“SO WHAT HAPPENED TO YOU?” A PILOT STUDY EXAMINING THE IMPACT OF ABLEIST MICROAGGRESSIONS

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Hannah J. Anstey, candidate for the degree of Master of Arts in Psychology, has presented a thesis titled, “So What Happened to You” A Pilot Study Examining the Impact of Ableist Microaggressions, in an oral examination held on August 30, 2019. The following committee members have found the thesis acceptable in form and content, and that the candidate demonstrated satisfactory knowledge of the subject material.

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Abstract

Microaggression involves seemingly innocent, subtle, and brief discriminatory behavior that can have a detrimental impact due to its omnipresent perpetration against members of marginalized groups. Microaggressions perpetrated against individuals with disabilities are often rooted in ableism. Ableism refers to the belief that anyone who does not fit into able-bodied norms is not worthy of equal treatment. Further, ableism perpetrated by institutions creates an environment in which institutional betrayal is fostered. Institutional betrayal has been shown to exacerbate the negative effects of trauma or discrimination. The present study was designed to investigate the immediate impact of an ableist microaggression on individuals with disabilities and how this impact interacts with institutional betrayal. Forty-six participants who had experienced a change in physical ability associated with a change in functioning were investigated. Participant negative state affect, or mood, was measured unobtrusively prior to and after a moment of microaggression to investigate how a microaggression impacts mood directly after it occurs and any additional impact of institutional betrayal. Due to the limited sample size utilized in this study, the results must be interpreted with caution as the study was underpowered. A 2 X 2 analysis of variance (ANOVA) was conducted to investigate differences in negative affect scores between the microaggression and control conditions. Participant negative affect was shown to decrease over time regardless of condition. The results of this ANOVA were bolstered by the qualitative content analysis that showed participants largely reacted neutrally to the microaggression or potential microaggression. It is likely the type of microaggression and the context in which the
microaggression occurred impacted the results. Future directions and implications are discussed.
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1. Introduction

“You will get better soon” is a well-intentioned phrase that is too often utilized when talking to individuals with physical disabilities. While it may seem innocent, when individuals are continuously told that they need to get better because what they are is not well, it can have seriously detrimental consequences (Keller & Galgay, 2010). This suggestion is an example of a form of microaggression that is often perpetrated against individuals with disabilities (Keller & Galgay, 2010). Microaggression refers to subtle, often indirect, discriminatory behavior perpetrated against members of marginalized groups (Sue et al., 2007). Often, microaggressions that are directed against individuals with disabilities are rooted in ableism. Ableism is a system of beliefs that purports that there is a ‘right’ and typical way to be and that anything that does not meet this standard is wrong or inferior (Campbell, 2001). Ableist microaggressions are thought to be harmful due to their association with negative mental health outcomes (Kattari, 2017). However, few studies have focused on microaggressions perpetrated against individuals with disabilities (Conover, Israel, & Nylund-Gibson, 2017). Further, institutional ableism, or pervasive conventions that are perpetuated by society’s systematic disadvantaging of individuals with disabilities (Chaney, 2015), can create an environment in which institutional betrayal is fostered. Institutional betrayal is the failure of an institution to proactively prevent harm, or to be supportive following harm, and has been shown to exacerbate the negative effects of initial trauma or discrimination (Smith & Freyd, 2013). The present study was designed to extend past research by investigating the impact of ableist microaggressions in conjunction with the compounding effect of institutional betrayal.
1.1 Defining Disability

Statistics Canada (2018) relies on The World Health Organization’s definition of disability. The World Health Organization (WHO; 2018) defines disability in the following manner:

Disabilities is an umbrella term, covering impairments, activity limitations, and participation restrictions. An impairment is a problem in body function or structure; an activity limitation is a difficulty encountered by an individual in executing a task or action; while a participation restriction is a problem experienced by an individual in involvement in life situations. (p. 1)

This definition suggests that disability is defined by not only the impairment itself, but also the impact it has on quality of life. In Canada, nearly 14% of the population aged 15 and older report having a disability that impacts their daily lives (Statistics Canada, 2018). Further, it was found that physical disabilities related to flexibility, mobility, and pain were the most common. These were found to affect 12% of the population aged 15 and older, with prevalence increasing with age, from less than 1% among 15 to 24 year olds, to 27% among those 75 years or older (Statistics Canada, 2018). The fact that physical disability rates tend to increase with age suggests that individuals often acquire disability as they age. This is important to note as it is predicted that the proportion of individuals aged 85 and older in Canada is expected to grow from 2.2% of the population in 2016 to 5.7% of the population in 2051 (Statistics Canada, 2017). The proportion of older adults in Canada is growing with each year (Statistics Canada, 2017) suggesting that as our population ages we can expect a higher proportion of individuals to have physical disabilities. Thus, in an effort to narrow the target population for this
research and take into account the implications of an aging population, the author has chosen to focus on individuals with acquired physical disabilities.

For the purposes of this study, I define acquired physical disability as a change in physical ability that is associated with a change in functioning. Many individuals who have functional differences that meet traditional definitions of disability choose to reject this terminology, instead fostering an identity that is separate from their bodies’ abilities (Watson, 2010). Taking on the identity of a ‘disabled person’ may reinforce a damaging dichotomy that defines what a ‘normal’ body is and what it is not. Many individuals with differences in ability reject the term disability and concurrently reject the idea of a ‘normal’ body (Watson, 2010). Further, others may not consciously reject the label, but would rather not identify with something that suggests their experience is abnormal (Watson, 2010). As a result, relying on the definition (a change in physical ability that is associated with a change in functioning), rather than the label (disability), allows individuals who might not identify as having a disability to participate in this research. However, for the purpose of this literature review the term ‘disability’ was utilized, as it is consistent with what is used in the literature.

1.2 Microaggression

For the purpose of this literature review and consistent with past literature on microaggressions, terms such as perpetrate and committed will be used to describe those who commit microaggressions, or subtle discrimination. The implicit and unseen nature of microaggressions allows individuals to ignore the detrimental impact their perpetration of microaggressions has on marginalized groups (Sue et al., 2007). Microaggression are powerful because they are seemingly invisible to the perpetrator
and those they are perpetrated against and when things are invisible it is difficult to hold someone accountable (Sue et al., 2007). However, using language such as “perpetrators of microaggressions” or those who “commit microaggressions” places the culpability onto those who are complicit with these acts of discrimination. All persons benefit from the privileges afforded to them by birth and ignorance to these privileges is no longer an excuse to perpetrate discrimination. Thus, the language used in this literature review pertaining to microaggressions is deliberate and meant to erase the invisibility surrounding microaggressions while placing culpability on those who perpetrate them.

Pierce, Carew, Pierce-Gonzalez, and Wills (1977) coined the term microaggression to describe “subtle, stunning, often automatic, and non-verbal exchanges which are ‘put downs’ of blacks by offenders” (p. 65). Initially, the term was used in the context of racism but is now utilized in reference to the discrimination many marginalized groups face. The brevity and mundane aspect of microaggressions can often make them seem innocuous (Sue et al., 2007). Perpetrators of microaggressions often are ignorant to the fact that they are engaging in any sort of derogatory or racist conduct, as microaggressions are perpetrated through means such as indirect body language or dismissive behavior, and not overt aggression (Sue et al., 2007). Further, microaggressions are often perpetuated by implicit biases against marginalized groups that exist outside one’s conscious awareness and negatively impact the way individuals interact with and evaluate others (Ditonto, Lau, & Sears, 2013). However, despite the seemingly innocent and unconscious aspects of microaggression, it has a detrimental impact on those it is perpetrated against due to its pervasive nature and cumulative effect (Pierce et al., 1977; Sue et al., 2007). Microaggression has been shown to be negatively
associated with cognitive functioning (Salvatore & Shelton, 2007) and mental health symptoms (Donovan, Galban, Bennett, & Felicie, 2012; Nadal, Griffin, Wong, Hamit, & Rasmus, 2014; Sue et al., 2007), to be associated with depressive symptoms (Donovan et al., 2012; Nadal et al., 2014), as well as anxiety and negative affect, or mood (Nadal et al., 2014).

Sue and colleagues (2007) introduced three forms of racial microaggression: microassault, microinsult, and microinvalidation. Microassault is defined as purposeful discriminatory behavior intended to harm (Sue et al., 2007). Microassaults are conscious and deliberate forms of microaggression and involve things such as name calling conducted with the purpose of causing harm to the aggressed (Sue et al., 2007). Microassaults are more consistent with overt racism than any other form of microaggression however, they differ in the setting in which they are perpetrated, which is typically in more private situations that allows the perpetrator to escape consequences. Conversely, microinsults are subtler and are characterized by insensitivity and minor insults. Often, the individual committing the microinsult is unaware that they are behaving in a problematic manner (Sue et al., 2007). A microinsult might involve implying that a marginalized group member gained entrance to university due to affirmative action. Lastly, Sue et al. (2007) identified microinvalidation, which involves behavior or communications that work to invalidate and negate the experiences and feelings of marginalized group members. This might involve inadvertently dismissing a colleague’s experience related to his, her or, their race. Though historically microaggression was a term used in relation to racism (Pierce et al., 1977; Sue et al., 2007) racial minorities are not the only marginalized group members who are subject to
microaggressions. Sue and colleagues’ (2007) categories of microaggressions can be applied to disability as well as race, with microassaults, microinsults, and microinvalidations being perpetrated based on ability as opposed to race.

### 1.3 Microaggression and Disability: Summarizing Keller and Galgay’s Domains of Microaggression

Microaggressions are often committed against individuals with disabilities. Keller and Galgay (2010) determined eight domains in which individuals with disabilities often experience microaggression. Domain one, *denial of identity*, involves the denial of personal identity or ignoring aspects of an individual’s identity that are unrelated to his, her, or their disability, suggesting that the individual is defined by his, her, or their disability (Keller & Galgay, 2010). Further, this domain also involves the invalidation of a person with disability’s experience through the minimizing of the negative aspects of his, her, or their disability or through the suggestion that a person without a disability understands or is somehow a part of his, her, or their experience (Keller & Galgay, 2010). An able-bodied person cannot truly understand the experience of someone with a disability as they cannot know what it is like to be marginalized by systematic ableism. Suggesting an able-bodied person can understand the experience of someone with a disability invalidates the marginalization people with disabilities experience. Domain one also involves the denial of experience, which may occur through the blatant denial of an individual’s disability, suggesting the personal experience of the individual is not worthy of acknowledgement or not real in its implications (Keller & Galgay, 2010).
Domain two, denial of privacy, involves inappropriately soliciting personal information from an individual with a disability (Keller & Galgay, 2010). This could involve inquiring about how a person acquired his, her, or their disability without considering how uncomfortable it might make them (Keller & Galgay, 2010). This intrusive inquiry suggests that you no longer have a right to privacy if you have a disability (Keller & Galgay, 2010).

Domain three, helplessness, involves treating people with disabilities like they always need help or like they cannot accomplish things on their own (Keller & Galgay, 2010). An example of this might be rushing to offer help to someone in a wheelchair who is simply crossing the street (Keller & Galgay, 2010). While being differently abled might mean that you cannot always participate in a conventional way, being treated like you are unable to function suggests that a disability is a life-ending catastrophe (Keller & Galgay, 2010).

Domain four, secondary gain, involves interacting with an individual with a disability for the purpose of gaining something or as a means to feel better about one’s self (Keller & Galgay, 2010). This can occur when someone spends time with an individual with a disability as a means to show what a ‘great’ person they are, as opposed to spending time with them due to genuine friendship (Keller & Galgay, 2010). The message this sends is that an individual with a disability is a tool for self-gain and not an individual worthy of genuine interactions (Keller & Galgay, 2010).

Domain five, spread effect, involves assuming disability in one functional area means disability in other functional areas (Keller & Galgay, 2010, p. 254). This might involve speaking slower than usual when talking to someone who is blind due to an
assumption that they also have a hearing deficit (Keller & Galgay, 2010). The message this sends is that a difference of functioning in one area of life leads to inability to function in all areas of life (Keller & Galgay, 2010).

Domain six, *patronization*, involves infantilization, or treating an individual with a disability like a child (Keller & Galgay, 2010). *Patronization* often occurs in one of two ways. First, *patronization* may involve making decisions for an individual with a disability when they are fully capable of doing it on his, hers, or their own, or trying to do things for the individual that he, she, or they can do on his, her, or their own (Keller & Galgay, 2010). Second, *patronization* can be expressed through showing admiration when a person with a disability completes a simple task. *Patronization* sends the messages that not only are individuals with disabilities not capable of adult interaction, but also that any task is an accomplishment because persons with disabilities have no ability (Keller & Galgay, 2010).

Domain seven, *second-class citizenship*, involves treating the rights of individuals with disabilities to “equal access” as unnecessary, gratuitous, or inconvenient (Keller & Galgay, 2010, p. 256). Keller and Galgay (2010) suggested three subtypes within the domain of *second-class citizenship*: avoidance, burden, and environmental. Avoidance involves disregarding the presence of an individual with a disability by doing things such as asking the person they are with what they want to eat. Burden involves treating an individual with a disability like they are a concern or hardship that has to be taken care of (Keller & Galgay, 2010). An example of this might be refusing to take an individual in a wheelchair on a school trip because it would take too much effort to make transportation arrangements. Lastly, environmental microaggression refers to the
existing social structures that continue to value ability over disability by preventing equal access to individuals with disabilities (Keller & Galgay, 2010). This might involve a hotel that requires an individual in a wheelchair to enter through staff entrances to get to a conference room. The message that these microaggressions send is that individuals with disabilities are not worthy of the time and other resources it would take to make accommodations for them (Keller & Galgay, 2010).

Domain eight, desexualisation, involves denying an individual with disabilities sexual identity or sexuality (Keller & Galgay, 2010). Keller and Galgay (2010) gave the example of an individual with a disability whose guidance counsellor encouraged her to go to a women’s only college because they assumed she would have no interest in dating. Desexualisation is often related to infantilization, especially in the case of individuals with cognitive disabilities, as people often assume that they lack the maturity to be a sexual being (Keller & Galgay, 2010). The message desexualisation sends is that a person with a disability cannot and should not be sexual because of his, her, or their disability (Keller & Galgay, 2010).

Lastly, Keller and Galgay (2010) identified two “auxiliary findings” (p. 257) that did not have enough support by the focus groups to form domains. First, they identified exoticization, meaning ascribing a hyper sexuality to an individual because of his, her, or their disability. There was evidence of this in the account of one individual who reported that a perpetrator of this form of microaggression fetishized individuals with disabilities and chose to only be romantically involved with someone if they had a disability (Keller & Galgay, 2010). Finally, Keller and Galgay (2010) identified spiritual intervention, in which individuals would inappropriately touch persons with a disability or pray at them.
Both these forms of microaggression carried “depersonalizing characteristics,” or made individuals with the disability feel disconnected from themselves and their autonomy (Keller & Galgay, 2010, p. 257). Conover and colleagues (2017) developed a scale investigating ableist microaggressions and found results consistent with Keller and Galgay’s (2010) domains, suggesting many individuals with disabilities experience the particular types of discrimination described in these domains. However, regardless of the type of microaggression perpetrated, they all tend to have one thing in common: microaggressions directed at individuals with disabilities are rooted in ableism (Kattari, 2017).

1.4 Ableism

Thomas Hehir (2002) describes ableism as:

societal attitudes that uncritically assert that it is better for a child to walk than roll, speak than sign, read print than read Braille, spell independently than use a spell-check, and hang out with nondisabled kids as opposed to other disabled kids. (p. 1)

Ableism is the privileging of ability over disability and involves the devaluing of individuals who do not meet societal definitions of ‘able’ (Hehir, 2002). It is systematic discrimination that is enabled and perpetuated by the societal belief that to have a disability is to be incapable (Hehir, 2002). Ableism is not always overt and often individuals who hold ableist beliefs are unaware that they are problematic (Hehir, 2002). Despite this fact, ableist beliefs have been found to contribute to the perpetration of microaggressions against people with disabilities, which are associated with symptoms of both depression and anxiety (Kattari, 2017).
1.5 Impact of Ableist Microaggressions

The impact of microaggressions on the mental health outcomes of individuals with disabilities has a dearth of information (Conover et al., 2017). Conover and colleagues (2017) conducted a study aimed at validating the Ableist Microaggressions Scale and discovered a positive relationship between experiences of microaggression and corresponding stress and depression. Kattari (2017) also assessed the impact of ableist microaggressions using the Mental Health Inventory (MHI-18; Veit & Ware, 1983) and the newly validated Ableist Microaggressions Scale (AMS-65) in her dissertation, a scale unrelated to Conover and colleagues’ (2017) Ableist Microaggression scale. Similar to other forms of microaggression, ableist microaggressions are related to negative mental health outcomes. Specifically, having greater experiences of ableist microaggressions was associated with higher scores on both the depression and anxiety subscales of the MHI-18. This outcome suggests that experiences of microaggression are related to depression and anxiety symptoms among individuals with disabilities. After individuals whose disabilities were socio-emotional or psychiatric were no longer included in the analysis experiences of microaggressions were significantly negatively correlated with positive affect. This outcome suggests that experiences of microaggression are associated with lower levels of positive affect in individuals with physical disabilities. Lett, Tamaian, and Klest (2018) utilized a correlational method to investigate the association of ableist microaggressions and mental health symptoms on university students with self-identified physical, cognitive, and psychological disabilities utilizing Kattari’s (2017) AMS-65. Similarly to Kattari’s (2017) results, ableist microaggressions were found to be associated with increased symptoms of depression.
and anxiety (Lett et al., 2018). While ableist microaggressions in themselves may be harmful, when compounded with institutional betrayal their impact is likely exacerbated (Gomez, 2015).

**1.6 Institutional Betrayal**

The term institutional betrayal was originally coined in reference to sexual assault to explain the exacerbation of negative mental health outcomes that occur when an institution fails to provide support after a trauma, occurring to, or perpetrated by, its members (Smith & Freyd, 2013). Smith and Freyd (2013) found that, among sexual assault survivors, experiences of institutional betrayal led to greater levels of posttraumatic symptoms. Women who reported sexual assault and experiences of institutional betrayal had higher levels of anxiety, sexual dysfunction, and dissociation than those who experienced trauma without institutional betrayal (Smith & Freyd, 2013). These results suggest that institutional betrayal compounded with trauma has a detrimental impact above and beyond that of the initial assault.

In relation to persons with disabilities, institutional betrayal is fostered by institutional ableism. Institutional ableism involves a system of policies and practices that systematically contribute to the disadvantaging of differently abled individuals (Chaney, 2015). Ableism perpetuated by an institution involves administration and management that reproduce mechanisms of marginalization and oppression (Chaney, 2015). This form of ableism involves the failure of the institution to provide appropriate services, accessibility, and opportunities to people based on their abilities (Chaney, 2015). When institutional ableism is present, it fosters an environment in which the institution does not have the ability to respond appropriately to discrimination because
they are part of the system that perpetuates it. Thus, ableism perpetrated by the institution is closely related to institutional betrayal, as it creates a condition in which it is primed to occur.

1.7 Institutional Betrayal, Ableism, and Microaggression

Gomez (2015) conducted a literature review investigating microaggressions and mental health disparities and concluded that microaggressions perpetrated by an institution are a form of institutional betrayal. Gomez (2015) posited that this form of microaggression could be especially deleterious because institutional betrayal has a compounding effect on trauma outcome. Specifically, ableist microaggressions have been shown to be associated with negative mental health symptoms in individuals with disabilities (Kattari, 2017). Despite these findings, no research has examined whether institutional betrayal has a compounding effect on negative health outcomes in conjunction with the impact of ableist microaggression.

1.8 Gaps in the Research

While microaggression research is quite comprehensive, Lilienfeld (2017) offers a helpful critique of what is missing. First, Lilienfeld (2017) asserts that microaggression research relies too heavily on self-report data and correlational research falling into the monosource bias (i.e., studying a construct using only one method) instead of utilizing various methods to measure the same construct. This reliance can be problematic because utilizing one source can give a biased view of what people are actually experiencing. Next, Lilienfeld (2017) suggests that microaggression is an open concept, which is problematic because it suggests the term is not clearly defined (e.g., how severe a ‘slight’ must be to constitute a microaggression has not been operationalized). This is
concerning because it is difficult to replicate research in which the main variable lacks a clear definition. Further, Lilienfeld (2017) also contests the notion that microaggression scales are psychometrically valid, suggesting more rigorous means should be utilized to ensure scales are both reliable and valid measures of experiences of microaggression. Lilienfeld (2017) also suggests that microaggression research has ignored the impact of personality and in particular negative emotionality on the likelihood of reporting and perceiving experiences of microaggression. This is problematic as negative emotionality is associated with being critical, vulnerable to distress, and focusing on negative events (Watson & Clark, 1984). Some individuals might report greater experiences of microaggression because of their personalities, not because of their experiences (Lilienfeld, 2017). The present study is designed to begin to address these gaps.

1.9 Addressing the Gaps in Research

Lilienfeld’s (2017) first critique focuses on the “monosource” bias that microaggression research falls into. The present study addresses this concern as the author utilized both an experimental and correlational survey method to investigate how ableist microaggressions impact mental health outcomes in the long term and how a single microaggression can impact state affect in the short term.

Lilienfeld’s (2017) second critique pertains to the idea that microaggression is an open concept. However, Lilienfeld contends that when research is in its infancy, an open concept is not inappropriate, but rather necessary. Ableist microaggressions are under-researched (Conover et al., 2017) and the present study will help to further operationalize the concept by investigating whether a specific ableist microaggression is pernicious enough to directly impact affect. Thus, the findings of the present study help to further
define what constitutes an ableist microaggression and works towards making ableist microaggressions a less “open” concept.

Lilienfeld’s next critique focuses on the psychometric validity of microaggression scales. The present study involved the use of the Ableist Microaggression Scale (AMS-65), which was developed using rigorous scientific methods (Kattari, 2019). This scale was constructed in a number of phases. First, disability activists/advocates, disability researchers, and people with disabilities were consulted for the purpose of item generation for the scale through interviews to investigate the types of ableist microaggressions that are often perpetrated against individuals with disabilities. After the interviews were conducted, inductive coding was utilized and items were assembled and then emailed back to interviewees to insure they adequately measured experiences of microaggression. Part two of the study involved piloting the 110 items during cognitive interviews with a cross-sectional United States-wide survey of adults with and without disabilities. Psychometric theoretical analysis was then utilized to develop the AMS- 65 (now including only 65 items) and support the scale as reliable and valid, showing the scale had appropriate content validity, construct validity, and convergent validity. Thus, Kattari’s (2019) extensive development and validation of the AMS- 65 ensures Lilienfeld’s (2017) concerns about psychometric validity are met as the scale was tested to ensure validity and reliability.

Lastly, Lilienfeld (2017) suggests microaggression research does not place enough emphasis on how personality and negative emotionality might impact scores on self-report measures. For the purpose of the present study, the Big Five Inventory (BFI) was used to measure negative emotionality, measured through the personality trait
neuroticism due to its association with a propensity toward negative affectivity (Benet-Martinez & John, 1998). Thus, using the BFI allowed for the impact of personality on the likelihood of reporting and perceiving experiences of microaggression to be controlled for, thus addressing Lilienfeld’s (2017) concern pertaining to the impact of personality.

1.10 The Present Study

The present study investigated the impact of ableist microaggressions with or without institutional betrayal on state affect in individuals with disabilities. An experimental method was employed to investigate the causal relationship between ableist microaggressions, institutional betrayal, and state affect or mood. This involved examining the impact of an ableist microaggression on state affect, with or without institutional betrayal, directly after it was perpetrated. Participants were placed in one of four conditions: a microaggression condition, an institutional betrayal condition, and two control conditions.

First, it was hypothesized that experiencing an ableist microaggression would increase state negative affect in individuals with disabilities. Research suggests that experiences of microaggression within the past six months are associated with higher levels of negative affectivity (Nadal et al., 2014). However, no research has investigated how a microaggression impacts an individual directly after it occurs. Thus, this hypothesis was based on the idea that if microaggression impacts trait affect in the long-term, it should impact state affect in the short-term. Second, it was hypothesized that the impact of an ableist microaggression on state negative affect would be intensified by an experience constituting institutional betrayal. Thus, I expected a main effect of
microaggression such that those who experienced a microaggression would show an increase in state negative affect. I also expected an interaction such that those in the institutional betrayal condition would show the greatest increase in state negative affect. This is consistent with research suggesting that microaggressions perpetrated by an institution, or someone representing an institution, are a form of institutional betrayal (Gomez, 2015). Further, it has been suggested that institutional betrayal exacerbates the negative impact of trauma (Smith & Freyd, 2013). Thus, the second hypothesis was consistent with past research in suggesting that a microaggression perpetrated by an individual representing the institution the participant is relying on would exacerbate the impact microaggression has on state affect. Third, it was hypothesized that past experiences of ableist microaggressions would be associated with negative mental health outcomes when controlling for other factors known to impact mental health, including negative emotionality (i.e., replication of past findings while controlling for personality). Fourth, it was hypothesized that after controlling for negative emotionality, the microaggression exposure would still predict changes in negative state affect. Hypotheses three and four are consistent with literature that suggests that ableist microaggressions are associated with negative mental health outcomes (Conover et al., 2017; Kattari, 2017) and negative affect (Nadal et al., 2014).

Method

2.1 Participants

Individuals with acquired physical disabilities ($N = 46$) ranging in age from 18 to 90 were recruited to participate in the study (see Table 1 for demographic information). Originally a power analysis was conducted utilizing G-Power and a sample size of 130
participants was found to be required for a significant effect. However, only 46
individuals participated in the study whose data were useable. Participants were recruited
from Regina, Saskatchewan using advertisements requesting the participation of
individuals who have experienced a change in physical ability associated with a change
in functioning. Advertisements (included in Appendix A) were placed around Regina in
assisted living facilities, long-term care facilities, local grocery stores, and physician,
optometrists, and audiologist offices. Further, recruitment was conducted online through
Kijiji, Regina Buy and Sell pages, through the University of Regina faculty and staff
e-mail list, and through the Student Affairs email list at the University of Regina. This
involved re-submitting the study for approval from the survey committee at the
University of Regina. Ethics approval was also sought from the health authority so
recruitment could be done at Wascana Rehabilitation Centre. Further, participants were
tested off campus in an effort to make the study easier to attend. Initially, 83 persons
responded to the advertisement, however only 48 persons participated in the study and
two withdrew consent during the study. Participants were compensated with $15.00 and
parking and transportation fees were covered to ensure there were no material barriers to
participation.

2.2 Measures

2.2.1 Demographics. Demographic data were assessed in terms of age, gender,
sexual orientation, race/ethnicity, educational attainment, employment status, and annual
household income. Further, disability variables were assessed by inquiring into when
participants’ change in physical ability and functioning was acquired, if they experienced
a sudden or gradual onset of these changes, the types of changes they experienced, what
Table 1

*Descriptive Statistics for Study Participants (N = 46)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>%</th>
</tr>
</thead>
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<tr>
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<td></td>
</tr>
<tr>
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<td>25-34</td>
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</tr>
<tr>
<td>65+</td>
<td>11</td>
<td>24.2</td>
</tr>
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<td></td>
</tr>
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<td>67.4</td>
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<tr>
<td>Male</td>
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<td>32.6</td>
</tr>
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<td></td>
</tr>
<tr>
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<td>6.5</td>
</tr>
<tr>
<td>South Asian (e.g. East Indian, Pakistani, Sri Lankan, etc.)</td>
<td>3</td>
<td>6.5</td>
</tr>
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<tr>
<td>Not heterosexual (eg., gay, bisexual, pansexual, queer, etc.)</td>
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<td>17.4</td>
</tr>
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<td><strong>Education</strong></td>
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<td></td>
</tr>
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<td>Less than high school</td>
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<td>2.2</td>
</tr>
<tr>
<td>High school diploma or GED</td>
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<td>10.9</td>
</tr>
<tr>
<td>Some college/ post-secondary credit, no degree</td>
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<td>45.7</td>
</tr>
<tr>
<td>Associate or technical degree/ certificate</td>
<td>5</td>
<td>10.9</td>
</tr>
<tr>
<td>Bachelor’s Degree</td>
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<td>13</td>
</tr>
<tr>
<td>Graduate or professional degree (for example, MA, PhD, MD)</td>
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<td>17.4</td>
</tr>
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<td><strong>Immigration or Citizenship Status</strong></td>
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<tr>
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<td>4.3</td>
</tr>
<tr>
<td>Non-immigrated</td>
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<td>4.3</td>
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<td>10.9</td>
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<tr>
<td><strong>Total Household Income</strong> (including child support, spousal support, disability, pension, etc.)</td>
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<td></td>
</tr>
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<td>Less than $19 999</td>
<td>10</td>
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</tr>
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<td>$40 000 - $59 999</td>
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<td>17.4</td>
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<td>Income</td>
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<tr>
<td>-----------------</td>
<td>---</td>
<td>------</td>
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<td>$60 000 - $79 999</td>
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<tr>
<td>More than $100 000</td>
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</tr>
<tr>
<td>French</td>
<td>11</td>
<td>23.9</td>
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</thead>
<tbody>
<tr>
<td>Single, never married</td>
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<td>37.0</td>
</tr>
<tr>
<td>Married/ Common-Law</td>
<td>4</td>
<td>8.7</td>
</tr>
<tr>
<td>Divorced/ Separated</td>
<td>4</td>
<td>8.7</td>
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</table>

<table>
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<tr>
<th>Type of Change Experienced (Choose all that apply)</th>
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<th>56.5</th>
</tr>
</thead>
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<tr>
<td>Pain Related</td>
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<tr>
<td>Flexibility</td>
<td>26</td>
<td>56.5</td>
</tr>
<tr>
<td>Mobility</td>
<td>8</td>
<td>17.4</td>
</tr>
<tr>
<td>Dexterity</td>
<td>14</td>
<td>30.4</td>
</tr>
<tr>
<td>Hearing</td>
<td>15</td>
<td>32.6</td>
</tr>
<tr>
<td>Seeing</td>
<td>6</td>
<td>13.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of Onset</th>
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<th>47.8</th>
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<tbody>
<tr>
<td>Sudden</td>
<td>24</td>
<td>52.2</td>
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<table>
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<tr>
<th>Impact on Functioning</th>
<th>2</th>
<th>4.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2: Little to no impact on functioning</td>
<td>6</td>
<td>13.1</td>
</tr>
<tr>
<td>5-6 Medium amount of impact</td>
<td>15</td>
<td>32.6</td>
</tr>
<tr>
<td>7-8</td>
<td>17</td>
<td>36.9</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Severity Rating</th>
<th>6</th>
<th>13.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2: Little to no change from previous functioning</td>
<td>4</td>
<td>8.6</td>
</tr>
<tr>
<td>3-4</td>
<td>13</td>
<td>28.3</td>
</tr>
<tr>
<td>5-6: Medium severity</td>
<td>17</td>
<td>37.0</td>
</tr>
<tr>
<td>7-8</td>
<td>16</td>
<td>34.8</td>
</tr>
</tbody>
</table>

| 9-10: The most severe possible  | 4 | 8.6  |
activities were impacted by their changes in physical ability and functioning, and the severity of their change in functioning. Questionnaire included in Appendix B.

2.2.2 State negative affect. State negative affect was measured using the 20-item Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988; included in Appendix C), asking participants to indicate how they felt in the present moment. Participants were asked to respond to questions using a 5-point scale ranging from 1 = “very slightly or not at all” to 5 = “extremely.” Items measuring positive affect included “enthusiastic” and items measuring negative affect included “irritable.” Higher scores on items measuring positive affect indicate higher levels of positive affect. Higher scores on items measuring negative affect indicate higher levels of negative affect.

The PANAS has shown good internal consistency for both positive (α = 0.90) and negative (α = 0.91) affect and has demonstrated both convergent and discriminant validity (Serafini, Malin-Mayor, Nich, Hunkele, & Carroll, 2016). Both convergent and discriminant validity were supported by correlating positive and negative affect scores with the psychiatric distress scores from the Brief Symptom Inventory (BSI) and the Addiction Severity Index (ASI). Reliability in the present sample for positive (α = 0.82) and negative affect (α = 0.82) at time 1 and for positive (α = 0.87) and negative affect (α = 0.88) at time 2 showed good internal consistency.

2.2.3 Negative emotionality. Negative emotionality was measured using eight questions assessing neuroticism from the 44-item Big Five Inventory (BFI; Benet-Martinez & John, 1998; included in Appendix D). Participants were asked how characteristic each item is of their own personality using a 5-point scale ranging from 1 = “very uncharacteristic of myself” to 5 = “very characteristic of myself.” Items measuring
neuroticism included “is relaxed, handles stress well” (reversed) and “can be tense.” Higher scores indicate higher levels of neuroticism.

The items assessing neuroticism on the Big Five Inventory have demonstrated internal consistency (α = 0.78; Zamorano, Carrillo, Silva, Sandoval, & Pastrana, 2014). A principal component analysis was conducted on the Big Five Inventory, which showed a five-factor structure to be valid. Reliability in the present sample (α = 0.80) showed good internal consistency.

2.2.4 Ableist microaggression. Experiences of ableist microaggressions were assessed using the 65-item Ableist Microaggression Scale (AMS-65), developed and validated by Kattari (2019; α = .98; included in Appendix E). Participants were asked to state how often they experienced each statement in the past month using a 5-point scale ranging from 1 = “never” to 5 = “almost all the time.” Items included “I was given unsolicited encouragement based on my disability status” and “I was offered help I did not request based on my disability status.” While the term disability status is utilized in the scale, the instructions were modified to direct those who do not identify with the disability label to answer by substituting the term ‘disability status’ with ‘a change in physical ability associated with a change in functioning.’ Higher scores indicate more experience with microaggression. Psychometric theoretical analysis was used to develop the AMS-65, showing the scale had appropriate content validity, construct validity, and convergent validity. Reliability in the present sample (α = 0.97) showed good internal consistency.

2.2.5 Everyday discrimination. Everyday discrimination was measured utilizing the 9-item Everyday Discrimination Scale (Williams, Yu, Jackson, & Anderson, 1997;
included in Appendix F). Participants were asked to indicate how often each situation occurs in their day-to-day lives based on their physical ability using six possible response categories ranging from “almost every day” to “never.” Items included “you are treated with less respect than other people are” and “people act as if they think you are not smart.” Higher scores indicate a higher level of experience with everyday discrimination.

The Everyday Discrimination Scale has been shown to be reliable, with good internal consistency ($\alpha = .87$) and valid (Clark, Coleman, & Novak, 2004). Construct validity was supported using a principle components analysis, which showed the scale comprised a single component. Criterion validity was determined by comparing youth reported symptoms of externalizing and internalizing behavior with perceived discrimination. This comparison showed perceived discrimination to be positively correlated with externalizing and internalizing symptoms, providing support for criterion validity. Reliability in the present sample ($\alpha = 0.91$) showed good internal consistency.

### 2.2.6 Institutional betrayal

Institutional betrayal was measured utilizing the 14-item Institutional Betrayal Questionnaire Version 1 (IBQ.1; Smith & Freyd, 2013; included in Appendix G). Participants were asked to think about larger institutions to which they belong or have belonged and indicate whether or not the institution played a role in the discrimination they have experienced due to their physical ability. This survey involved 12 questions in which participants were asked to check situations that apply such as “creating an environment in which this experience seemed more likely to occur.” It also involved two questions with the response options “yes,” “no,” or “N/A” such as “are you still part of this institution or organization.” Further, there was one question
assessing the type of institution involved and three open-ended questions about their experiences including “If you told anyone about your experience/s, how did they react?” Reliability in the present sample ($\alpha = 0.85$) showed good internal consistency. Higher scores indicate higher levels of institutional betrayal.

2.2.7 Anxiety symptoms. Anxiety Symptomatology was measured utilizing the Generalized Anxiety Disorder 7-item scale (GAD-7; Spitzer, Kreonke, Williams, & Lowe, 2006; included in Appendix H). Participants were asked to respond to questions assessing their anxiety symptomatology within the last two weeks on a four-point scale ranging from 0 = “Not at all sure” to 3 = “Nearly Everyday.” Items included “Feeling nervous, anxious, or on edge” and “Becoming easily annoyed or irritable.” This scale also included a question assessing anxiety symptomatology’s impact on current functioning with answers ranging from “Not at all difficult” to “Extremely difficult.” Higher scores indicate higher levels of anxiety.

The GAD-7 was found to have good internal consistency ($\alpha = .92$) and test-retest reliability (intraclass correlation=0.83). Further, the scale has shown good criterion, construct, factorial, and procedural validity (intraclass correlation=0.83). Intercorrelations between anxiety severity on the GAD and Medical Outcomes Study Short-Form General Health Survey (SF-20) functional status scales, number of reported disability days, and physician visits supported the scale as valid. While a confirmatory factor analysis provided support for factorial validity. Reliability in the present sample ($\alpha = 0.92$) showed good internal consistency.

2.2.8 Depression symptoms. Depressive Symptomatology was measured using the 9-item Patient Health Questionnaire (PHQ-9; Kroenke, Spitzer, & Williams, 2001;
included in Appendix I). Participants were asked to respond to questions assessing their depressive symptomatology within the last two weeks on a four point scale ranging from 0 = “Not at all” to 3 = “Nearly Every day.” Items included “Little interest or pleasure in doing things” and “Feeling tired or having little energy.” This scale also included a question assessing depressive symptomatology’s impact on current functioning with answers ranging from “Not at all difficult” to “Extremely difficult.” Higher scores indicate more severe depression.

The PHQ-9 has been shown to have good internal reliability (α = 0.89) and criterion and construct validity. Criterion validity was investigated by examining sensitivity, specificity, and likelihood ratios for various PHQ-9 thresholds. Construct validity was assessed by examining PHQ-9 scores and how they correlated with functional status measures, results showed that when PHQ-9 scores increased functioning decreased. Reliability in the present sample (α = 0.85) showed good internal consistency.

2.2.9 Ability to participate in social roles. Ability to participate in social roles was measured using the 8-item Ability to Participate in Social Roles and Activities - Short Form 8a survey (Heinemann, Kisala, Hahn, & Tulsky, 2015; included in Appendix J). Participants were asked to respond to each item utilizing five response options ranging from “Never” to “Always.” Items included “I have trouble doing all my regular leisure activities with others” and “I have to limit the things I do for fun with others.” Higher scores indicate less ability to participate in social roles and activities.

The Ability to Participate in Social Roles and Activities - Short Form 8a has been shown to be both reliable and valid (Heinemann et al., 2015). Reliability was found
to exceed .95 through the test information measure. Test-retest stability was good (75%). The measure was also found to correlate strongly with other measures of health status and quality of life. Reliability in the present sample ($\alpha = 0.94$) showed good internal consistency.

### 2.2.10 Satisfaction with social roles

Satisfaction with social roles was measured utilizing the 8-item Satisfaction with Social Roles and Activities – Short Form 8a survey (Heinemann et al., 2015; included in Appendix K). Participants were asked to respond to each item utilizing five response options ranging from “Not at all” to “Very much.” Items included “I am satisfied with my ability to do things for fun with others” and “I am satisfied with my ability to meet the needs of my friends.” Higher scores indicate higher satisfaction with social role and activities participation.

The Satisfaction with Social Roles and Activities – Short Form 8a survey has been shown to be both reliable and valid (Heinemann et al., 2015). Reliability was found to exceed .95 through the test information measure. Test-retest stability was good (78%). The measure was also found to correlate strongly with other measures of health status and quality of life. Reliability in the present sample ($\alpha = 0.93$) showed good internal consistency.

### 2.2.11 History of trauma

History of trauma was measured utilizing the 14-item Brief Betrayal Trauma survey (BBTS; Goldberg & Freyd, 2006; included in Appendix L). Participants were asked to indicate if they have experienced the type of trauma described in the question and if so they were then asked to indicate if it occurred before or after age 18 using “yes” or “no.” Items included “You were in a major automobile, boat, motorcycle, plane, train, or industrial accident that resulted in similar
consequences” and “You were deliberately attacked that severely by someone with whom you were very close.” The more “yes” responses a participant endorses suggests more experiences of trauma. Test-retest stability was examined over three years and it was found to be good for both childhood (83%) and adulthood (75%) traumas. Reliability in the present sample ($\alpha = 0.92$) showed good internal consistency.

2.2.12 Qualitative data. Qualitative data were collected in order to assess participants’ subjective reactions to the microaggression that was utilized in the study. This involved verbally asking participants in the active conditions (i.e., microaggression and microaggression with institutional betrayal) their subjective reactions to the microaggression with the question “How did the comment about what happened to you make you feel?” Participants in the control conditions (i.e., control with a disguised confederate and control with an identified experimenter) were asked “Had someone asked you ‘so what happened to you’ how would that have made you feel?” Responses were audio recorded and then coded into subthemes and themes.

2.3 Procedure

Interested participants were asked to contact the Social Context, Health, and Trauma Lab at the University of Regina through email or over the phone and were then pre-screened. Pre-screening involved inquiry into physical ability status to ensure participation criteria was met (i.e., experienced a change in physical ability associated with a change in functioning and was at least 18 years of age). Once participants were pre-screened, they were randomly assigned to one of four conditions in the 2 (± microaggression) x 2 (participant vs. experimenter questioner) factorial design. The first condition, or the microaggression condition, involved a moment of ableist
microaggression committed by an experimenter disguised as another participant. This microaggression involved asking the participant “what happened to you,” which is consistent with Keller and Galgay’s (2010) domain of microaggression “denial of privacy” in which we deny individuals with disabilities their right to privacy about their disability (script included in Appendix M). The second, or the institutional betrayal condition, involved a moment of ableist microaggression consistent with the microaggression described above perpetrated by an experimenter who identified himself or herself as part of the team running the study (script included in Appendix N). This constitutes institutional betrayal as the experimenter was representing the University of Regina, an institution that the participant was relying on to treat them fairly and with respect as a research participant. The third condition, or the neutral condition with a disguised confederate involved an experimenter disguised as another participant engaging in a neutral conversation with the participant regarding television (script included in Appendix O). Lastly, the second control condition, or the neutral condition with the identified experimenter, involved an identified experimenter engaging in a neutral conversation about television with the participant (script included in Appendix P). Five different confederates were utilized for this portion of the study. Table 2 summarizes how many participants each confederate ran and what condition each participant was in.

Once participants were randomly assigned to a condition, they were taken through the consent process and asked to sign an initial consent form if they wished to participate (included in Appendix Q). Directly after the consent process was completed, the audio recording was commenced with participant permission. Participants were then
Table 2

*Breakdown of Confederate Involvement*

<table>
<thead>
<tr>
<th>Condition</th>
<th>Confederate 1 (man)</th>
<th>Confederate 2 (woman)</th>
<th>Confederate 3 (woman)</th>
<th>Confederate 4 (woman)</th>
<th>Confederate 5 (woman)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>3</td>
<td>2</td>
<td>4</td>
<td>3</td>
<td>0</td>
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<tr>
<td>2</td>
<td>4</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>3</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>1</td>
<td>3</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Total participants run</td>
<td>10</td>
<td>9</td>
<td>14</td>
<td>12</td>
<td>1</td>
</tr>
</tbody>
</table>
asked to complete a questionnaire measuring demographic variables and the PANAS (Watson, Clark, & Tellegen, 1988) on the computer utilizing Qualtrics. After these questionnaires were completed, the experimenter running the study sent a text message to a confederate who then entered the room and asked the experimenter to get his or her, book bag or files for them. Once the experimenter conducting the study exited the room, one of four things occurred. Individuals placed in the microaggression condition experienced a moment of microaggression perpetrated by a researcher disguised as a participant. A script detailing what was said in the microaggression condition is included in Appendix M. Participants in the institutional betrayal condition experienced the same moment of microaggression perpetrated by a confederate identified as an experimenter involved in the study. A script detailing what was said in the institutional betrayal condition is included in Appendix N. Participants in the control condition with the disguised confederate engaged in a neutral conversation with a disguised researcher focusing on television. A script detailing what was said in the participant control condition is included in Appendix O. Participants in the control condition with the identified experimenter engaged in a neutral conversation with an identified researcher focusing on television. A script detailing what was said in the experimenter control condition is included in Appendix P.

After the condition was implemented, participants were asked to recomplete the PANAS (Watson, Clark, & Tellegen, 1988) under the guise that the questionnaire needed to be administered directly before the next phase of the study without a time gap. After participants completed the second administration of the PANAS, they were fully debriefed and informed of the purpose of the study (see Appendix R for debriefing
The experimenter conducting the study then asked participants “How did the comment about what happened to you make you feel?” After participants’ reactions were recorded, time was given for them to ask any other questions they might have and a list of counseling resources was provided. Participants were then asked to verbally re-consent to participation (see verbal consent script in Appendix S and the post-debriefing consent form in Appendix T). Finally, participants were asked to complete the other questionnaires assessing experiences of discrimination and functioning.

Due to difficulties with recruitment, participants were also tested off campus. The procedure remained the same but scripts were modified slightly. Off campus scripts are included in Appendices Y, Z, AA, and BB with differences from the on-campus scripts in bold. Seven participants were tested off campus.

2.4 Analyses

2.4.1 Preliminary analyses. Prior to completing the primary analyses, a number of preliminary analyses were conducted to ensure that the data were useable. First, there was a script change that occurred after 12 participants were collected, so an independent samples t-test was conducted to ensure there was no statistically significant difference in negative affect change scores between the original script and the new script. Second, a one-way analysis of variance (ANOVA) was conducted to ensure there were no statistically significant differences in change scores for negative affect based on the confederate who perpetrated the microaggression. Next, an independent samples t-test was conducted to investigate differences between change scores on negative affect between those who were tested on and off campus to ensure there were no differences based on location.
Descriptive statistics were then determined for all variables utilized in the study. A number of independent sample t-tests were also conducted to examine differences based on gender, sexual orientation, and type of disability onset (i.e., sudden or gradual) on anxiety symptoms, depressive symptoms, and experiences of microaggression. Bivariate correlations were conducted to assess the relationship between ableist microaggressions, overt discrimination, institutional betrayal, anxiety and depression symptoms, ability to participate in social roles, satisfaction with social roles, high betrayal trauma, low betrayal trauma, neuroticism, severity of disability, and impact of disability on functioning.

2.4.2 Primary Analyses. Hypothesis one (i.e., experiencing an ableist microaggression will increase state negative affect in individuals with disabilities) was investigated with a 2 X 2 mixed model ANOVA to test for an interaction effect between time and condition (microaggression versus control). This involved combining the microaggression condition with the microaggression with institutional betrayal condition and the two control conditions. After the results of this ANOVA were investigated, data collection was discontinued and a Bayesian t-test was conducted to assess the odds favoring support of the null (Rouder, Speckman, Sun, Morey, & Iverson, 2009).

The second hypothesis (i.e., the impact of an ableist microaggression on state negative affect will be intensified by an experience constituting institutional betrayal) could not be tested due to sample size restrictions. However, a 2 X 2 mixed model ANOVA was utilized to test for an interaction effect between time and condition (institutional affiliation versus no institutional affiliation). This involved combining the control condition with the disguised confederate condition with the microaggression
condition as well as combining the microaggression with institutional betrayal condition with the condition with the identified experimenter.

Hypothesis three (i.e., past experiences of ableist microaggressions will be associated with negative mental health outcomes when controlling for other factors known to impact mental health, including negative emotionality) was investigated utilizing two five-step hierarchical multiple regression analyses. Prior to conducting the regression, multicollinearity was assessed to ensure it was not violated. The first regression was conducted with anxiety symptoms as the outcome variable and the second was conducted with depression symptoms as the outcome variable. Experiences of ableist microaggressions were entered at stage one, overt discrimination at stage two, the trauma variables (low betrayal trauma and high betrayal trauma) and experiences of institutional betrayal were entered at stage three, satisfaction with social roles and ability to participate is social roles were entered at stage four, and negative emotionality was entered at stage five.

Hypothesis four (i.e., after controlling for negative emotionality, the microaggression exposure would still predict significant changes in negative state affect) was intended to be tested utilizing a multiple regression with change in negative affect as the outcome variable and condition and negative emotionality as the predictor variables. However, due to the results of the first ANOVA, this hypothesis could not be tested.

2.4.3 Content Analysis. Content analysis was utilized in the present study to code participant responses into categories for the purpose of summarizing the data (Wilkinson, 2000). The purpose of this analysis was to quantify responses, thus it may be interpreted as quantitative coding of verbal data, as opposed to true qualitative analysis.
However, qualitative content analysis was chosen as a guide for analysis. Completing content analysis typically takes the form of changing qualitative responses into quantitative data by counting the frequency of each type of response and what category it falls into for the purpose of statistical analysis (Wilkinson, 2000). Content analysis was the chosen method of analysis for the qualitative data collected in this study as it typically involves quantifying a word or sentence whereas thematic analysis involves looking at larger quantities of qualitative data (Vaismoradi, Turunen, & Bondas, 2013). The qualitative data in this study involved direct one to two sentence responses to a single question.

All qualitative data was analyzed using Elo and Kyngas’s (2008) three phase guide to content analysis. An inductive, or ‘bottom up’ approach was used, as categories were derived from the data and not based on a theoretical framework. Phase one, the perpetration phase, is very similar to Braun and Clarke’s (2006) first phase in thematic analysis, familiarizing with the data (Vaismoradi et al., 2013). This phase involved transcribing the data, choosing what to analyze, choosing the unit of analysis (a word or theme), choosing whether to look at only latent or manifest content, and making sense of the data (Elo & Kyngas, 2008). In this particular study, the data was transcribed by the author, direct responses to the question (i.e., “how did that comment about ‘what happened to you’ make you feel?” or “If someone had asked ‘what happened to you’ how would that comment have made you feel?”) were analyzed, what was said was focused on, and the data was understood.

Phase two, organizing the data, involved open coding and writing down possible codes to describe all the content (Elo & Kyngas, 2008). Then the codes were grouped
under higher order headings to reduce the number of categories by placing those that are similar under one broad heading. This phase involved deciding what codes belonged together based on their content, reviewing the potential themes derived from the codes, and searching for potentially missed themes (Elo & Kyngas, 2008). This phase is similar to Braun and Clarke’s (2006) generating initial codes, defining and naming themes, reviewing themes, and searching for themes (Vaismoradi et al., 2013). Phase three, reporting, involved reporting how the data were analyzed, reporting the content of the categories with subcategories, and showing the results of the analysis (Elo & Kyngas, 2008). This particular category is similar to Braun and Clarke’s (2006) producing the report (Vaismoradi et al., 2013).

Participants were asked one of two questions. Those in the conditions where the microaggression was perpetrated were asked “how did that comment about ‘what happened to you’ make you feel?” Those in the two control conditions were asked “If someone had asked ‘what happened to you’ how would that comment have made you feel?” Responses from 44 participants (recording for two participant responses malfunctioned and data was lost) were transcribed and independently coded into categories by two researchers. Four responses were excluded after both coders independently noted the participant did not respond to the question. When there was disagreement between coders, it was discussed and themes were decided upon together.

After responses were coded, selected higher order categories were assigned numerical identifiers so that the data could be analyzed statistically. A one-way ANOVA was then conducted to assess between condition (i.e., microaggression, microaggression with institutional betrayal, control with disguised confederate, control with identified
experimenter) differences in attitude toward the microaggression or potential microaggression (i.e., responses to the question “how did that comment about ‘what happened to you’ make you feel?” or “If someone had asked ‘what happened to you’ how would that comment have made you feel?”). The purpose of this ANOVA was to assess differences between individuals who experienced the microaggression and those who imagined experiencing the microaggression in attitude toward the microaggression. Finally, a second one-way ANOVA was conducted to assess between theme (i.e., positive, neutral, negative) differences in negative affect change scores. The purpose of this ANOVA was to assess the relationship between different themes and change and affect scores.

Results

3.1 Descriptive Statistics

3.1.1 Preliminary analyses. Once the data from 12 participants had been collected, descriptive statistics were run and results showed participant mean levels of negative affect were lower during the second administration of the PANAS (Watson, Clark, & Tellegen, 1988) across all conditions (Time 1, $M = 16.00, SD = 5.73$; Time 2, $M = 15.00, SD = 5.72$). After this pattern of results were discovered, consultation was sought from my supervisor and senior students in my lab and the scripts were changed to those included in Appendices M, N, O, and P. Initially, the scripts involved the confederate staying in the room after perpetration and engaging in neutral conversation with the participants. The scripts were changed so the confederate left the room directly after perpetration so that there would be no impact of engaging in conversation for five minutes. Initial scripts are included in Appendices U, V, W, and X, with differences
from the new scripts presented in bold. Despite the changes, the pattern of results remained the same. An independent samples t-test was used to investigate differences between change scores on negative affect between those given the original scripts and those given the new scripts. There was no statistically significant difference in negative affect change scores between the original script \((M = 1.00, SD = 3.49)\) and the new script \((M = 1.32, SD = 2.94)\); \(t(41) = -0.31, p = .69\). Thus, all data were utilized in the following analyses.

Five different confederates were used in the study. The study was underpowered due to the limited sample size and as a result, the results of this analysis should be interpreted cautiously. A one-way ANOVA was conducted to assess between group (i.e., confederate 1, 2, 3, 4, or 5) differences in mean negative affect change scores. There were no statistically significant differences between groups \(F(1, 41) = 2.32, p = .14\), suggesting that the confederate had no impact on negative affect change scores.

Participants were tested in two separate locations. An independent samples t-test was conducted to investigate differences between change scores on negative affect between those who were tested on and off campus. There was no statistically significant differences in negative affect change scores between being tested on campus \((M = 1.51, SD = 2.70)\) and off campus \((M = -0.50, SD = 4.67)\); \(t(41) = 1.52, p = .26\). As a result, all data were used.

3.1.2 Mean scores. Means and standard deviations were calculated for all variables and included in Table 3.

3.1.3 Demographic variables. The association of gender, ethnicity, sexual orientation, and disability onset (i.e., sudden or gradual) with anxiety and depression
<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Minimum Score</th>
<th>Maximum Score</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Negative Affect Time 1</td>
<td>44</td>
<td>10</td>
<td>31</td>
<td>16.09</td>
<td>6.01</td>
</tr>
<tr>
<td>Negative Affect Time 2</td>
<td>44</td>
<td>10</td>
<td>36</td>
<td>14.41</td>
<td>5.72</td>
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<tr>
<td>Ableist Microaggressions</td>
<td>46</td>
<td>1.03</td>
<td>3.80</td>
<td>2.08</td>
<td>.68</td>
</tr>
<tr>
<td>Overt Discrimination</td>
<td>44</td>
<td>9</td>
<td>43</td>
<td>16.70</td>
<td>9.32</td>
</tr>
<tr>
<td>Institutional Betrayal</td>
<td>46</td>
<td>0</td>
<td>7</td>
<td>2.20</td>
<td>2.50</td>
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<tr>
<td>Anxiety Symptoms</td>
<td>46</td>
<td>0</td>
<td>21</td>
<td>7.43</td>
<td>6.24</td>
</tr>
<tr>
<td>Depression Symptoms</td>
<td>46</td>
<td>0</td>
<td>26</td>
<td>8.30</td>
<td>5.89</td>
</tr>
<tr>
<td>Ability to participate in social roles</td>
<td>46</td>
<td>8</td>
<td>38</td>
<td>22.71</td>
<td>8.79</td>
</tr>
<tr>
<td>Satisfaction with participation in social roles</td>
<td>45</td>
<td>8</td>
<td>40</td>
<td>24.87</td>
<td>8.93</td>
</tr>
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<td>High Betrayal Trauma</td>
<td>43</td>
<td>0</td>
<td>10</td>
<td>2.09</td>
<td>2.93</td>
</tr>
<tr>
<td>Low Betrayal Trauma</td>
<td>43</td>
<td>0</td>
<td>11</td>
<td>2.46</td>
<td>2.77</td>
</tr>
<tr>
<td>Neuroticism</td>
<td>46</td>
<td>9</td>
<td>37</td>
<td>22.48</td>
<td>6.11</td>
</tr>
</tbody>
</table>
symptoms as well as with experiences of ableist microaggressions was investigated utilizing a number of independent samples t-tests. There was a statistically significant difference between women \((n = 31; M = 2.11, SD = 0.77)\) and men \((n = 15; M = 2.01, SD = 0.46)\) on experiences of ableist microaggressions \(t(44)= .44, p < .01\), suggesting women had experienced more disability-based microaggressions. However, there was no statistically significant difference between women and men on anxiety or depression symptoms.

Ethnicity was coded into a new variable to investigate differences between white \((n = 37)\) and nonwhite \((n = 9)\) individuals on depression and anxiety symptoms. For anxiety symptoms, there was a statistically significant difference between White \((M = 8.14, SD = 6.69)\) and non-White \((M = 4.56, SD = 2.40)\) individuals \(t(44)= 1.57, p < .01\) with White individuals experiencing higher levels of anxiety. However, there was no statistically significant difference between White and non-White individuals on depression symptoms or experiences of ableist microaggressions.

There was a statistically significant difference between heterosexual \((n = 37; M = \ 6.38, SD = 5.08)\) and non-heterosexual people \((n = 8; M = 13.00, SD = 8.47)\) on anxiety symptoms \(t(43)= 2.94, p < .01\), with non-heterosexual participants experiencing higher levels of anxiety than heterosexual participants. There was no statistically significant difference between heterosexual and non-heterosexual people on depression symptoms or experiences of ableist microaggressions. There were also no statistically significant differences between disabilities that occurred suddenly or gradually on depression symptoms, anxiety symptoms, or experiences of ableist microaggressions. Results for the independent samples t-test are presented in Table 4.
<table>
<thead>
<tr>
<th></th>
<th>Women</th>
<th>Men</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Anxiety</strong></td>
<td>7.94</td>
<td>6.40</td>
<td>0.78</td>
<td>.44</td>
</tr>
<tr>
<td><strong>Depression</strong></td>
<td>8.26</td>
<td>8.40</td>
<td>-0.08</td>
<td>.94</td>
</tr>
<tr>
<td><strong>Ableist</strong></td>
<td>2.11</td>
<td>2.01</td>
<td>0.44</td>
<td>&lt;.01</td>
</tr>
<tr>
<td><strong>Microaggressions</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>White</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>8.14</td>
<td>4.56</td>
<td>1.57</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Depression</td>
<td>8.73</td>
<td>6.56</td>
<td>0.99</td>
<td>.35</td>
</tr>
<tr>
<td>Ableist</td>
<td>2.17</td>
<td>1.72</td>
<td>1.80</td>
<td>.20</td>
</tr>
<tr>
<td><strong>Non-White</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>6.38</td>
<td>13.00</td>
<td>2.94</td>
<td>&lt;.01</td>
</tr>
<tr>
<td>Depression</td>
<td>7.68</td>
<td>10.88</td>
<td>1.40</td>
<td>.22</td>
</tr>
<tr>
<td>Ableist</td>
<td>2.06</td>
<td>2.18</td>
<td>0.46</td>
<td>.35</td>
</tr>
<tr>
<td><strong>Heterosexual</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td>6.59</td>
<td>8.21</td>
<td>-0.88</td>
<td>.90</td>
</tr>
<tr>
<td>Depression</td>
<td>6.59</td>
<td>9.88</td>
<td>-1.95</td>
<td>.47</td>
</tr>
<tr>
<td>Ableist</td>
<td>2.20</td>
<td>1.97</td>
<td>1.13</td>
<td>.46</td>
</tr>
<tr>
<td><strong>Non-heterosexual</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anxiety</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ableist</td>
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<td></td>
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<tr>
<td><strong>Sudden</strong></td>
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<tr>
<td>Anxiety</td>
<td></td>
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<tr>
<td>Depression</td>
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<td>Ableist</td>
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<tr>
<td><strong>Gradual</strong></td>
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<tr>
<td>Anxiety</td>
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<tr>
<td>Depression</td>
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</tr>
<tr>
<td>Ableist</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
3.1.4 Bivariate correlations. Bivariate correlations were conducted to examine the strength of the relationships between experiences of ableist microaggressions, overt discrimination, institutional betrayal, neuroticism, anxiety symptoms, depression symptoms, ability to participate in social roles, satisfaction with ability to participate in social roles, high betrayal trauma, low betrayal trauma, neuroticism, severity of disability (higher scores indicate higher severity), and impact of disability on functioning (higher scores indicate more impact on functioning). Experiences of ableist microaggressions were associated with overt discrimination \( r(42) = .77, p < .01 \), institutional betrayal \( r(44) = .61, p < .01 \), anxiety symptoms \( r(44) = .37, p < .05 \), depressive symptoms \( r(44) = .46, p < .01 \), ability to participate in social roles (higher scores mean less ability to participate) \( r(44) = .57, p < .01 \), satisfaction with participation in social roles \( r(43) = .36, p < .05 \), high betrayal trauma \( r(41) = .37, p < .05 \), and neuroticism \( r(44) = .47, p < .01 \). See Table 5 for the correlation matrix for all study variables.

3.2 Hypotheses One and Two: Analysis of Variance

Participant data were collected from 46 individuals. After careful consideration and consultation, the microaggression condition \( n = 12 \) and the microaggression with institutional betrayal condition \( n = 13 \) were combined to create one microaggression condition \( n = 25 \). This decision was made on the basis that the microaggression perpetration did not differ between groups (i.e., the exact same microaggression was used; see scripts in Appendices M and N). The two control groups, involving the neutral script with the disguised confederate \( n = 13 \); see Appendix O) and the neutral script with the identified experimenter \( n = 8 \); see Appendix P) were also combined \( n = 21 \).
3.2.1 Hypothesis one. Hypothesis one was investigated utilizing a 2 X 2 mixed model ANOVA. This analysis of variance was conducted to investigate within subject changes in state negative affect and between subject differences in state negative affect, with condition (microaggression or control) as the between subjects variable and time (pre and post conversation) as the within subjects variable, and ratings of state negative affect as the dependent variable. The analysis of variance showed a main effect of time on negative affect ratings $F(1, 41) = 6.72, p < .05, \eta^2_p = .14$, suggesting time had a positive impact on change in negative state affect. There was no main effect of condition $F(1, 41) = .15, p = .70, \eta^2_p = .004$, suggesting that condition had no impact on change in negative state affect. Further, there was no significant interaction effect between time and condition $F(1, 41) = .03, p = .87, \eta^2_p = .001$, suggesting condition had no impact on change in negative state affect.

Data collection was discontinued after the results of the mixed model ANOVA were investigated and the effect size of the interaction was found to be $\eta^2_p = .001$. Effect size shows the extent of the difference between groups and is a measure of difference independent of sample size (Sullivan & Feinn, 2012). While the $p$ values show if an effect exists, it does not tell you the size of the effect. Further, if a sample is large enough, you will almost always receive a statistically significant result, however it is not always meaningful (Sullivan & Feinn, 2012). The effect size shows a measure of the magnitude of the difference between groups that is independent of the sample size used, thus an effect size of $\eta^2_p = .001$ suggests that it is unlikely a meaningful statistically significant result would be found if 80 participants were added. Further, due to the limited and specific nature of the population being sampled (i.e., those who had
Table 5

**Bivariate Correlations**

<table>
<thead>
<tr>
<th>Variable</th>
<th>AMS-65 Overt Discrimination</th>
<th>Institutional Betrayal</th>
<th>GAD-7</th>
<th>PHQ-9</th>
<th>Ability to Participate</th>
<th>Satisfaction with Participation</th>
<th>High Betrayal Trauma</th>
<th>Low Betrayal Trauma</th>
<th>Neuroticism</th>
<th>Severity of disability</th>
<th>Impact of disability on functioning</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMS-65</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overt Discrimination</td>
<td>.77**</td>
<td></td>
<td></td>
<td></td>
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<td>-.04</td>
<td>-.05</td>
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<td>.69**</td>
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</table>

**. Correlation is statistically significant at the 0.01 level (2-tailed).

*. Correlation is statistically significant at the 0.05 level (2-tailed).
experienced a change in physical ability associated with a change in functioning), the
decision to discontinue was based on the small effect size coupled with the desire of the
author to not exhaust the limited population available for this specific type of research.

Confidence intervals were calculated for the effect size of the interaction using
the online calculator provided by Uanhoro (2017) who created the calculator using the R
package MBESS (Kelley, 2007). The default confidence intervals set to 90%, which is
comparable to the 95% two-sided confidence interval since the $F$-statistic cannot be
negative (Smithson, 2003). Results showed a lower limit on $\eta^2_p$ of zero and an upper
limit of 0.04, suggesting there is a 90% chance the true effect size is between 0 and .04.

Gallistel (2009) suggests that a statistically non-significant $p$ value merely
suggests that one cannot reject the null hypothesis and does not prove that the null
hypothesis is true. Thus, a Bayesian $t$-test (Rouder et al., 2009) to assess the odds
favoring support of the null hypothesis that experiencing a microaggression did not
influence negative affect ratings was conducted due to the fact the null hypothesis is
theoretically meaningful in this study. Rouder and colleagues (2009) suggest that
examining the Bayesian factor ($B_{01}$) provides support for the null hypothesis or the
alternative hypothesis and is specifically recommended with small sample sizes. Using
the online calculator provided by Rouder and colleagues (2009), and the recommended
JSZ prior, $B_{01} = 3.29 (t = 0.16)$. These values indicate that the null hypothesis (i.e., no
effect of a microaggression) was approximately three times more likely than the
alternative hypothesis (i.e., a microaggression influences negative state affect),
suggesting it was three times more likely that the microaggression did not impact mood
than that it did. While this is not as strong as a significance test, it still provides support that there were no differences between conditions.

3.2.2 Hypothesis two. The second hypothesis could not be tested due to sample size restrictions. Means and standard deviations for negative affect scores for time 1 and time 2 for the four groups were as follows, Microaggression condition (Time 1, $M = 15.00$, $SD = 6.69$; Time 2, $M = 14.18$, $SD = 7.97$), Institutional Betrayal Condition (Time 1, $M = 17.08$, $SD = 6.90$; Time 2, $M = 15.33$, $SD = 6.45$), Neutral Condition with a Disguised Confederate (Time 1, $M = 17.08$, $SD = 6.90$; Time 2, $M = 15.53$, $SD = 6.45$), Neutral Condition with an Identified Experimenter (Time 1, $M = 14.75$, $SD = 3.77$; Time 2, $M = 14.13$, $SD = 3.94$).

Though the initial hypothesis could not be tested, differences were investigated between having no institutional affiliation and being affiliated with an institution on state negative affect, two new groups were created. The microaggression condition ($n = 12$) and the control condition with the disguised experimenter ($n = 13$) were combined ($n = 25$). Further, the microaggression with institutional betrayal ($n = 12$) and the control with the identified experimenter ($N = 8$) were also combined ($n = 20$). A 2 X 2 mixed model ANOVA was conducted to investigate within subject changes in state negative affect and between subject differences in state negative affect with condition (institutional affiliation or no institutional affiliation) as the between subjects variable, time (pre and post conversation) as the within subjects variable, and ratings of state negative affect as the dependent variable. The analysis of variance showed a main effect of time on negative affect ratings, $F(1, 41) = 6.82$, $p < .05$, $\eta^2 = .14$, suggesting time had an impact on change in negative state affect. There was no main effect of condition $F(1, 41) = .17$,
There was no statistically significant interaction effect between time and condition $F(1, 41) = .02, p = .90, \eta^2 = .000$, suggesting condition had no impact on change in negative state affect.

### 3.3 Hypotheses Three and Four: Regression

#### 3.3.1 Hypothesis three

The third hypothesis was investigated utilizing two five step hierarchical multiple regression analyses. It was hypothesized that past experiences of ableist microaggressions would be associated with negative mental health outcomes (i.e., depression and anxiety) when controlling for other factors known to impact mental health, including negative emotionality. Before the regression analyses were conducted, multicollinearity was tested. Multicollinearity was not violated. Multicollinearity was investigated utilizing the Variance Inflation Factor (VIF) in SPSS. All VIF values were less than 5, suggesting no issues with multicollinearity (Myers, 1990). However, due to the limited size of the sample, the following results should be interpreted with caution. Further, as a result of the limited sample size, demographic variables were not entered into the regression.

The first regression was conducted with anxiety symptoms as the outcome variable. Experiences of ableist microaggressions were entered at stage one, overt discrimination at stage two, the trauma variables (low betrayal trauma and high betrayal trauma) and experiences of institutional betrayal were entered at stage three, satisfaction with social roles and ability to participate is social roles were entered at stage four, and negative emotionality was entered at stage five. The trauma variables were entered with
institutional betrayal, as institutional betrayal is thought to exacerbate the impact of preexisting trauma. Regression statistics are reported in Table 6.

The hierarchical multiple regression revealed that at Stage one, experiences of ableist microaggressions contributed to the regression model, $F(1, 37) = 4.46, p < .05$ and accounted for 11% of the variation in anxiety symptoms. The overall model was significant $F(1, 37) = 4.46, p < .05$. Introducing overt discrimination to the model explained an additional 3% of the variation in anxiety symptoms but this change in $R^2$ was not statistically significant, $F(1, 36) = 1.48, p = .23$. The overall model was also not statistically significant $F(2, 36) = 3.00, p = .06$. Adding the trauma variables and institutional betrayal to the model explained an additional 1% of the variance in anxiety symptoms and this change in $R^2$ was not statistically significant $F(3, 33) = 0.10, p = .96$. The overall model was also not statistically significant $F(5, 33) = 1.17, p = .35$. Adding satisfaction with social roles and ability to participate in social roles to the model explained an additional 6% of the variance and this change in $R^2$ was not statistically significant $F(2, 31) = 1.22, p = .31$. The overall model was also not statistically significant $F(7, 31) = 1.20, p = .33$. Finally, adding negative emotionality to the model explained an additional 35% of the variance and this change in $R^2$ was statistically significant $F(1, 30) = 23.68, p < .01$. When all eight predictor variables were included in stage five of the regression model, only neuroticism remained statistically significant. Together, the eight predictor variables accounted for 56% of the variance in anxiety symptoms and the overall model was also statistically significant $F(8, 30) = 4.77, p < .01$. 

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Table 6

**Summary of Hierarchical Regression Analysis for Variables Predicting Anxiety**

<table>
<thead>
<tr>
<th>Variable</th>
<th>Step 1</th>
<th>Step 2</th>
<th>Step 3</th>
<th>Step 4</th>
<th>Step 5</th>
</tr>
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<td>$F$</td>
<td>$B$</td>
<td>$r$</td>
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* $p < .05$; ** $p < .0001$
The second regression was conducted with depression symptoms as the outcome variable. Experiences of ableist microaggressions were entered at stage one, overt discrimination at stage two, the trauma variables (low betrayal trauma and high betrayal trauma) and experiences of institutional betrayal were entered at stage three, satisfaction with social roles and ability to participate is social roles were entered at stage four, and negative emotionality was entered at stage five. The trauma variables were entered with institutional betrayal, as institutional betrayal is thought to exacerbate the impact of preexisting trauma. Regression statistics are reported in Table 7.

The hierarchical multiple regression revealed that at Stage one, experiences of ableist microaggressions contributed to the regression model, $F(1, 37) = 5.16, p < .05$ and accounted for 12% of the variation in depression symptoms. The overall model was statistically significant $F(1, 37) = 5.16, p < .05$. Introducing overt discrimination to the model explained an additional .02% of the variation in depressive symptoms but this change in $R^2$ was not statistically significant, $F(1, 36) = 0.80, p = .78$. The overall model was also not statistically significant $F(2, 36) = 2.56, p = .09$. Adding the trauma variables and institutional betrayal to the model explained an additional 5% of the variance in depression symptoms and this change in $R^2$ was not statistically significant $F(3, 33) = 0.72, p = .55$. The overall model was also not statistically significant $F(5, 33) = 1.43, p = .24$. Adding satisfaction with social roles and ability to participate in social roles to the model explained an additional 23% of the variance and this change in $R^2$ was significant $F(2, 31) = 5.93, p < .05$. The overall model was also significant $F(7, 31) = 3.02, p < .05$. Finally, adding negative emotionality to the model explained an additional 19% of the variance and this change in $R^2$ was significant $F(1, 30) = 13.81, p < .01$. When all eight
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<th>F</th>
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<td></td>
<td>.49</td>
<td>.43**</td>
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</table>

*p < .05; ** p < .001
predictor variables were included in stage five of the regression model, only neuroticism remained significant. Together, the eight predictor variables accounted for 59% of the variance in depression symptoms and the overall model was significant \( F(8, 30) = 5.46, \ p < .01 \).

3.3.2 Hypothesis four. For the fourth hypothesis, it was predicted that after controlling for negative emotionality, the microaggression exposure would still predict changes in negative state affect. Due to the direction of the mean changes of negative affect (having lower levels of negative affect at time two regardless of condition), this hypothesis could not have been supported. However, a simple correlation was conducted to examine the association between past experiences of microaggressions and negative affect change scores. There was no statistically significant association between experiences of microaggression and negative affect change scores \( r(42) = .04, \ p = .81 \). These results suggest that past experiences of microaggression are unrelated to whether or not the potential microaggression in the present study impacted negative affect scores.

3.4 Qualitative Data

Nine subthemes were identified, with some responses encompassing more than one subtheme. After subthemes were identified, they were then coded into three higher order categories or themes: positive responses, neutral responses, and negative response. Overall, the higher order theme “neutral response” was the most popular with 20 responses falling under this category. Negative response was the second most popular with 12 responses and positive response was the least popular with seven responses. Table 8 includes descriptions, instances, and examples of subthemes for positive responses. Table 9 includes descriptions, instances, and examples of subthemes for
neutral responses. Table 10 includes descriptions, instances, and examples of subthemes for negative responses.

After higher order themes were identified, each category was then assigned a numerical value. Positive responses were given the numerical value of one, neutral responses were given the numerical value of two, and negative responses were given the numerical value of three. In the microaggression condition, three responses were coded as positive, four as neutral, and four as negative. In the microaggression with institutional betrayal condition, two responses were coded as positive, six as neutral, and five as negative. In the control condition with disguised confederate one response was coded as positive, six as neutral, and two as negative. In the control condition with identified experimenter one response was coded as positive, four as neutral, and two as negative.

A one-way ANOVA was then conducted to assess between condition (i.e., microaggression, microaggression with institutional betrayal, control with disguised confederate, control with identified experimenter) differences in the three higher order categories, or themes (i.e., positive responses, neutral responses, negative responses). There was no statistically significant difference between the microaggression condition ($M = 2.09, SD = 0.83$), the microaggression with institutional betrayal condition ($M = 2.23, SD = 0.73$), the control condition with a disguised confederate ($M = 2.11, SD = 0.60$), or the control condition with the identified experimenter ($M = 2.14, SD = 0.69$) based on higher order theme, $F(3, 39) = 0.09, p = .97$. These results suggest there is no difference in attitude toward the microaggression between individuals who actually experienced the microaggression and those who imagined experiencing the
microaggression. The results showed there was no difference between experiencing a microaggression and imagining experiencing a microaggression, suggesting that having this potential microaggression perpetrated against you does not warrant a different response than imagining it being perpetrated.

Next, a one-way ANOVA was conducted to assess between theme (i.e., positive, neutral, negative) differences in negative affect change scores. There was no statistically significant difference between positive ($M = 1.29, SD = 1.80$), neutral ($M = 1.89, SD = 2.60$), or negative ($M = 1.27, SD = 2.80$) higher order themes on negative affect change scores $F(2, 36) = 0.27, p = .76$. These results suggest that participant qualitative responses to the potential microaggression and their decided themes were unrelated to negative affect change scores.
Table 8

**Subthemes and Descriptions for Positive Responses**

<table>
<thead>
<tr>
<th>Subtheme</th>
<th>Description</th>
<th>Example</th>
<th>Instances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Validated</td>
<td>Comments about being thankful for confederate interest</td>
<td>“Um… I don’t know the word but it made me feel I don’t know... made me feel, maybe this isn’t quite the right word, but I guess validated that people were interested in me”</td>
<td>2</td>
</tr>
<tr>
<td>Chalked up to Curiosity</td>
<td>Comments about assuming the potential microaggression was a result of curiosity in the confederate.</td>
<td>“I just thought she was interested... just keeping me company and interested in my life”</td>
<td>2</td>
</tr>
<tr>
<td>Resilience</td>
<td>Comments about ‘overcoming’ adversity.</td>
<td>“Well open like wanting to share what you can overcome”</td>
<td>2</td>
</tr>
<tr>
<td>Open</td>
<td>Comments about feeling open to share experience.</td>
<td>“So she would have just wanted to know what happened to me when I fell? Is that it... well sure!”</td>
<td>2</td>
</tr>
</tbody>
</table>
### Table 9

**Subthemes and Descriptions for Neutral Responses**

<table>
<thead>
<tr>
<th>Subtheme</th>
<th>Description</th>
<th>Example</th>
<th>Instances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chalked up to Curiosity</td>
<td>Comments about assuming the potential microaggression was a result of curiosity in the confederate.</td>
<td>“Uhh... I don’t know I always... people are curious or whatever...I never had a problem”</td>
<td>9</td>
</tr>
<tr>
<td>Open</td>
<td>Comments about feeling open to share experience.</td>
<td>“Um I’m kind of used to it in a way now because I’m pretty open about my injuries and why I can’t do much physical activity and what not, so I’m not really bothered by people asking”</td>
<td>5</td>
</tr>
<tr>
<td>Affiliated with study so questions expected</td>
<td>Comments about feeling comfortable to share because within the context of the study.</td>
<td>“Umm... well she said she was working with you so I would have felt comfortable sharing information with her”</td>
<td>5</td>
</tr>
<tr>
<td>Interested</td>
<td>Expressing interest in the potential microaggression.</td>
<td>“That’s interesting... uhh... mmm”</td>
<td>2</td>
</tr>
<tr>
<td>Blanket neutral</td>
<td>No themes beyond neutral.</td>
<td>“I can’t really say it made me feel anything. I just told her what happened”</td>
<td>3</td>
</tr>
</tbody>
</table>
Table 10

**Subthemes and Descriptions for Negative Responses**

<table>
<thead>
<tr>
<th>Subtheme</th>
<th>Description</th>
<th>Example</th>
<th>Instances</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chalked up to curiosity</td>
<td>Comments about assuming the potential microaggression was a result of curiosity in the confederate.</td>
<td>“It didn’t make me feel as if it was an aggression… it did make me feel nervous… I took it as a curiosity”</td>
<td>1</td>
</tr>
<tr>
<td>Frustration with question</td>
<td>Expressing frustration at needing to explain experience.</td>
<td>“Um… it’s gotten old after 4-5 years of ‘oh what did you do’ like my issue is on the outside I look fine, but then I feel constant pain”</td>
<td>3</td>
</tr>
<tr>
<td>Privacy Concerns</td>
<td>Expressing concerns about privacy and not wanting to share.</td>
<td>“Well the experience I had was right away, um kind of pulling back and uhh just feeling guarded I guess because I don’t really know her”</td>
<td>6</td>
</tr>
<tr>
<td>Feeling microaggressed</td>
<td>Expressing distaste with the question.</td>
<td>“Umm I did feel it was inappropriate.. the phrasing seemed strange”</td>
<td>3</td>
</tr>
<tr>
<td>Affiliated with study so questions</td>
<td>Comments about feeling comfortable to share because within the context of the study.</td>
<td>“Umm I think I would be hesitant to answer that question… just because it’s not something that I’m proud of so.. umm I’m”</td>
<td>1</td>
</tr>
</tbody>
</table>
pretty like I would say ashamed to tell them.. I would still respond because she did say she was part of the study and it would probably help the study so I might as well tell.”
Discussion

Microaggressions perpetrated against racial minorities are a widely researched type of discrimination (Sue et al., 2007). Rooted in implicit biases and typically perpetrated in a subtle manner, microaggressions’ pernicious nature lies in their repeated and constant perpetration. Microaggressions have been shown to be associated with depressive symptoms as well as negative affectivity (Nadal et al., 2014). While microaggressions are often perpetrated against many marginalized groups, those committed against individuals with disabilities are an under-researched phenomenon (Conover et al., 2017). Research that has been conducted in this area suggests that experiences of microaggression are associated with symptoms of both depression and anxiety in persons with disabilities (Kattari, 2017; Lett et al., 2018). While this research shows that microaggressions are associated with negative mental health symptoms in the long term, no research, to my knowledge, has examined the impact of a single microaggression directly after it is perpetrated. Thus, the primary goal of the present study was to investigate the impact of a single microaggression quantitatively, by utilizing the PANAS (Watson et al., 1988), and qualitatively, through direct, open-ended questioning of participants.

An experimental design was utilized to investigate the impact of a single microaggression on participants who had experienced a change in physical ability associated with a change in functioning. This design involved assessing the impact of a potential microaggression on mood utilizing the PANAS (Watson et al., 1988). It was expected that experiencing a single microaggression would increase negative affect in individuals with disabilities.
4.1 The Decision to Discontinue Data Collection

Prior to beginning the study, it was determined that 130 participants would be required to have adequate power to find a significant association between experiencing a microaggression and change in negative affect ratings. In the present study, 46 participants completed the study before data collection was discontinued. The decision to discontinue data collection was made on the basis of an extremely small effect size, which showed the extent of the difference between groups was negligible (Sullivan & Feinn, 2012). The size of the effect suggested no statistically meaningful results would be found even if 130 participants were collected. Thus, the decision to discontinue collecting data was made on the basis of the small effect size and the author’s desire to avoid exhausting the small population (i.e., those who have experienced a change in physical ability associated with a change in functioning) available to them. As a result of the small sample size, the results of this study should be examined with caution.

4.2 Recruitment Difficulties

While the decision to discontinue was made based on the effect size, it must be acknowledged that recruiting a sample from such a specific population was difficult. The author collected participants through a variety of avenues outlined in the method section. Recruiting participants included moving the study off campus, receiving approval from the health authority to advertise in places such as Wascana Rehabilitation Centre, and opening up the study to take participants who had experienced differences in ability since birth. Only seven participants completed the study off campus, despite a number of sites being contacted and no participants participated from Wascana Rehabilitation Centre. Further, all participants recruited had experienced a change in physical ability
associated with a change in functioning, thus, opening the study to include all physical disabilities was also fruitless. While traditional methods of recruitment (i.e., online, with posters, through student emails) did garner 46 participants, this occurred over the span of seven months, which meant fulfilling thesis-based deadlines was increasingly difficult.

The decision to use the terminology “a change in physical ability associated with a change in functioning” was based on the fact that many individuals do not subscribe to the disability label (Watson, 2010). However, it is possible this definition excluded participants who identified as having an acquired physical disability because they viewed the terminology used as unrepresentative of their experience. In the future both types of terminology should be relied on to ensure all persons feel they can participate based on how they identify. Further, participants were compensated $15.00. In the future, researchers should provide higher levels of compensation, while avoiding undue influence in accordance with the ethical guidelines set out by the Tri-Council (Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, & Social Sciences and Humanities Research Council of Canada, 2014, p. 27). The study involved one to two-hour sessions in which participants had to attend an in-lab session, complete questionnaires, and engage in conversation with the researcher. It is possible that persons who decided not to participate did so because they felt the burden of the study was not commensurate with the compensation provided.

4.3 Demographic Variables, Anxiety, Depression, and Microaggression

Prior to investigating the four hypotheses, preliminary analyses were conducted to examine the associations between gender, ethnicity, sexual orientation, and disability onset, with depression symptoms, anxiety symptoms, and experiences of
microaggressions. For ableist microaggressions, only gender and not ethnicity, sexual orientation, or disability onset, was found to differ significantly. Women were found to have experienced more microaggressions than men. This is inconsistent with the results found by Conover and Colleagues (2017) who found that experiences of ableist microaggression did not differ based on gender. However, research examining race-based microaggressions suggests that among Latina/o persons, women experience more microaggressions than men, potentially as a result of their intersecting statuses of marginality (Nadal, Mazzula, Rivera, & Fujii-Doe, 2014). Thus, it is possible that women reported more disability-based microaggressions due to the intersection of sexism and ableism, making women more likely to be targets of discrimination.

For anxiety symptoms, results were found to differ based on sexual orientation and ethnicity, but not gender or disability onset. Specifically, White individuals were found to experience higher levels of anxiety than non-White individuals. This is consistent with past research that has found Black individuals tend to experience lower levels of anxiety than white individuals, potentially due to better coping skills (Chapman & Steger, 2010). For sexual orientation, non-heterosexual individuals were found to experience higher levels of anxiety. This is consistent with past research that has found that being gay, lesbian, or bisexual is more likely to be associated with anxiety than being straight (Bostwick, Boyd, Hughes, & McCabe, 2010). There were no significant findings related to depression symptoms.
4.4 Examining the Association Between Ableist Microaggressions and Study Variables

Consistent with the results of Lett and colleagues (2018), overt discrimination, anxiety, depression, and institutional betrayal were all significantly associated with experiences of ableist microaggressions. More specifically, those who had experienced higher levels of overt discrimination, anxiety, depression, and institutional betrayal had also experienced higher levels of ableist microaggressions. Ableist microaggressions were also found to be associated with ability to participate in social roles and satisfaction with ability to participate in social roles. Those who have a lower ability to participate in social roles and who are less satisfied with this participation are more likely to have experienced ableist microaggressions. While research has not previously examined these associations, it is likely that individuals who have difficulties participating in social roles and who are unsatisfied with their ability to participate may have a disability that would be characterized as more ‘severe’ by other persons. Perceived severity would likely be associated with increased disability visibility which as a result may incur more discrimination. Ableist microaggressions were also found to be associated with higher levels of betrayal trauma. Gomez (2015) suggests that microaggressions may actually be a form of trauma, suggesting their association with betrayal trauma may be due to their similar nature. Finally, ableist microaggressions were found to be associated with neuroticism. Lilienfeld (2017) suggests that persons who are high in negative emotionality, as measured by neuroticism in the present study, are more likely to notice experiences of microaggression. This association is due to the fact that those high in the personality trait neuroticism are more likely to be critical and focus on negative events.
(Watson & Clark, 1984). Thus, this particular finding suggests that Lilienfeld’s criticism has important merit.

4.5 Hypothesis One: Microaggression on Negative Affect

It was hypothesized that an ableist microaggression would increase state negative affect in individuals with disabilities. This was not supported. It was found that experiencing a microaggression had no impact on negative affect. Further, it was found that all participants experienced a decrease in negative affect over time, suggesting that after the study was interrupted participant mood improved. Other research that has investigated the impact of microaggressions has focused on looking at long-term associations that exist between microaggressions and mental health symptoms. Sue and colleagues (2007) suggest microaggression’s association with mental health symptoms lies in the cumulative effect of constant exposure to this form of discrimination. This would potentially suggest a single microaggression is not adequate to elicit a change in mood. Thus, it is possible that experiencing a single microaggression is not pernicious enough to increase negative affect.

While research has shown that microaggressions are associated with symptoms of depression and anxiety (Kattari, 2017; Lett, 2018) as well as negative affect (Nadal et al., 2014), no research, to my knowledge, has experimentally investigated the cause and effect relationship that exists between microaggressions and mental health or negative mood symptoms. The research that exists on ableist microaggressions has relied almost entirely on correlational research to investigate the associations between mental health symptoms and microaggressions, with no clear-cut cause and effect relationship discerned (Conover et al., 2017; Kattari, 2017; Lett, 2018). Lilienfeld (2017) has
critiqued microaggression research for relying on the ‘mono-source bias’ (p. 152),
viewing it as problematic to rely solely on self-report data. Lilienfeld (2017) states that
relying on self-report data alone creates associations between experiences of
microaggressions and mental health symptoms that do not truly exist. Thus, consistent
with Lilienfeld’s (2017) criticism, it must be considered that while microaggressions
have been found to be correlated with mental health symptoms, they do not necessarily
cause them. However, such a sweeping statement is difficult to make based on the results
of the present study.

For the purpose of this study, the impact of a single type of
microaggression was assessed, suggesting that the results might be due to the type of
microaggression used, and not due to how microaggressions, in general, impact mood.
The operational definition of microaggression in the present study was based on Keller
and Galgay’s (2010) *denial of privacy* domain, which involves denying individuals with
disabilities the right to be private about their disability status. The results of the present
study suggest that this particular type of microaggression does not have an impact on
mood. Lilienfeld (2017) contends that microaggression lacks a clear operational
definition. In the present study the ableist microaggression was clearly defined, however
did not impact persons with disabilities in the expected manner. Thus, while this specific
type of microaggression did not impact mood, it cannot be ruled out that a different type
of microaggression may cause participants to react in a completely different way (i.e.,
microaggression consistent with Keller and Galgay’s (2010) infantilization in which the
participant is treated like a child might cause the participant to react in a more negative
manner).
While it is possible that the specific microaggression did not impact mood, it is also possible that the setting in which the microaggression occurred impacted participant appraisal of it. Smith and Ellsworth (1987) hold that emotions do not occur as a result of an event itself, but rather as a result of one’s appraisal of said event as important to their own well-being. Siemer, Mauss, and Gross (2007) conducted a study in which participants were exposed to an emotionally taxing situation and then completed both an emotion rating and an appraisal questionnaire. It was found that participant emotional reactions to the situation could be predicted by how they appraised the situation and that different participants appraised the situation in different ways. The findings of Siemer and colleagues (2007) suggest that in the present study, participant appraisal of the microaggression may have had more impact on their emotional reaction than the act itself. Based on the setting in which the microaggression was perpetrated (i.e., in a safe, private, space in which participants expected to be asked questions about their disability status) the microaggression may not have been appraised as harmful or dangerous, but rather as the result of curiosity.

It is likely that priming played a role in participants’ appraising the microaggression as unharmful and thus not emotionally impactful. Priming prepares people to notice, discuss, or be aware of specific topics, actions, or objects (Bargh, 2006). Participants were aware that they would be discussing their change in physical ability and functioning when they began the study. Due to this awareness, it is possible the microaggression had no impact due to its nature (i.e., specifically asking what happened to the participant) as participants were planning on discussing exactly what had occurred in their life to bring them to the study. This hypothesis is further bolstered
by participants verbally stating that they expected to discuss their ability status so they were not surprised when queried. As a result of this, it is possible that if the microaggression had been different (e.g., focused on infantilizing the participant as opposed to denying their privacy) participants may have appraised it differently, and thus it may have been more emotionally impactful.

4.6 Qualitative Data: In Support of No Impact of Single Microaggression

The results of the qualitative content analysis showed three different higher order themes: neutral responses, negative responses, and positive responses. Neutral responses involved participants reacting neutrally to the microaggression or potential microaggression. Negative responses involved participants reacting negatively to the microaggressions or potential microaggression. Positive responses involved participants reacting positively to the microaggression or potential microaggression. Twenty participants had responses coded as neutral, 12 had responses coded as negative, and seven had responses coded as positive. The most common subtheme (i.e., 12 participants reported answers consistent with this subtheme) was “chalked up to curiosity” which involved comments about assuming the potential microaggression was a result of curiosity in the confederate. This particular subtheme appeared across all higher order themes (i.e., neutral, negative, positive). Nine participants in the neutral category, one in the negative category, and two in the positive category reported answers consistent with the subtheme “chalked up to curiosity.” The second most common subtheme (i.e., 7 participants reported answers consistent with this subtheme) was “open” which involved participant comments about feeling open to share their experience. This subtheme occurred across two higher order themes (i.e., positive and neutral responses). The two
least common subthemes (i.e., only two participants reported answers consistent with these subthemes) were validated, which involved comments about being thankful for confederate interest, and resilience which involved comments about ‘overcoming’ adversity. Both these subthemes were present only in the responses consistent with the positive higher order theme.

The themes and subthemes coded from participant answers provide insight into participant appraisals of the microaggression or potential microaggression. Consistent with the findings of Siemer and colleagues (2007) that suggest emotional reactions can be predict by situational appraisals, the appraisals present in the qualitative findings can be used to predict emotional responses to the microaggression or potential microaggression. Overall, participant responses suggest that the microaggression had little to no impact on them, as the majority of responses were consistent with the higher order theme of neutral. Participants whose responses were coded as positive, largely appraised the situation as nonharmful whereas participants whose responses were coded as negative largely appraised the situation as potentially dangerous. For responses coded as neutral, appraisal rarely entered the process because the event was not considered relevant to participant’s well-being. The majority of participants had answers consistent with neutral responses which suggests this particular microaggression was not charged enough to evoke appraisal and thus an emotional response in participants. These findings are consistent with the findings of hypothesis one and suggest that the situation in which the microaggression occurred and the type of microaggression perpetrated contributed to how participants reacted to it.
After participant appraisals of the microaggression or potential microaggression were assessed, a statistical analysis was conducted on higher order themes to investigate any potential statistical differences between the four conditions. It was found that regardless of whether or not participants actually experienced the microaggression, their responses were not significantly different. This suggests that actually experiencing the microaggression had no impact on participant appraisal of the potential microaggression, consistent with the findings of hypothesis one.

Differences on negative affect change ratings between higher order themes (i.e., positive, negative, neutral) were also statistically assessed. It was found that there were no differences between higher order themes on negative affect change ratings. This suggests that higher order themes coded from participant responses were unrelated to participants’ change on negative affect ratings. Whether or not someone appraised the event as positive, negative, or neutral was unrelated to whether or not they had an increase, decrease, or did not change on negative affect scores. This is consistent with the findings of hypothesis one suggesting negative affect change scores were unrelated to condition.

4.7 Hypothesis Two: Microaggression and Institutional Betrayal on Negative Affect

It was hypothesized that the impact of an ableist microaggression on state negative affect would be intensified by an experience constituting institutional betrayal. This hypothesis could not be tested due to the limited sample size. However, the impact of confederate institutional affiliation on participant mood was investigated. Differences in change in negative affect ratings between those who had experienced an interruption conducted by a confederate affiliated with the institution (i.e., the University of Regina)
and a confederate who was not affiliated with any institution were investigated. Similar to the results found while investigating hypothesis one, all participants experienced a decrease in negative affect over time, suggesting that being interrupted, regardless of institutional affiliation, decreased participant negative mood. There was no difference between groups on change in negative affect. These results suggest that institutional affiliation had no impact on change in participant mood. It is likely institutional affiliation did not impact participant mood because participants considered all confederates to be similar and institutionally affiliated because of the way in which the interruption occurred (i.e., in the University of Regina interrupted by someone familiar to the researcher or off campus interrupted by someone the researcher had brought with them).

4.8 Hypothesis Three: Ableist Microaggressions and Mental Health

It was hypothesized that past experiences of ableist microaggressions would be associated with negative mental health outcomes when controlling for other factors known to impact mental health, including negative emotionality. This hypothesis was not supported. Two analyses were conducted looking at the association between ableist microaggressions and depression and anxiety. The impact of experiences of ableist microaggressions, overt discrimination, low betrayal trauma, high betrayal trauma, experiences of institutional betrayal, satisfaction with social roles and ability to participate in social roles, and negative emotionality on mental health symptoms were controlled for. It was found that ableist microaggressions significantly predicted both anxiety and depression symptoms until the other variables known to impact mental health were controlled for. Most notably, when neuroticism was controlled for, all other
predictors of mental health symptoms became non-significant. This suggests that being high in the personality trait neuroticism is the strongest predictor of mental health symptoms.

Neuroticism remaining the sole significant predictor of both depression and anxiety lends credence to the concerns of Lilienfeld (2017). Lilienfeld states that research examining microaggressions typically fails to control for the impact of personality, more specifically negative emotionality. Further, Lilienfeld (2017) suggests negative emotionality is the reason persons develop mental health symptoms, not experiences of microaggression. Negative emotionality is associated with being critical, vulnerable to distress, and focusing on negative events (Watson & Clark, 1984). Lilienfeld (2017) believes that individuals who report higher experiences of microaggressions do so because they are more likely to interpret benign events as stressful, or discriminatory, due to their personalities. Though past research has found experiences of ableist microaggressions are associated with depression and anxiety (Kattari, 2017; Lett et al., 2018), neuroticism was not controlled for. Past research also suggests a clear and robust relationship between being high in the personality trait neuroticism and developing both anxiety and depression symptoms (Roelofs, Huibers, Peeters, & Arntz, 2008). Thus, based on the results of the present study, Lilienfeld (2017) may have been correct about the role of negative emotionality in reporting experiences of microaggression and on experiencing mental health symptoms.

Conversely, it is possible that neuroticism and negative life experiences interact to produce depression in most people. Optimism may act as a protective factor against developing depression, suggesting that neuroticism is not the sole predictor of mental
health symptoms, but rather one piece of the puzzle. This is consistent with past research that named optimism and self-esteem as protective factors against developing depression (Ames, Rawana, Gentile, & Morgan, 2015). Thus, it may be possible that symptoms of depression are not the result of neuroticism but rather, the result of neuroticism interacting with negative life events. Further, optimism might be the protective factor that keeps those persons who have experienced negative life events and who are not high in neuroticism from developing symptoms of depression.

4.9 Hypothesis Four: Microaggression, Neuroticism, and Change in Negative Affect

It was hypothesized that after controlling for negative emotionality, the microaggression exposure would still predict significant changes in negative state affect. However, due to the fact that negative affect decreased after the microaggression was perpetrated this hypothesis could not be supported. The association between past experiences of ableist microaggressions and change in negative affect was investigated. There was no association between past experiences of ableist microaggressions and change in negative affect, suggesting that past experiences of ableist microaggressions were unrelated to participant change in negative affect. These results suggest that past experiences of microaggression do not have an impact on how a person reacts to a single microaggression in the short-term.

4.10 Limitations

This study is not without limitations. One of the most pressing limitations is the limited small sample size. Initially, it was determined through a power analysis that 130 participants were required to see significant effects. Recruitment was discontinued after the relationship between experiencing a microaggression and negative affect was
investigated and the effect size was found to be negligible. These results, coupled with the authors intention to not exhaust the limited population of persons in Regina who have experienced a change in physical ability associated with a change in functioning, left 46 participants. Thus, the results of the analyses must be interpreted with caution as sufficient power was not achieved to get significant results.

Due to the nature of the study and the resources available, the principle investigator was not blind to what conditions the participants were placed in. As a result, it is possible that experimenter expectancies and the way in which the principle investigator treated the participants could have impacted how they responded to the PANAS. Experimenter bias and expectancies are known to impact study outcomes (Holman, Head, Lanfear, & Jennions, 2015). These biases are seen as more impactful when the experimenter is expecting a specific type of result (i.e., expecting a microaggression to impact mood negatively). Further, Holman and colleagues (2015) found that non-blind studies were more likely to report greater effect sizes and report more robust rejections of the null hypothesis than blind studies. Though the experimenter and the confederate were not blind to the conditions, the results were in the opposite direction of what was originally expected, so this was unlikely to be the case here. It was found that there was no significant change in mood between groups and that the change that was observed over time was a decrease in negative affect. Further, the effect size statistics for microaggressions that were reported were close to zero and it was determined through the use of Bayesian statistics that the null hypothesis was actually three times more likely to be correct than the alternative hypothesis. Despite a blind
protocol not being implemented, results were not as the author expected and seemed unaffected.

This study potentially lacks generalizability. Though the population being studied was very specific (i.e., involving those who had experienced a change in physical ability associated with a change in functioning), the true lack of generalizability lies in who decided to participate. Physical disabilities are thought to impact 12% of the population, a number that increases with age (Statistics Canada, 2018). Despite the large number of individuals who potentially have acquired physical disabilities, only 83 participants responded to survey advertisements. Thus, it is not unlikely that participants who responded to the advertisement may have been fundamentally different from those who did not. Further, based on the financial incentive of $15.00 individuals coming from a lower socioeconomic status may have been more likely to participate. Women were also over represented in this sample as 67.4% of participants were female and only 50.4% of the Canadian population is female (Statistics Canada, 2015). This suggests the distribution of gender was not representative of the general population and may have impacted results.

4.11 Conclusions and Future Directions

The purpose of this study was to investigate the impact of ableist microaggressions on mood. The finding of no difference between conditions on change in negative affect scores is an important result, providing insight into the impact of a single microaggression. Based on these results, it seems that a single microaggression of this type is not pernicious enough to impact mood. The context in which a microaggression is perpetrated likely matters, although there is no evidence of this yet.
The present microaggression was perpetrated in a space with no other individuals present and time was given for the participant to collect their thoughts, but many microaggressions do not occur in this manner. Often, microaggressions occur in everyday situations when the individual is not expecting an intrusive question (Keller & Galgay, 2010). This question of context is an important avenue for future investigation.

Due to the nature of the study, participants were expecting to be asked about their ability status and would not have joined the study if they did not want to discuss it. In the future, microaggression perpetration should be potentially carried out in a more natural setting where individuals are not expecting it, to see if the impact a single experience differs by context.

It is also likely that the type of microaggression perpetrated matters. While individuals in the present study were expecting to discuss their ability status, they were likely not expecting to experience a different type of microaggression such as one consistent with infantilization (i.e., treating a person with a disability like a child). Future research should examine the impact of different types of microaggressions on participant affect and mental health symptoms to further address Lillienfeld’s (2017) concern about operationalizing microaggressions. Further, potentially opening up the research to include participants of all physical abilities would allow for a comparison of the impact of a microaggression on someone who fits the able-bodied label verses someone who would be labelled as a person with a disability. Future research should also focus on finding different ways to measure the impact of a single microaggression, beyond mood measures.
The impact of neuroticism on the relationship between mental health symptoms and ableist microaggressions should be examined further. Consistent with appraisal theory (Smith & Ellsworth, 1987) it is likely that persons high in neuroticism (i.e., a personality trait associated with being critical, vulnerable to distress, and focusing on negative events; Watson & Clark, 1984) would be more likely to appraise events as negative. Thus, future research should focus on untangling the relationship between mental health symptoms, neuroticism, and experiences of microaggression in order to assess the difference personality makes.

While the results were not in the expected direction nor significant, this study makes an incremental contribution to the body of literature on microaggressions. Microaggressions have not previously been studied experimentally (Lilienfeld, 2017) and a number of studies must be conducted before understanding how a single microaggression can impact persons from marginalized groups. This research provides a starting point for future experimental investigations of microaggressions. Research should continue to investigate this phenomenon so the nature and impact of a single microaggression in various circumstances can be determined.
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Canadian Institutes of Health Research, Natural Sciences and Engineering Research Council of Canada, and Social Sciences and Humanities Research Council of


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Appendix A: Advertisement

Department of Psychology

University of Regina

PARTICIPANTS NEEDED WHO HAVE EXPERIENCED A CHANGE IN FUNCTIONING RELATED TO A CHANGE IN PHYSICAL ABILITY

FOR RESEARCH ON PERSONALITY AND MOOD

We are looking for individuals who have experienced a change in physical ability associated with a change in functioning at some time in their life. This includes people who have experienced changes in or a loss of vision, hearing, dexterity, flexibility, or mobility. Examples of this include, but are not limited to, changes such as a decrease in vision that has impacted ability to drive, change in hearing ability that impacts your ability to engage in conversation, or a hip replacement resulting in reduced mobility. This also includes people who have experienced a change in functioning due to pain.

Your participation would involve coming to the University of Regina to complete a variety of questionnaires assessing personality and mood at the Social Context, Health, and Trauma Lab.

Participants will be compensated $15.00 for participating and the cost of transportation and parking will be compensated as necessary.

For more information about this study, or to volunteer for this study, please contact:

Hannah Anstey
Department of Psychology
at
(306) 585-4300
or
Email: hja464@uregina.ca

This study has been reviewed and received approval through the Research Ethics Board, University of Regina
Appendix B: Demographic Questionnaire

What is your current age? ___

What is your gender? _________

What is your race/ethnicity? (Please select all that apply).
- White/ Caucasian
- Indigenous (e.g. First Nations, Metis, Inuk, etc.)
- Black
- South Asian (e.g. East Indian, Pakistani, Sri Lankan, etc.)
- Filipino
- East Asian (e.g. Chinese, Japanese, Korean, etc.)
- Southeast Asian (e.g. Vietnamese, Cambodian, Malaysian, Laotian, etc.)
- Arab
- West Asian (e.g. Iranian, Afghan, etc.)
- Latin American

What is your sexual orientation?
- Not heterosexual (e.g. gay, bisexual, pansexual, queer, etc.)
- Heterosexual

What is your highest level of completed education? (Please select one)
- Less than high school graduate
- High school diploma or GED
- Some college/post-secondary credit, no degree
- Associate or technical degree/certificate
- Bachelor’s degree
- Graduate or professional degree (for example, MA, PhD, MD)

What is your immigration and citizenship status?
- Canadian Citizen
- Permanent Resident
- Immigrated, non-permanent resident
- Non-immigrated

What kind of population setting do you live in?
- Urban
- Rural
- First Nations Band

What is your total household income (including child support, spousal support, disability, pension etc.)?
- Less than $10,000
- $10,000 to $19,999
- $20,000 to $29,999
$30,000 to $39,999
$40,000 to $49,999
$50,000 to $59,999
$60,000 to $69,999
$70,000 to $79,999
$80,000 to $89,999
$90,000 to $99,999
$100,000 to $149,999
$150,000 or more

What language(s) do you speak?
  English
  French
  Non-official language(s)

What is your marital status?
  Single, never married
  Married/common-law
  Divorce/separated
  Widow

You are participating in this study because you identify as having experienced a change in physical ability associated with a change in functioning. What type of change did you experience? Choose all that apply.
  • Pain related
  • Flexibility
  • Mobility
  • Dexterity
  • Hearing
  • Seeing
  • Other

Was your change in functioning sudden or a gradual onset?
  • Sudden
  • Gradual

If sudden onset…
What is the date of onset?

If gradual onset…
Please provide a rough estimate of the date when the changes started to occur: _____. Please provide an estimate of the date when you reached your current level of functional ability_____.

How severe would you rate your change in physical ability, with 1 being no change and 10 being the most severe imaginable?
On a scale of 1-10 please rate the impact this change has had on your functioning with 1 being no impact and 10 being the most impact possible.
Appendix C: Positive and Negative Affect Schedule (PANAS)

This scale consists of a number of words that describe different feelings and emotions. Read each item and then list the number from the scale below next to each word. Indicate to what extent you feel this way right now, that is, at the present moment. 1 = Very Slightly or Not at All, 2 = A Little, 3 = Moderately, 4 = Quite a Bit, 5 = Extremely

<table>
<thead>
<tr>
<th>Item</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Interested</td>
<td>_______</td>
</tr>
<tr>
<td>2. Distressed</td>
<td>_______</td>
</tr>
<tr>
<td>3. Excited</td>
<td>_______</td>
</tr>
<tr>
<td>4. Upset</td>
<td>_______</td>
</tr>
<tr>
<td>5. Strong</td>
<td>_______</td>
</tr>
<tr>
<td>6. Guilty</td>
<td>_______</td>
</tr>
<tr>
<td>7. Scared</td>
<td>_______</td>
</tr>
<tr>
<td>8. Hostile</td>
<td>_______</td>
</tr>
<tr>
<td>9. Enthusiastic</td>
<td>_______</td>
</tr>
<tr>
<td>10. Proud</td>
<td>_______</td>
</tr>
<tr>
<td>11. Irritable</td>
<td>_______</td>
</tr>
<tr>
<td>12. Alert</td>
<td>_______</td>
</tr>
<tr>
<td>13. Ashamed</td>
<td>_______</td>
</tr>
<tr>
<td>14. Inspired</td>
<td>_______</td>
</tr>
<tr>
<td>15. Nervous</td>
<td>_______</td>
</tr>
<tr>
<td>16. Determined</td>
<td>_______</td>
</tr>
<tr>
<td>17. Attentive</td>
<td>_______</td>
</tr>
<tr>
<td>18. Jittery</td>
<td>_______</td>
</tr>
<tr>
<td>19. Active</td>
<td>_______</td>
</tr>
<tr>
<td>20. Afraid</td>
<td>_______</td>
</tr>
</tbody>
</table>
Appendix D: Big Five Inventory (BFI) Neuroticism Questions

**BFI**

**Instructions:** Here are a number of characteristics that may or may not apply to you. For example, do you agree that you are someone who *likes to spend time with others?* Please use the following scale to record your responses. **indicates reversed scored.

<table>
<thead>
<tr>
<th></th>
<th>Very uncharacteristic of myself</th>
<th>Somewhat uncharacteristic of myself</th>
<th>Neither characteristic nor uncharacteristic of myself</th>
<th>Somewhat characteristic of myself</th>
<th>Very characteristic of myself</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
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<td>3</td>
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<td>6</td>
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<tr>
<td>7</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

I see myself as someone who…

1. Is depressed, blue………………………………..

2. Is relaxed, handles stress well………………...

3. Can be tense……………………………………

4. Worries a lot……………………………………

5. Is emotionally stable, not easily upset………

6. Can be moody……………………………………

7. Remains calm in tense situations……………..

8. Gets nervous easily…………………………….
Appendix E: Ableist Microaggression Scale (AMS-65)

You were recruited for this study because you identify as having a change in physical ability associated with a change in functioning. Some people would say that these changes mean that you have a physical disability. The following scale asks questions about your disability status. If you do not identify as having a disability, please answer the questions by thinking about your change in physical ability associated with a change in functioning. Please indicate whether any of the following have ever happened to you utilizing the following scale.

1 = Never, 2 = Rarely, 3 = Some of the time, 4 = Most of the Time, 5 = Almost all of the time

*Items with reverse scoring are indicated by two asterisks.*

1. A family member held my disability status against me
2. A stranger asked me personal questions based on my disability status
3. I experienced someone telling me my disability status is more or less severe than I think it is
4. I had to put forth a large amount of effort to ensure my accommodation needs were met
5. I have been told people with my disability status are burdensome
6. I heard someone say that no one would want my disability status
7. I observed people with my disability status held positions of power in large corporations**
8. I observed people with my disability status holding positions of political power **
9. I observed people with my disability status portrayed positively in a movie**
10. I observed people with my disability status portrayed positively in magazines**
11. I observed people with my disability status portrayed positively on the news **
12. I observed people with my disability status portrayed positively on TV**
13. I received sub-standard service based on my disability status
14. I was asked for proof of my disability status
15. I was asked personal questions about my disability status
16. I was asked to disclose my disability status in inappropriate settings
17. I was excluded based on my disability status
18. I was expected to educate others on my disability status
19. I was given unsolicited encouragement based on my disability status
20. I was invited to an event that was not accessible to me
21. I was labeled as "inspirational" for doing daily activities based on my disability status
22. I was offered help I did not request based on my disability status
23. I was told I talk about my disability status too much
24. I was told my experiences regarding my disability status are not real or valid
25. I was told my requested accommodations were "too much"
26. I was told that ableism is not real
27. My opinion was overlooked in a group discussion based on my disability status
28. My weaknesses were highlighted over my successes based on my disability status
29. Someone acted surprised about my professional success because of my disability status
30. Someone asked uninvited questions regarding my disability status
31. Someone assumed I am less competent than I am based on my disability status
32. Someone assumed I had a different disability status than I do
33. Someone assumed I was less educated than I am based on my disability status
34. Someone assumed I would be ashamed of my disability
35. Someone assumed I would choose to not have my disability status
36. Someone assumed that all challenges in my life are connected to my disability status
37. Someone assumed they knew more about my disability status than I do
38. Someone assumed what I was/was not capable of, based on my disability status
39. Someone changed how they spoke to me based on my disability status
40. Someone compared me to a famous person with the same disability status
41. Someone dismissed my experiences regarding my disability status
42. Someone expressed discomfort around interacting with me based on my disability status
43. Someone expressed pity at people who share my disability status
44. Someone expressed surprise at my happiness based on my disability status
45. Someone expressed surprise at my level of independence based on my disability status
46. Someone expressed surprise at my own disclosure of my disability status
47. Someone expressed surprise at my successes based on my disability status
48. Someone ignored me based on my disability status
49. Someone implied that I was lazy based on my disability status
50. Someone made a joke about my disability status
51. Someone made statements in front of me that indicated disability was a problem or a negative outcome
52. Someone minimized my experiences regarding my disability status
53. Someone offered unsolicited advice to me regarding my disability status
54. Someone offered unsolicited prayers for me based on my disability status
55. Someone praised a family member, friend or partner for maintaining a relationship with me based on my disability status
56. Someone said they didn’t think of me as having my disability status
57. Someone spoke to my companions instead of me, based on my disability status
58. Someone told me I should stop talking about or stop making a big deal about disability
59. Someone told me I was brave for living with my disability status
60. Someone told me my disability status was something that should be changed or “fixed”
61. Someone told me they do not see “ability” or disability”
62. Someone told me they would rather die than have my disability status
63. Someone treated my accommodations as a burden
64. Someone went out of their way to avoid me based on my disability status
65. Someone with a different disability status than mine tried to educate me about my own disability status
Appendix F: Everyday Discrimination Scale

In your day-to-day life, how often do any of the following things happen to you because of your physical ability?
1. You are treated with less courtesy than other people are.
2. You are treated with less respect than other people are.
3. You receive poorer service than other people at restaurants or stores.
4. People act as if they think you are not smart.
5. People act as if they are afraid of you.
6. People act as if they think you are dishonest.
7. People act as if they’re better than you are.
8. You are called names or insulted.
9. You are threatened or harassed.

Response categories for all items:
   Almost everyday
   At least once a week
   A few times a month
   A few times a year
   Less than once a year
   Never
Appendix G: Institutional Betrayal Questionnaire Version 1 (IBQ-1)

This questionnaire will ask you to think about larger institutions to which you belong or have belonged, which may or may not call to mind specific individuals. This may include large systems such as a university, the military, the Greek System (i.e., the Fraternity/Sorority System as a whole), or an organized religion. Additionally, this can refer to parts of these systems such as a campus dormitory, a military unit, a specific fraternity or sorority, or a particular church.

In thinking about the events you described experiencing in the previous section, did an institution play a role by (please check all that apply)...
1. Not taking proactive steps to prevent this type of experience?
2. Creating an environment in which this type of experience/s seemed common or like no big deal?
3. Creating an environment in which this experience seemed more likely to occur?
4. Making it difficult to report the experience/s?
5. Responding inadequately to the experience/s, if reported?
6. Covering up the experience/s?
7. Punishing you in some way for this experience (e.g., loss of privileges or status)?
8. Prior to this experience, was this an institution or organization you strongly identified with or felt a part of?
9. Are you still part of this institution or organization?
   N/A Yes No

10. Please indicate the type of institution involved (check one or more):
    University/College
    Dormitory/Housing
    Greek System
    Sorority
    Fraternity
    Church
    Military
    Team/Sports Club
    Other, Please describe:

11. Did you tell anyone about your experience/s?
    N/A Yes No
12. If you told anyone about your experience/s, who did you tell?

13. If you told anyone about your experience/s, how did they react?
14. Please briefly described what occurred:
Appendix H: Generalized Anxiety Disorder 7-item scale (GAD-7)

Over the last 2 weeks, how often have you been bothered by the following problems?
Responses from 0 to 3: Not at all sure, Several days, Over half the days, Nearly every day

1. Feeling nervous, anxious, or on edge
2. Not being able to stop or control worrying
3. Worrying too much about different things
4. Trouble relaxing
5. Being so restless that it’s hard to sit still
6. Becoming easily annoyed or irritable
7. Feeling afraid as if something awful might happen

If you checked off any problems, how difficult have these made it for you to do your work, take care of things at home, or get along with other people?
Not difficult at all, Somewhat difficult, Very difficult, Extremely difficult
Appendix I: Patient Health Questionnaire (PHQ-9)

Please respond to each question or statement by marking one box per row [4-point likert scale 0-3: not at all, several days, more than half the days, nearly every day]

Over the past 2 weeks, how often have you been bothered by any of the following problems?

1. Little interest or pleasure in doing things
2. Feeling down, depressed or hopeless
3. Trouble falling asleep, staying asleep, or sleeping too much
4. Feeling tired or having little energy
5. Poor appetite or overeating
6. Feeling bad about yourself – or that you’re a failure or have let yourself or your family down
7. Trouble concentrating on things, such as reading the newspaper or watching television
8. Moving or speaking so slowly that other people could have noticed. Or, the opposite – being so fidgety or restless that you have been moving around a lot more than usual
9. Thoughts that you would be better off dead or of hurting yourself in some way

If you checked off any problems, how difficult have these made it for you to do your work, take care of things at home, or get along with other people?

Not difficult at all, Somewhat difficult, Very difficult, Extremely difficult
Appendix J: Ability to Participate in Social Roles and Activities- Short Form 8a survey

Please respond to each item by selecting a response.

Responses: Never, Rarely, Sometimes, Usually, Always

1. I have trouble doing all of my regular leisure activities with others
2. I have trouble doing all of the family activities that I want to do
3. I have trouble doing all of my usual work (include work at home)
4. I have trouble doing all of the activities with friends that I want to do
5. I have to limit the things I do for fun with others
6. I have to limit my regular activities with friends
7. I have to limit my regular family activities
8. I have trouble doing all of the work that is really important to me (include work at home)
Appendix K: Satisfaction with Social Roles and Activities – Short Form 8a survey

Please respond to each item by selecting a response.

*Response: Not at all, A little bit, Somewhat, Quite a bit, Very much*

1. I am satisfied with my ability to do things for my family
2. I am satisfied with my ability to do things for fun with others
3. I feel good about my ability to do things for my friends
4. I am satisfied with my ability to perform my daily routines
5. I am satisfied with my ability to do things for fun outside my home
6. I am satisfied with my ability to meet the needs of my friends
7. I am satisfied with my ability to do the work that is really important to me (include work at home)
8. I am satisfied with my ability to meet the needs of my family
Appendix L: Brief Betrayal Trauma survey (BBTS)

For each item below, please mark one response in the columns labeled “Before Age 18” AND one response in the columns labeled “Age 18 or Older”. Have each of the following events happened to you?

<table>
<thead>
<tr>
<th></th>
<th>Before age 18</th>
<th>Age 18 or after</th>
</tr>
</thead>
<tbody>
<tr>
<td>You were in a major earthquake, fire, flood, hurricane, or tornado that resulted in significant loss of personal property, serious injury to yourself or a significant other, the death of a significant other, or the fear of your own death.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You were in a major automobile, boat, motorcycle, plane, train, or industrial accident that resulted in similar consequences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You witnessed someone with whom you were very close (such as a parent, brother or sister, caretaker, or intimate partner) committing suicide, being killed, or being injured by another person so severely as to result in marks, bruises, burns, blood, or broken bones. This might include a close friend in combat.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You witnessed someone with whom you were not so close undergoing a similar kind of traumatic event.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You witnessed someone with whom you were very close deliberately attack another family member so severely as to result in marks, bruises, blood, broken bones, or broken teeth.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>You witnessed someone with whom you were not so close deliberately attack a family member that severely.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

99
<table>
<thead>
<tr>
<th>Question</th>
<th>Answer Options</th>
</tr>
</thead>
<tbody>
<tr>
<td>You were deliberately attacked that severely by someone with whom you were very close.</td>
<td></td>
</tr>
<tr>
<td>You were deliberately attacked that severely by someone with whom you were not close.</td>
<td></td>
</tr>
<tr>
<td>You were made to have some form of sexual contact, such as touching or penetration, by someone with whom you were very close (such as a parent or lover).</td>
<td></td>
</tr>
<tr>
<td>You were made to have such sexual contact by someone with whom you were not close.</td>
<td></td>
</tr>
<tr>
<td>You were emotionally or psychologically mistreated over a significant period of time by someone with whom you were very close (such as a parent or lover)</td>
<td></td>
</tr>
<tr>
<td>You were emotionally or psychologically mistreated over a significant period of time by someone with whom you were not close.</td>
<td></td>
</tr>
<tr>
<td>You experienced the death of one of your own children.</td>
<td></td>
</tr>
<tr>
<td>You experienced a seriously traumatic event not already covered in any of these questions.</td>
<td></td>
</tr>
</tbody>
</table>
Appendix M: Microaggression Script

Once the participant completes the initial administration of the PANAS (Watson, Clark, & Tellegen, 1988) the experimenter will then notify the confederate that it is time for them to enter the room. The following script details the interaction that will then take place.

Confederate: Hey, I emailed you earlier, I left my book bag in your office I was wondering if you could go grab it for me. I’ve got an appointment I need to leave for.

Experimenter: Oh yes, terribly sorry. I’ll grab that for you. (Then to the participant) I’ll be back in a second and we can just start the questionnaires over again, sorry about that.

*Experimenter then leaves room* (At this time the experimenter will start a timer for 5 minutes… the experimenter will re-enter the room when the timer is done).

Confederate: (Directed at participant) I participated in another study earlier today and left my book bag (then takes some time to look at participant)...This study looks at disability right? So what happened to you?

Participant: Begins to answer*

At this time Hannah calls confederate on their cell phone.

Confederate: Oh I have to take this…. I’m sure you’ll get better soon.

At this time the confederate exits the room.
Appendix N: Institutional Betrayal Script

Once the participant completes the initial administration of the PANAS (Watson, Clark, & Tellegen, 1988) the experimenter will then notify the confederate that it is time for them to enter the room. The following script details the interaction that will then take place.

Confederate: Hey Hannah, I left some files in your office I was wondering if you could go grab it for me. I’ve got an appointment I need to leave for.

Experimenter: Oh yes, terribly sorry. I’ll grab that for you. (Then to the participant) I’ll be back in a second and we can just start the questionnaires over again, sorry about that.

*Experimenter then leaves room* (At this time the experimenter will start a timer for 5 minutes… the experimenter will re-enter the room when the timer is done).

Confederate: (Directed at participant) Hello, my name is (insert name) I work at the university and help Hannah run research studies. (Then takes some time to look at participant)...this study looks at disability right? So what happened to you?

Participant: Begins to answer*

At this time Hannah calls confederate on their cell phone.

Confederate: Oh I have to take this…. I’m sure you’ll get better soon.

At this time the confederate exits the room.
Appendix O: Neutral Script with Disguised Confederate

Once the participant completes the initial administration of the PANAS (Watson, Clark, & Tellegen, 1988) the experimenter will then notify the confederate that it is time for them to enter the room. The following script details the interaction that will then take place.

Confederate: Hey, I emailed you earlier, I left my book bag in your office I was wondering if you could go grab it for me. I’ve got an appointment I need to leave for.

Experimenter: Oh yes, terribly sorry. I’ll grab that for you. (Then to the participant) I’ll be back in a second and we can just start the questionnaires over again, sorry about that.

*Experimenter then leaves room* (At this time the experimenter will start a timer for 5 minutes… the experimenter will re-enter the room when the timer is done).

Confederate: So, have you watched anything good on T.V. lately?

Participant: Begins to answer*

At this time Hannah calls confederate on their cell phone.

Confederate: Oh I have to take this….

At this time the confederate exits the room.
Appendix P: Neutral Script with Identified Experimenter

Once the participant completes the initial administration of the PANAS (Watson, Clark, & Tellegen, 1988) the experimenter will then notify the confederate that it is time for them to enter the room. The following script details the interaction that will then take place.

Confederate: Hey Hannah, I left some files in your office I was wondering if you could go grab it for me. I’ve got an appointment I need to leave for.

Experimenter: Oh yes, terribly sorry. I’ll grab that for you. (Then to the participant) I’ll be back in a second and we can just start the questionnaires over again, sorry about that.

*Experimenter then leaves room* (At this time the experimenter will start a timer for 5 minutes… the experimenter will re-enter the room when the timer is done).

Confederate: (Directed at participant) Hello, my name is (insert name) I work at the university and help Hannah run research studies. So, have you watched anything good on T.V. lately?

Participant: Begins to answer*

At this time Hannah calls confederate on their cell phone.

Confederate: Oh I have to take this….

At this time the confederate exits the room.
Appendix Q: Consent Form

**Project Title:** Assessing Mood and Personality Variables in Individuals Who Have Experienced a Change in Functioning Associated with a Change in Ability

**Researcher:** Hannah Anstey, University of Regina Department of Psychology, 306-585-4300, hja464@uregina.ca, and Bridget Klest, PhD, University of Regina Department of Psychology, 306-585-4214, Bridget.Klest@uregina.ca. The research team includes Hannah Anstey, Dr. Klest, and undergraduate student research assistants under their supervision at University of Regina.

**Purpose and Objectives of the Research:**
This is a study assessing mood and personality in individuals who have experienced a change in functioning associated with a change in physical ability. Information gathered as part of this study will be presented in journal articles and conference presentations, and will be used in a Master’s thesis project.

**What you will be asked to do if you decide to participate:**
- Come to the Social Context, Health, and Trauma Lab at the University of Regina.
- Answer a variety of questionnaires on the lab computer through Qualtrics. Questionnaires will assess mood, personality, past experiences, and lifestyle variables.
- Answer some questions verbally and have a verbal conversation with the researcher.
- Be audiotaped while you are at the lab.

**Potential risks to you if you decide to participate:**
Some research participants who are asked about personal experiences and life events in either surveys or conversations will experience a strong emotional response. The researcher will be present and able to provide support. We will also give you a list of resources you can contact for support after the study is over.

**Potential Benefits:**
- There are no known benefits directly to you related to participating in this study.

**Compensation:**
- Each eligible person who completes the study will be compensated $15.00 for participating. Further, transportation and parking at the University of Regina will be covered.
- Due to the University of Regina financial reporting rules, university employees cannot be offered compensation.

**Confidentiality:**
- All information collected in this study will be kept confidential – only the researchers...
will have access to the raw data, and any of your responses presented in journal articles or presentations will be combined with the responses of other participants.

• Data collected from the audio recordings will be stored using a coded identifier that will be temporarily linked to your name. The code list will be destroyed once data collection is complete. Participants can request to have the audio recording turned off at anytime during the study and their recording deleted.

• Security in Qualtrics includes data encryption, in order to increase data security and confidentiality.

• When data collection is complete, online data will be downloaded from Qualtrics, and deleted from the Qualtrics website.

• Data will be stored indefinitely in a password locked file on computers located at the University of Regina that only the research team members (researchers named above and students under their supervision) have access to.

• The audio recordings will be deleted after a minimum period of five years in accordance with the research and ethics guidelines for data retention.

Right to Withdraw:

• Your participation is voluntary and you are free to participate in only those parts of the study you are comfortable with. Furthermore, you can answer only those questions that you are comfortable with. Should you choose to skip a question, you may continue on without any penalty.

• Should you wish to withdraw from the research study, you can inform the researcher at any time. You will still be compensated and there will be no penalty.

• You will be able to withdraw until the list of names and identifiers is destroyed which will happen no sooner than February 1st, 2019.

Follow up:

• A summary of results from the study will be posted to the website http://schtlab.ca/completed-research-projects.php

Questions or Concerns:

• You may contact the researcher with any questions, comments, or concerns, using the information at the top this page. This project has been approved on ethical grounds by the U of R Research Ethics Board on September 14th, 2018. Any questions regarding your rights as a participant may be addressed to the committee at 306.585.4775 or research.ethics@uregina.ca. Out of town participants may call collect.
Appendix R: Debriefing Script

Experimenter: The purpose of this study was to look at the impact of experiencing discrimination on mood. Initially, we did not discuss the true purpose of the study so that the impact of this moment of discrimination could be assessed without influence from your expectations. When the confederate asked you “so what happened to you?” this was a form of microaggression which is just a fancy word from a subtle act of discrimination. This type of microaggression is known as denial of privacy that suggests that because you have experienced a change in functioning associated with a change in ability that you do not have the right to privacy about this change. Do you have any questions about this?
Appendix S: Verbal Consent Script

Experimenter: Now that you know the true purpose of the study, is it okay with you if we use the questionnaires you have already filled out, and use the audio recording of the conversation you just had?"

Participant Response….

Experimenter: Are you willing to continue this study, which would involve completing some questionnaires?
Appendix T: Post Debrief Consent Form

I have been fully debriefed about the true purpose of this study. I consent to having the researchers use the information that has already been collected from me in the study. I also consent to continuing the study, which involves completing questionnaires.

___________________  ___________________  ____________
Print Participant Name  Participant Signature  Date

___________________
Print Researcher Name  Researcher Signature  Date
Appendix U: Off Campus Microaggression Script

Once the participant completes the initial administration of the PANAS (Watson, Clark, & Tellegen, 1988) the experimenter will then notify the confederate that it is time for them to enter the room. The following script details the interaction that will then take place.

Confederate: Hey, **I left my book bag in your car and I’m not certain where you parked**, I was wondering if you could go grab it for me.

Experimenter: Oh yes, terribly sorry. I’ll grab that for you. (Then to the participant) I’ll be back in a second and we can just start the questionnaires over again, sorry about that. *Experimenter then leaves room* (At this time the experimenter will start a timer for 5 minutes… the experimenter will re-enter the room when the timer is done).

Confederate: (Directed at participant) **I’m one of Hannah’s friends, I didn’t have anything to do today so I figured I’d tag along and get some studying in** (then takes some time to look at participant)...This study looks at disability right? So what happened to you?

Participant: Begins to answer*

At this time Hannah calls confederate on their cell phone.

Confederate: Oh I have to take this…. I’m sure you’ll get better soon.

At this time the confederate exits the room.
Appendix V: Off Campus Institutional Betrayal Script

Once the participant completes the initial administration of the PANAS (Watson, Clark, & Tellegen, 1988) the experimenter will then notify the confederate that it is time for them to enter the room. The following script details the interaction that will then take place.

Confederate: Hey Hannah, **I left some files in your car and I’m not certain where you parked,** I was wondering if you could go grab it for me.

Experimenter: Oh yes, terribly sorry. I’ll grab that for you. (Then to the participant) I’ll be back in a second and we can just start the questionnaires over again, sorry about that.

*Experimenter then leaves room* (At this time the experimenter will start a timer for 5 minutes… the experimenter will re-enter the room when the timer is done).

Confederate: (Directed at participant) Hello, my name is (insert name) I work at the university and help Hannah run research studies. **I came along today to help run the study.** (Then takes some time to look at participant)...this study looks at disability right?

So what happened to you?

Participant: Begins to answer*

At this time Hannah calls confederate on their cell phone.

Confederate: Oh I have to take this…. I’m sure you’ll get better soon.

At this time the confederate exits the room.
Appendix W: Off Campus Neutral Script with Disguised Confederate

Once the participant completes the initial administration of the PANAS (Watson, Clark, & Tellegen, 1988) the experimenter will then notify the confederate that it is time for them to enter the room. The following script details the interaction that will then take place.

Confederate: Hey, I left my book bag in your car and I’m not certain where you parked, I was wondering if you could go grab it for me.

Experimenter: Oh yes, terribly sorry. I’ll grab that for you. (Then to the participant) I’ll be back in a second and we can just start the questionnaires over again, sorry about that.

*Experimenter then leaves room* (At this time the experimenter will start a timer for 5 minutes… the experimenter will re-enter the room when the timer is done).

Confederate: (Directed at participant) I’m one of Hannah’s friends, I didn’t have anything to do today so I figured I’d tag along and get some studying in. So you watch any good T.V. lately?

Participant: Begins to answer*

At this time Hannah calls confederate on their cell phone.

Confederate: Oh I have to take this…. Oh well it was just T.V. anyways.

At this time the confederate exits the room.
Appendix X: Off Campus Neutral Script with Identified Experimenter

Once the participant completes the initial administration of the PANAS (Watson, Clark, & Tellegen, 1988) the experimenter will then notify the confederate that it is time for them to enter the room. The following script details the interaction that will then take place.

Confederate: Hey Hannah, **I left some files in your car and I am not certain where you parked,** I was wondering if you could go grab it for me.

Experimenter: Oh yes, terribly sorry. I’ll grab that for you. (Then to the participant) I’ll be back in a second and we can just start the questionnaires over again, sorry about that.

*Experimenter then leaves room* (At this time the experimenter will start a timer for 5 minutes… the experimenter will re-enter the room when the timer is done).

Confederate: (Directed at participant) Hello, my name is (insert name) I work at the university and help Hannah run research studies. **I came along today to help run the study.** So, have you watched anything good on T.V. lately?

Participant: Begins to answer*

At this time Hannah calls confederate on their cell phone.

Confederate: Oh I have to take this…. Oh well it was just T.V. anyways.

At this time the confederate exits the room.
Appendix Y: Microaggression Script Prior to Changes

Once the participant completes the initial administration of the PANAS (Watson, Clark, & Tellegen, 1988) the experimenter will then notify the confederate that it is time for them to enter the room. The following script details the interaction that will then take place.

Confederate: Hey, I emailed you earlier, I left my book bag in your office I was wondering if you could go grab it for me. I’ve got an appointment I need to leave for.
Experimenter: Oh yes, terribly sorry. I’ll grab that for you. (Then to the participant) I’ll be back in a second and we can just start the questionnaires over again, sorry about that.
*Experimenter then leaves room* (At this time the experimenter will start a timer for 5 minutes… the experimenter will re-enter the room when the timer is done).
Confederate: (Directed at participant) I participated in another study earlier today and left my book bag (then takes some time to look at participant)...This study looks at disability right? So what happened to you?
Participant: Answers*
Confederate (Regardless of answer): Well I’m sure you’ll get better soon.

Participant: Answers*.

Confederate: (redirects the conversation towards talking about television/ television preferences).
Appendix Z: Institutional Betrayal Script Prior to Changes

Once the participant completes the initial administration of the PANAS (Watson, Clark, & Tellegen, 1988) the experimenter will then notify the confederate that it is time for them to enter the room. The following script details the interaction that will then take place.

Confederate: Hey Hannah, I left some files in your office I was wondering if you could go grab it for me. I’ve got an appointment I need to leave for.

Experimenter: Oh yes, terribly sorry. I’ll grab that for you. (Then to the participant) I’ll be back in a second and we can just start the questionnaires over again, sorry about that. *Experimenter then leaves room* (At this time the experimenter will start a timer for 5 minutes… the experimenter will re-enter the room when the timer is done).

Confederate: (Directed at participant) Hello, my name is (insert name) I work at the university and help Hannah run research studies. (Then takes some time to look at participant)...this study looks at disability right? So what happened to you?

Participant: Answers*

Confederate (Regardless of answer): Well I’m sure you’ll get better soon.

**Participant: Answers**.

Confederate: (redirects the conversation towards talking about television/ television preferences).
Appendix AA: Neutral Script with Disguised Confederate Prior to Changes

Once the participant completes the initial administration of the PANAS (Watson, Clark, & Tellegen, 1988) the experimenter will then notify the confederate that it is time for them to enter the room. The following script details the interaction that will then take place.

Confederate: Hey, I emailed you earlier, I left my book bag in your office I was wondering if you could go grab it for me. I’ve got an appointment I need to leave for.

Experimenter: Oh yes, terribly sorry. I’ll grab that for you. (Then to the participant) I’ll be back in a second and we can just start the questionnaires over again, sorry about that.

*Experimenter then leaves room* (At this time the experimenter will start a timer for 5 minutes… the experimenter will re-enter the room when the timer is done).

Confederate: So, have you watched anything good on T.V. lately?

**Participant: *Responds.*

Confederate: *Continues to discuss television preferences.*
Appendix BB: Original Neutral Script with Identified Experimenter Prior to Changes

Once the participant completes the initial administration of the PANAS (Watson, Clark, & Tellegen, 1988) the experimenter will then notify the confederate that it is time for them to enter the room. The following script details the interaction that will then take place.

Confederate: Hey Hannah, I left some files in your office I was wondering if you could go grab it for me. I’ve got an appointment I need to leave for.

Experimenter: Oh yes, terribly sorry. I’ll grab that for you. (Then to the participant) I’ll be back in a second and we can just start the questionnaires over again, sorry about that.

*Experimenter then leaves room* (At this time the experimenter will start a timer for 5 minutes… the experimenter will re-enter the room when the timer is done).

Confederate: ( Directed at participant) Hello, my name is (insert name) I work at the university and help Hannah run research studies. So, have you watched anything good on T.V. lately?

**Participant:** *Responds.*

Confederate: *Continues to discuss television preferences.*
Appendix CC: Ethics Approval

Research Ethics Board Certificate of Approval

PRINCIPAL INVESTIGATOR Hannah Anstey

SUPERVISOR: Dr. Bridget Klest

DEPARTMENT REB# Department of Psychology 2018-112

TITLE
Examining the Impact of Ableist Microaggressions on Individuals with Disabilities

APPROVED ON RENEWAL DATE September 14, 2018 September 14, 2019

APPROVAL OF
Application for Behavioural Research Ethics Review; Recruitment poster; Consent Form; Demographic questionnaire; Positive and Negative Affect Schedule; Big Five Inventory (BFI) Neuroticism Questions; Ableist Microaggression Scale; Everyday Discrimination Scale; Institutional Betrayal Questionnaire Version 1; Generalized Anxiety Disorder 7-item scale; Patient Health Questionnaire; Ability to Participate in Social Roles and Activities–Short Form 8a survey; Satisfaction with Social Roles and Activities – Short Form 8a survey; Brief Betrayal Trauma survey; Microaggression Script; Institutional Betrayal Script; Neutral Script with Disguised Confederate; Neutral Script with Identified Experimenter; Debriefing Script; Verbal Consent Script; and Post Debrief Consent Form

Full Board Meeting Delegated Review

The University of Regina Research Ethics Board has reviewed the above-named research project. The proposal was found to be acceptable on ethical grounds. The principal investigator has the responsibility for any other administrative or regulatory approvals that may pertain to this research project, and for ensuring that the authorized research is carried out according to the conditions outlined in the original protocol submitted for ethics review. This Certificate of Approval is valid for the above time period provided there is no change in experimental protocol, or related documents.

Any significant changes to your proposed method, procedures or related documents should be reported to the Chair for Research Ethics Board consideration in advance of its implementation.
ONGOING REVIEW REQUIREMENTS

In order to receive annual renewal, a status report must be submitted to the REB Chair for Board consideration within one month of the current expiry date each year the study remains open, and upon study completion. Please refer to the following website for the renewal and closure forms: https://www.uregina.ca/research/for-faculty-staff/ethics-compliance/human/ethicsforms.html

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