Perceived discrimination and poor health: Accounting for self-blame complicates a well-established relationship

Alison Blodorn a,*, Brenda Major a, Cheryl Kaiser b

a University of California, Santa Barbara, USA
b University of Washington, USA

Abstract

Past research has reliably demonstrated that both perceiving oneself as a target of discrimination and a tendency to blame negative events on oneself undermine psychological and physical health. These two literatures, however, have evolved largely independently of one another. The present research sought to develop a deeper understanding of the health effects of perceived discrimination by taking into account the relationship between perceived discrimination and self-blame. In two correlational studies, we examined perceived ethnic-based discrimination, self-blame, and psychological and physical health among White and ethnic minority adults residing in the United States. Contrary to the hypothesis that attributing negative events to discrimination leads to the discounting of self-blame, perceived discrimination and self-blame were positively related. Replicating past research, perceived discrimination was negatively related to health when examined as an independent predictor. When perceived discrimination and self-blame were examined as simultaneous predictors of health, however, the negative health effects of perceived discrimination were weakened. Furthermore, an alternative model revealed that perceived discrimination indirectly predicted decreased health through increased self-blame. The present findings highlight the importance of taking self-blame into account when assessing and interpreting the negative health effects of perceived discrimination.

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Perceived discrimination is an important public health issue. The perception that one has been a target of discrimination is reliably associated with poor psychological and physical health outcomes including increased depression, anxiety, hypertension, and mortality (e.g., Pascoe & Richman, 2009; Williams & Mohammed, 2009). Further, the negative relationship between perceived discrimination and health has been observed in both cross-sectional and prospective studies (Schmitt et al., 2014).

Because discrimination is often ambiguous and hard to document, most researchers interested in assessing the health effects of discrimination rely on self-report measures that assess participants’ subjective perceptions that they have been targets of discrimination rather than objective measures of discrimination (Paradies, 2006). Research and theory on stress and coping illustrate that subjective appraisals of one’s experiences are critical determinants of health and well-being (Lazarus & Folkman, 1984). Given its well-documented negative health effects, it is important to critically examine perceptions of discrimination as predictors of health.

Many researchers assess general perceptions of discrimination with single-item or multi-item questionnaires that tap into the perceived frequency of exposure to discrimination using a “one-step” approach (e.g., Conrada et al., 2001; Gibbons et al., 2014; Krieger et al., 2005; Landrine & Klonoff, 1996). For example, participants are asked questions such as: “How many times have you been treated unfairly by teachers and professors because you are Black?” (Landrine & Klonoff, 1996). Responses to such items reflect both the frequency that an individual has experienced negative events (e.g., being treated unfairly) as well the attribution of those events to a social identity (e.g., because you are Black). This confound makes it difficult to determine whether the relationship observed between perceived discrimination and health is due to the fact that individuals have frequently experienced negative treatment or due to the fact that they attribute their negative treatment to discrimination (see Major et al., 2002 for a discussion of this issue).
The Everyday Discrimination Scale (Williams et al., 1997), in contrast, measures perceived discrimination with a “two-step” approach (e.g., Kessler et al., 1999; Krieger et al., 2005; Sternthal et al., 2011). First, individuals are asked how frequently they have experienced various forms of negative treatment (e.g., “People act as if they think you are not smart”). Next, those who indicate they have experienced such treatment are asked to identify the main reason(s) for these experiences and are provided social identities such as race, gender, age, religion, and physical appearance as potential attributions. This scale separates the experience of negative treatment from attributions for that treatment and gives people the opportunity to make attributions to more than one social identity.

One limitation of the Everyday Discrimination Scale and other scales designed to measure general perceptions of discrimination, however, is that they do not assess the extent to which people might also make internal attributions for negative treatment. Internal attributions focus on the self-directed causes of outcomes (Kelley, 1973; Weiner, 1985). Victims of misfortune, such as rape and accident victims, often blame these negative events, at least in part, on themselves (e.g., Breitenbecher, 2006; Miller & Porter, 1983; Tennen et al., 1986). Furthermore, blaming negative outcomes on oneself predicts poor health (e.g., Beck, 1967; Else-Quest et al., 2009). Surprisingly, there is some evidence that adverse health effects of perceived discrimination and the health effects of self-blame have evolved relatively independently of one another.

The practice of omitting self-blame when assessing perceived discrimination reflects, in part, widespread assumptions that respondents are certain of the cause of negative treatment and that they attribute their treatment to only one cause. In many cases, however, the true causes underlying negative treatment from others are unclear because others may disguise or misrepresent their true intentions (e.g., Kenny & DePaolo, 1993). Thus, people often experience uncertainty regarding the cause of others’ behaviors (i.e., attributional ambiguity) in their social interactions (Crocker & Major, 1989). Furthermore, people are often aware that multiple causes can influence their outcomes (McClure, 1998). For example, perceiving that negative treatment is due to discrimination does not preclude an individual from recognizing that internal factors may also have played a role.

Theory and research on causal attribution indicate that the presence of an external cause for a negative event can lead individuals to discount internal causes (Kelley, 1973). A sizable body of experimental research has examined whether attributing discrete negative treatment to discrimination leads to the discounting of internal causes (e.g., Major, Kaiser, & McCoy, 2003a). This literature suggests that the relationship between discrimination attributions and self-blame attributions for a discrete event depends on context. Major, Quinton and Schnader (2003b) examined attributions among women who were rejected for a leadership position in the presence of blatant vs. subtle discrimination cues. When discrimination cues were blatant, the more women attributed their rejection to discrimination, the less they blamed themselves (discounting). When discrimination cues were subtle, however, the more women attributed their rejection to discrimination, the more they also blamed themselves (multiple-causes). This suggests that when the causes of negative treatment are ambiguous, discrimination and self-blame attributions can occur simultaneously (see also Schmitt et al., 2014).

No research has examined the relationship between perceived discrimination and self-blame outside of the domain of discrete negative treatment. For this reason, it is unclear whether a general perception that one experiences negative treatment due to discrimination is positively or negatively related to a general tendency to blame negative treatment on oneself. If individuals engage in discounting, we would expect general perceptions of discrimination and self-blame to be negatively related. As described above, however, people often consider multiple causes for their outcomes (McClure, 1998) and self-blame and discrimination are positively related in response to discrete instances of ambiguously discriminatory treatment (Major et al., 2003a, 2003b). Because of strong social norms prohibiting the expression of blatant discrimination, discrimination encountered in contemporary society is likely to be covert, subtle, and ambiguous (Dovidio & Gaertner, 2004). Because measures assessing general perceptions of discrimination assess peoples’ perceptions of their daily experiences, these measures likely assess perceptions of discrimination across circumstances where cues to discrimination are often ambiguous. Thus, general perceptions of discrimination and general tendencies to engage in self-blame may be positively related. Understanding the relationship between general perceptions of discrimination and self-blame has the potential to inform our understanding of the well-documented negative health effects of perceived discrimination. Since measures assessing general perceptions of discrimination have not simultaneously assessed general self-blame attributions, it is unclear whether the negative relationship between perceived discrimination and health may be due, in part, to the negative health effects of self-blame.

1. Current research

In the present research we sought to develop a deeper understanding of the health effects of perceived discrimination. We had four primary goals. First, we sought to examine the relationship between individuals’ general perceptions of discrimination and general tendencies to engage in self-blame. We explored two competing hypotheses. Perceived discrimination and self-blame may be negatively related, such that the more people report experiencing negative treatment due to discrimination the less they blame themselves for negative treatment. Alternatively, perceived discrimination and self-blame may be positively related, such that the more people generally report experiencing negative treatment due to discrimination the more they also generally blame themselves for negative treatment.

Second, we tested the effect of perceived discrimination on psychological health (i.e., self-esteem, anxiety symptoms, depressive symptoms) and physical health (i.e., physical symptoms, self-rated health) when self-blame is taken into account. Based on past research demonstrating the negative health effects of perceived discrimination, we predicted that perceived discrimination would predict poor health outcomes when examined as an independent predictor. In addition, given the well-documented relationship between self-blame and poor health, we predicted that both perceived discrimination and self-blame would be negatively related to health when examined as simultaneous predictors. Thus, we hypothesized that perceived discrimination would undermine health even when taking into account self-blame, although the relationship between perceived discrimination and health may weaken when the health effects of self-blame are accounted for.

Our third goal was to assess whether perceived discrimination and self-blame are similarly related to psychological and physical health among ethnic minorities, who generally have lower status, and Whites, who generally have higher status in the United States. Some scholars argue that because low status group members encounter more pervasive and severe forms of discrimination than high status group members, perceived discrimination is more detrimental to the health of low status group members (Schmitt et al., 2014). Others theorize that because discrimination poses a greater threat to status for high status group members than low status group members, perceived discrimination is more
detrimental to the health of high status group members (Jackson et al., 2006). Some evidence suggests, however, that the relationship between perceptions of discrimination and health does not differ as a function of group status (Pascoe & Richman, 2009). The present studies can speak to these distinct perspectives as they relate to ethnicity. We hypothesized that ethnicity would not moderate the negative health effects of self-blame.

Finally, in addition to considering perceived discrimination and self-blame as simultaneous predictors of health, we also explored whether self-blame acts as a mechanism by which perceived discrimination undermines health. The acceptance of bias (e.g., internalized racism) is known to contribute to psychological distress (e.g., Taylor et al., 1991). Thus, it is possible that perceived discrimination becomes internalized, leading to increased self-blame, which in turn undermines health. For this reason, we tested an alternative hypothesis in which perceived discrimination indirectly predicts poor health through increased self-blame.

2. Study 1

2.1. Methods

2.1.1. Participants

Participants in Study 1 were 731 college students (66.3% women; M_{age} = 19.22, SD_{age} = 3.44) recruited from UC Santa Barbara (UCSB) in the Fall of 2009, as approved by the UCSB Institutional Review Board. The original sample consisted of 774 participants; we excluded 43 participants a priori who were multivariant outliers. In the final sample, 532 identified as Caucasian/White, 177 identified as Latino/a or Hispanic, and 22 identified as African American/Black. The measures included in the present study were completed online as part of a larger survey in exchange for course credit. Since there were no significant differences between Latino/Hispanic and African American/Black participants on the measures of interest, all analyses were conducted comparing White participants to ethnic minority participants (Latinos and African Americans).

2.2. Measures

2.2.1. Perceived discrimination

We assessed the frequency with which participants generally perceived themselves as targets of ethnic/racial discrimination in their day-to-day lives with a single item: “Racial/ethnic discrimination held me back from something I wanted to do”. Participants responded on a scale from 1 (never) to 7 (frequently). This item was log transformed to adjust for positive skew.

2.2.2. Self-blame

We assessed the frequency with which participants generally engage in self-blame in their day-to-day lives with a comparable single item: “My own faults held me back from something I wanted to do”. Participants responded on a scale from 1 (never) to 7 (frequently).

2.2.3. Self-esteem

Self-esteem was assessed with the 10-item Rosenberg Self-Esteem Scale (Rosenberg, 1965) (e.g., “I feel that I have a number of good qualities”). Participants rated their agreement on a scale from 1 (strongly disagree) to 7 (strongly agree). Scores were averaged (Whites $\alpha = .91$, ethnic minorities $\alpha = .88$).

2.2.4. Anxiety/depressive symptoms

Twelve items from the Brief Symptom Inventory (Derogatis, 1993) assessed anxiety symptoms (6 items; Whites $\alpha = .86$, ethnic minorities $\alpha = .84$) and depressive symptoms (6 items; Whites $\alpha = .85$, ethnic minorities $\alpha = .84$). Participants indicated the extent to which they experienced anxiety symptoms (e.g., “nervousness or shakiness inside”) and depressive symptoms (e.g., “feeling no interest in things”) on a scale ranging from 0 (not at all) to 4 (very much). Since the subscales were positively correlated (Whites $r = .55$, $p < .001$, ethnic minorities $r = .64$, $p < .001$), we combined them into a single measure of anxiety/depressive symptoms (Whites $\alpha = .89$, ethnic minorities $\alpha = .90$). The results reported below did not differ when anxiety and depressive symptoms were analyzed separately.

2.2.5. Physical symptoms

Five items from somatization subscale of the Brief Symptom Inventory (Derogatis, 1993) assessed physical symptoms. Participants indicated the extent to which they experienced symptoms (e.g., “soreness of your muscles”) on a scale ranging from 0 (not at all) to 4 (very much). Scores were averaged (Whites $\alpha = .69$, ethnic minorities $\alpha = .70$).

3. Results

3.1. Preliminary analyses

3.1.1. Correlations among variables

Perceived discrimination and self-blame were positively correlated among both Whites ($r = .25$, $p < .001$) and ethnic minorities ($r = .36$, $p < .001$). Consistent with prior literature, both perceived discrimination and self-blame were related to lower self-esteem, higher anxiety/depressive symptoms, and higher physical symptoms, which was true among both Whites and ethnic minorities (Table 1).

3.1.2. Ethnic differences in study variables

Ethnic minorities perceived greater discrimination than Whites ($F(1, 729) = 11.73$, $p < .01$), but there were no ethnic differences in self-blame ($F(1, 729) = 1.76$, $p = .19$). Compared to ethnic minorities, Whites reported lower self-esteem ($F(1, 729) = 10.86$, $p < .01$), greater anxiety/depressive symptoms ($F(1, 729) = 4.80$, $p < .05$) and greater physical symptoms ($F(1, 729) = 5.31$, $p < .05$). See Table 2 for relevant means and standard deviations.

3.1.3. Primary hypothesis testing

We conducted stepwise linear regression analyses to determine the unique contribution of perceived discrimination on each of our dependent measures (self-esteem, anxiety/depressive symptoms, physical symptoms) when self-blame is taken into account. At step one, in order to replicate past research examining the effect of perceived discrimination on health, we entered perceived discrimination and ethnicity (0 = ethnic minorities, 1 = Whites) as predictors and gender (0 = women, 1 = men) as a covariate. At step two, in order to examine the contribution of perceived discrimination on psychological and physical health when self-blame is taken into account, we entered self-blame. At step three, in order to explore whether participant ethnicity moderates the effects of perceived discrimination and self-blame on health, we entered the two-way interactions between perceived discrimination and ethnicity and between self-blame and ethnicity.

3.1.4. Self-esteem

Perceived discrimination significantly predicted lower self-esteem ($\beta = -.21$, $p < .001$; $R^2 = .06$, $F(3, 727) = 15.51$, $p < .001$). When self-blame was taken into account, both perceived discrimination ($\beta = -.09$, $p = .01$) and self-blame ($\beta = -.44$, $p < .001$) significantly predicted lower self-esteem ($\Delta R^2 = .18$, $\Delta F(1,
726) = 167.23, p < .001. The addition of the interactions between perceived discrimination and ethnicity (β = -.01, p = .83) and between self-blame and ethnicity (β = -.10, p = .14) did not make unique contributions (ΔR² = .003, ΔF (2, 724) = 1.35, p = .26).

3.1.5. Anxiety/depressive symptoms

Perceived discrimination significantly predicted greater anxiety/depressive symptoms (β = .20, p < .001; R² = .06, F (3, 727) = 14.69, p < .001). When self-blame was taken into account, both perceived discrimination (β = .11, p < .01) and self-blame (β = .33, p < .001) significantly predicted greater anxiety/depressive symptoms (ΔR² = .16, ΔF (1, 726) = 84.48, p < .001). The addition of the interactions between perceived discrimination and ethnicity (β = -.09, p = .20) and between self-blame and ethnicity (β = -.11, p = .13) did not make unique contributions (ΔR² = .004, ΔF (2, 724) = 1.51, p = .22).

3.1.6. Physical symptoms

Perceived discrimination significantly predicted greater physical symptoms (β = .22, p < .001; R² = .06, F (3, 727) = 15.02, p < .001). When self-blame was taken into account, both perceived discrimination (β = .17, p < .001) and self-blame (β = .16, p < .001) significantly predicted greater physical symptoms (ΔR² = .02, ΔF (1, 726) = 19.10, p < .001). The addition of the interactions between perceived discrimination and ethnicity (β = .00, p < 1.00) and between self-blame and ethnicity (β = -.07, p = .31) did not make unique contributions (ΔR² = .001, ΔF (2, 724) = .57, p = .56).

3.1.7. Alternative hypothesis testing

In order to test whether perceived discrimination predicts decreased health through increased self-blame, we conducted mediation analyses using Hayes’ PROCESS macro (model 4; Hayes, 2013). Given that ethnicity was not a significant moderator in our primary analyses, we included ethnicity and gender as covariates. Perceived discrimination indirectly predicted decreased self-esteem (indirect effect = -.64, 95% CI −.85 to −.49), increased anxiety/depressive symptoms (indirect effect = .28, 95% CI .21 to .37), and increased physical symptoms (indirect effect = −.13, 95% CI .07 to .20) through increased self-blame. Perceived discrimination also directly predicted decreased self-esteem (direct effect = −.44, 95% CI −.79 to −.10), increased anxiety/depressive symptoms (direct effect = .33, 95% CI .12 to .55), and increased physical symptoms (direct effect = .49, 95% CI .28 to .71).

We also conducted exploratory moderated mediation analyses using Hayes’ PROCESS macro (model 49) in order to assess whether the indirect effects of perceived discrimination on health through self-blame were moderated by ethnicity. Results indicated that the indirect effects of perceived discrimination on self-esteem, anxiety/depressive symptoms, and physical symptoms were significant among both ethnic minorities and Whites.

4. Discussion

This study is the first to our knowledge to assess the relationship between general perceptions of discrimination and general tendencies to engage in self-blame. We speculated that these two forms of attributions could be either negatively related (discounting perspective) or positively related (multiple causes perspective). Findings revealed a positive relationship between perceived discrimination and self-blame—the more individuals said that discrimination generally had held them back the more they also said that their own faults had generally held them back. This positive relationship suggests that general measures of perceived discrimination assess perceptions of experiences in which discrimination cues are often subtle and/or ambiguous (see Major et al., 2003a, 2003b).

Consistent with past research, perceived discrimination was related to poor health when examined as an independent predictor. When self-blame was taken into account, we found that both perceived discrimination and self-blame made independent
contributions to health. Self-blame, however, emerged as a stronger predictor of psychological health than perceived discrimination. The contributions of perceived discrimination and self-blame were more comparable for physical health. This unexpected finding highlights the importance of taking self-blame into account in research on the health effects of perceived discrimination. Not only is self-blame positively related to perceived discrimination, but its inclusion also weakens the relationship between perceived discrimination and psychological health.

In contrast to thinking of perceived discrimination and self-blame as independent predictors, we also examined an alternative perspective in which experiences with discrimination can become internalized, leading to increased self-blame and, via this mechanism, decreased health. In line with this perspective, we found that perceived discrimination was associated with decreased self-esteem, increased anxiety/depressive symptoms, and increased physical symptoms via increases in self-blame.

Consistent with conclusions of past literature reviews, we observed no ethnic differences in the relationship between perceived discrimination and health in the present study (Pascoe & Richman, 2009; but see Schmitt et al., 2014). This finding illustrates that perceiving oneself as a victim of discrimination can have harmful implications for psychological and physical health irrespective of the position of one's ethnic/racial group in the status hierarchy.

5. Study 2

Study 2 advanced Study 1 in several ways. First, Study 1 relied on single-item measures of perceived discrimination and self-blame. Although single-item measures are frequently utilized in large-scale health studies (Bowling, 2005), they lack reliability and predictive power (Krieger et al., 2005). Study 2 used a modified version of the multi-item Everyday Discrimination Scale (Williams et al., 1997). Second, Study 2 employed a more widely used measure of self-rated health, a measure that has been shown to be strongly predictive of long-term health outcomes (Idler & Benyamini, 1997). Third, we used an older non-student sample in Study 2 rather than a student sample.

5.1. Participants

Participants in Study 2 were 475 individuals (43.8% women; \(M_{\text{age}} = 32.30, SD_{\text{age}} = 11.05\)) who completed the study online through Amazon's Mechanical Turk in the Winter of 2014, as approved by the UCSB Institutional Review Board. Two hundred ninety-three identified as Caucasian/White, 71 identified as Latino/a or Hispanic, and 111 identified as African American/Black. As in Study 1, ethnicity was examined as a predictor and all analyses were conducted comparing White participants and ethnic minority participants (i.e., Latinos and African Americans).

It should be noted that the original sample consisted of 592 individuals. In order to most effectively test whether perceived discrimination and self-blame are similarly related to psychological and physical health among lower status ethnic minority groups and higher status ethnic majority groups, we decided a priori to only include races/ethnicities past work has indicated are clearly differentiated in terms of status (i.e., Blacks and Latinos vs. Whites). For this reason, we excluded 41 participants because they did not identify with the race/ethnicities of interest (i.e., 5 Native Hawaiian/Pacific Islander, 10 American Indian/Alaska Native, and 26 ‘other’). We also excluded, a priori, 56 participants for failure to pass attention check and 20 participants who were multivariate outliers, resulting in the final sample of 475.

5.2. Measures

The measure assessing anxiety/depressive symptoms was the same as Study 1 (Whites \(\alpha = .93\), ethnic minorities \(\alpha = .92\)).

5.2.1. Perceived discrimination

We adapted five items from the Everyday Discrimination Scale (Sternthal et al., 2011) to assess the frequency with which participants perceived themselves as targets of ethnic/racial discrimination (Whites \(\alpha = .80\), ethnic minorities \(\alpha = .82\)). Participants indicated on a scale of 1 (never) to 6 (almost everyday) how often the events (e.g., “You are treated with less courtesy or respect than other people”) had happened to them “because of your race or ethnicity.” As in Study 1, the measure of perceived discrimination was log transformed to adjust for positive skew.

5.2.2. Self-blame

To assess the frequency with which participants engage in self-blame, we used the same five items from the Everyday Discrimination Scale, but participants were asked to indicate how often the events had happened “because of something about you personally (such as your personality, or something you did or said)” (Whites \(\alpha = .75\), ethnic minorities \(\alpha = .83\)).

5.2.3. Self-esteem

Self-esteem was assessed with a shortened five-item version of the measure used in Study 1 (Rosenberg, 1965; Whites \(\alpha = .90\), ethnic minorities \(\alpha = .89\)).

5.2.4. Physical health

A five-item general health subscale (SF-36; Ware & Sherbourne, 1992) assessed physical health. Items included: In general, how is your health? I seem to get sick a little easier than other people, I am as healthy as anybody I know, My health is excellent, and I expect my health to get worse. The first item was rated on a scale from 1 (poor) to 5 (excellent) and the remaining statements were rated on a scale from 1 (strongly disagree) to 7 (strongly agree). The items were standardized and averaged, with higher scores indicating worse physical health (Whites \(\alpha = .83\), ethnic minorities \(\alpha = .83\)).

6. Results

6.1. Correlations among variables

As in Study 1, perceived discrimination and self-blame were positively correlated (Whites \(r = .39, p < .001\), ethnic minorities \(r = .70, p < .001\)). Among ethnic minorities, both perceived discrimination and self-blame were related to lower self-esteem, higher anxiety/depressive symptoms, and worse physical health. With the exception of a non-significant correlation between perceived discrimination and self-esteem, all of the same correlations between perceived discrimination and self-blame and the outcome variables were significant among Whites (Table 1).

6.2. Ethnic differences in study variables

Ethnic minorities perceived greater ethnic discrimination than Whites, \(F(1, 473) = 129.42, p < .001\). In addition, Whites tended to report higher anxiety/depressive symptoms than ethnic minorities, \(F(1, 473) = 2.75, p < .10\). There were no racial/ethnic differences for self-blame (\(F(1, 473) = 1.15, p = .28\), self-esteem (\(F(1, 473) = 1.74, p = .19\)), or physical health (\(F(1, 473) = 2.26, p = .13\)). See Table 2 for relevant means and standard deviations.
6.3. Primary hypothesis testing

Using the same analytical approach as Study 1, we conducted separate stepwise linear regression analyses for the three dependent measures.

6.3.1. Self-esteem

Perceived discrimination significantly predicted lower self-esteem \((\beta = -.26, p < .001; R^2 = .07, F (3, 471) = 12.10, p < .001)\). When self-blame was taken into account, perceived discrimination was no longer related to self-esteem \((\beta = .04, p = .50)\) while self-blame significantly predicted lower self-esteem \((\beta = -.27, p < .001; \Delta R^2 = .05, \Delta F (1, 470) = 26.54, p < .001)\). The addition of the interactions between perceived discrimination and ethnicity \((\beta = .00, p > 1.00)\) and between self-blame and ethnicity \((\beta = -.01, p = .92)\) did not make unique contributions \((\Delta R^2 = .000, \Delta F (2, 468) = .01, p = .99)\).

6.3.2. Anxiety/depressive symptoms

Perceived discrimination significantly predicted greater anxiety/depressive symptoms \((\beta = -.12, p < .05; R^2 = .03, F (3, 471) = 4.03, p < .01)\). When self-blame was taken into account, perceived discrimination was no longer related to anxiety/depressive symptoms \((\beta = .04, p = .48)\) while self-blame significantly predicted greater anxiety/depressive symptoms \((\beta = .36, p < .001; \Delta R^2 = .09, \Delta F (1, 470) = 51.59, p < .001)\). The addition of the interactions between perceived discrimination and ethnicity \((\beta = -.01, p = .95)\) and between self-blame and ethnicity \((\beta = -.05, p = .52)\) did not make unique contributions \((\Delta R^2 = .001, \Delta F (2, 468) = .36, p = .70)\).

6.3.3. Physical health

Perceived discrimination significantly predicted worse physical health \((\beta = -.17, p < .01; R^2 = .03, F (3, 471) = 5.38, p < .01)\). When self-blame was taken into account, perceived discrimination was no longer related to physical health \((\beta = .04, p = .50)\) while self-blame significantly predicted worse physical health \((\beta = .21, p < .001; \Delta R^2 = .03, \Delta F (1, 470) = 15.89, p < .001)\). The addition of the interactions between perceived discrimination and ethnicity \((\beta = -.05, p = .04)\) and between self-blame and ethnicity \((\beta = .13, p = .11)\) did not make unique contributions \((\Delta R^2 = .01, \Delta F (2, 468) = 1.32, p = .28)\).

6.3.4. Alternative hypothesis testing

As in Study 1, we tested whether perceived discrimination predicts health via increased self-blame. Perceived discrimination indirectly predicted decreased self-esteem (indirect effect = 1.25, 95% CI –1.78 to –7.5), increased anxiety/depressive symptoms (indirect effect = 97, 95% CI .63 to 1.31), and worse physical health (indirect effect = .55, 95% CI .26 to .83) through increased self-blame. In contrast to Study 1, perceived discrimination did not directly predict self-blame (direct effect = .31, 95% CI .58 to 1.20), anxiety/depressive symptoms (direct effect = .18, 95% CI .32 to .68), or physical health (direct effect = .17, 95% CI .33 to .68).

As in Study 1, we also conducted exploratory moderated mediation analyses in order to test participant ethnicity as a moderator of the indirect effects. With the exception of a non-significant indirect effect for physical health among ethnic minorities, perceived discrimination indirectly predicted self-esteem, anxiety/depressive symptoms, and physical health through self-blame among both ethnic minorities and Whites.

7. Discussion

Study 2 tested the same hypotheses as Study 1 using an older non-student sample, improved multi-item measures of perceived discrimination and self-blame, and a widely-used measure of self-rated health. The findings were largely consistent with Study 1. First, we observed a positive correlation between perceived discrimination and self-blame. Second, perceived discrimination was significantly related to decreased psychological and physical health when considered as an independent predictor. Third, self-blame emerged as a strong predictor of decreased psychological and physical health. Fourth, we again found that the relationship between perceived discrimination and health did not differ as a function of participant ethnicity. Fifth, we again found support for an alternative model in which perceived discrimination contributes to poor health through increased self-blame.

In contrast to Study 1, however, the relationships between perceived discrimination and psychological and physical health were no longer significant when self-blame was taken into account. This unexpected finding further highlights the importance of incorporating measures of self-blame when assessing the health effects of perceived discrimination. It also has important implications for interpretation of the well-documented negative health effects of perceived discrimination observed in past research. For example, if self-blame underlies the negative health effects of perceived discrimination, it may be possible to minimize the negative health effects of perceived discrimination by attenuating the tendency to engage in self-blame in response to perceived discrimination.

Interestingly, in Study 2 the relationship between perceived discrimination and self-blame was stronger among ethnic minorities \((r = .70, p < .001)\) than among Whites \((r = .39, p < .001; z = 4.79, p < .001)\). The stronger relationship between perceived discrimination and self-blame among ethnic minorities may be due to higher levels of ethnic identification among ethnic minorities than Whites (e.g., O’Brien & Major, 2005). When asked whether negative treatment was due to “something about them personally” ethnic minorities may have considered the role of ethnicity more so than Whites. If this is the case, general perceptions of discrimination may be more synonymous with general self-blame attributions among ethnic minorities. The stronger relationship between perceived discrimination and self-blame among ethnic minorities may also be due to greater internalization of discrimination among ethnic minorities. It is worth noting, however, that perceived discrimination led to worse health by increasing self-blame irrespective of ethnicity. More research is needed before conclusions can be drawn regarding ethnic differences in the relationship between perceived discrimination and self-blame.

8. Meta-analysis

We performed a meta-analysis across the two studies to examine the strength and reliability of the effects of perceived discrimination and self-blame on psychological and physical health. We calculated the overall effect size and significance for the effects of perceived discrimination and self-blame when considered as simultaneous predictors of self-esteem, anxiety/depressive symptoms, and health. The effect sizes and significance were weighted by their respective degrees of freedom (Rosenthal & Rosnow, 1991). Across the two studies, perceived discrimination significantly predicted decreased self-esteem \((r = -.07; z = 1.93, p < .05)\), increased anxiety/depressive symptoms \((r = .08; z = 2.42, p < .01)\), and worse health \((r = .11; z = 3.71, p < .001)\). Self-blame also significantly predicted decreased self-esteem \((r = -.35, z = 1.71, p < .001)\), increased anxiety/depressive symptoms \((r = .32, z = 1.79, p < .001)\), and worse health \((r = .17, z = 5.90, p < .001)\). Thus, across two studies, the health effects of perceived discrimination remained significant when the health effects of self-blame...
were accounted for.

9. General discussion

There is substantial evidence that both perceived discrimination and self-blame attributions undermine health. These two literatures, however, have evolved largely independently of one another. In the present research, we suggest that the well-documented negative health effects of perceived discrimination need to be understood within a larger attribution theory framework that acknowledges that people understand and explain negative events that happen to them in multiple ways. To this end, we sought to develop a deeper understanding of the health effects of perceived discrimination by taking into account the health effects of self-blame.

Prior experimental research examining responses to discrete negative treatment has demonstrated that when discrimination cues are blatant, attributing negative treatment to discrimination is associated with decreased self-blame (discounting); in contrast, when discrimination cues are subtle, attributing negative treatment to discrimination is associated with increased self-blame (multiple-causes; Major et al., 2003a, 2003b). The present research is the first to examine the relationship between general perceptions of discrimination and general tendencies to engage in self-blame. In two studies we found that perceived discrimination was positively related to self-blame—people who said they had frequently experienced negative treatment due to discrimination also said that they had frequently experienced negative treatment due to their own faults. These findings are consistent with a multiple-cause perspective (McClure, 1998) rather than a discounting perspective (Kelley, 1973).

Why did discounting not occur in the present research? One possibility is that measures assessing general perceptions of discrimination ask people to reflect on negative treatment they experience in their day-to-day lives—treatment that is often attributionally ambiguous. We suspect that the positive relationship between general perceptions of discrimination and general self-blame attributions observed in the present research is similar to the positive relationship observed in prior experimental research in response to discrete encounters with subtle and attributionally ambiguous discrimination (Major et al., 2003a, 2003b). Discounting may occur at a general level only with regard to day-to-day experiences with blatant discrimination.

There are additional plausible explanations for the positive relationship observed between general perceptions of discrimination and self-blame that should be considered. First, it is possible that the positive relationship between perceived discrimination and self-blame reflects a more general negative attributional style (i.e., the tendency to make stable and global internal attributions for negative events; Joiner, 2001). Second, this positive relationship may reflect shared variance associated with people's perceptions of having experienced more or less negative treatment irrespective of the perceived causes for that treatment. That is, some people may be more likely than others to perceive themselves as targets of negative treatment in general. These possibilities highlight the importance of controlling for individual difference variables that may underlie negative perceptions or attributional tendencies (e.g., neuroticism, optimism, negative affectivity) in research on perceived discrimination. Third, the positive relationship between perceived discrimination and self-blame may have been inflated due to shared method variance. The rationale for our measurement approach was two-fold: We sought to vary the type of attribution while holding constant the type of outcome and we sought to base our measures on past research assessing the health effects of day-to-day perceived discrimination. It will be important to develop more nuanced approaches to measuring general perceived discrimination and self-blame in future research.

A major contribution of the current research is that it highlights the importance of accounting for self-blame when assessing and interpreting the negative health effects of perceived discrimination. Replicating past research, perceived discrimination was negatively related to psychological and physical health when examined as an independent predictor. Self-blame, however, also emerged as a strong predictor of health and as a stronger predictor of health than perceived discrimination. Furthermore, the effects of perceived discrimination on health were weakened when self-blame was accounted for. We also found support for an alternative model in which perceived discrimination predicts poor health via increases in self-blame. From this perspective, rather than considering perceived discrimination and self-blame as independent predictors of health, self-blame may reflect an internalization mechanism by which perceived discrimination undermines health. Our cross-sectional database does not allow us to distinguish between these alternative perspectives. Nonetheless, our findings underscore the critical importance of considering self-blame in future research on the relationship between perceived discrimination and health. We urge researchers seeking to examine the health effects of perceived discrimination to incorporate measures of self-blame in order to more thoroughly flesh out the relationship between perceived discrimination and self-blame.

Consistent with past reviews (e.g., Pascoe & Richman, 2009), we found that the relationship between perceived discrimination and health did not differ as a function of ethnicity. That is, although ethnic minorities reported having experienced more discrimination than did Whites, perceptions of ethnic-based discrimination were similarly detrimental to health among ethnic minorities and Whites. Thus we found no support for the proposition that perceived discrimination is more detrimental to the health of groups that generally have lower status, such as ethnic minorities (e.g., Schmitt et al., 2014) or for the proposition that perceived discrimination is more detrimental to the health of groups that generally have higher status, such as Whites (e.g., Jackson et al., 2006). It is possible that ethnic differences in the health effects of perceived discrimination are dependent on the endorsement of status-justifying beliefs (e.g., Dover et al., 2015). Although examining the role of status-justifying beliefs was beyond the scope of the present research, this alternative perspective may shed light on the lack of ethnic group differences in our work.

9.1. Limitations and future directions

Given the severity, prevalence, and persistence of ethnic-based discrimination, examining perceptions of ethnic-based discrimination served as a natural starting point for the present research. It will be important to examine whether the effects observed in the present research hold when considering different types of discrimination (e.g., gender, sexual orientation, weight). The health effects of perceived discrimination have been found to vary depending on the type of discrimination, with the health effects of perceived discrimination only being less pronounced for ethnic- and gender-based discrimination compared to other forms of discrimination (e.g., sexual orientation, HIV = status, weight; Schmitt et al., 2014). Interestingly, several of the forms of discrimination found to have the most detrimental health effects (e.g., HIV + status, weight) are also widely perceived to be controllable stigmatized conditions (Weiner et al., 1988). As individuals engage in more self-blame for negative treatment when they have relatively ‘controllable’ stigmatized conditions (Crocker et al., 1993), taking into account the health effects of self-blame may be especially likely to weaken the negative health effects of these forms of discrimination.
Our research is the first to consider the health effects of general perceptions of discrimination and self-blame simultaneously. Thus, we have taken an important first step in merging two literatures that have evolved largely independently of one another. There are, however, a couple of important methodological limitations that should be acknowledged. First, our measure of self-blame conflates characterological self-blame (i.e., self-blame based on one’s character) and behavioral self-blame (i.e., self-blame based on one’s actions). As past research on self-blame suggests that the former is more harmful than the latter (Janoff-Bulman, 1979), future research should disentangle these two forms of self-blame in order to examine their relationships to perceived discrimination as well as their independent contributions to health. Second, the cross-sectional nature of the present research limits our ability to draw conclusions regarding the causal relationships between perceived discrimination, self-blame and health. Given that perceived discrimination and self-blame have both been found to be reciprocally related to psychological well-being (Brody et al., 2006; Malcarne et al., 1995), future research should assess the impact of perceived discrimination and self-blame on psychological and physical health using prospective designs.

10. Conclusion

The current research has important implications for the conduct and interpretation of research examining the health effects of perceived discrimination. Findings indicate that the relationship between perceived discrimination and poor health is weakened when self-blame is accounted for. In addition to being mindful of how perceived discrimination is measured and interpreted, scholars should be careful to adequately account for self-blame as it informs our understanding of the negative health effects of perceived discrimination.

References


