

Original article

Online Racial Discrimination and Psychological Adjustment Among Adolescents

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Abstract

Purpose: To examine associations between individual and vicarious racial discrimination via the Internet and psychological adjustment.

Methods: This study was a cross-sectional survey using a school-based sample of adolescents. Two hundred sixty-four high school students aged 14–18 completed the online survey.

Results: Twenty percent of whites, 29% of African Americans and 42% of multiracials/other experienced individual discrimination and approximately 71% of African Americans and whites and 67% of multiracials witnessed discrimination experienced by same-race and cross-race peers. Hierarchical linear regressions revealed that individual racial discrimination was significantly related to depression and anxiety over and above offline measures. Vicarious discrimination was not related to psychological adjustment measures.

Conclusions: Adolescents frequently experienced both individual and vicarious discrimination online. Consistent with offline studies, online racial discrimination was negatively associated with psychological functioning. This study highlights the need to address racial issues in Internet safety prevention. © 2008 Society for Adolescent Medicine. All rights reserved.

Keywords:

Internet; Racial discrimination; Psychological adjustment; Adolescent; Depression

Online victimization is increasingly becoming a public health concern as a number of studies have found that up to 43% of youth experience online harassment or bullying [1] and another 12% of males and 27% of females experience some form of online unwanted sexual solicitation [2]. These negative experiences have been associated with increased depressive symptomatology [2] and decreased self-esteem [3]. Although reports from nationally representative studies such as the Youth Internet Safety Survey have provided detailed overviews of the incidence, nature, and consequences of negative online experiences, the surveys primarily focused on harassment in general and that associated with gender and

sex. There is little consideration of race-related online victimization. Yet, recent research shows that race is a common topic of online conversation among adolescents and that they are frequently exposed to racial epithets [4].

It is clear that these types of experiences negatively impact adolescent adjustment offline [5]. In a recent longitudinal study of the interrelationships among racial discrimination, perceived stress, psychological distress (e.g., depressive symptoms and anxiety) and well-being, researchers found that experiencing racial discrimination predicted psychological distress and perceived stress [6]. Examining more positive psychological outcomes in cross-sectional studies, researchers have noted that discrimination is also related to decreased psychological well-being for adolescents [7]. Although some inroads have been made with gender, scholars are just beginning to understand the psychological impact of negative race-related online experiences.

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In addition to examining race-related experiences in general, recent research suggests that a distinction should be made between direct and vicarious experiences. In much of the research to date on racial discrimination in face-to-face settings, direct experiences, or those that are directed explicitly at the individual, are assessed. In Quintana and McKown's [8] recent model of the influences of racism on the developing child, the authors note that vicarious experiences, those directed at same-race adults and peers in the child's life, are equally detrimental. In this study, items were designed specifically to measure both individual (direct form) and vicarious experiences of discrimination on the Internet aimed at same-race as well as cross-race peers. The central purposes of this study are: 1) to examine the degree to which adolescents experience online individual and vicarious racial discrimination, and 2) to explore whether such forms of online victimization relate to depression, anxiety and satisfaction with life, over and above that associated with discrimination and perceived stress offline.

Methods

Participants

Participants were 264 students (52% female, 48% male, mean age = 16, SD = 1.12) from two midwestern United States high schools. The self-reported ethnicity of participants was 51.1% white, 26.5% African American, 4.5% Asian, 2.3% Latino, 1.5% other, 9.8% multiracial, and 4.2% unknown. For the purpose of analyses, Asian, Latino, other, multiracial, and missing-information groups were collapsed into a multiracial/other category. The grade level of the study participants ranged from 9th–12th (13.7% 9th grade, 28.5% 10th grade, 40.2% 11th grade, and 17.7% 12th grade).

Procedures

Participants were recruited by study researchers at high school faculty meetings. Teachers were introduced to the study and were given fliers to hand out to students in their classes. The teachers read a script to their students describing the study as students read the flier. Teachers instructed the students to complete the surveys alone and on their own time. The fliers included a Web site address for the study. Students completed the surveys afterschool, logging on to the Web site listed on the flier. Incentives for participation were provided, including a drawing for an iPod and \$5 for each student given directly to the schools. The online survey settings ensured that the participants completed the survey only once. Online assent was obtained from participants prior to participation. Per university institutional review board approval, parental consent was waived to protect participants and to allow participants to freely respond to sensitive questions related to Internet experiences. Participants were assured that they could discontinue the study at any time if they experienced discomfort.

A total of 2500 students were eligible to participate, 1300 from school A and 1200 from school B. The response rate from school A was 15.7% and 6.3% from school B for a total of 280. Participants with 50% or more missing data and outliers were removed for a final total of 264. Differences in response rate may be attributed to teacher willingness to distribute study fliers and student willingness to complete the survey on their own. The ethnic composition of the study participants was similar to the ethnic composition of both high schools. The grade level distribution of the sample was different from the larger population. The sample had a greater percentage of 11th grade students.

Measures

To assess students' experiences with vicarious racial discrimination, four items were developed: 1) People have shown me a racist image online; 2) People have cracked jokes about people of my race or ethnic group online; 3) People have said things that were untrue about people in my race or ethnic group; and 4) I have witnessed people saying mean or rude things about another person's ethnic group online. These items were averaged, wherein higher scores indicated greater experiences of vicarious/group discrimination ($\alpha = .81$). To assess individual discrimination, three items were developed: 1) People have said mean or rude things about me because of my race or ethnic group online; 2) People have excluded me from a site because of my race or ethnic group online; and 3) People have threatened me online with violence because of my race or ethnic group. The three items were averaged, such that higher scores indicated greater discrimination ($\alpha = .68$). Participants were also asked to indicate whether they have ever experienced online victimization across the following Internet/technology settings: Text messaging, online chat, discussions forums, online games, social network sites, and other.

To assess students' offline experiences with discrimination and racial distress, students completed the Adolescent Discrimination Distress Index [9] (e.g., People act as if they were afraid of you, $\alpha = .81$). Participants also completed the Perceived Stress Scale [10] to determine levels of stress from offline settings (e.g., In the last month, how often have you felt nervous and "stressed," $\alpha = .81$).

Psychological adjustment was measured using the following Likert scale measures: 1) Child Depression Inventory Short-form [11] (e.g., I am sad all the time, $\alpha = .83$), 2) Satisfaction with Life Scale [12] (e.g., On the whole, I am satisfied with myself, $\alpha = .88$) and 3) The Profile of Mood States Anxiety Subscale [13], in which participants indicated how self-reflective anxiety related adjectives applied to their mood (e.g., anxious).

Results

Frequencies of online racial discrimination by race are reported in Figure 1. Results show that 71% of African

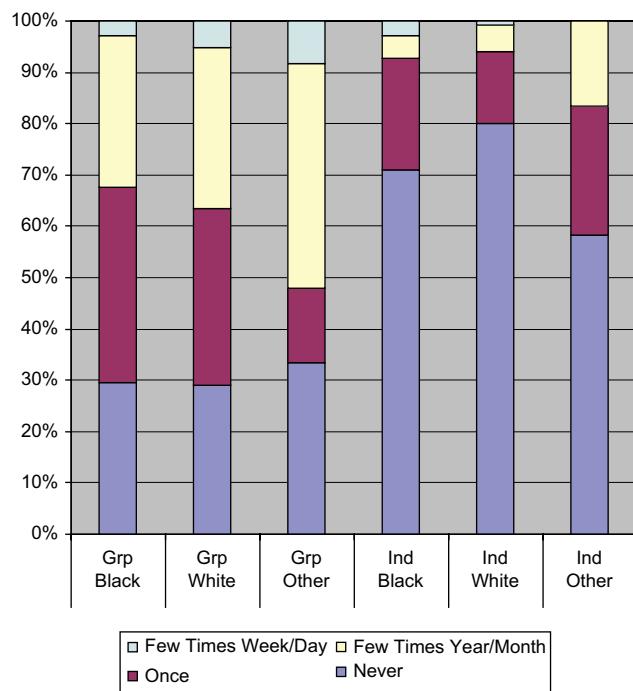


Figure 1. Frequency of online racial discrimination by racial group. GRP = vicarious/group discrimination; IND = individual discrimination.

American and 71% of white, and 67% of multiracial/other adolescents reported vicarious racial discrimination online at least once, and 29% of African American, 20% of white, and 42% of multiracial/other youth reported individual discrimination. Locations of the victimization included text messaging (35%), chat (13%), discussion forums (10%), online games (13%), social network sites (50%) and other (e.g., Instant Messenger, and specific names of sites such as "Facebook" and Yahoo games, 22%). Participants were allowed to list more than one location. In all, 34% of participants who responded to this question said they were victimized in more than one location, the most common combination of which was text messaging and social network sites.

To examine the potential influence of online victimization on adolescents' psychological adjustment, separate hierarchical multiple regressions were conducted on depression, perceived anxiety, and satisfaction with life. Hierarchical multiple regressions were used to examine the incremental variance accounted for by each set of independent variables. The rationale and sequence of variables entered into the regression were conceptual and empirical in nature to control for background variables and constructs previously linked to the outcome. Therefore, the order of the hierarchical multiple regressions blocks are: 1) background characteristics—age, gender, ethnicity (dummy coded with white and females as the reference groups); 2) perceived stress and offline experiences with discrimination; and 3) types of online victimization – vicarious discrimination and individual discrimination. A summary of the hierarchical multiple regression is presented in Table 1.

Table 1
Summary of hierarchical multiple regression (N = 240)

Depression	β	SE	R^2	F change
Step 1				
African American	−.07	.04	.09	5.81***
Multiracial/other	−.01	.05		
Male	−.09*	.04		
Age	.03	.02		
Step 2				
Perceived stress	.30***	.03	.43	68.23***
Discrimination	.08***	.02		
Step 3				
Individual discrimination	.15***	.04	.47	9.20***
Vicarious/group discrimination	.00	.02		
Satisfaction with life	β	SE	R^2	F change
Step 1				
African American	−.14	.20	.01	.84
Multiracial/other	−.10	.22		
Male gender	−.15	.17		
Age	−.03	.07		
Step 2				
Perceived stress	−1.08***	.14	.27	40.61***
Discrimination	−.19*	.09		
Step 3				
Individual discrimination	−.22	.18	.29	3.62*
Vicarious/group discrimination	−.12	.09		
Anxiety	β	SE	R^2	F change
Step 1				
African American	.10	.12	.08	4.92***
Multiracial/other	.10	.13		
Male	−.30**	.10		
Age	.07	.04		
Step 2				
Perceived stress	.19*	.08	.15	10.33***
Discrimination	.13*	.06		
Step 3				
Individual discrimination	.39***	.11	.20	7.39***
Vicarious/group discrimination	−.03	.05		

* $p < .05$.

** $p < .01$.

*** $p < .001$. All unstandardized regression coefficients and standard errors are from the final/third model.

For depression, hierarchical multiple regression results showed that each model, or block of variables, was significant, and the final model accounted for 47% of the total variance in depression. The final model showed that increased online individual discrimination was significantly related to increased depression, regardless of one's background characteristics and level of perceived stress and discrimination. These results were similar for anxiety, in which the final model accounted for 20% of the total variance. Males were also shown to experience significantly less depression and anxiety than females in both models.

With satisfaction with life, the final model accounted for 29% of the variance. However, perceived stress and discrimination at the offline level were the only significant predictors, such that an increase in either one was related to an increase in anxiety.

Discussion

This study explored adolescents' experiences with race-related discrimination on the Internet. Vicarious discrimination (experiences directed at same race and cross race peers) was more common than individual discrimination, which included direct attacks on the individual because of their racial group membership. Nonetheless, adolescents commonly experienced both individual and vicarious discrimination online. This is consistent with previous literature on negative race related experiences online. For example, the study by Tynes *et al.* [14] explored the valence of adolescent discourse in monitored vs. unmonitored chat rooms. Chat participants had a 19% chance of being exposed to negative remarks about a racial or ethnic group (potentially their own) in monitored chat and a 59% chance in unmonitored chat. Similarly, in an interview of 39 adolescents, the majority of the youths either had been the targets of racial prejudice or had witnessed these types of remarks made toward others. Of the participants, 63% reported encounters with racial prejudice online. Frequencies of the incidents varied among participants, from once a month to several times a day [15].

The high prevalence of online racial discrimination found in this study appear to both counter and confirm theories of race and intergroup bias on the Internet. On one hand, scholars have predicted that the Internet will reduce racial discrimination because of the anonymity of the medium. Kang's [16] cyberrace theory for example predicts reduced instances of racial discrimination and increased understanding between groups. In contrast, other scholars have noted that the anonymous, spontaneous, disinhibited, and impersonal nature of online interaction will increase the likelihood that prejudice will be expressed more overtly [17,18].

Another goal of this study was to determine whether there are associations between online racial discrimination and psychological adjustment. Findings indicate that individual discrimination was concurrently related to depression and anxiety. This was the case after controlling for racial group membership, gender, offline discrimination, and perceived stress. The mechanism explaining this relationship may be similar to offline discrimination in that perceived stress mediates the relationship between discrimination and psychological distress [6]. Online experiences, just as those offline, can trigger emotional and physiological responses in the form of stress, which can lead to feelings of depression and anxiety [19]. Alternatively, participants who suffer from depression may go to particular sites and experience more race-related victimization within them. Causality can not be determined with this study. At the same time, research on offline discrimination among adults has found that baseline depressive symptoms are unrelated to subsequent reports of discrimination, and perceived discrimination tends to be related to depression and anxiety even after adjustment for potentially confounding psychological factors [20].

Study findings are aligned with a recent study of cyberracism that yielded similar results in that exclusion via the

Internet during a ball toss game negatively affected participant mood. Although not related to race this study is an example of how exclusion online can have real consequences for the target's mood [21]. The findings in this study are also consistent with extant literature in which racial discrimination offline negatively impact emotional, behavioral and psychological adjustment [5–7]. It is important to note, however, that online racial discrimination is not necessarily the equivalent of experiences with racism and discrimination in offline settings. Although both online and offline experiences denigrate the victim, offline discrimination is often physical and/or verbal in nature, therefore the perpetrator and victim are often known. In contrast, online discrimination is often text-based and anonymous [17]. In addition, online racial discrimination is often interpersonal, whereas offline discrimination and racism experienced by groups of color is structural and pervasive [22].

Contrary to what has been predicted in recent models of the influence of racism and discrimination on the developing child and adolescent, vicarious experiences were not related to psychological adjustment. This was the case in spite of the fact that approximately 70% of the sample experienced vicarious discrimination. This may be due to the fact that experiences directed at the group level by same race or cross-race peers are perceived as more impersonal. It may be the case that for race-related online experiences to impact the mental health of adolescents, these communications must first be personalized or directed at the individual. More research is needed to determine the differential psychological and emotional impact of online versus offline and individual versus vicarious racial discrimination on adolescents of color.

This study differs from extant research in that online victimization experiences were not related to positive psychological outcomes such as satisfaction with life. This may be attributable to the measure used in this study. Rather than measuring participants' satisfaction with life, future studies might assess variables more consistent with extant studies such as self-acceptance, positive relations with others, autonomy, purpose in life, and personal growth [7].

Although causality cannot be established, this study is one of the first to suggest that the race-related victimization adolescents experience online may have a negative effect on psychological adjustment. The sample, however, was relatively small and was limited to a small urban community in the mid-western United States. Future research should examine online victimization in a larger, more nationally representative sample. It is also important that future efforts focus on preventing race-related online victimization and ways to promote Internet safety among adolescents.

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