REPAIR FOLLOWING HEALTHCARE INSTITUTIONAL BETRAYAL

by

Fallon Jo Richie, M.A.

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Approved by:

_____
Dr. Jennifer Langhinrichsen-Rohling

_____
Dr. Amy Peterman

_____
Dr. Mark DeHaven

_____
Dr. Teresa Scheid

ABSTRACT

FALLON JO RICHIE. Repair Following Healthcare Institutional Betrayal.
(Under the direction of DR. JENNIFER LANGHINRICHSEN-ROHLING)

Institutional betrayal is a type of betrayal trauma that occurs when an organization or system perpetrates wrongdoing through acts of omission or commission, against individuals who depend on that system. Originally applied to systems responding to sexual assault allegations (e.g., colleges and universities), the construct has been extended to healthcare organizations. There are serious known consequences of healthcare institutional betrayal including greater patient healthcare disengagement and increased healthcare organization and provider distrust, highlighting the public health implications of uncorrected institutional betrayal in healthcare (Smith, 2017). Little is currently known about corrective actions to help repair institutional betrayal in healthcare. Thus, the aim of this study was to examine specific reparative actions performed by different stakeholders following institutional betrayal to determine the effect of repair behaviors on feelings of institutional betrayal, trust, expectations for future healthcare encounters, intentions to avoid or disengage from healthcare, and feelings of repair.

Undergraduate participants (N = 198; 58% women; 53% White) read a vignette depicting institutional betrayal in a primary care setting. They then completed measures of institutional betrayal, trust in healthcare, and expectations for future healthcare encounters. Next, participants were randomly assigned to one of four conditions—interpersonal repair by a physician, interpersonal repair by a healthcare administrator, organizational repair by a healthcare administrator, or no repair (control condition). As predicted, participants who were randomly

assigned to one of the repair conditions (vs. control) reported significantly lower institutional betrayal scores at post-test, $F(3, 190) = 23.85$, $p < .001$, and higher positive expectations for future healthcare encounters, $F(3, 193) = 5.77$, $p < .001$. Similarly, participants randomly assigned to any repair condition (vs. control) reported significantly higher trust in healthcare at post-test, $F(3,191) = 15.69$, $p < .001$. No differences were found among experimental conditions.

In terms or repair, results indicated that there was a significant effect of repair condition on repair scores, $F(3, 192) = 48.59$, $p < .001$. Follow-up analysis indicated that participants in each of the three repair conditions reported statistically significantly higher repair scores compared to participants randomly assigned to the control condition (all p's $< .001$). Participants in both the interpersonal-provider and organizational change conditions reported significantly higher levels of repair compared to the interpersonal-administrator condition; however, there was no significant difference between the interpersonal-provider repair condition and the organizational change condition, indicating that the interpersonal repair performed by the healthcare provider and the organizational change were equally as effective for repair following an instance of institutional betrayal.

Overall, results from this study indicate that interpersonal and organizational reparative actions following institutional betrayal in healthcare influenced patients' self-reported beliefs about the healthcare system. Following repair, specifically in the interpersonal-provider and organizational change conditions, participants reported decreased feelings of institutional betrayal, increased healthcare system trust, and increased positive expectations for future healthcare. Given the documented negative sequelae to healthcare institutional betrayal, this study's finding that relatively small actions can facilitate individual-system repair is clinically meaningful. Training programs for healthcare professionals may wish to reflect on these findings

and prepare the next cohorts of medical professionals to remain cognizant of patients' past negative experiences in healthcare, prevent institutional betrayal when possible, and repair instances of institutional betrayal through genuine conversation and connection.

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CHAPTER 1. REVIEW OF THE LITERATURE

Institutions such as colleges and universities, healthcare systems, the armed services, and religious organizations can be responsible for perpetrating wrongdoings against individuals who are dependent on that institution. For example, a university may discourage, dismiss, or re-traumatize survivors of sexual assault who wish to report their experiences (Smith & Freyd, 2014). Similarly, hospital systems may dismiss, fail to provide expected best practice care, or fail to respond adequately to patients' complex medical needs. In both scenarios, wrongdoing is perpetrated against individuals who rely on and trust those institutions. This type of betrayal is referred to as institutional betrayal, a type of betrayal trauma that occurs between a system or organization and an individual (Smith & Freyd, 2014). It is well documented that institutional betrayal negatively impacts individuals (e.g., Smith, 2017; Smith & Freyd, 2013), but little is currently known about corrective actions that may help to repair this type of betrayal and re-instill trust between the individual and the institution. Although repair has not yet been studied, the consequences of healthcare institutional betrayal include increased patient disengagement from healthcare and greater distrust in healthcare organizations and providers (Smith, 2017), highlighting the public health implications of uncorrected institutional betrayal. Thus, the purpose of this project is to examine the perceived effectiveness of particular repair strategies conducted by two different healthcare agents following healthcare-related institutional betrayal. The goal is to determine whether certain actions, undertaken by either a healthcare provider or a administrator, following healthcare institutional betrayal can repair the relationship between the individual and the system as evidenced by the restoration of trust and the mitigation of future healthcare disengagement or avoidance.

1.1 Betrayal Trauma

To fully understand institutional betrayal and betrayal trauma, it is necessary to first define betrayal. Rachman (2010) defines betrayal as "a sense of being harmed by the intentional actions, or omissions, of a person who was assumed to be trusted and loyal..." (p. 304). According to Rachman, betrayal contains five overlapping categories: 1) disclosing confidential information without permission, 2) disloyalty, 3) infidelity, 4) dishonesty, and 5) the failure to offer expected assistance during a time of need. Betrayal has likely occurred since the beginning of human time and has been well documented in history; one famous example of betrayal was illustrated by William Shakespeare. In his play, *The Tragedy of Julius Caesar*, Caesar's nephew, Brutus, turned against him and joined those who planned to assassinate Caesar. Caesar's well-known final words were thought to be "et tu, Brutus?/even you, Brutus?" demonstrating the strong sense of betrayal (disloyalty) felt by Caesar stemming from the dissolution of the trusting, familial relationship between Brutus and Caesar.

More recently, a theory of betrayal trauma appears in the psychological trauma literature. According to Jennifer Freyd (1996), betrayal trauma occurs when people or institutions that we depend on violate us in some way. Childhood sexual abuse is considered the "core betrayal trauma" since children who are sexually abused by a parent or caregiver fundamentally rely on that individual for their basic needs to be met. Betrayal trauma theory was initially proposed as an explanation for "betrayal blindness" which is the phenomenon that victims of abuse may lose conscious awareness of the abuse, or "forget" that it happened (e.g., sexual trauma; Freyd, 1996; Smith & Freyd, 2013). Freyd proposed that it is the betrayal (e.g., disrupting the interpersonal trust, failing to keep a child safe), not the trauma itself, that results in this traumatic amnesia, or forgetting, following a trauma such as childhood sexual abuse. Research on this kind of betrayal

trauma demonstrates that the nature of the relationship (closeness of victim/perpetrator relationship) impacts outcomes. For example, high betrayal traumas, which occur between a child and a close caregiver such as a parent, are associated with worse functional and mental health outcomes (e.g., depression, anxiety) compared to low betrayal traumas, which occur between a child and an adult not living in the home. Freyd (1996) emphasizes that the severity of the betrayal, more so than the trauma itself, is responsible for the outcomes of betrayal trauma. Thus, those we trust the most to protect us are able to betray us to a stronger degree because the drop from that initial level of trust is greater and we must also cope with the violation of the expectation that those who care for us will keep us safe and not harm us.

1.2 Institutional Betrayal

As noted above, betrayal traumas may also occur *outside* of the context of interpersonal relationships. For example, one may be betrayed in the context of an institutional relationship. Institutional relationships exist between individuals and the organizations on whom they rely for specific services. For example, many of us have institutional relationships with workplaces, religious organizations, educational institutions, and healthcare systems. We generally expect that these organizations will act in our best interests, follow established protocols and procedures, and make efforts to keep us safe. When they fail to do so, the result may be institutional betrayal (Smith & Freyd, 2014).

Institutional betrayal may occur as a result of an act of commission or omission. Commission occurs when institutions commit specific behaviors that result in betrayal. For example, an act of institutional betrayal through commission might include purposefully covering up a medical error or retaliating against a patient for reporting a negative healthcare experience to hospital or clinic administration. On the other hand, acts of omission occur when

an institution hides or omits important information from a patient. An act of omission might include the failure to inform a patient about medication side effects or a lack of transparency around billing procedures. An act of omission might also include failure to follow best practices or to enact safety protocols or procedures (Smith & Freyd, 2014).

Institutional betrayal in the context of a university may occur as a result of the mishandling of sexual assault reports (Smith & Freyd, 2014). Institutional betrayal within the healthcare system may occur as a result of failing to respond to patients' health-related concerns, making it difficult to report a negative experience, or failing to enact policies to prevent negative experiences in the first place (Lewis et al., 2019). Similarly, institutional betrayal may occur in the workplace when an employee does not experience fair or routine treatment by the employer or company. Research on betrayal trauma suggests that betrayal trauma disrupts the relationship between the victim (individual) and perpetrator, which is an organization in the case of institutional betrayal.

While betrayal trauma may also occur in healthcare between an individual provider and his or her patient, institutional betrayal focuses on the organization as a whole. The degree to which patients distinguish individual providers from the organization may vary depending on the type of institution and the patient's relationship with that institution. For example, some patients may view their healthcare provider as an individual entity while others may perceive their provider as part of the larger healthcare system in which they are embedded. More recent models of healthcare, which include a focus on team-based care, may also lead patients to view their healthcare providers as working within a larger system, especially if they are likely to see multiple institutionally affiliated providers over time. Similarly, insurance companies with in- and out-of-network providers may contribute to the idea that healthcare is made up of smaller

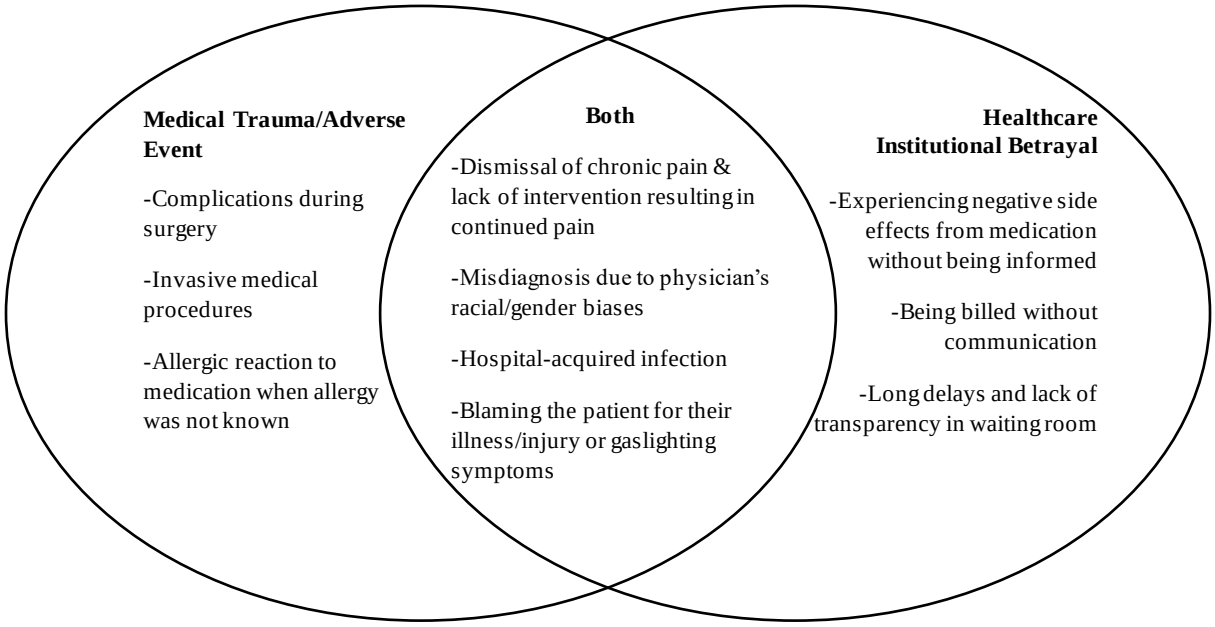
related systems of providers. Thus, patients may view their healthcare provider as a key representative of the larger system and as acting on behalf of the organization as a whole. This premise underlies the notion of healthcare institutional betrayal.

1.3 Distinguishing Institutional Betrayal

This section will focus on comparing institutional betrayal to similar constructs as well as distinguishing it from disparate but related constructs. First, it is important to make the distinction between institutional betrayal and adverse or negative medical experiences. For example, negative health or healthcare experiences such as receiving a serious diagnosis or undergoing an uncomfortable procedure occur regularly in healthcare. These are different from instances of institutional betrayal because institutional betrayal must elicit the sense of being harmed by the intentional actions, or omissions, of someone or something assumed to be trusted (Rachman, 2010). Institutional betrayal may occur as a result of symptom mismanagement, poor communication between the provider and patient, or traumatization. Research suggests that institutional betrayal and negative medical experiences/medical traumas are distinct (Smith, 2017). For example, being in a car accident and undergoing a painful recovery following surgery is an instance of an adverse medical experience; however, if the patient perceived that healthcare providers were dismissing their pain, blaming the patient for their injuries, or providing substandard care due to patient demographics, the patient may feel betrayed. Thus, institutional betrayal can occur as a result of the system's response (or lack thereof) to negative or adverse medical events (see Figure 1 depicting medical traumas and institutional betrayals in healthcare). Patients trust healthcare providers and organizations to act in their best interest; when this does not happen, institutional betrayal occurs.

Figure 1

Instances of Medical Trauma, Institutional Betrayal, and Overlap



It is also necessary to distinguish institutional betrayal from the concept of medical mistrust as well as draw essential comparisons between the two. Medical mistrust is the tendency for people to distrust the medical system and its providers; it is conceptualized as a response to direct or vicarious marginalization (Benkert et al., 2019). According to Benkert and colleagues (2019), medical mistrust is rooted in "histories and hierarchies" and is often informed by historical injustices or the chronic mistreatment of vulnerable groups. Individuals may have mistrust of the medical system that is related to the mistreatment of a group with which they identify, even without having a personal negative experience within the medical system. In this way, medical mistrust is different from institutional betrayal because those experiencing institutional betrayal directly suffered as a result of their interaction with the healthcare system. Along these lines, it is important to note that those with medical mistrust may actually be protected from institutional betrayal, given that they do not hold the expectation that healthcare

organizations will act in accordance with their best interest; however, this has not been explored empirically at this point in time. Although medical mistrust is inherently different from institutional betrayal, research on medical mistrust may inform our understanding of the impact of healthcare institutional betrayal on patients.

In a meta-analysis of 124 peer-reviewed studies examining medical mistrust and health outcomes, Benkert and colleagues (2019) found that medical mistrust influenced patients' behavioral responses, satisfaction with care, trust in the system, treatment adherence, health related quality of life, and health morbidity. While medical mistrust and institutional betrayal may be distinguished by their cause (theoretically, medical mistrust is caused by discrimination/marginalization against entire groups and institutional betrayal is caused by institution's actions/inactions toward a specific individual in the context of previously trusting relationship), outcomes are not dissimilar. Like medical mistrust, research on institutional betrayal demonstrates that health outcomes are impacted. Specifically, research demonstrates that institutional betrayal predicts nonadherence to medical treatment, suggesting that the implications of institutional betrayal reach beyond that of the individual's relationship with the institution (Klest et al., 2019; Selwyn et al., 2021).

1.4 Impact of Institutional Betrayal on Patient Health

Instances of institutional betrayal are known to have a significant impact on patient health outcomes and health-seeking behaviors. Institutional betrayal in the healthcare system occurs as a result of an institutional action (commission) or inaction (lack of an expected safety or caring behavior). As noted above, institutional betrayal may frequently occur not because of medical errors or individual providers' actions or negligence; rather the institution's *response* to such behaviors creates the problem of institutional betrayal (Smith, 2017). Healthcare institutional

betrayal reduces patients' trust in providers (even more so than experiencing negative medical experiences) and predicts disengagement from healthcare, measured by the underutilization of healthcare and non-adherence to provider recommendations (Smith, 2017).

Selwyn and colleagues (2021) conducted research examining 402 college students' childhood trauma and healthcare institutional betrayal experiences and found that institutional betrayal contributed to their healthcare avoidance. Specifically, college students who reported experiencing childhood trauma (i.e., physical abuse, sexual abuse, emotional abuse, physical neglect, and emotional neglect) were more likely to avoid engagement with healthcare (i.e., delay seeking needed healthcare or deliberately withholding information from providers). This relationship was mediated by having reduced trust in healthcare providers. Additionally, institutional betrayal moderated the mediation; results indicated that for individuals with high levels of institutional betrayal (compared with low levels) the relationship between childhood trauma and trust in provider was stronger. Similarly, research suggests that mistrust of healthcare organizations is associated with the underutilization of healthcare services including failing to take medical advice, failing to fill a prescription, postponing seeking needed care, and failing to keep a follow-up appointment (LaVeist et al., 2009).

Similar findings have been demonstrated for instances of sexual trauma. Monteith and colleagues (2021) studied 242 women veterans who experienced military sexual trauma (MST). They found that women who experienced MST had a lower willingness to utilize Veteran Affairs' (VA) medical care compared with non-VA medical care as measured by the general help-seeking questionnaire (Wilson et al., 2005) which was adapted to measure VA- and non-VA-specific medical and mental health care-seeking. This distinction is important because the discrepancy was explained by institutional betrayal, as measured by the Institutional Betrayal

Questionnaire 2 (IBQ.2; Smith & Freyd, 2017). The authors found that institutional betrayal was specifically associated with lower willingness to use VA medical care. Because the sexual assault occurred in the context of the military (an institution that active military personnel are thought to trust and to expect protection and care from), their trust in the military was broken when the MST occurred. Thus, they were more comfortable receiving medical care outside of the military system (the VA). This is significant considering that all MST-related care is free of charge at the VA—even still, women with MST preferred to seek medical care elsewhere.

A similar line of research, informed by adult attachment theory, has demonstrated that patient-provider relationships are crucial for patient adherence to treatments. For example, Ciechanowski and colleagues (2001) examined treatment adherence in 367 of patients with type 1 and type 2 diabetes based on their attachment styles. Patients who had a dismissing attachment style (e.g., pervasive need for independence and self-sufficiency) in the context of poor patient-provider communication engaged in poorer treatment adherence as measured by glucose monitoring compared to those with dismissing or secure attachment styles. The authors suggested that for those who have a dismissive attachment style, it is likely that they had negative attachment relationships characterized by unresponsive or neglectful caregiving. In the context of healthcare, holding an expectation that one's needs will not be met may also be driven by a history of institutional betrayal. Thus, when a patient-provider attachment relationship is not secure (due to a history of neglectful relationships or, possibly, institutional betrayal), it is reasonable to believe that treatment adherence may be compromised.

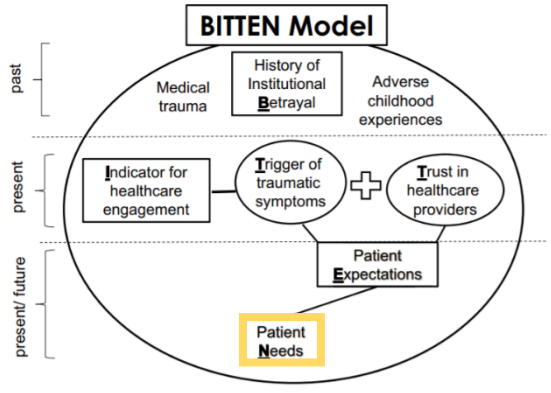
1.5 Need for Repair Following Institutional Betrayal: Situating Repair in the BITTEN Model

Since healthcare institutional betrayal was introduced to the literature in 2017, it is perhaps not surprising that there is little direct theory to guide thinking related to repair following institutional betrayal; however, given that institutional betrayal has deleterious effects on patient-provider relationships and is related to healthcare avoidance, it is crucial to determine whether repair is possible and if so, what actions by whom promote repairing trust between patients and their healthcare institutions. One recent model, the BITTEN model (**B**etrayal history by health-related institutions, **I**ndicator for healthcare engagement, **T**raumas related to healthcare, **T**rust in healthcare providers, patient **E**xpectations and **N**eeds), developed by Lewis and colleagues (2019) posits that past trauma and instances of institutional betrayal will impact future expectations and needs in healthcare (see Figure 2). For example, a young adult female patient may present to primary care for symptoms of a urinary tract infection (this is her *Indicator for healthcare engagement*). Because she has a history experiencing institutional betrayal (e.g., in the past, a male provider dismissed pain symptoms and her medical team did not include her in treatment planning), she may be more likely to feel uncomfortable in the presence of male providers (*betrayal history*). She may even experience difficulty giving her medical history to and trusting the medical advice from the male provider. Without knowing about this past experience, the current provider may find the patient difficult to work with and become short and stern in his responses to her questions, which may serve as a further *trigger of traumatic symptoms*. This may then limit her trust in him (*trust in healthcare providers*) and influence whether she is comfortable attending future appointments with providers within this healthcare system in the future (*patient expectations and needs*).

The authors emphasize that trauma-informed care, a key element of patient-centered care, includes the recognition of past institutional betrayal and childhood trauma. In another scenario, this patient may not have experienced childhood trauma but could have previously experienced institutional betrayal in healthcare (e.g., healthcare provider dismissing and disregarding patient's pain symptoms), which may have led to a trigger of traumatic symptoms while engaging with healthcare and ultimately, reduced trust in providers. The patients' needs in this model include "what the patient requires in order to be cared for in a competent and holistic manner, consisting of both physical and psychosocial needs" (p. 295). The authors state that one need of patients is to avoid re-traumatization in healthcare. This is also one of the key components of trauma-informed care (SAMHSA, 2014). Additionally, the authors posit that there is a need for repair following institutional betrayal. While specific repair strategies are not outlined, repair is recommended as a key patient need in the BITTEN model. Furthermore, responsibility for repair is assigned to the current healthcare providers who have a relationship with the patient as their relationship with the patient is likely to be most impacted by the institutional betrayal history. This study will extend the BITTEN model by focusing on repair as a specific patient need following institutional betrayal.

Figure 2

BITTEN Model (Lewis et al., 2019)



1.6 Health Equity and Repair

Institutional betrayal is not thought to impact everyone to the same degree. Gómez (2022) demonstrated that women and ethnic minorities were more likely than men and White individuals to experience institutional betrayal. Further, Smidt and colleagues (2021) demonstrated that those who identify as sexual minorities experience more institutional betrayal than heterosexual-identifying women following sexual assault (which occurred at the same rate). Additionally, the betrayal also took a larger toll on sexual minority women's psychological and physical health compared with heterosexual-identifying women. Specifically, sexual minority-identifying women reported higher levels of depression, anxiety, stress, and eating problems compared with heterosexual women post-assault (Smidt et al., 2021). These findings demonstrate that institutional betrayal is both more common and more harmful for women, ethnic minorities, and sexual minorities, which points to the need to consider institutional repair in vulnerable populations. These findings also highlight the need to consider promoting repair following institutional betrayal in order to promote health equity. This study furthers that purpose.

Another group who may be more likely to experience institutional betrayal is those living with chronic illness or chronic pain conditions. One recent study examined the impact of institutional betrayal on individuals with chronic illness, specifically Ehler's Danlos Syndrome (EDS), a rare genetic disorder. Nearly half of the sample of individuals living with EDS reported an experience consistent with healthcare institutional betrayal. Those who reported experiences consistent with healthcare institutional betrayal also reported experiences of anger, mistrust in healthcare providers, negative expectations for future healthcare, and unmet needs more frequently than did participants who did not report experiences consistent with healthcare institutional betrayal (Langhinrichsen-Rohling et al., 2021).

Similarly, military veterans living with Gulf War Illness (GWI), which consists of medically unexplained symptoms experienced by those who served in the Gulf War, reported concerns regarding healthcare quality. Specifically, over half of the veterans in this study reported institutional betrayal as a result of dangerous chemical exposures during service, about which military leaders were not up-front (Bloeser et al., 2021). As a result of their exposures while serving in the Gulf War, some Veterans experience GWI, which is not well understood within the medical community. Veterans interviewed in this study reported derogatory responses from healthcare providers and denial regarding the existence of GWI. Following experiences of institutional betrayal, veterans in this study responded in three ways. Some veterans reported conducting their own research on GWI and symptoms, others engaged in self-advocacy regarding their condition, and others reported "giving up" on healthcare altogether. The two above studies demonstrate the challenges that patients with tough to diagnose or tough to treat chronic diseases face and the institutional pushback and betrayal that they can experience. As a result, these patients are at greater risk for unmet needs, negative future expectations for care, and even withdrawing from healthcare altogether, which has obvious health implications. These outcomes are predicted by the BITTEN model.

Importantly, the groups that are more likely to experience institutional betrayal may also be the groups that have historically experienced stigma both in healthcare and in society at large. One study examining black women who have sex with women reported high rates of medical mistrust. Furthermore, medical mistrust and sexual orientation stigma predicted lower engagement with care, as measured in one study by limited engagement in routine appointments and blood pressure screenings (Brenick et al., 2017). These findings indicate that those belonging to minority groups may be more likely to experience medical mistrust and healthcare avoidance.

By extension, it is likely that those in minority groups may also have a history of institutional betrayal within healthcare systems, which has also been shown to influence healthcare utilization (Selwyn et al., 2021).

1.7 Theoretical Considerations for Repair

At present, no known empirical evidence has examined repair following healthcare institutional betrayal. Thus, it is necessary to draw from similar models and frameworks in which relationship repair has been operationally defined and studied. The following paragraphs will highlight work on repair after infidelity, therapeutic ruptures, trust repair between employers and employees, and brand crisis management and image restoration as existing literatures that may guide our exploration and understanding of repair in the context of healthcare institutional betrayal (see Table 2). Each of these may have relevant contributions to this specific work on healthcare institutional betrayal repair. The literature on repair following therapeutic rupture is perhaps the most relevant given the type of relationship being considered. In both therapeutic ruptures and healthcare institutional betrayal, the betrayal occurs within a trusting relationship between a professional individual/organization and a patient. Thus, there is a power differential in each. We also believe that the therapeutic relationship, much like a healthcare institutional relationship, is held to similar standards (i.e., "This person or organization will help me and is designed to keep me safe and do no harm"). Additionally, both a therapist and a healthcare organization are working to improve patients' health. Thus, while each literature will be explored below to identify relevant themes that may inform our understanding of interpersonal and organizational repair steps in the context of healthcare institutional betrayal (see Tables 3 and 4), we ultimately aim to elevate the literature on therapeutic rupture repair in the design of the current study given the inherent similarities.

While no known literature has explicitly examined repair following institutional betrayal in the context of healthcare, Gómez (2022) has examined institutional support following institutional betrayal in the context of how institutions manage sexual misconduct reports. Examples of institutional support include creating an environment in which these betrayal experiences were recognized as problematic as well as creating a safe space to discuss them (Gómez, 2022). That is, making the space for individuals to share their experiences was perceived as supportive following sexual misconduct. These findings suggest that creating a safe space within the problematic environment to air grievances and to share negative experiences without fear of reprisal may also facilitate a feeling of support following healthcare institutional betrayal.

Infidelity is perhaps the most recognized and studied type of betrayal. Infidelity has been estimated to occur in 20-25% of all marriages, with similar rates occurring between both men and women (Fincham & May, 2017). Although infidelity occurs within interpersonal rather than organizational relationships, in both cases, trust is breached after a betrayal is committed by someone who was previously expected to be trustworthy and loyal (Fife et al., 2013). Similar to institutional betrayal, infidelity disrupts the existing trusting relationship. Thus, literature on infidelity and forgiveness may help inform future research on repair at the institutional level of betrayal. Infidelity leads to relationship dissolution and poor mental health (Cash et al., 2014). Research on forgiveness following infidelity posits that forgiveness is facilitated by the perpetrator expressing empathy and humility, re-committing to the relationship, and apologizing (Fife et al., 2013). Thus, extending these ideas to repair following an institutional betrayal may be worthwhile.

Trust repair strategies between employees and employers may also inform repair following institutional betrayal. In a systematic review of 26 articles, Kähkönen and colleagues (2021) described effective strategies for repairing trust at the individual (trust between employer and supervisor) and organizational level (trust between employer and organization). At the individual level, the most common repair activity was a verbal apology. Studies in this systematic review also posited that offering an apology in a timely manner and with an explanation is crucial for successful repair. Supervisors who acknowledged and accepted responsibility for the wrongdoing, who were open to discussing the violation, and who empathized with the employee were also more successful (Kähkönen et al., 2021.) At the organizational level, authors described that repair may go beyond that of a verbal apology; repairing trust in an organization may require organizational reform. Trust-repair strategies that were suggested included "open investigations, accurate explanations, apologies, penance, replacing senior leaders, systemic reforms, and cultural reforms" (p. 105) as well as changing organizational policies. Another study suggested that organizational trust could not be repaired completely, despite the utilization of repair strategies (Kähkönen et al., 2021). While it is important to keep in mind that these breaches and repairs occurred between employees and their employing organizations, these findings may be valuable to consider in the context of institutional betrayal between patients and their healthcare organizations as well.

Another field of work that may provide insight into repair following institutional betrayal is brand crisis management. Brand crises occur when adverse events threaten a brand's reputation. Like institutional betrayal, brand crises have been found to impact consumer trust. Research suggests that the success of response strategies depends on the type of crisis and the consumer-brand relationship; however, brand crisis management literature suggests that response

strategies exist on a denial-apology continuum. That is, responses to brand crises range from denying that any negative event occurred to acknowledging the event and apologizing to consumers (Li & Wei, 2016). Image repair theory (Benoit & Drew, 1997) identifies five approaches to image restoration ranging from denial to mortification. Table 1 depicts these approaches. Acknowledging the behavior as problematic, allowing space for the individual to express their feelings, empathizing, and accepting responsibility were the most common repair strategies among the studies listed.

Table 1

Image Restoration Strategies (Benoit, 1997)

Strategy	Tactic
Denial	Simple denial of occurrence; shifting blame
Evade Responsibility for Event	Provocation; defensiveness; make excuses
Reduce Offensiveness of Event	Minimization; justification; providing compensation; bolstering; attacking the accuser
Corrective Action	Repairing problem; making changes to prevent reoccurrence
Mortification	Admitting responsibility

In terms of strategy effectiveness, Brown (2016) examined response effectiveness on an athlete's image following a criminal or non-criminal transgression. Participants in this study first completed a perceived image scale for three athletes. Next, they read a news article recapping a transgression and the post-transgression response from the athlete. One of three response strategies (mortification, attacking the accuser, or bolstering) was randomly assigned for each participant. Mortification was operationally defined as apologizing, Accusing the attacker occurs when the accused questions the accuser's credibility. Bolstering was defined as a tactic in which the accused (in this case, the athlete) stresses their positive characteristics, which is meant to overshadow the transgression. Finally, participants responded again to the athlete image scale.

Results from this study demonstrated that for criminal transgressions, both mortification and attacking the accuser strategies were equally effective for repairing an athlete's image while the bolstering strategy was least effective.

The researchers expected the apology condition to perform the best. Consequently, they offered several explanations for their findings. One reason that apologizing (mortification) may not have been more effective than accusing the attacker is that apologizing, while admitting guilt, may be perceived as non-genuine or "empty." Additionally, apologizing may imply fault on behalf of the accused and may be unnecessary until the accused has been found guilty of the offense. Further, the author hypothesized that accusing the attacker was effective because the athlete then had the opportunity to defend themselves and place blame on the accused instead (Brown, 2016). To draw comparisons between athlete image repair following a criminal transgression and healthcare institutional betrayal, it is important to keep in mind that athlete image repair occurred in the context of a transgression *unrelated* to the participant. That is, the athlete did not commit a transgression against the participant whereas in the case of healthcare institutional betrayal, the wrongdoing is directly related to the accuser/victim, resulting in the betrayal. Thus, attacking the accuser/victim would not be likely to repair the relationship, although it may help the healthcare institution to maintain its image to outsiders, or among those not involved in the betrayal.

As mentioned previously, our understanding of repair following institutional betrayal may be most informed by literature on the therapeutic alliance and therapeutic ruptures, another form of interpersonal betrayal. The therapeutic alliance is the formal term for the relationship between a therapist and client and has been shown to be an important factor in treatment outcomes (Martin et al., 2000). Therapeutic ruptures occur when that alliance is broken as a

result of something a therapist did or did not say that the patient felt was insensitive, blaming, or hurtful. Research on rupture repair demonstrates that resolved ruptures can prevent premature treatment termination and lead to gains in therapeutic growth (Cash et al., 2013). Similar to the therapeutic alliance being a common factor for successful treatment (Rogers, 1957), research demonstrates that the patient-provider relationship in healthcare is also crucial for better treatment adherence and outcomes (Bova et al., 2012). Since therapeutic rupture literature is similar to that of institutional betrayal in healthcare, understanding rupture repair in the therapeutic alliance was used to inform the design of this study on repair following institutional betrayal in healthcare.

There has been extensive literature on therapeutic rupture repair (Safran et al., 2011). Given that most studies draw from genuine patient-provider samples, there is a lack of experimental research in this area. However, research in this field consistently demonstrates that rupture repair involves therapists openly and non-defensively allowing patients to express their feelings regarding the rupture, validating and empathizing with patient feelings, accepting responsibility for their part in the rupture, and not placing blame on the patient (Safran et al., 2001, 2011).

Table 2

Repair Behaviors Described in Six Related Literatures

Literature/ Area:	Type of Relationship:	Relationship Context:	Commitment level:	Relationship Utility:	Expectation of Trust:	Agreement/ Contract:
Healthcare Institutional Betrayal	Organizational	Professional	Committed; rely on other party	Health	Substantial	Hippocratic oath; HIPAA
Infidelity	Interpersonal	Personal	Committed; rely on other party	Familial/ financial	Strong	Marriage vows
Therapeutic Rupture	Interpersonal	Professional	Committed; rely on other party	Health	Substantial	Informed consent
Brand Crisis Management	Organizational	Professional	Not committed; limited reliance	Recreational	Moderate-Low	Warranty (if applicable)
Employer/ Employee	Interpersonal & Organizational	Professional	Committed; rely on financially	Financial	Varies	Contract
Institutional Support	Organizational	Professional	Committed; rely on other party	Educational	Substantial	No formal agreement

Table 3

Repair Strategies Included in Multiple Frameworks of Trust Repair in Organizational Contexts

	Authors/Theory		
Steps for Organizational Repair	Gómez, 2022: Institutional Support	Kähkönen et al. 2021: Employee/ Employer Repair*	Li & Wei, 2016: Brand Crisis Management
Acknowledge behavior as problematic	X		X
Allow space for individual to express feelings	X		
Willingness to discuss the situation openly		X	
Apologize		X	X
Empathize		X	
Accept responsibility/ avoid placing blame on individual		X	

*Employer/Employee repair is included in both tables given that it may be both an interpersonal and organizational relationship

Table 4

Repair Strategies Included in Multiple Frameworks of Trust Repair in Interpersonal Contexts

	Authors/Theory		
Steps for Interpersonal Repair	Fife et al., 2013: Infidelity	Martin et al., 2000: Therapeutic Ruptures	Kähkönen et al. 2021: Employee/ Employer Repair*
Acknowledge behavior as problematic			
Allow space for individual to express feelings		X	
Willingness to discuss the situation openly			X
Apologize	X		X
Empathize	X	X	X
Accept responsibility/ avoid placing blame on individual		X	X

*Employer/Employee repair is included in both tables given that it may be both an interpersonal and organizational relationship

1.8 Public Health Implications and Applications for Repair

As described, institutional betrayal is a type of betrayal trauma that occurs between an individual and a trusted organization or institution. In the context of healthcare, research indicates that institutional betrayal is associated with patients' lack of trust in the healthcare system and individual providers as well as their reduced willingness to engage in future healthcare encounters (Selwyn et al., 2021). This disengagement with healthcare may have

serious public health implications. For example, choosing not to utilize preventative healthcare services may result in delayed diagnosis or worsening of chronic disease. In fact, research suggests that preventative care utilization (e.g., known preventative services such as breast cancer screenings and routine immunizations) is associated with large savings in healthcare spending (Maciosek et al., 2010). Thus, results from this study may inform gaps in medical training; for example, determining ways in which institutional betrayal can be repaired is an important part of training for healthcare professionals, administrators, and medical students.

1.9 Experimental Vignettes

Experimental vignettes have been used to systematically manipulate and study provider-patient communication (Bhise et al., 2018; Hillen et al., 2013). Typically, one aspect of an interaction is manipulated while all others are held constant. Outcomes measured in these scenarios may include perception of the provider, self-reported anxiety or distress, behavioral outcomes, or cognitive outcomes (Hillen et al., 2013). Video vignettes are a common choice for experimental manipulation, especially for manipulation involving non-verbal behaviors (e.g., eye contact), which are best presented to participants via video.

Written vignettes, also referred to as "paper people studies," are another type of experimental vignette methodology which allows the participant to make judgements and decisions regarding their feelings and preferences. These types of vignettes have been utilized in many areas including ethical decision making and law enforcement (Aguinis & Bradley, 2014). One advantage of using written vignettes for healthcare interactions is that results are not impacted by the race and/or gender of the vignette characters. For example, participants may respond differently to scenarios in which the provider's and/or patient's race or gender does not match their own. Written vignettes allow these characteristics to be masked and therefore can be

held constant across participants. Another advantage of vignettes is that they present a cost-effective option for studies that may otherwise take up a great deal of time and resources (Hughes & Huby, 2002). Vignettes used in this study can be found in Appendix A.

CHAPTER 2: RESEARCH AIMS AND HYPOTHESES

The purpose of this research was to examine participant perceptions and effectiveness of different repair strategies, performed by different actors within the system, on restoring interpersonal and system-level trust, decreasing perceptions of institutional betrayal, and facilitating continued healthcare engagement following an instance of institutional betrayal in the context of a healthcare organization. At present, literature on institutional betrayal focuses largely on types of betrayal as well as outcomes of betrayal (e.g., loss of trust, mental health symptoms), and in the context of healthcare, intentions for future healthcare avoidance or engagement (Selwyn et al., 2021). Actions for repairing institutional betrayal as well as outcomes of repair have not yet been explored. This study filled that gap.

Specifically, this study examined: 1) whether specific healthcare personnel are successful in initiating repair following institutional betrayal (e.g., physician or administrator), and 2) whether specific actions (i.e., supportive listening and apologizing vs. ensuring organizational change) are successful at initiating repair following institutional betrayal. Repair success was measured through decreases in institutional betrayal and negative expectations for future healthcare encounters, increases in provider trust, increases in positive expectations for future healthcare encounters, greater willingness to engage with healthcare, and the perception of relationship repair. Given that most instances of betrayal and repair documented in literature have occurred interpersonally, it is unclear which individual within an institution is responsible for initiating repair following institutional betrayal. Additionally, specific reparative actions are not yet known in the context of institutional betrayal; thus, repair behaviors will be drawn from several related literatures. Finally, this study also examined demographic variables to determine whether participant characteristics influence perceptions of specific repair strategies.

These aims were addressed by utilizing experimental manipulation of written vignettes. The study examined college students' perceptions of repair following institutional betrayal by manipulating the person engaging in repair (i.e., primary care provider or clinic administrator) as well as the type of repair behavior (i.e., supportive listening and apologizing vs. ensuring organizational change). Thus, four experimental conditions were utilized: 1) provider interpersonal repair (i.e., discuss, empathize, and apologize), 2) system representative interpersonal repair, 3) system representative organizational change (i.e., ensuring organizational-level change), and 4) no repair (control condition). College students were the target population of this study because they have been the focus of several studies conducted on institutional betrayal in recent years (e.g., Gigler et al., 2022; Gómez, 2022; Smith & Freyd, 2013). In addition, previous work demonstrates that the majority of college students have endorsed experiencing institutional betrayal (Gigler et al., 2022).

The independent variables in this study were the healthcare personnel who provided the repair (healthcare provider vs. administrator) and the specific repair behaviors (apology vs. organizational change). Participant characteristics such as race, health status, gender identity, sexual orientation, and insurance status were exploratory variables used to examine differences in baseline expectations for healthcare as well as repair condition interaction effects. Dependent variables in this study included institutional betrayal, trust in provider, healthcare avoidance and engagement, expectations for future healthcare encounters, and perceived repair. This study aimed to inform our understanding of how healthcare organizations can make amends following instances of institutional betrayal, which are far too common and have serious public health consequences. Findings also extend the BITTEN model by elucidating patient needs with regards

to repair following an institutional betrayal experience in healthcare. The primary hypotheses in this study were:

1) Participants assigned to vignettes with repair behaviors (3 conditions) would report increased trust in provider and perceived repair as well as decreases in institutional betrayal and healthcare avoidance/disengagement compared with participants in the control (no repair/treatment as usual) condition. Further, those assigned to repair conditions would report higher positive expectations for future healthcare encounters and lower negative expectations for future healthcare encounters compared to those assigned to the control condition.

2) Participants assigned to the organizational change condition would report higher levels of repair at the system level compared with participants randomly assigned to either interpersonal repair condition or the control condition.

3) Participants who identify as racial/ethnic minorities, sexual minorities, have a chronic illness (yes/no), or have Medicaid or no insurance (compared with privately insured individuals) would perceive greater repair following the organizational change condition compared to those in the majority categories.

CHAPTER 3: METHODS

3.1 Participants

This study was conducted by the author under the direction of Dr. Langhinrichsen-Rohling (L-R). Data were collected through Dr. L-R's THRIVE research lab at the University of North Carolina at Charlotte.

Participants were undergraduate college students at UNC Charlotte recruited through the SONA Psychology Participant pool and via one summer communications course. All participants completed the study online and received course credit (SONA) or extra credit (communications course) for participating. All participants completed informed consent before participating in the study. Data collection was completed between April and July 2022.

3.2 Vignette Development and Procedure

This study was designed based on the assumption that relationship repair is a temporal process made up of four stages: pre-transgression, disruption, repair, and post-repair (Dirks et al., 2009). While Dirks and colleagues did not empirically test specific elements of relationship repair, this temporal process model was utilized as a framework for the current study. For this study, the disruption was the occurrence of institutional betrayal. First, participants were asked to complete demographic questions as well as measures of pre-existing expectations for healthcare. Next, participants were asked to read a vignette that described an instance of the institutional betrayal. Following that, participants completed measures of institutional betrayal, trust in provider, and intentions for future healthcare engagement. Next, participants were assigned to one of four conditions in which repair was initiated (except in the control condition). Then, institutional betrayal, repair, trust in provider, and intentions to engage in future healthcare were

measured to determine whether the reparative actions changed any participant ratings. Figures 3 and 4 depict the study design and experimental conditions.

Vignette 1 (institutional betrayal) simulated an instance of institutional betrayal perpetrated by a primary care provider during an annual wellness visit. The gender and race/ethnicity of the provider were not disclosed (i.e., neutral pronouns were used) in the vignette in order to control for any participant biases. The participants were asked to imagine themselves as the patient while reading the scenario and respond to questions as if the encounter had happened to them. The institutional betrayal featured in vignette 1 was chosen based on previous studies and pilot data collected exploring instances of institutional betrayal in healthcare. Specific health complaints, headache or abdominal pain, were determined based on previous research of common patient-complaints in primary care settings (Finley et al., 2018; see Appendix A for full vignettes). After reading the vignette, all participants were also asked to respond to three statements regarding the degree to which they could imagine themselves in the scenario described in the vignette for validity purposes ("The situation I just read about felt like it could have really happened to me," "I could imagine myself in the situation that I just read," and "The situation I just read about felt realistic").

Vignette 2 simulated an opportunity for repair. Similar to vignette 1, the gender and race/ethnicity of the provider were not noted in order to prevent potential biases. The participants were asked to imagine themselves as the patient while reading the scenarios and to respond to questions as if the encounter had happened to them. The repair behaviors were chosen based upon previous research examining trust repair in healthcare as well as pilot data regarding types of repair behaviors that participants reported desiring following institutional betrayal.

Figure 3

Study Design Modeled from Dirks and Colleagues' (2009) Temporal Process of Relationship Repair

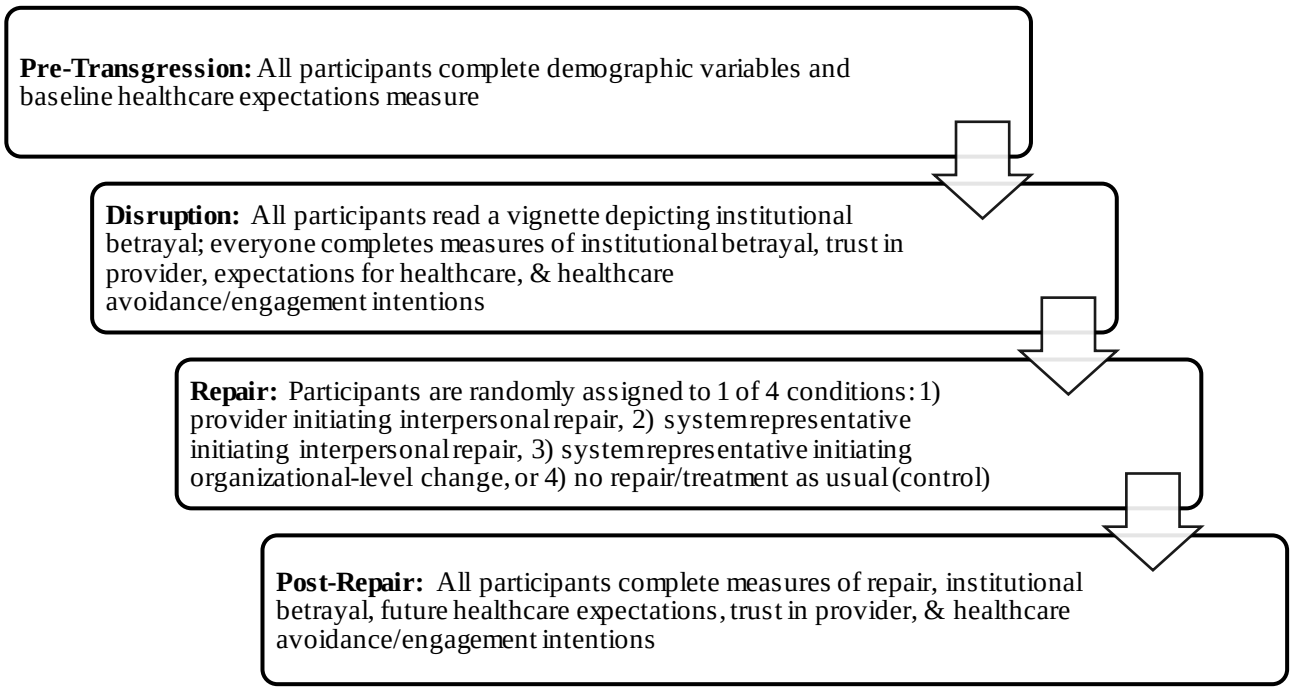
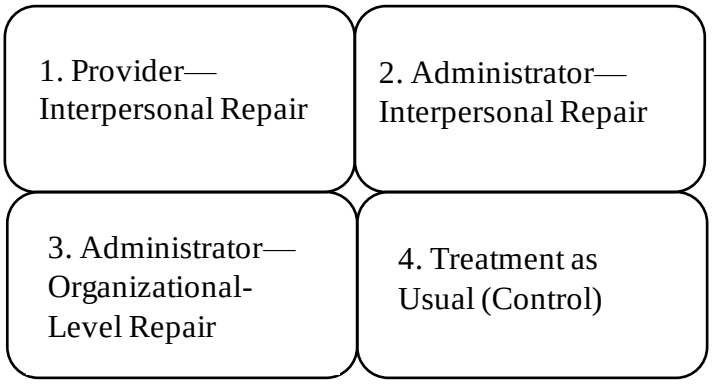


Figure 4

Experimental Conditions



3.3 Measures

Participants completed the following measures after reading the institutional betrayal vignette as well as following the randomized repair vignette. At the end of the survey, once they

read both vignettes and completed all measures, they answered questions regarding their own demographics. A comprehensive list of study measures can be found in Appendix B.

Primary Dependent Variables.

Institutional Betrayal Questionnaire—Medical Systems (IBQ-MS). The IBQ-MS is a 42 items scale measuring institutional betrayal in the medical system (Tamaian & Klest, 2018). It is comprised of three major components—negative cognitive-affective reactions ("made me feel like the medical providers didn't really care about me"), doctor- and system-level factors that may lead to feelings of betrayal ("doctors provide inadequate information about risks and procedures of various treatments"), and system-level factors in response to negative healthcare experiences that may lead to feelings of betrayal ("the medical system denied your experiences in some way"). Participants responded to the items using a 5-point Likert scale response format (from either "never" to "almost always" for behavioral items, or "not at all" to "extremely" for items indicative of an emotional response). In the original sample of 352 Canadian adults with chronic medical conditions, Cronbach's alpha was .99. In the current study, Cronbach's alpha was .97.

Wake Forest Physician Trust Scale. This scale consists of 10 items measuring an individual's trust in their physician (Hall et al., 2002). Participants responded to items on a five-point Likert scale ranging from "strongly agree" to "strongly disagree." Positive items on this scale include "your doctor is extremely thorough and careful" and reverse score items include "sometimes your doctor cares more about what is convenient for him or her than about your medical needs." Cronbach's alpha in the original sample of 959 U.S. adults who had utilized healthcare in the past year was .93. In this study, Cronbach's alpha was .94.

Healthcare Avoidance/Disengagement. At present, there is no validated assessment for measuring healthcare avoidance. Studies that measure some degree of healthcare avoidance tend to use single questions such as "have you ever avoided going to a hospital or clinic," "do you sometimes avoid accessing healthcare services?" Others assess nonadherence to treatment regimens or the delay of seeking healthcare services using questions such as "how often do you delay seeking medical care and "how often do you deliberately withhold information from a healthcare provider?" (Byrne, 2008; Heath et al., 2016; Kcomt et al., 2020; Selwyn et al., 2021; Socías et al., 2014). Since institutional betrayal is related to healthcare avoidance, this study utilized previously used questions on avoidance as well as questions regarding engagement, modified for context. These three questions were: "to what extent do you expect to avoid accessing healthcare services after this experience?" "To what extent do you expect to delay seeking medical care after this experience?" and "To what extent do you expect to deliberately withhold information from healthcare providers after this experience?" Response options included "not at all," "a little bit," "moderately," "quite a bit," and "extremely" with higher scores representing a greater degree of healthcare avoidance/disengagement.

Healthcare Institutional Betrayal Repair. As a measure of repair has not yet been established in the literature related to institutional betrayal, the first author (under direction of the dissertation chair) generated pilot questions to measure the degree to which participants perceived that repair had been achieved. These questions were based upon data collected during a pilot study that asked participants open-ended questions about repair. Participants were asked to identify what may have been helpful following an instance of institutional betrayal that they disclosed in the pilot study, as well as any additional needs that they had following the betrayal. The items designed for this study were written in an effort to capture two aspects of repair that

were illustrated in participant responses—the restoration of trust that is broken through institutional betrayal, as well as the perception that the relationship was repaired or restored. In addition, the items attempted to capture the restoration of trust and relationship repair between the patient and the provider responsible for the betrayal, the healthcare clinic where the betrayal occurred, and the healthcare system as a whole. These categories were distinguished in order to better understand whether certain repair behaviors were better suited to facilitating trust and repair at the provider level, clinic level, or healthcare system level. The six questions were: 1) "After your last interaction, to what degree do you believe that the provider's behavior facilitated restoring your trust in them? 2)"After your last interaction, to what degree do you believe that the provider's behavior facilitated restoring your trust in that healthcare clinic? 3) After your last interaction, to what degree do you believe that the provider's behavior facilitated restoring your trust in the healthcare system as a whole? 4) "After your last interaction, to what degree did their behavior sufficiently repair your relationship with the provider you saw?" 5) "After your last interaction, to what degree did their behavior sufficiently repair your relationship with the clinic where you were receiving services?" and 6) "After your last interaction, to what degree did their behavior sufficiently repair your relationship with the healthcare system as a whole?" Participants responded on a scale from 1=not at all to 5=extremely. A total score was computed by summing responses from all six items. In addition, three subscales (two items each) were created to examine specific levels of repair—repair with provider (item 1 + 4), repair with healthcare clinic (item 2 + 5), and repair with healthcare system as a whole (item 3 + 6).

Further, two open-ended questions assessed what specifically influenced participants to experience repair (if they did) as well as what they may have needed to experience repair (if they

did not). Repair was also measured by proxy through the measurement of future healthcare avoidance/disengagement and trust in provider.

Expectations for Healthcare. Currently, there is no validated scale measuring healthcare expectations. Thus, Dr. Langhinrichsen-Rohling's research team generated a measure of healthcare expectations. This scale contained 14-items and measured the degree to which participants expect certain experiences when seeking healthcare. Response options included "0=not at all," "1=a little bit," "2=moderately," "3=quite a bit," and "4=extremely." Four items indicate positive expectations for healthcare including, "to be listened to," and "to be treated by staff who are professional in their work," and five items indicate negative expectations including, "to have your symptoms minimized." Positive and negative item scores were summed to create a total score for both positive and negative expectations for healthcare. These measures have not yet been published; however, in a sample of over 1000 undergraduate students, Cronbach's alpha for the negative expectations for healthcare scale was good ($\alpha = .84$). In this sample, the positive expectations for healthcare scale demonstrated good internal reliability with a Cronbach's alpha of .82. For the negative expectations scale, Cronbach's alpha was acceptable ($\alpha = .72$).

Demographic Questions. Each participant completed demographic questions including their gender identity, sexual orientation, race/ethnicity, whether they have chronic health conditions, and insurance status.

3.4 Procedures

Random assignment of participants to experimental vignette conditions was utilized to examine the impact of 1) the person initiating repair and 2) the type of repair behavior. College student participants read a standard vignette depicting healthcare institutional betrayal occurring within the context of primary care. Pilot data collected during the summer of 2021 by M. Gigler

and the Langhinrichsen-Rohling THRIVE lab were used to inform the design of the institutional betrayal vignettes (see Appendix C for a table of results from Gigler's pilot study). The vignettes placed the participant at the center of the healthcare encounter (e.g., "you are sitting in the exam room…"). They then answered questions regarding institutional betrayal and the degree to which they could imagine themselves in the scenario (serving as validity checks), trust in the healthcare provider and the healthcare system, expectations for future healthcare encounters, and anticipated healthcare avoidance/disengagement. Next, participants were randomly assigned to one of four vignettes depicting repair (or no repair in the case of the control condition): 1) provider interpersonal repair (e.g., discuss, empathize, and apologize), 2) system representative interpersonal repair, 3) system representative organizational change (e.g., ensuring organizational-level change), and 4) no repair (control condition). Following reading this second vignette, participants again rated their institutional betrayal, current trust in the healthcare provider, expectations for future healthcare encounters, anticipated healthcare avoidance/disengagement, and perception of repair.

CHAPTER 4: ANALYTIC PLAN

IBM SPSS statistics software package 27.0 was utilized for all data management, including cleaning and analyses. Prior to conducting the primary analyses, basic statistics (means, standard deviations, and ranges) were computed and inspected for outliers and missing values. An initial power analysis conducted using g*power (Faul et al., 2007) estimated that 93 participants would be needed to reliably detect differences among four different groups with a small to medium effect size (d = .3) and power of .9. To account for missing and incomplete data and to ensure adequate group sizes, over 200 participants were collected in total.

For participants who failed either of the two attention check questions throughout the survey (e.g., "select 'disagree' to indicate you are paying attention"), their responses were not included in analyses (n = 37). Furthermore, validity checks were used to confirm that participants perceived institutional betrayal after reading the vignette designed to elicit institutional betrayal.

It was not expected that groups (experimental conditions and control) would differ on dependent variable measures after reading the institutional betrayal vignette. However, to confirm that there were no group differences at baseline, one-way analysis of variance (ANOVA) tests were conducted. General linear models were utilized to compare the control and experimental conditions in terms of participants' reports of institutional betrayal, trust in provider, expectations for future healthcare encounters, healthcare avoidance/disengagement, and repair after the manipulation in order to control for pre-repair scores. Post-hoc analyses (Tukey's method HSD) were used to determine whether groups differed significantly in terms of each specific outcome (hypotheses 1 and 2). Moderation analyses (via interaction terms) were used to identify whether any participant demographic variables (i.e., gender identity, race,

chronic illness status, sexual orientation, and insurance status) altered the relationship between repair strategy and participant perceptions of repair (hypothesis 3).

CHAPTER 5: RESULTS

5.1 Validity Checks and Missing Data

In total, 245 participants consented to participate in this study during data collection, which occurred between April and June 2022. Three participants consented without completing any of the study measures and were removed, resulting in 242 participants. Based on examining SONA IDs, seven participants completed the study twice. The most complete attempt was retained; if both attempts were complete, the first attempt was retained, resulting in 235 participants. The study contained two validity checks in which participants were asked to select a specific response. Twenty-eight participants did not pass the first validity check and an additional nine did not pass the second validity check. These participants were also removed resulting in a total sample of 198 participants.

Patterns of missing data were examined using Little's MCAR test (Little, 1988). Little's MCAR was computed on each scale. Findings indicated that missing data from most scales were missing completely at random ($p > .05$). However, for three scales, Little's MCAR test indicated that data were not missing completely at random (Perceived Repair, $p = .03$; Post-Repair Canadian Institutional Betrayal, $p = .04$; Post-Repair Wake Forest Trust Scale, $p = .001$). These scales were carefully inspected for patterns of missing data. In the Perceived Repair scale, only five total cases had any missing data, with the majority of those missing the last one or two items of the scale. Those who completed at least 80% of the scale (five out of the six items), were retained in the final analysis of the scale. In the Post-Repair Canadian Institutional Betrayal scale, very few data were missing at the beginning of the scale, compared with the end, as the scale is 42 items in length. However, even items with the most missing data were missing only

5% of responses. A decision was made to retain data for participants who completed at least 80% of each scale. While there is no agreed upon value for retaining participant responses, previous research has used 70% as a cutoff (Gigler et al., 2022. Given that some scales in this study contained only 10 items, 80% was chosen as a more conservative cutoff. As with other missing data, missing values were imputed from the mean score of each individual participant for that particular scale. Those who did not complete at least 80% of the scale were not included in the final analysis of the scale. For the Post-Repair Wake Forest Trust Scale, which also failed Little's MCAR test, inspection of the data indicated that three participants did not complete several of the latter items in the scale; however, everyone completed at least 80% of the scale and no item was missing more than 1% of its data. Thus, missing data was imputed as described above. For Healthcare Avoidance, three cases were missing one item each (accounting for more than 20% of the total scale) and these participants were excluded from analysis for that scale. Table 5 illustrates the complete results from Little's MCAR tests. For scales on which data were missing completely at random, if participants did not complete at least 80% of the items in a scale, sum scores were not computed, and these participants were not included in analyses involving that scale. If participants completed at least 80% of the items, missing scores were computed using the average scores of completed scale items for each participant. Thus, *n*'s vary slightly across analyses. The total number of participants included in each measure's total scores can be found in Table 6. Total and subscale scores were computed according to each measure's published scoring as described in the Methods section.

Table 5

Complete Analysis of Missing Data

Measure (Number of Items)	Little's MCAR Test	Significance
Baseline Healthcare Expectations (14)	χ^2 =68.*26*	*p =.34*
Post-IB Canadian Institutional Betrayal (42)	χ^2 =817.50	*p* = .78
Post-Institutional Betrayal Health Expectations (14)	χ^2 =80.74	*p* = .33
Post-IB Wake Forest Trust Scale (10)	χ^2 =7.22	*p* = .71
Perceived Repair (6)	χ^2 =32.15	*p* = .03
Post-Repair Canadian Institutional Betrayal (42)	χ^2 =956.84	*p* = .04
Post-Repair Healthcare Expectations (14)	χ^2 =28.40	*p* = .34
Post-Repair Wake Forest Trust Scale (10)	χ^2 =54.13	*p* = .001
Healthcare Avoidance (3)	χ^2 =10.00	*p* = .040

Table 6

Total Number of Participants in Each Measure's Sum Score

Measure	Number of Participants
Baseline Healthcare Positive and Negative Expectations	198
Post-IB Canadian Institutional Betrayal	196
Post-IB Healthcare Positive and Negative Expectations	198
Post-IB Wake Forest Trust Scale	196
Perceived Repair	196
Post-Repair Canadian Institutional Betrayal	196
Post-Repair Healthcare Positive and Negative Expectations	198
Post-Repair Wake Forest Trust Scale	198
Healthcare Avoidance	195

5.2 Demographics and Breakdown of Conditions

Participants in this study were between the ages of 17 and 60 with a mean age of 20.5 years (SD = 4.6 years). Over half the sample identified as women (*n* = 115; ~58%), 76 participants (38.4%) identified as men, 3 identified as transgender, 3 as genderqueer, and 1 selected "prefer not to answer." Over half of participants reported being White (104; 52.5%), 45 (22.7%) identified as Black or African American, 14 (7.1%) identified as South Asian or South Asian American, six (3%) identified as East Asian or East Asian American, three (1.5%) identified as American Indian/First Nations, two (1%) identified as Middle Eastern/Arab/North African, and one participant (< 1%) identified as Native Hawaiian or Other Pacific Islander. Twelve participants (6.1%) identified as multiracial and 10 participants (5%) reported "other" and utilized the write-in response section. Among those 10 participants, 1 (< 1%) indicated identifying as Southeast Asian and nine (4.5%) identified as Hispanic/Latinx/Latin American. Demographic means and standard deviations can be found in Table 7.

Overall, 95 participants were randomly assigned to the institutional betrayal condition with headache as the primary concern. The remaining 103 participants were randomly assigned to the institutional betrayal condition with abdominal pain as the primary concern. For the second random assignment, 47 participants were assigned to the physician interpersonal repair condition, 47 were assigned to the administrator interpersonal repair condition, 53 were assigned to the administrator organizational change repair condition, and 51 were assigned to the control (no repair) condition. Random assignment was conducted via the Qualtrics randomizer function.

Table 7

Demographic Variable Frequencies

Variable	N	%
Gender Identity		
Man	76	38.4%
Woman	115	58.1%
Transgender	3	1.5%
Genderqueer	3	1.5%
Prefer not to respond	1	<1%
Sexual Orientation		
Heterosexual	154	77.8%
Gay/Lesbian	7	3.5%
Bisexual	23	11.6%
Queer	1	0.5%
Questioning/Unsure	6	3%
Pansexual	4	2%
Prefer not to respond or missing	3	1.5%
Race		
White	105	53%
Black/African American	47	23.7%
South Asian/American	14	7.1%
East Asian/American	6	3%
Middle Eastern/Arab	2	1%
Native Hawaiian/PI	1	0.5%
Multiracial	12	6.1%
Other or prefer not to respond	10	5.1%
Chronic Health Condition		
Yes	31	15.7%
No	159	80.3%
Prefer not to respond	8	4%
Insurance Status		
Uninsured	3	1.5%
Medicaid	40	20.2%
Private Insurance	129	65.2%
Prefer not to respond	26	13.1%

5.3 Descriptive Statistics

After cleaning the data, they were visually inspected for outliers. Means and standard deviations are reported in Table 8.

Table 8

Descriptive Statistics

Variable	*M(SD)*			
	Group 1	Group 2	Group 3	Group 4
Post-IB Vignettes Institutional Betrayal	152.90 (26.41)	143.76 (40.05)	152.88 (31.28)	149.12 (33.29)
Post-Repair Vignettes Intuitional Betrayal	110.69 (32.70)	126.26 (36.48)	110.83 (25.83)	144.58 (34.56)
Post-IB Vignette Trust	24.05 (10.37)	24.87 (12.56)	21.90 (10.05)	24.65 (12.61)
Post-Repair Vignette Trust	35.11 (10.59)	28.78 (10.72)	34.74 (9.18)	27.45 (11.08)
Post-IB Negative Healthcare Expectations	5.14 (6.08)	7.13 (6.61)	9.07 (6.45)	7.07 (6.21)
Post-Repair Negative Healthcare Expectations	3.58 (4.03)	5.89 (5.60)	4.93 (4.68)	6.59 (6.12)
Post-IB Positive Healthcare Expectations	12.32 (4.95)	10.06 (5.67)	9.30 (5.71)	11.08 (5.73)
Post-Repair Positive Healthcare Expectations	13.49 (2.23)	12.09 (4.34)	12.30 (3.89)	10.86 (5.29)

Note. Group 1=interpersonal repair by healthcare provider, Group 2= interpersonal repair by healthcare administrator, Group 3 = organizational change, Group 4= control condition (no repair)

5.4 Institutional Betrayal Health Indicator Condition Comparisons: Headaches vs. Abdominal Pain

Independent samples t-tests were used to determine whether there were any significant differences in feelings of institutional betrayal, trust in the healthcare system, or healthcare expectations after reading the institutional betrayal condition, in which participants were randomly assigned to the headache or abdominal pain scenario. It was not expected that these two scenarios would result in different outcomes; however, two health conditions were used to ensure that multiple medical conditions accurately reflected institutional betrayal: headaches and abdominal pain. As anticipated, the independent samples t-test indicated that there was no statistically significant difference in healthcare institutional betrayal reported by participants in

the headache (M = 147.6, SD = 31.2) versus abdominal pain conditions (M = 151.8, SD = 34.0), $t(194) = -.88$, $p = .50$. Further, participants who were randomly assigned to the headache (M = 24.2, SD = 12) and abdominal pain (M = 23.5 SD = 11) conditions did not report statistically significant differences in levels of trust in their healthcare team after reading their respective institutional betrayal vignettes, $t(194) = .39$, $p = .99$. Participants in the headache (M = 7.6, SD = 3.5) and abdominal pain (M = 6.8, SD = 6.4) conditions also did not report statistically significant differences in their negative expectations for future healthcare encounters, $t(196) = .89$, $p = .80$, nor in their positive expectations for future healthcare encounters, $t(196) = .89$, $p = .39$ (headache M = 11.0, SD = 5.5, abdominal pain M = 10.3, SD = 5.7). Thus, analyses suggested that these two different scenarios functioned similarly on the variable of interest (healthcare institutional betrayal) or other related variables.

The institutional betrayal vignettes were adapted from vignettes that were piloted for a different study examining the impact of institutional betrayal on future healthcare expectations. To further confirm that the vignettes were a realistic representation of both an instance of healthcare institutional betrayal as well as something that participants could actually imagine occurring, three questions were posed. These three questions assessed perceptions of the realistic quality of the vignettes. Participants were asked on a scale of 1 = strongly disagree to 5 = strongly agree whether the scenario "felt like it could really happen" to them, whether they could "imagine themselves in the situation," and whether the vignette "felt realistic."

These items were first analyzed by institutional betrayal health condition (headache versus abdominal pain) to determine any differences in the degree to which participants viewed the realism/could align with the health conditions in each scenario. Participants in the headache condition (compared to the abdominal pain condition) indicated higher scores when asked the

degree to which they felt like the situation could have really happened to them, $t(196) = 1.17$, $p = .02$ (headache M = 3.73, SD = .95, abdominal pain M = 3.55, SD = 1.11) as well as higher scores when asked whether they could imagine themselves in the situation illustrated in the vignette, $t(196) = 1.09$, $p = .004$ (headache M = 3.95, SD = .87, abdominal pain M = 3.80, SD = 1.06). However, of note, there was no difference in the degree to which participants thought the two scenarios were realistic, $t(194) = .32$, $p = .38$ (headache M = 4.17, SD = .92, abdominal pain M = 4.13, SD = .80). Both scenarios were viewed by participants as realistic.

In terms of gender differences, men and women likewise indicated that both the headache and abdominal pain conditions were acceptable scenarios. In the abdominal pain condition, an independent t-test indicated that there were no significant differences in the degree to which men and women "felt like it could really happen," could "imagine themselves in the situation," and thought the scenario "felt realistic." However, in the headache condition, t-tests and chi-square statistics indicated that women scored higher when determining whether the scenario "felt like it could really happen," whether they could "imagine themselves in the situation," and whether it "felt realistic" compared to men. Thus, only in the headache condition did woman find the scenario more relatable and realistic than men.

Overall, 67% of participants indicated they agreed or strongly agreed that they "felt like it could really happen" to them, 78% of participants agreed or strongly agreed that they could "imagine themselves in the situation," and 87% indicated (agreed or strongly agreed) that the scenario "felt realistic." Given that the two institutional betrayal scenarios did not significantly differ in participants' perception of institutional betrayal, trust in their healthcare team, expectations for future healthcare encounters, nor in the degree to which they felt realistic to

participants, all subsequent analyses combined responses across these two conditions to increase power.

5.5 Repair

A primary aim of this study was to determine whether participants assigned to the healthcare institutional betrayal vignettes with repair behaviors would report higher levels of perceived repair relative to participants in the control condition (no repair). At present, there is no self-report inventory measuring repair after institutional betrayal. Thus, a six-item, self-report scale was created for the purpose of this study. The questions specifically inquired about feelings of trust restoration as well as relationship repair between the individual and the provider, the individual and the healthcare team, and the individual and the healthcare organization as a whole. Factor analysis on these six items indicated an excellent Cronbach's alpha of .93, with all items loading onto a single factor, indicating a cohesive construct which we have named Healthcare Institutional Betrayal Repair. For the three subscales, Cronbach's alphas were .78 (provider repair), .89 (healthcare clinic repair), and .87 (healthcare system repair).

A one-way ANOVA was conducted to test the impact of repair condition on repair scores. Results indicated that there was a significant effect of repair condition on repair scores, $F(3, 192) = 48.59$, $p < .001$. Tukey's HSD test for multiple comparisons found that participants in each of the three repair conditions reported statistically significantly higher repair scores compared to those participants randomly assigned to the control condition (all p's $< .001$). In addition, mean repair scores were significantly different between interpersonal-provider (M = 18.98, SD = 4.50) and interpersonal-administrator conditions (M = 16.13, SD = 4.95; 95% CI = .37-5.34; $p = .02$), with participants assigned to the provider repair condition indicating greater repair than those assigned to the administrator repair condition. Additionally, mean repair scores

were significantly different between the organizational change condition (M = 20.37, SD = 4.03) and the administrator repair condition, with those assigned to the organizational change condition indicating greater repair compared to those assigned to the interpersonal-administrator repair condition (95% CI = 1.8-6.66; p <.001). The only non-significant comparison was between the interpersonal-provider repair condition and the organizational change condition (p = .44). Overall, from highest to lowest in overall repair scores, conditions are as follows: organizational change (M = 20.37, SD = 4.03), interpersonal-provider (M = 18.98, SD = 4.50), interpersonal-administrator (M = 16.13, SD = 4.95), and control condition (M = 10.02, SD = 5.09).

One-way ANOVAs were also conducted to test the impact of the repair condition on repair subscale scores. Specifically, subscales included repair with provider, repair with the clinic/healthcare team, and repair with the healthcare system as a whole. It was predicted that participants in the organizational change repair condition would report significantly higher levels of healthcare system repair compared with the other three conditions. Results from a one-way ANOVA comparing system-level repair scores among conditions indicated that there was a significant effect of repair condition on the system-level repair subscale, $F(3, 192) = 30.30$, $p <$ .001. Specifically, Tukey's HSD test for multiple comparisons demonstrated that the organizational change repair condition was statistically significantly different from the interpersonal-administrator and control conditions; however, there was no statistically significant difference between system repair subscale scores for the organizational change condition and the interpersonal-provider repair condition. Means and standard deviations for these comparisons can be found in Table 9.

Table 9

Repair Subscale Means

	System Repair		Clinic Repair		Provider Repair	
Condition	M	SD	M	SD	M	SD
Provider-Interpersonal Repair	5.81	1.80	6.45	1.50	6.72	1.81
Administrator-Interpersonal Repair	5.47	1.73	5.49	1.97	5.17	1.91
Organizational-Change Repair	6.72	1.88	7.23	1.51	6.43	1.47
Control Condition	3.41	1.77	3.30	1.81	3.22	1.71

In terms of other relevant constructs, collapsed across condition (including the control condition), greater reports of Healthcare Institutional Betrayal Repair was significantly positively correlated with trust ($r = .55$, $p < .001$) and positive expectations for future healthcare ($r = .29$, $p < .001$), and significantly negatively correlated with reported institutional betrayal ($r = -.59$ $p < .001$), healthcare disengagement ($r = -.14$, $p = .049$), and negative expectations for future healthcare ($r = -.24$, $p < .001$).

5.6 Institutional Betrayal, Trust, Healthcare Disengagement, and Expectations for Future Healthcare Encounters

In addition to understanding whether reparative actions would generate a sense of repair from participants following instances of institutional betrayal, another primary aim of the study was to determine whether participants assigned to vignettes with repair behaviors would report increases in trust and positive expectations for healthcare, and decreases in institutional betrayal, healthcare avoidance/disengagement, and negative expectations for healthcare compared with participants in the control (no repair) condition. Because institutional betrayal, trust, and healthcare avoidance/disengagement were measured post-institutional betrayal (as well as post-

repair), univariate general linear models were used to test these aims in order to control for individual pre-repair scores. In separate models, post-repair institutional betrayal, trust, avoidance/disengagement, and positive and negative expectations for future healthcare encounters were entered as the dependent variables, repair condition was entered as the random factor, and the post-IB institutional betrayal, trust, avoidance/disengagement, and positive and negative expectations for healthcare scores were entered as covariates to account for individual differences in reactions to the institutional betrayal vignettes.

Results from the general linear model indicated that there was a significant effect of condition on post-repair healthcare team trust, F (3,191) = 15.69, p < .001. Pairwise comparisons indicated statistically significant differences between the interpersonal-provider condition (M = 34.74, SD = 1.16) and the interpersonal-administrator condition (M = 28.14, SD = 1.15; 95% CI = 3.38-9.82, p < .001), as well the control condition, (M = 27.0, SD = 1.10; 95% CI = 4.64-10.95, p < .001), with greater healthcare team trust reported by those in the interpersonal-provider repair condition. There were no significant differences in healthcare team trust between the interpersonal-provider condition and the organizational change condition (M = 35.57, SD = 1.09; 95% CI = -3.97-2.32, p = .60). Further, there were no significant differences between the interpersonal-administrator condition and the control condition, 95% CI = -1.94-4.33, p = .45.

Results from the general linear model indicated that there was also a significant effect of condition on post-repair institutional betrayal scores, F(3,190) = 23.85 p < .001. Pairwise comparisons indicated significant differences among all conditions except between the interpersonal-provider and organizational change conditions (95% CI = -9.66-10.52, p = .93). All other differences were statistically significant with p's < .01 such that the highest levels of ongoing betrayal were reported by those in the control condition (M = 145.29, SD=3.59),

followed by the interpersonal-administrator (M = 129.85, SD = 3.76), organizational change (M = 108.85, SD = 3.76), and interpersonal-provider (M = 109.23, SD = 3.75) conditions.

Finally, results from a one-way ANOVA indicated that there was no statistically significant effect of condition on expected future healthcare avoidance/disengagement, $F(3,191) = 1.34$, $p = .26$. However, there was a significant effect of condition on positive expectations of future healthcare encounters, $F(1, 193) = 5.77$, $p < .001$. Of note, at baseline, this sample as a whole had very positive expectations for healthcare as indicated by a mean score of 14.43 (16 is highest possible score). Further, they scored very low on negative expectations for healthcare at baseline with a mean score of 3.74 (20 is highest possible score). Pairwise comparisons demonstrated that participants assigned to any of the three conditions with repair behaviors reported higher positive expectations for future healthcare encounters compared with those randomly assigned to the control condition (all *p*'s < .01). Contrary to expectation, there were no statistically significant differences in positive expectations among the three repair conditions.

In terms of negative expectations for future healthcare encounters, there was also a statistically significant effect of condition, $F(3,193) = 5.17$, $p = .002$. Participants in the control condition reported the most negative expectations for future healthcare encounters (M = 6.64, SD = .54) compared to those in the interpersonal-provider (M = 4.68, SD = .57; 95% CI = .407-3.50, $p = .01$) and organizational change conditions (M = 3.89, SD = .54; 95% CI = 1.24-4.25, $p < .001$). The interpersonal-administrator condition (M = 5.91, SD = .56) did not differ significantly from the control condition (95% CI = -.812-2.27, $p = .35$) in terms of self-reported negative expectations for future healthcare.

5.7 Demographic Covariates

Several covariates were examined in this study including gender identity (man vs. woman), chronic health conditions status (yes vs. no), Race (White vs. racial and ethnic minorities), sexual orientation (heterosexual vs. gay/bisexual/queer/pansexual/questioning/other), and insurance status (private insurance vs. Medicaid/uninsured).

At baseline, female participants (n = 115) reported statistically significantly higher positive expectations for healthcare scores (M = 14.77, SD = 2.30) compared to male participants (M = 13.96, SD = 2.28), $t(189) = -2.40$, $p = .02$. Female participants also reported lower negative expectations for healthcare scores (M = 3.23, SD = 3.44) compared to male participants (M = 4.18, SD = 3.63), though this difference was not statistically significant, $t(189) = 1.82$, $p = .07$).

At baseline, those with a chronic health condition (M = 14.10, SD = 2.66) did not differ significantly from those without a chronic health condition (M = 14.55, SD = 2.25) on positive expectation for healthcare scores, $t(188) = -.10$, $p = .32$. Similarly, for negative expectation scores, those with a chronic health condition (M = 4.27, SD = 4.62) did not significantly differ from those without a chronic health condition (M = 3.61, SD = 3.53), $t(188) = .90$, $p = .37$.

With regards to race, White participants (M = 14.50, SD = 2.16) did not differ from non-White participants (M = 14.35, SD = 3.56) in terms of positive expectation for healthcare scores at baseline, $t(196) = -.42$, $p = .67$. White participants (M = 3.44, SD = 3.65) also did not differ from non-White participants (M = 4.07, SD = 3.72) on negative expectation for healthcare scores at baseline, $t(196) = 1.20$, $p = .23$.

For sexual orientation, those who identified as heterosexual reported higher positive expectations for healthcare at baseline (M = 14.63, SD = 2.17) compared to those who identified as anything other than heterosexual (M = 13.73, SD = 2.81); however, the difference was not

quite statistically significant, $t(58) = -1.97$, $p = .05$). Of note, those who identified as heterosexual far exceeded those who identified as anything other than heterosexual in number ($n = 154$ vs. $n = 44$) so equal variances could not be assumed according to Levine's Test for Equality of Variances. Similarly, for negative expectations for healthcare, participants who identified as heterosexual had lower negative expectations for healthcare (M = 3.23, SD = 3.16) compared to those identifying as anything other than heterosexual (M = 5.5, SD = 4.76), $t(54) = 3.01$, $p = .004$, and this difference was statistically significant. For this measure, the assumption of equal variances was also not met.

Finally, for insurance status, those with private insurance (M = 14.32, SD = 2.45) did not differ from those with Medicaid/who were uninsured (M = 14.64, SD = 2.16) with regard to positive expectations for healthcare, $t(196) = .91$, $p = .36$). Similarly, for negative expectations, those with private insurance (M = 3.80, SD = 3.98) did not differ from those with Medicaid/who were uninsured (M = 3.68, SD = 3.09), $t(196) = -.16$, $p = .87$.

Further, examination of main effects and interaction effects (covariate x repair condition) were not statistically significant for any of the covariates tested with regards to post-repair institutional betrayal or total perceived repair scores. These findings indicated that these demographic variables did not alter the relationships between the repair conditions and reported outcomes of institutional betrayal or healthcare institutional betrayal repair.

CHAPTER 6: DISCUSSION

The purpose of this study was to understand the perceived effectiveness of three repair strategies conducted by provider versus administrator stakeholders following institutional betrayal in a healthcare setting. Specifically, this study aimed to determine whether different reparative actions following institutional betrayal would reduce the perception of betrayal, re-instill trust between the institution and the patient, and prevent future healthcare disengagement/avoidance. The known consequences of healthcare institutional betrayal include patient healthcare disengagement and greater distrust in the provider and healthcare organization (Selwyn et al., 2021; Smith, 2017). However, no known studies have examined the impact of corrective or reparative actions to help restore the patient-healthcare institution relationship and re-instill trust. Thus, this study examined the perceived effectiveness of three repair strategies following healthcare institutional betrayal with the goal to determine whether certain actions, undertaken by a healthcare provider or a healthcare administrator, could repair the individual-system relationship, thus mitigating the known consequences of institutional betrayal.

To accomplish these aims, an experimental design was employed that centered on two common healthcare symptoms—headaches and abdominal pain. These were chosen based on previous research indicating that these are among the most common complaints in primary care (Finley et al., 2018). Participants in this study were randomly assigned to one of two scenarios depicting healthcare institutional betrayal (involving one of these healthcare complaints) and then to one of four scenarios involving repair (three repair and one control vignette). Prior to the repair and after the repair vignette, participants were asked to rate their institutional betrayal, trust in their healthcare team, expectations for future healthcare encounters, and expectations to

avoid future healthcare encounters. Further, they indicated to what degree they believed the second scenario helped to repair their relationship with the provider, the clinic, and the healthcare system as a whole using a repair measure that was devised for this study.

6.1 Guiding Frameworks

This work is situated within betrayal trauma theory (Freyd, 1996) as well as the BITTEN model of trauma-informed care (Lewis et al., 2019). First, Freyd proposed that betrayal occurring within close relationships in which trust is inherently expected (e.g., parenting/caregiving; high betrayal trauma), results in more negative outcomes due to the disruption in trust compared to betrayal in less personal relationships (e.g., betrayal by a stranger; low betrayal trauma). Freyd's work emphasized that the high level of betrayal, above and beyond the effects of the trauma itself, is responsible for many of the negative outcomes associated with betrayal trauma. Thus, those we trust the most to protect us are able to betray us to a stronger degree because the trauma violates the implicit expectation that we will not be harmed by those designated as our caretakers and care providers. Extending betrayal trauma theory to institutional betrayal, particularly in healthcare, most of us implicitly trust and expect that our healthcare organization will care for and protect us (Smith & Freyd, 2013). In fact, this was demonstrated in the current sample by the high scores on the positive expectations for healthcare scale and low scores on the negative expectations for healthcare scale, with relatively little variation among minority groups in this study. Along these lines, physicians even make the promise of beneficence and non-maleficence in their Hippocratic Oath during medical school graduation (Hajar, 2017). However, despite their oath, healthcare providers can also be responsible for perpetrating wrongdoings, or failing to provide competent and safe care as expected, resulting in betrayal trauma for patients. Although betrayal trauma in the context of healthcare has been studied (Gigler et al., 2022; Selwyn et al.,

2021), no research to date has empirically tested whether reparative actions, undertaken by the healthcare provider or the institution, following institutional betrayal can reduce the impacts of the betrayal on patients. This was one of the primary aims of this study.

Second, this study explored reparative actions in the context of the BITTEN model. Lewis and colleagues (2019) posited that there is a need for patients' current healthcare providers to initiate repair following healthcare institutional betrayal. The BITTEN model suggests that a patients' past trauma as well as current instances of institutional betrayal will impact future expectations for healthcare as well as their current healthcare needs and expectations. Thus, situating repair within the BITTEN framework is imperative as it allows for reparative actions to potentially change the course of action with regards to future expectations for healthcare (e.g., trust in providers and the system, healthcare engagement vs. avoidance). In keeping with the BITTEN model, findings from this study demonstrate that repair, at the provider level and at the organizational level, is crucial for managing patient responses to institutional betrayal and should be considered as a formal part of the BITTEN model.

6.2 Healthcare Institutional Betrayal Repair Measurement

There was no validated measure of repair following institutional betrayal at the time of this study's conception; thus, six items were piloted in this study to make up the "Healthcare Institutional Betrayal Repair" scale. It was hypothesized that participants in the organizational change repair condition would report significantly higher levels of healthcare system repair compared with the other three conditions. Results indicated that there was a significant effect of repair condition on the system-level repair subscale. Specifically, the organizational change repair condition better facilitated system-level repair compared to the interpersonal-administrator and control conditions; however, there was no statistically significant difference between system

repair subscale scores for the organizational change condition and the interpersonal-provider repair condition. These results, again, demonstrate that the organizational change and interpersonal-provider repair conditions were very similar in terms of outcomes following institutional betrayal. Of note, the means indicated trends in the expected directions such that the mean for system-level repair was highest in the organizational-change condition, followed by the interpersonal-provider condition.

Overall, further research is needed on the Healthcare Institutional Betrayal Repair measure to determine the degree to which it truly captures the feelings of repair following institutional betrayal in healthcare, and perhaps, in other organizations as well. The measure was significantly positively correlated with trust and significantly negatively correlated with institutional betrayal, indicating good alignment with relevant measures. Further, the Healthcare Institutional Betrayal Repair measure was also significantly negatively correlated with healthcare avoidance, indicating that greater repair scores were related to less likelihood to avoid future healthcare encounters, an important actionable expression of repair.

6.3 Institutional Betrayal Health Indicators

This study utilized two different versions of the institutional betrayal vignette in order to ensure that multiple symptom profiles accurately reflected institutional betrayal. Headaches and abdominal pain were chosen as they are among the most common patient complaints in primary care settings (Finley et al., 2018). Participants assigned to the headache and abdominal pain conditions did not report significant differences in the trust in their healthcare team after reading their respective institutional betrayal vignettes, nor did they report statistically significant differences in their negative or positive expectations for future healthcare encounters. In addition to being similar in terms of the level of betrayal and future healthcare expectations, participants

also reported that they believed the scenarios were equally realistic. However, those in the headache condition indicated that the situation could have really happened to them, and they could imagine themselves in the scenario to a greater degree, compared to those in the abdominal pain condition. Even though participants believed that the scenarios were equally realistic, it is possible that those in the headache condition were more personally familiar with headaches and could therefore envision themselves in the scenario more easily.

Historically, certain symptoms have been labeled as either traditionally female or male problems; for instance, research demonstrates that women report more chronic pain than men as well as more frequent migraines and headaches, low back pain, fibromyalgia, and irritable bowel syndrome (Fillingim, 2017). Although this study did not examine rates of different health conditions, results from this study indicated that both the abdominal pain and headache conditions were perceived as generally credible by both men and women. However, when examined by participant gender identity the only differences that emerged were in the headache condition; specifically, women provided a stronger endorsement that the situation could have really happened to them, they could more readily imagine themselves in the situation, and they rated the vignette as more "realistic" than men. Of note, both men and women, on average, scored 3.5 or above on all three questions, (3 indicates "not sure" and 4 indicates "agree" with total scores ranging from 0 to 5). In the abdominal pain condition, there were no significant differences by gender identity. Overall, these results further demonstrate that the conditions were acceptable portrayals of healthcare scenarios for both men and women in this study.

6.4 Repair Strategies and Review of Findings

This study specifically examined the effectiveness of three repair strategies compared to a control condition. In the first repair condition, the provider that was responsible for the betrayal

was the one who initiated repair by apologizing and asking specific questions about the patient's experience. In the second repair condition, the behavior is similar but is initiated by the administrator of the clinic; the administrator apologizes and asks specific questions about the patient's experience. In the third repair condition, the administrator apologizes and asks specific questions about the patient's experience, but also shares that they plan to meet with clinic leadership to discuss implementing new policies to address the initial concern. The administrator then follows up several weeks later to alert the patient about the clinic changes that have been made. Finally, in the fourth (control) condition, no repair is initiated, and the patient is advised to attend a follow-up appointment in three months. Thus, this study examined the benefits of repairing institutional betrayal through altering the role of the person responsible for the repair (provider vs. administrator) as well as the actions undertaken (acknowledgement and apology vs. organizational-level change).

Based on relevant research focused on different types of betrayal and repair including employee/employer relationships repair (Kähkönen et al. 202), therapeutic rupture repair (Martin et al., 2000), brand crisis management (Li & Wei, 2016), and infidelity (Fife et al., 2013), it was hypothesized that participants assigned to any of the three repair conditions (compared to the control condition) would report increases in healthcare team trust, in conjunction with higher levels of perceived repair and greater positive expectations for future healthcare encounter, decreases in institutional betrayal and expected future healthcare avoidance/disengagement, and as well as lower levels of negative expectations for future healthcare encounters. For each of these outcomes, a similar pattern emerged. For trust scores, participants in the interpersonal-provider and the organization change conditions reported significantly higher levels of trust compared with the control condition and interpersonal-administrator condition (though

interpersonal-provider and organizational change conditions did not differ significantly from one another). Participants assigned to the interpersonal-administrator condition did not report significantly different post-repair trust scores compared with the control condition. These findings indicate that both the interpersonal-provider and organizational change repair conditions resulted in similar changes in trust scores following institutional betrayal. This unexpected finding is discussed further below.

With regard to repair, findings indicated that there was a significant difference in repair scores among conditions. Specifically, participants assigned to either of the three repair conditions reported higher levels of perceived repair compared with those in the control condition. However, there was no significant difference in repair scores between those assigned to the interpersonal-provider repair conditions and the organizational change condition. Likewise, for institutional betrayal scores, results indicated that there were significant differences among all conditions apart from the interpersonal-provider and the organizational change condition. For healthcare avoidance/disengagement behaviors, there were no statistically significant effects of condition, which was contrary to expectations. One hypothesis for this finding is that individuals may generally find it difficult to re-engage with the healthcare system after having a negative experience, despite reparative actions. While trust may have been re-instilled and perceptions of betrayal decreased following repair, it may be that returning to the organization that betrayed you is challenging regardless.

Finally, in terms of positive and negative expectations for future healthcare encounters, participants in any of the three repair conditions reported higher positive expectations for future healthcare encounters (compared to the control condition) and there were no significant differences among the repair conditions. For negative expectations for future healthcare

encounters, there was also an effect of condition. Those in the control condition reported the most negative future expectations and differed significantly from those in the interpersonal-provider and organizational change conditions; however, the interpersonal-provider and organizational change conditions did not differ significantly from one another in terms of negative expectations for future healthcare encounters.

The pattern of findings described above largely demonstrates that all repair conditions generally helped to repair the institutional betrayal through improving trust, future healthcare expectations, feelings of betrayal, and perceptions of repair. However, the organizational change and the interpersonal-provider conditions generally did not lead to significantly different scores and were similarly effective in producing these outcomes (although means were generally higher in the organizational change condition, aligning with the study's hypotheses). This is contrary to what was expected as well as an important finding because the act of organizational change is inherently more costly in terms of time and resources, while acknowledging and apologizing for a negative encounter is relatively simple and likely requires no more than a few minutes. It may be that the vignette depicting organizational change was difficult to envision or seemed too far-fetched to be realistic, thus resulting in outcomes no different than the interpersonal-provider condition. Of note, the realism of the repair conditions was not measured in this study.

In light of these findings, it may be important to consider, and possibly measure in future studies, the degree to which patients view their provider as an individual entity vs. acting on behalf of the organization as a whole. It is possible that there were not significant differences in outcomes between the provider-interpersonal repair condition and the organizational change repair condition because even the provider apologizing was perceived by participants as a type, or indication, of organizational change. This should be explored further in future research to

better understand how individuals perceive providers as fitting into the whole healthcare organization.

Although interpersonal repair was effective for improving trust, future healthcare expectations, feelings of betrayal, and perceptions of repair, there are many barriers to consider. First, physicians have historically been advised against making apologies or illuminating medical errors in order to avoid malpractice lawsuits (Lamb et al., 2003). Although apology laws, laws intended to allow physicians to apologize without those statements being considered in lawsuits (Ho et al., 2011), have made this kind of practice more acceptable, some research suggests that professional norms in the field of medicine still preclude apologies; additionally, apology laws have not been shown to be effective in facilitating physician transparency (Ross & Newman, 2021; Wei, 2006).

Finally, this study examined several covariates including gender identity, sexual orientation, race, insurance status, and chronic health status to determine whether those with minority identities would perceive greater repair following the organizational change condition compared to those who do not hold those identities. Neither the main effects nor the interaction effects (covariate x repair condition) were statistically significant for any of the covariates tested with regards to post-repair institutional betrayal or total perceived repair scores. However, this may have been, in part, related to the small number of participants in certain groups (e.g., only 15% of this sample reported having a chronic health condition, less than 25% reported having Medicaid or no insurance, less than 20% identified as gay/lesbian/bisexual/queer/pansexual/ questioning/unsure). Although there were no significant differences in targeted outcomes, at baseline, some of these groups did differ in terms of baseline expectations for healthcare. Specifically, those who identified as heterosexual (vs. anything other than heterosexual) reported

higher positive and lower negative expectations for healthcare at baseline. Female participants also reported more positive expectations for healthcare at baseline, compared with males. These findings demonstrated that there may be some baseline differences in healthcare experiences and expectations (and possibly trust, though baseline trust was not measured in this study. Thus, future studies on institutional betrayal in general, and those examining repair in particular, should focus on recruiting historically underserved populations, given the breadth of literature indicating that those with minority identities are likely to experience institutional betrayal (Gómez, 2022; Langhinrichsen-Rohling et al., 2021, Smidt et al., 2021).

6.5 Application of Findings

Despite the growing body of research on institutional betrayal in healthcare as well as more recent findings suggesting consequences for future healthcare expectations (Gigler et al., 2022), no known research has examined specific reparative strategies to mitigate these effects. Despite initial predictions that the organizational change condition would facilitate the most significant outcomes regarding perceptions of repair, decreases in institutional betrayal and healthcare avoidance, and increases in trust, acknowledgment of the betrayal and an apology issued by the healthcare provider (interpersonal repair-provider condition) were not statistically significantly different from the organizational change condition. This finding demonstrates that the more arduous repair strategy of initiating systemic change to address the institutional betrayal did not necessarily lead to better outcomes compared to the provider simply listening, acknowledging, and apologizing for what happened. Importantly, this suggests that a small action, one that takes relatively little time and no money, can facilitate clinically meaningful repair between an individual and the healthcare system and potentially mitigate some of the negative consequences of institutional betrayal (e.g., avoiding future healthcare encounters). As

such, these repair strategies, as well as those indicated in future research, may illustrate a potential training opportunity for healthcare professionals (e.g., physicians, PAs, nurse practitioners, pharmacists, and other patient-facing staff).

6.6 Limitations & Future Studies

One limitation of this study was the lack of participants from more diverse backgrounds including race, sexual orientation and gender identity, and chronic illness status. Given that the majority of the sample was White, female, young, and did not identify as living with a chronic medical condition, some of the individuals most susceptible to experience institutional betrayal in healthcare were not represented in this study. Research suggests that institutional betrayal is both more common and more harmful for women, ethnic minorities, and sexual minorities, indicating a critical need for repair in these vulnerable populations (Smidt et al., 2021). In addition to these minority groups, those with chronic illness, specifically Ehler's Danlos Syndrome, are also likely to report experiencing institutional betrayal in healthcare as well as of anger, mistrust in healthcare providers, negative expectations for future healthcare, and unmet needs (Langhinrichsen-Rohling et al., 2021). Unfortunately, findings from this study may not generalize to those with more diverse backgrounds (e.g., race, sexual orientation and gender identity, and chronic illness status) since they were not well represented in this study's sample. Future studies should replicate the current methods to determine whether perceptions of betrayal and repair are consistent across culture.

An additional limitation of this study is that the sample was made up entirely of college students. Although some may argue that college students have limited experience interacting with the healthcare system and are generally healthier as young adults compared with older groups, research suggests that college students still have had significant interactions with the

healthcare system. In one recent study focused on college students, Gigler and colleagues (2022) reported that nearly 70% of their college student sample had experienced at least one healthcare institutional betrayal experience (as measured by the IBQ-H; Smith 2017). In another study of adults aged 18-35, two-thirds of participants reported institutional betrayal in healthcare. Overall, there is evidence that college students, though young and with limited experiences relative to older adult counterparts, still have often experienced negative healthcare experiences in the form of institutional betrayal.

This study was quantitative in nature and did not focus on collecting or analyzing qualitative responses. However, future studies may wish to further investigate repair following institutional betrayal by conducting focus groups or interviews with individuals who endorse past experiences of institutional betrayal. This kind of research could help determine whether certain strategies for repair had been attempted but were not perceived as repairing, whether the timing of a repair strategy impacts perceived repair, the longer-term impact of institutional betrayal and repair behaviors (e.g., to what degree do institutional betrayal or repair persist when patients see a new provider or go to a new clinic?), as well as the degree to which patients may view their healthcare provider as a key representative of the larger system and as acting on behalf of the organization as a whole vs. a truly individual entity. Additionally, the existing relationship a patient has with a provider (e.g., a provider is new to the patient vs. a provider the patient has been seeing for years) may impact the degree to which an instance of betrayal is damaging or can be repaired.

Choosing health symptoms for the vignettes was challenging because it needed to be a condition with which many people are familiar. However, besides relatability, the symptom itself was not directly related to the perceived institutional betrayal; rather, that the provider dismissed

the patient's concerns, and the nurse informed the patient that the provider would not have forgotten to mention the medication's side effects, were truly the qualities indicating institutional betrayal in the vignette. Thus, any number of health symptoms or conditions could have been represented in the vignettes and the outcome would be expected to be similar. Our findings demonstrated that, in fact, there were no significant differences in the level of institutional betrayal reported by individuals who read the headache vignette or the abdominal pain vignette. Nevertheless, future studies should further examine whether certain conditions (perhaps those that continue to carry stigma such as substance use or mental health disorders), should be examined in this context. Future studies may also wish to delve deeper into the importance of the chronicity or severity of the illness.

Finally, although different repair strategies were explored in terms of the agent (provider vs. administrator) and action (apology vs. organizational change), future studies may wish to explore whether a repair condition including an apology by the healthcare provider in addition to organizational change enacted by the clinic's administrator would have results in the greatest perceptions of repair.

6.7 Summary

Institutional betrayal is a type of betrayal trauma that occurs between an organization/system and individuals who depend on that system for care. The consequences of institutional betrayal in healthcare settings include patient healthcare disengagement and greater mistrust in the healthcare organization and providers (Smith, 2017). Prior to this study, there was no empirical research on corrective actions to help repair institutional betrayal in healthcare. The goal of this study was to determine whether certain behaviors following institutional betrayal in healthcare could repair the individual-system relationship, which was measured by the

restoration of trust, decreases in perceived betrayal, the mitigation of healthcare disengagement/avoidance, and higher positive and lower negative expectations for future healthcare.

Findings indicated that reparative actions significantly mitigated some of the negative outcomes associated with institutional betrayal (e.g., lower trust, healthcare disengagement, feelings of betrayal, etc.). Specifically, two of the repair conditions had notable outcomes. First, when the healthcare provider acknowledged the patient's concerns and apologized for what happened, participants noted significant repair no demonstrated by the interpersonal-administrator or control conditions. Additionally, when the healthcare administrator acknowledged what happened, apologized, and implemented organizational change (e.g., new procedures or policies to prevent similar problems from occurring), participants likewise noted significant repair, above and beyond that of the interpersonal administrator and control conditions.

Overall, the findings from this study demonstrate that institutional betrayal does not (necessarily) damage the patient-healthcare system relationship beyond repair. Further, there are specific actions that can be taken to facilitate repair. Finally, simply acknowledging and apologizing to patients who have experienced institutional betrayal in healthcare may actually result in significant repair that is no less effective than making more cost-prohibitive organizational changes. Given the documented negative sequelae to institutional betrayal in the context of healthcare, these findings are clinically meaningful.

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APPENDIX A: STUDY VIGNETTES

Vignettes

Institutional Betrayal Vignettes (all participants presented with one version at random)

Instructions: Please read the following scenario and envision that you really experienced this situation and that it occurred in the United States.

1. Version 1—Headaches

You visit your primary care doctor after experiencing persistent, nearly daily headaches for the past 6 months. Your doctor is part of a large practice, and they all work closely together. While you wait in the exam room, one of the nurses comes in and measures your vital signs (blood pressure and heart rate) and notes the reason for your visit. Next, your doctor comes in and asks about the history of your headaches. The doctor suggests that your headaches are likely a result of your lifestyle (not enough sleep and high levels of stress). You get the impression that your doctor isn't taking your headaches seriously. Instead, your doctor seems to be interested in moving onto the next patient as quickly as possible. The visit feels rushed. You feel that you are not being listened to and your symptoms are being minimized. Your doctor decides, despite your objections, that these headaches will go away with more sleep and less stress. Following this visit, your headaches persist, and you have to miss work because of the severe nature of the headaches. You return to the doctor a second time. Again, the practice is very busy. At this second visit, without discussing it with you, the doctor is quick to prescribe topiramate, which is a standard treatment for headaches of this nature. The doctor warns you that there may be some side effects to the medication, including tiredness. Upon beginning to take topiramate, you experience tingling in your hands and feet. You are worried, as the doctor did not mention this

potential side effect. You call the doctor's office and eventually get a call back from a nurse. The nurse tells you that they are certain that the doctor would have told you about all the potential side effects, including the possibility of tingling in the hands and feet. You receive a bill four weeks later for these visits and are surprised at the amount, as you were not previously informed you would be receiving this bill from the practice.

2. Version 2—Abdominal Pain

You visit your primary care doctor after experiencing persistent, nearly daily abdominal pain for the past 6 months. Your doctor is part of a large practice, and they all work closely together. While you wait in the exam room, one of the nurses comes in and measures your vital signs (blood pressure and heart rate) and notes the reason for your visit. Next, your doctor comes in and asks about the history of your abdominal pain. The doctor suggests that your pain is likely a result of your lifestyle (diet and high levels of stress). You get the impression that the doctor isn't taking your abdominal pain seriously. Instead, your doctor seems to be interested in moving onto the next patient as quickly as possible. The visit feels rushed. You feel that you are not being listened to and your symptoms are being minimized. Your doctor decides, despite your objections, that the abdominal pain will go away with changes to your diet and less stress. Following this visit, your abdominal pain persists, and you have to miss work because of the severe nature of the pain. You return to the doctor a second time. Again, the practice is very busy. At this second visit, without discussing it with you, the doctor is quick to prescribe Bentyl to help treat your abdominal pain in the future, which is a standard treatment for abdominal pain of this nature. The doctor warns you that there may be some side effects to the medication, including constipation. Upon beginning to take Bentyl, you experience dizziness. You are worried, as the doctor did not mention this as a potential side effect. You call the doctor's office

and eventually get a call from a nurse. The nurse tells you that they are certain that the doctor would have told you about all the potential side effects, including the possibility of dizziness. You receive a bill four weeks later for these visits and are surprised at the amount, as you were not previously informed you would be receiving this bill from the practice.

Repair Vignettes (all participants presented one at random)

Instructions: Please read the following scenario and envision that you really experienced this situation. Now, please answer the following questions, considering the scenario you just read about.

1. Repair 1: Physician—interpersonal

Six weeks later, you attend a follow-up appointment. The doctor asks whether the medication seems to have been helping with the frequency and severity of your symptoms. You state that you have noticed some improvement but that you were initially caught off guard by the side effects, as you did not remember the doctor mentioning those. They apologize, stating that it is possible that they forgot to mention all the potential side effects of the medication. You also share that you felt frustrated because it did not seem like they were taking your concerns seriously or involving you in the treatment planning at the last appointment. The doctor asks you specific questions about how you felt during and after your appointment. They share that they understand your frustration and apologize for minimizing your concerns about your pain. They also apologize for the miscommunication regarding the medication side effects and the nurse's reaction to your confusion. The doctor asks you a few more questions about the nature of your current symptoms and tells you to come back in three months for another follow-up appointment. You leave feeling like the doctor understands your point of view and you feel heard.

2. Repair 2: Administrator—interpersonal

Six weeks later, you attend a follow-up appointment. Before your appointment begins, you ask to speak with the clinic manager. You share about your experience at your appointment the last time stating that you were initially caught off guard by the side effects of the new medication as you did not remember the doctor mentioning those. They apologize, stating that it is possible that the doctor forgot to mention all the potential side effects of the medication. You also share that you felt frustrated because it did not seem like the doctor was taking your concerns seriously or involving you in the treatment planning at the last appointment. The clinic manager asks you specific questions about how you felt during and after your appointment. They share that they understand your frustration and apologize that the doctor minimized your concerns about your pain. They also apologize for the miscommunication regarding the medication side effects and the nurse's reaction to your confusion. You leave feeling like the clinic manager understands your point of view and you feel heard.

3. Repair 3: Administrator-organizational change

Six weeks later, you attend a follow-up appointment. Before your appointment begins, you ask to speak with the clinic manager. You share about your experience at your appointment the last time stating that you were initially caught off guard by the side effects of the new medication as you did not remember the doctor mentioning those. They apologize, stating that it is possible that the doctor forgot to mention all the potential side effects of the medication. You also share that you felt frustrated because it did not seem like the doctor was taking your concerns seriously or involving you in the treatment planning. The clinic manager asks you some more specific questions about what happened during your appointments. They share that they

plan to meet with the clinic leadership team to discuss implementing new policies to ensure that the experiences that you had do not happen to other patients. You leave feeling like your concerns were heard and that the clinic is committed to making necessary changes. Two weeks later you receive a call from the clinic manager stating that based on your complaint, and others like it, they have implemented a clinic-wide policy to extend patient appointments from 10 minutes to 20 minutes to allow more time for patient-physician communication. You feel like the clinic really heard your concerns and made an effort to address them.

4. Repair 4: Control-No Repair

Six weeks later, you attend a follow-up appointment. The doctor asks whether the medication seems to have been helping with the frequency and severity of your symptoms. You state that you have noticed some improvement but that you were initially caught off guard by the side effects, as you did not remember the doctor mentioning those. You also share that you felt frustrated because it did not seem like they were taking your concerns seriously or involving you in the treatment planning at the last appointment. The doctor asks you a few more questions about the nature of your current symptoms and tells you to come back in three months for another follow-up appointment.

APPENDIX B: STUDY MEASURES

Demographics

1. Age (fill in) or "I choose not to answer"
2. Gender (male/female/transman/transwoman/non-binary/prefer not to say/prefer to self-describe: ____) or "I choose not to answer"
3. Sexual orientation (Heterosexual; Gay/Lesbian; Bisexual; something else: ___; prefer not to say) or "I choose not to answer"
4. Race (White; Black/African American; Hispanic/Latino; Asian; American Indian or Alaskan Native; Native Hawaiian or other Pacific Islander; Other) or "I choose not to answer"
5. Ethnicity (Hispanic/Latino/Latina; Not Hispanic/Latino/Latina) or "I choose not to answer"
6. Healthcare coverage status (uninsured/Medicaid/Medicare/private insurance/underinsured or catastrophic event) or "I choose not to answer"
7. Was English your first language? (yes/no) or "I choose not to answer"
8. Have the majority of your healthcare experience (e.g., going to the doctor, hospital, etc.) occur in the United States? (yes/no, most of my healthcare experiences occurred in _____) or "I choose not to answer"
9. Do you have a chronic health condition? (yes/no) or "I choose not to answer"
10. If you have a chronic health condition, please list it here (open response) or "I choose not to answer"

Canadian Institutional Betrayal

Please rate the extent to which the healthcare institution:

5-point Likert scale response format (from either "never" to "almost always" for behavioral items, or "not at all" to "extremely" for items indicative of an emotional response.

1. Made me feel betrayed
2. Made me feel cautious about seeking care
3. Made me feel reluctant to seek further medical care
4. Made me feel angry
5. Made me feel sad
6. Made me feel hurt
7. Made me feel disrespected
8. Made me feel ignored
9. Made me feel dismissed
10. Made me feel disappointed
11. Made me feel helpless
12. Made me feel desperate
13. Made me feel humiliated
14. Made me feel ashamed
15. Made me feel like the medical providers didn't really care about me

16. Made me feel scared/terrified
17. Made me feel lonely/alone
18. Made me feel guilty
19. Made me feel disempowered
20. Made me feel less trusting of the medical system
21. Medical professionals fail to provide appropriate treatment (e.g., did not provide a solution to the problem).
22. The medical system fails to efficiently administer care (e.g., lack of continuity of care, delay in care).
23. Doctors provide inadequate information about risks and procedures of various treatments.
24. Medical providers do not communicate effectively with patients.
25. Medical providers do not listen to patients' concerns.
26. Medical providers are not open to patients' input.
27. Medical professionals are not open to alternative treatments (e.g., place emphasis on pharmaceuticals).
28. Medical providers lack appropriate training for some complex cases.
29. Medical professionals are not held accountable or sanctioned for their actions.
30. The medical system creates barriers to care (e.g., not enough time spent with patients, long wait times, financial issues, shortage of doctors).
31. The medical system did not take proactive steps to prevent these experiences.
32. The medical system created an environment in which these types of experiences seemed common.
33. The medical system created an environment in which these experiences seemed more likely to occur.
34. The medical system made it difficult to report the experiences.
35. The system mishandled your report of a problem with a medical professional and/or the medical system, or failed to take disciplinary action.
36. The medical system covered up these experiences.
37. The medical system denied your experiences in some way.
38. The medical system punished you in some way for reporting these experiences (e.g., loss of privileges or status).
39. The system or medical professionals suggested your experiences might affect the reputation of the institution.
40. The medical system created an environment where you no longer felt like you were valued within the system.
41. The medical system created an environment where seeking future medical care was difficult for you.
42. The medical system created an environment that promoted further negative experiences.

<u>Wake Forest University Trust Scales – Interpersonal Trust in Physician</u>

(0-strongly agree/1-agree/2-somewhat agree/3-neither agree not disagree/4-somewhat disagree/5-disagree/6strongly disagree)

1. [Your team] did whatever it took to get you all the care you needed.

2. Sometimes [your team] cared more about what was convenient for [him/her] than about your medical needs.
3. [Your team]'s medical skills were not as good as they should have been.
4. [Your team] was extremely thorough and careful.
5. You completely trusted [your team]'s decisions about what medical treatments were best for you.
6. [Your team] was totally honest in telling you about all of the different treatment options available for your condition.
7. [Your team] only thought about what was best for you.
8. Sometimes [your team] did not pay full attention to what you were trying to tell them.
9. You had no worries about putting your life in [your team]'s hands.
10. All in all, you had complete trust in [your team].

Healthcare Avoidance/Engagement

(not at all/a little bit/moderately/quite a bit/extremely)

1. To what degree do you expect to avoid accessing healthcare services after this experience?
2. To what degree do you expect to delay seeking medical care after this experience?
3. To what degree do you expect to deliberately withhold information from healthcare providers after this experience?

Healthcare Institutional Betrayal Repair

(not at all/a little bit/moderately/quite a bit/extremely)

1. After your last interaction, to what degree do you believe the provider's behavior facilitated restoring your trust in them?
2. After your last interaction, to what degree do you believe that the provider's behavior facilitated restoring your trust in that healthcare clinic?
3. After your last interaction, to what degree do you believe that the provider's behavior facilitated restoring your trust in the healthcare system as a whole?
4. After your last interaction, to what degree did their behavior sufficiently repair your relationship with the provider you saw?
5. After your last interaction, to what degree did their behavior sufficiently repair your relationship with the clinic where you were receiving services?
6. After your last interaction, to what degree did their behavior sufficiently repair your relationship with the healthcare system as a whole?

Open-Ended Questions—Repair

1. If you endorsed that this interaction helped repair your relationship, what led to that repair? What specifically happened that influenced you?
2. It this interaction did not repair your relationship, what would you have needed for your faith to be restored in the healthcare system?

Expectations for Healthcare

Determine the degree to which you expect each item to happen while you are seeking healthcare. (not at all/a little bit/moderately/quite a bit/extremely)

1. To be listened to (positive)
2. To receive clear explanation and instructions about your condition (positive)
3. To be treated by staff who show care/concern/compassion (positive)
4. To be treated by staff who are professional in their work (positive)
5. To discuss several major problems, all in one standard consultation
6. To be given a prescription without a consultation
7. To be able to call the physician 24 hours a day for any problems
8. To think that the physician will always know the exact diagnosis at first consultation
9. To think that the physician will always start treatment immediately
10. To be left alone for extended periods of time (negative)
11. To be ignored (negative)
12. To have your symptoms minimized (negative)
13. To be judged (negative)
14. To be left out of your treatment planning (negative)

Debriefing/Resources

Thank you for participating in this study. All responses are anonymous. Your responses will aid in understanding the impact of institutional betrayal and repair in healthcare.

If you felt distressed during or following the survey, please reach out to your support networks or contact one of the resources below:

- Your primary care physician
- Hope Line Network: 1-800-SUICIDE (784-2433)
- National Suicide Prevention Hotline: 1-800-273-8255
- Veterans Crisis Line: 1-800-273-8255
- UNCC Center for Counseling and Psychological Services (CAPS)

  Address: 9502 Poplar Terrace Dr, Charlotte, NC 28262
  Phone: (704) 687-0311
  Website: https://caps.uncc.edu/

- UNCC Student Health Center
  Address: 9530 Poplar Terrace Dr, Charlotte, NC 28223
  Phone: (704) 687-7400
  Website: https://studenthealth.uncc.edu/

If you have any questions or concerns about the study, feel free to contact Fallon Richie, MA (frichie@uncc.edu) or Jennifer Langhinrichsen-Rohling, Ph.D. (jlanghin@uncc.edu) or the University of North Carolina at Charlotte Institutional Review Board at (704) 687-1871 or uncc-irb@uncc.edu.

Thank you!

APPENDIX C: RESULTS FROM M. GIGLER'S PILOT STUDY ON COMPONENTS OF INSTITIONAL BETRAYAL

Examples of institutional betrayal (IB)	*N*	*M*	*SD*	*% endorsed as IB*
Doctor running behind	27	2.00	1.00	33.30%
Gaslighting by attributing patients' symptoms to lifestyle	27	3.26	.86	74.10%
Exclusion from treatment planning	24	3.46	.72	77.78%
Delayed test result	26	2.92	.80	70.37%
Not being warned about side effects	26	3.92	.27	96.30%
Gaslighting a second time (saying the doctor would have told you about side effects)	25	3.80	.41	92.59%
Bill with surprising amount	26	3.38	.70	85.19%

Note. *N* differs among elements because participants chose not to respond to an answer or indicated that this element did not happen in the scenarios they reviewed.