy and whether a doctor feels burnt out after discussing a diagnosis with his or her patients. For example, how well physicians know their patients could influence empathy because studies show that the more connected someone feels to another person, the more empathic that person will be (Beeney et al., 2011). Since high empathy is associated with high rates of burnout (Chikovani, Babuadze, Iashvili, Gvalia, & Surgaladze, 2015), doctors who feel closer to their patients could experience greater emotional exhaustion compared to those who do not know their patients well. In addition, the length of time a patient displays symptoms could influence a physician's emotional exhaustion since burnout is associated with chronic stressors (Yang, Meredith & Khan, 2015).

To study effects of relationship closeness and problem age on empathy and burnout among providers, we conducted an online survey asking participants to recall the most recent time they provided or received emotional support. In Study 2 Part 1, we predicted that closer relationships and older problems would lead to higher empathy and burnout for providers, while more distant relationships and newer problems would lead to more faked empathy and lower burnout for providers. In Study 2 Part 2, we predicted that most participants would not detect faked empathy from their doctors based of our previous research (Porter, Preston, & Kross, in-prep 2016), but those who did would feel worse after talking to their doctor. Results were more complex than expected. For Part 1, an interaction occurred between relationship closeness and problem age. For Part 2, participants who claimed to detect when doctors faked empathy reported no adverse emotional effects from receiving faked empathy. Even though our findings

had more nuances than anticipated, these results fit our general hypothesis of surface acted empathy either benefitting or not hurting providers and recipients.

Method

Participants. Study 2 was an online study launched on Amazon's Mechanical Turk, which surveyed participants ages eighteen and older nationwide in the winter of 2016. The survey paid each respondent \$0.50 and was designed to take ten minutes for completion. Of the 360 surveys started, 269 participants (136 males and 133 females) fully completed surveys; incomplete surveys were coded and excluded from data analysis.

Design. The first half of the survey consisted of a 2 (Closeness: Acquaintance, Friend) x 2 (Problem Type: New, Old) between subject design. Each participant was asked to think of the most recent time in which they attempted to provide support to someone who came to them with a problem. The conditions for relationship closeness were varied to specify either an acquaintances or a close friend, and the conditions for the type of problem were varied to specify either a new problem or an old problem. Relationship closeness was later measured using the same IOS (Inclusion of Other in the Self) scale (Aron et al., 1992) as used in Study 1. The second half of the survey consisted of a series of questions pertaining to participants' interactions with their doctor during their most recent visit.

Procedure. Participants were given a brief overview of the survey, explaining that it was part of ongoing research pertaining to emotional support. Participants were told that they could leave any question blank or withdraw at any time, and that all personal information would be kept confidential. They were also told that they would be compensated upon completing the survey. Finally, they were told to check off a box agreeing to participate in the survey.

In Part 1 of the survey, participants were randomly assigned one of the four possible conditions and were told to briefly describe the details of the event. They were then asked to report their gender, as well as the gender of the person who received their support. Next, they rated their closeness with the recipient of support on the IOS scale. The following questions were randomized: participants rated the severity of the problem from 1 (*Severe*) to 7 (*Mild*), the solvability of the problem from 1 (*Unsolvable*) to 7 (*Easily Solvable*), and how often the recipient came to them with problems from 1 (*Never*) to 7 (*Daily*). In addition, they reported how often people in general came to them with problems using the same scale. In two separate questions, they rated how emotionally burnt out or exhausted they were before and after discussing the problem, from 1 (*Extremely*) to 7 (*Not at All*). These values were recoded before analysis to make more intuitive sense; the new scale ranged from 1 (Not at All) to 7 (Extremely). Next, participants answered six true/false questions, in a randomized order, on a scale of 1 (*Completely False*) to 7 (*Completely True*). The following questions were analyzed in our results:

“I pretended to care about their problem even though I wasn't really feeling it.”

“I felt sympathetic for the other person's problem.”

Next, participants were asked if they got sick of hearing the same problem from someone. Those who answered *yes* were asked how many times of hearing the same problem it took to start hating it, from 1 (*After the 1st Time*) to 4 (*More than 5 Times*).

In Part 2 of the survey, participants were told to recall the most recent time they went to their doctor, including the interactions that took place. First, they reported the gender of their doctor, as well as their closeness with their doctor using the same IOS scale as Part 1. Next, they were asked how frequently they visited their doctor, from 1 (*Less than once per year*) to 7 (*More*

than five times per year). In two separate questions, they reported the severity of their health conditions discussed during the most recent visit, followed by the severity of the health conditions most frequently discussed with their doctor, both on scales from 1 (*Severe*) to 7 (*Mild, i.e. routine checkup*). In two separate questions using the scale 1 (*Very Negative*) to 7 (*Very Positive*), participants were asked how they felt emotionally after initially hearing the news, followed by how they felt emotionally after discussing the problem with their doctor further. Next participants reported whether their doctor usually made them feel better upon diagnosing them with a medical issue, from 1 (*Completely false*) to 7 (*Completely true*). Using the same true/false scale, participants answered five questions in a randomized order. The only question analyzed in our results was, “*My doctor only pretends to care about my problems.*”

Finally, participants were asked to describe what specific things doctors said or did to make them feel better about their problems. Participants were then given a debrief, explaining that we wanted to know whether a person providing support needed to genuinely feel for the other person in order to provide effective emotional help.

Results

Part 1. We were interested in the effects of relationship closeness and problem type on burnout, feeling empathy, and faking empathy. We predicted that closer relationships and older problems would yield higher increases of burnout afterward, as well as increased sympathy and decreased faking. These primary hypotheses were tested using the following items:

How emotionally burnt out or exhausted were you before you talked to the person about their problem?

How emotionally burnt out or exhausted were you after you talked to the person about their problem?

“I pretended to care about their problem even though I wasn't really feeling it.”

“I felt sympathetic for the other person's problem.”

To test whether people experienced different changes in burnout for different relationships and type of problem, we conducted a 2(Recipient: acquaintance, friend) x 2(Problem type: new old) x 2(Burnout: pre, post) mixed ANOVA with repeated measures on burnout. A significant main effect of pre and post burnout was observed for all subjects, regardless of condition, $F(1,265) = 32.03, p = .000$. A significant three-way interaction was observed among pre and post burnout, closeness and problem age conditions, $F(1,265) = 9.69, p = .002$. No significant two-way interaction was observed for pre and post burnout and the closeness (*acquaintance* vs. *friend*) conditions, $F(1,265) = 0, p = .995$. No significant two-way interaction was observed for pre and post burnout and problem age (*new* vs. *old*) conditions, $F(1,265) = .264, p = .608$. For between-subject effects, a marginally significant result was observed for effects of closeness (*acquaintance* vs. *friend*) on average burnout, $F(1,265) = 3.132, p = .078$. No significant result was observed for effects of problem age (*new* vs. *old*) on average burnout, $F(1,265) = 1.07, p = .302$. No significant two-way interaction was observed for effects of problem age and closeness on average burnout, $F(1,265) = .14, p = .708$.

To understand the main effects and interactions, we examined the means of each result, shown in [Figure 3](#). Participants in the *acquaintance, old* condition felt more burnt out after hearing the problem ($M = 3.37; SD = 1.64$) compared to before ($M = 2.51; SD = 1.33$). Participants in the *friend, new* condition also felt more burnt out after hearing the problem ($M = 3.45; SD = 1.74$) compared to before ($M = 2.69; SD = 1.44$). Participants in the *acquaintance, new* condition felt no change in burnout after ($M = 2.92; SD = 1.65$) compared to before ($M = 2.73; SD = 1.65$). Similarly, participants in the *friend, old* condition felt no change in burnout

after ($M = 3.46$; $SD = 1.64$) compared to before ($M = 3.18$; $SD = 1.76$), although participants in this condition started with higher rates of burnout.

To measure how change in burnout related to faking empathy, feeling sympathy, and believing the recipient felt better, three correlation tests were run, shown in [Table 2](#): a whole-group correlation, an acquaintance-only correlation, and a friend-only correlation. Change scores were computed for burnout; they were computed as post- minus pre-burnout so that positive numbers indicated a higher degree of burnout after versus before providing support. For the whole group correlation, higher faking significantly inversely correlated with change in burnout, $r(266) = -.157, p = 0.010$. Feeling sympathetic marginally correlated with change in burnout, $r(268) = .114, p = .062$. The Friend-Only correlations seemed to drive these differences, as faking empathy significantly inversely correlated with change in burnout, $r(142) = -.246, p = .003$ and feeling sympathy significantly directly correlated with change in burnout, $r(143) = .281, p = .001$. Believing the speaker felt better did not significantly correlate with change in burnout, $r(142) = .146, p = .083$. For the Acquaintance-Only correlations, faking empathy did not correlate with change in burnout, $r(124) = -.052, p = .563$, feeling sympathy did not correlate with change in burnout, $r(125) = -.063, p = .483$, and believing the speaker felt better did not correlate with change in burnout, $r(124) = -.111, p = .281$. Results generally showed that discussing problems with friends rather than acquaintances predicted significant differences in burnout for different conditions.

Part 2. We were interested in the emotional effects on patients when their doctors provided faked empathy. We predicted that patients who detected faked empathy would report feeling worse after discussing the diagnosis with their doctor. In this section, we closely analyzed the following questions:

After my doctor initially gave me the news, emotionally I felt _____.

After my doctor discussed my health with me more, emotionally I felt _____.

“My doctor only pretends to care about my problems.”

Using responses from these questions, we computed correlations among all of the questions.

Patient emotions after talking correlated with emotions upon hearing the news, $r(265) = .763, p = .000$. No significant correlation occurred between feeling better initially and detecting fake empathy, $r(264) = .027, p = .666$. Contrary to our hypothesis, no significant correlation occurred between feeling better after discussing more and detecting fake empathy, $r(264) = -.023, p = .716$.

Discussion

Although our results in Study 1 had manipulation failure, which made it difficult to determine whether faking empathy through surface acting was better than using genuine empathy, our results in Study 2 indicated that providers benefited from faking empathy. In general, those who showed and felt empathy became more burnt out after versus before discussing a problem, while those who showed empathy without feeling it became less burnt out after versus before discussing a problem. These results could have implications for how doctors practice empathy, especially given that we found patients were indifferent to whether their doctors faked empathy or not. According to our results, even when patients knew that their doctors were faking, they still felt better emotionally after discussing their health concerns with their doctor. Since faking empathy was better for providers and no worse for recipients, this could be a viable alternative to practicing genuine empathy in healthcare settings.

It is important to note, however, that the beneficial effects of faking empathy might depend on the type of doctor-patient relationship. In our results, burnout had a complicated

connection with relationship closeness and age of a problem. For problems that providers had heard before, they only became burnt out if they were not close with the person discussing the problem. This might have been because providers did not care as much for acquaintances, and therefore focused on the fact that they were sick of hearing about a problem. For newer problems, however, providers became burnt out if a close friend was sharing. This might have been because providers cared so much for their friends that hearing about new problems added to their worry levels. In the medical world, this might mean that doctors become burnt out from hearing about familiar medical conditions from new patients, or from hearing about new medical conditions from old patients.

General Discussion & Conclusion

Based on our results from both studies, our overall hypothesis was correct; while showing and feeling empathy led to many emotional benefits, faking empathy led to decreased burnout for the provider, while showing and feeling empathy led to increased burnout. Study 1 did not directly show effects on burnout because the detached group performed expressive suppression rather than surface acting, and the conversations measured were not long enough to incur burnout. However, we were able to find general predictors of better emotional outcomes unrelated to decreased burnout, such as showing empathy and believing the recipient felt better after the conversation. Of participants who *did* show more empathy than feeling in Study 1, these responses had no adverse effect on burnout. However, further research without manipulation error would have to be conducted to see if results could be replicated for surface acting rather than expressional suppression. In addition, even though recipients might not notice whether faking occurs (or might not care, as Study 2 indicated), providers might perceive that they are harming the recipient by faking empathy. Again, this would need to be tested in a study without

manipulation error. If provider perception matters, then perhaps providers could be taught that recipients do not notice faked empathy so that providers would perceive that the recipients felt better.

Study 2 more directly showed the effects of practicing empathy on burnout by asking providers to report on levels of burnout before and after providing emotional support. Our results showed that faked empathy displays led to less emotional exhaustion than genuine empathy, contradicting previous findings of surface acted empathy leading to greater burnout compared to deep acted empathy (Blau et al., 2012), but fit with our own hypothesis that showing and feeling might incur empathy fatigue due to the emotional effort required. Because our findings differ from previous research, we would need to run this study or a similar study several more times to replicate results. In addition, interviewing doctors and patients directly might lead to results that could be generalized more readily to the patient-physician population.

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Tables

Table 1

Correlation Tests between Composite Positive PANAS Change Scores and Listener Perceptions

		Speaker Felt Better	Showed Support	Showed More Than Felt	Only Pretended
Avg	<i>r</i>	.311	.191	-.055	-.044
Pos	<i>p</i> -val	.002	.064	.600	.675
	N	95	95	95	95

Note. Stars indicate statistically significant correlations. Positive *r* values = positive correlations; negative *r* values = negative correlations. “Speaker Felt Better” = *I think the other person felt _____ after talking today.* “Showed Support” = *I put in real effort to show support for the other person with her problem.* “Showed More Than Felt” = *I tried to convey more sympathy than I actually felt.* “Only Pretended” = *I was only pretending to care about their problem.* “Avg Pos” = composite score of all changes in *positive* PANAS emotions.

Table 2

Correlations for Change in Exhaustion and Survey Responses for Empathy Providers for

Acquaintances versus Friends

Change in Exhaustion:		Pretended to Care	Felt Sympathetic	Speaker Felt Better
Whole Group	<i>r</i>	-0.157*	0.114	0.024
	<i>p</i> -val	0.01	0.062	0.7
	N	266	268	266
Acquaintances	<i>r</i>	-0.052	-0.063	-0.111
	<i>p</i> -val	0.563	0.483	0.218
	N	124	125	124
Friends	<i>r</i>	-0.246*	0.281*	0.146
	<i>p</i> -val	0.003	0.001	0.083
	N	142	143	1.42

Note. Stars indicate statistically significant correlations, with positive *r* values indicating positive correlations, and negative *r* values indicating negative correlations. “Pretended to Care” = *I pretended to care about their problem even though I wasn't really feeling it.* “Felt Sympathetic” = *I felt sympathetic for the other person's problem.* “Speaker Felt Better” = *I think the other person felt _____ after talking today.*

Figures

Differences in Responses Between Listener Groups for Manipulation Check Questions

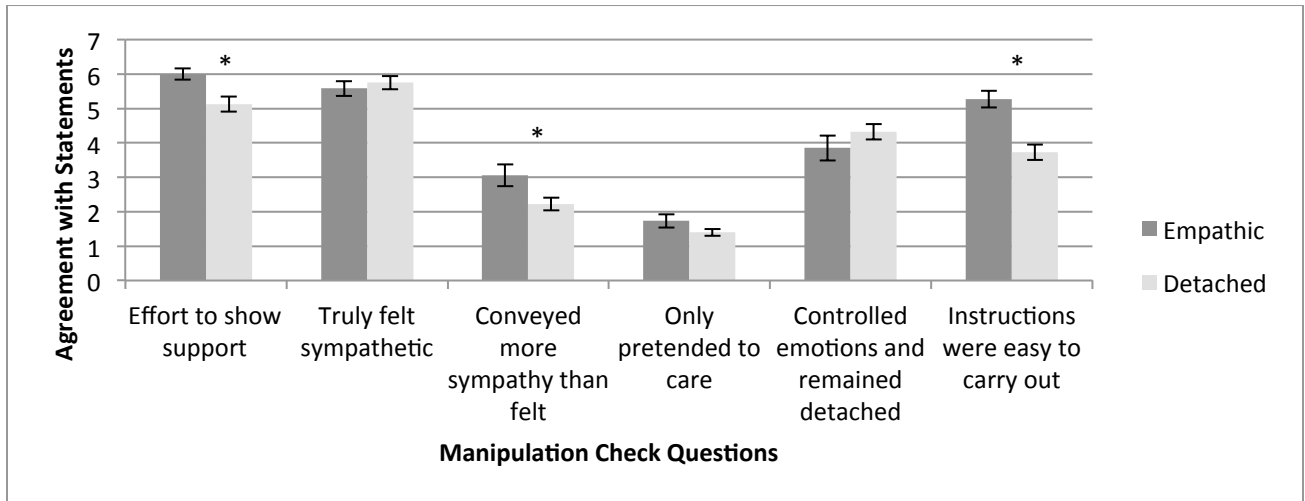


Figure 1. Stars indicate statistically significant differences between listener groups for each measure. Error bars indicate +/- 1 Standard Error of the Mean. Y-axis = true/false scale from 1 (*Not at all true*) to 7 (*Very true*).

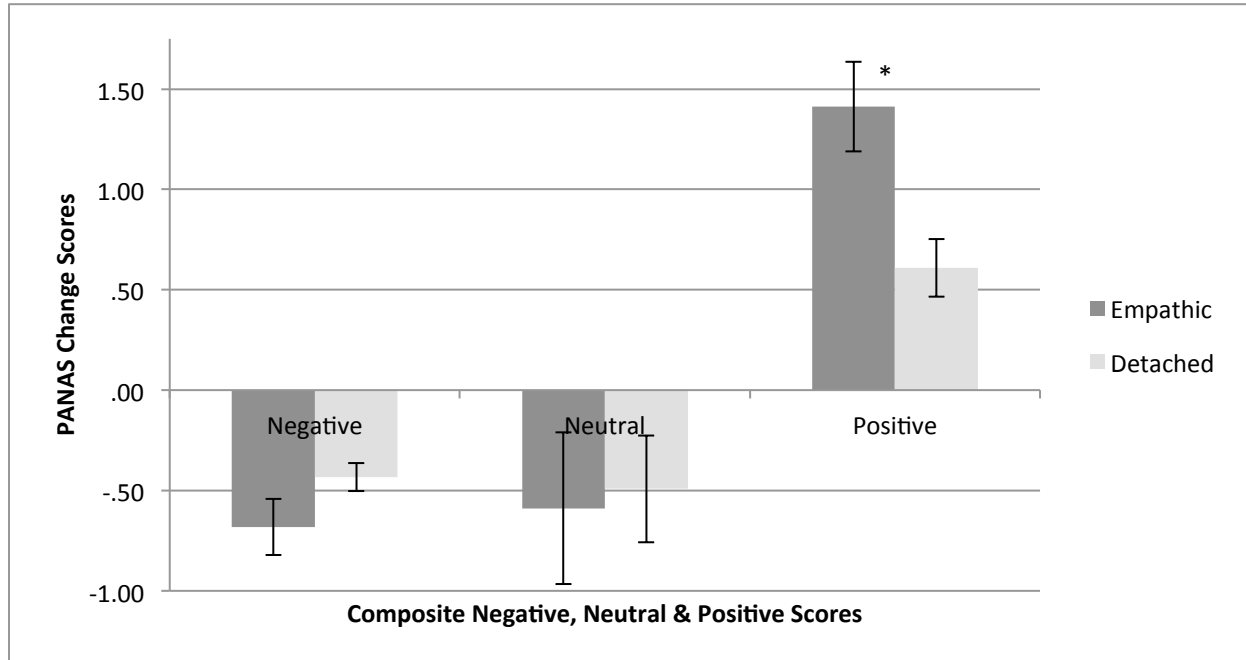
Differences in Composite PANAS Change Scores Between Listener Groups

Figure 2: Stars indicate statistically significant differences between listener groups for each measure. Error bars indicate ± 1 Standard Error of the Means. Positive values indicate an increase in composite emotions after compared to before the conversation, while negative values indicate a decrease in composite emotion after compared to before the conversation. Original PANAS scores were measured from 1 (*Not at all*) to 7 (*Extremely*). Y-axis = Change in PANAS scores; calculated by subtracted original pre scores from post scores.

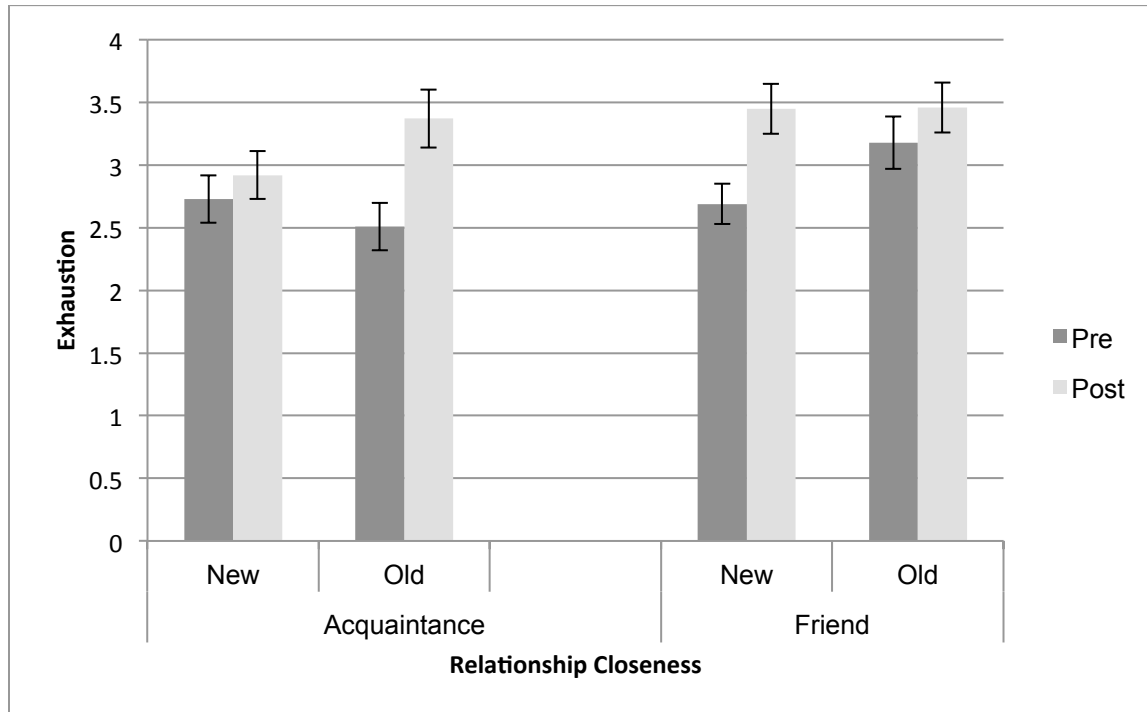
Within-Group Differences in Burnout for Acquaintance versus Friend Conditions

Figure 3. “Pre” signifies burnout (i.e. exhaustion) level before the conversation. “Post” signifies burnout level after the conversation. “New” signifies *new problem*. “Old” signifies *old problem*. Y-axis = exhaustion scores; measured from 1 (*Not at All*) to 7 (*Extremely*) after reversing the scale to make more intuitive sense.