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To date a "victim": testing the stigma of the victim label through an experimental audit of dating apps

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Abstract

Objectives Publicly revealing prior victimization could produce negative reactions and could affect a self-identified victim's initiation of romantic relationships.

Methods To measure victim stigma, an experimental audit design used six study profiles, each with pictures of a Black, Latinx, or White cisgender female or cismale and bio text that in the experimental condition included a briefstatement of prior victimization, to compare match rates of profiles disclosing prior victimization with identical profiles not disclosing victimization.

Results Disclosing victimization reduced total matches for all profiles regardless of sex or race. Racial congruence analyses of matches indicated that relative to the White control profile, all other study profiles were more likely to match with dating app users of a different race/ethnicity, except for the White male victim profile.

Conclusions The stigma of the victim label may discourage people from disclosing their prior victimization. Racial congruence findings suggests that victim stigma may differ across different racial and ethnic groups.

Keywords Dating apps · Experiment · Gender · Race · Stigma · Victimization

Introduction

According to the National Crime Victimization Survey (NCVS), 16.4 per 1,000 persons aged 12 or older were victims of violent crime (1.2 for rape/sexual assault, 1.6 for robbery, and 13.6 for assault) in 2020 in the USA. Many people are still affected by crime, as indicated by the more than two million violent victimizations,

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excluding simple assault, annually from 2017 to 2020 (Morgan & Truman, 2021). Victimization can have negative physical, mental, and emotional consequences, including post-traumatic stress, anxiety, sleep disorders, depression, and suicide attempts (Chen et al., 2010; Dworkin, 2020). In addition to those negative physical and mental consequences, those who have been victimized may be forced to deal with additional consequences—social reactions. Sharing with others can not only yield positive reactions such as support, resources, and validation, but it can also yield negative reactions including blame, doubt, and stigma (Orchowski et al., 2013; Ullman, 2010).

Stigma and victim blaming through the victim label have been the subject of considerable research, but how the victim status (i.e., disclosure of their victimization) affects the ability to enter into romantic relationships has not received much research attention. The current study uses an experimental audit design to test the effect of a disclosed victim status in a dating app context. If dating app users choose to disclose a prior victimization in their dating profiles, this may disrupt their ability to meet prospective romantic partners, who may avoid them due to their belief that the victim may have contributed to or was deserving of their victimization. However, studies have found that victim characteristics, such as gender and race, influence others' victim blaming attitudes differently, although most research centers on victims of rape or sexual assault (Gravelin et al., 2019; Hayes et al., 2013; Van der Bruggen & Grubb, 2014). For instance, males[1] are more likely to blame victims of sexual assault (Suarez & Gadalla, 2010) and racial minorities such as Black people or Hispanic people are more likely to be blamed for their victimization (Ullman, 1999), although sometimes they experience less blame (Lyons, 2006). We aim to examine how victimization status (victim status disclosure vs. no disclosure) affects online dating matches differently across gender and race. By investigating these factors, we can explore the extent to which self-identified victims are stigmatized in a relationship initiation context. We begin with theoretical explanations that could explain social reactions to victim disclosure and then discuss research describing how race and gender influence these reactions.

Theoretical framework

Labeling theory posits that individuals develop their self-identity through responses and reactions from others for their behaviors in the process of social interactions (Lemert, 1972). The theory has been applied to explain how labeling processes affect the self-identities, future behaviors, and negative consequences faced by individuals labeled as criminals. When individuals are labeled as criminals, they are less likely to be employed (Pager, 2003), find housing (Evans & Porter, 2015), meet partners in online dating (Evans & Blount-Hill, 2020), and depending on their offense type could suffer from lowered self-esteem (Scott, 2016). In addition, they are more

[1] Prior violence prevention literature broadly uses dated sex/gender language ("male" instead of "man") so accurate citation of that research results in some conflation of the language.

likely to recidivate (Chiricos et al., 2007). This clearly shows that criminal labels impact individuals negatively.

Similar to the criminal label, individuals who have crime inflicted on them also receive a "victim label" when their victimization status is revealed. An additional similarity is that the victim label tends to have a negative connotation, implying that the victim is weak, passive, and helpless (Fohring, 2018; Joseph & Jergenson, 2020), and that leads to stigma. Because of that, recently, using the word "survivor" rather than "victim" has been advocated so that individuals who are affected by crimes feel empowered rather than being considered passive and weak. Why, then, are "victims" of crime experiencing negative labeling? The Just World Belief (JWB), constructed by Lerner (1965), provides one possible theoretical explanation, stating that individuals who are labeled as "victims" face negative reactions from others when their victimization status is disclosed to others intentionally or inadvertently.

The JWB suggests that people get what they deserve because the world is fair. Good people receive good outcomes while bad things befall bad people. Subscribing to the JWB may explain why some blame individuals for their victimization, which could manifest as offensive comments, negative affective reactions, adverse evaluations, disparagement, rejection, and discrimination (Herbert & Dunkel-Schetter, 1992). Those who endorse the JWB may belittle the experiences of those who have been victimized because of their belief that the person deserved their victimization, which upholds their view of a just world (Hayes et al., 2013; Lerner & Miller, 1978; Lerner & Simmons, 1966). A consequence of the JWB is people's tendency to blame victims of crime for their circumstances (Hayes et al., 2013). Thus, even though they are not the ones who had inflicted harm on others, people tend to think that persons who have been victimized bear at least some responsibility for their victimization.

Belief in a just world is associated with one's social standing. People with higher relative social status tend to express greater antagonism toward social equality and more strongly endorse the belief in a just world (Westfall et al., 2019). These people tend to feel that resources are distributed based on hard work and accomplishment and that those who live difficult lives are responsible for their own socio-economic fate. It is no surprise, then, that White men, in part due to their social privilege, are more likely to subscribe to the JWB than racial minorities and women (Cozzarelli et al., 2001). Privilege extends to physical appearance as well. Those rated higher in physical attractiveness by others or themselves were stronger endorsers of the JWB than persons self-rated or rated by others as less attractive (Westfall et al., 2019). If disclosed victimization reduces dating prospects, JWB could provide an explanation.

Gender, race, and victim blaming

Although several factors affect reactions to victimization disclosures, this study focuses on the gender and race of the individual disclosing victimization and the recipient of this information (Ullman & Filipas, 2001). Gender stereotypes and

social norms dictate how males and females should and should not behave, establishing expectations for both genders (Eagly & Wood, 2012). Gender role expectations posit that men should be aggressive, physically imposing, and able to defend themselves (Madriz, 1997). For men, having experienced victimization is inconsistent with male stereotypes of masculinity, physical dominance, and not backing down from a fight (Howard, 1984), thus inviting blame for violating gender norms. Indeed, Hill (2006) notes that "feminine" heterosexual men have more difficulty attracting partners. Gender stereotypes put forth the expectation that women are traditionally victims, and if a man is a victim, he has not behaved consistent with mainstream perceptions of masculinity (Cook, 2009). Women who are more tolerant of patriarchal culture prefer male partners who conform to traditional gender roles (Backus & Mahalik, 2011; Smith et al., 1995), and heterosexual dating relationships show signs of traditional gender stereotypes and expectations (Eaton & Rose, 2011). When it comes to choosing partners, women may avoid, reject, or blame men who identify as prior victims because of stereotypes that they are less masculine.

In contrast to stereotypes of men, women are perceived as weaker, more vulnerable, objects of sexual desire, and more likely to be victims (Howard, 1984; Madriz, 1997; Schafer, 1974). In general, victimization is gendered as "a feminine or feminizing experience" (Howard, 1984, p. 27). Blaming of victims for their own victimization is often attributed to character flaws consistent with feminine stereotypes, such as being vulnerable. When reading scenarios that resulted in rape versus those that resulted in a neutral outcome, participants were more likely to blame female victims for their behavior that led to the rape, suggesting that once people know the outcome of an event, they are more likely to see it as predictable and hold the victim responsible for the outcome (Janoff-Bulman et al., 1985). For different reasons, heterosexual cisgender males and cis-females both appear to be subject to stigma when identifying as victims.

Race of both the discloser and recipient influences perceptions of people who identify as victims. Racial minorities carry an already stigmatized identity that could enhance the discrimination that those who disclose victimization experience (Lyons, 2006). However, a vignette study found the opposite; Black victims received more sympathy than White victims (Lyons, 2006). The race of the recipients of victim disclosures is also a factor. Racial minorities who received information about another's victimization history were more likely to respond negatively, especially when the discloser was male (Edwards et al., 2020). Reactions to victim experiences depend on social status as well. Characteristics that are socially devalued are more likely to invite negative reactions, which explain why minorities and persons who suffer more serious injuries experience more negative reactions to victimization (Ullman 1996; Ullman & Filipas, 2001; Ullman & Siegel, 1995). Racial minorities, in conjunction with disclosed victimization, could compound the stigma that this group experiences.

People who have experienced victimization[2] may grapple with the decision to disclose this to others. Feelings of shame, embarrassment, and fear could prevent them from telling others (Filipas & Ullman, 2001). Informal disclosures to friends, family, roommates, or co-workers are far more common than disclosures to police or medical providers (Demers et al., 2018), but if they decide to disclose a sexual assault experience to a member of their social network, they may receive positive reactions in the form of listening and trust, or they could face blame, doubt, or stigmatizing reactions (Ullman, 1999). Stereotypes and perceptions of victims of crime are far from uniform, and much of the literature on reactions to victimization disclosure surrounds sexual assault. The nature of reactions to revelations of victimization could affect the well-being and relationship prospects of those who identify as victims, so it is important for research to consider how people react to victim disclosures in various contexts.

Current study

Prior research has explored the just-world belief and victim blaming using vignettes (Lyon 2006) and questionnaires (Westfall et al., 2019), but limited experimental research has tested the extent to which the victim label might affect the relationship prospects of people who disclose prior victimization. Revealing victimization could be difficult even among family and friends, strangers notwithstanding. Recently, online disclosures of victimization have become more common, illustrated by hashtags #MeToo and #NotOkay on social media that provide individuals who have similar experiences with a shared space to communicate and reveal or allude to their stories. Online outlets provide a comfortable space to disclose victimization from a distance and offer and receive support from an online community (Bogen et al., 2019).

The current study borrows from recent experimental audit research that used dating app profiles to gauge how users react to written disclosures of a parole status in bios (Evans & Blount-Hill, 2020). The study design manipulates the disclosure of prior victimization, along with race (Black, White, and Latinx) and gender (cisgender male and cisgender female), which were included to measure whether reactions to victim status differed across these demographic characteristics. In online dating profiles, gender and race information can be gathered without interacting with participants, and this demographic information was found to moderate the relationship between stigma and the criminal label in prior research (Evans, 2019; Evans and Vega 2020). This study explores reactions to a non-descript victim identity rather than considering the range of different types of victimization. A prior study found that people are more apt to blame victims and excuse aggressors when they do not receive information about the underlying cause of the aggression (Valor-Segura

[2] Victimization here is operationalized as a harmful act imposed on individuals by another person, group of people, institutional policy or practice, or structural or environmental harm (Holstein and Miller 1990).

et al., 2011), which is important in the context of this research. The research question guiding the study is how does disclosing a victim identity in dating app profiles impact the odds of matching with other dating app users?

Methods

The current study used an experimental audit design to answer the question of how the disclosure of prior victimization in online dating profiles affects the likelihood of matching with heterosexual cisgender online daters who chose to be paired with individuals of other genders. Audit designs are field studies where "testers" (members of a research team) pose as individuals seeking a certain resource (e.g., housing and relationships) to assess reactions that could indicate discrimination. Tester traits are either actual (i.e., one's race or sex) or fabricated (e.g., victimization history). The experimental component requires that testers be paired, with one acting as the control (i.e., no victimization disclosed) and the other acting as the experimental manipulation (i.e., prior victimization disclosed). This design allows researchers to measure decision-making in real-world scenarios to draw causal claims about how a disclosed character "flaw" affects the likelihood of connecting with online dating partners (Gaddis, 2018). Online dating apps are useful for this research because they allow for quick access to a large sample that can provide feedback on how revealing prior victimization may affect the online dating outcomes of those who identify as victims. Furthermore, dating apps allow the research team control over the presentation of profiles and accompanying text information. The first phase of the study necessitated selection of study dating apps and setting of app parameters to expand the sample of dating app users. Phase two involved construction of study profiles, and the third phase was launching profiles on dating apps to collect match data.

Sample

Six dating apps[3] were selected for this study using the following criteria: free to users, available on iOS and Android smartphone operating systems, and utilization of simple procedures to generate user matches via swipes or "liking" of other users' profiles. The study population consisted of users of the six dating apps, between the ages of 18 and 60, and within 100 miles of the greater New York City area, where the research team managed study dating profiles. The geographic region is densely populated with dating app users, which allowed for a large sample.

[3] The IRB required the PI to write to staff of each of the six dating apps used in this study to inform them about the study and seek their approval to conduct it. Because no app developers responded, the IRB prohibited the research team from disclosing apps used for this study.

Study profiles

Experimental parameters required creation of six unique study profiles: a Black, Latino, and White man and one Black, Latina, and White woman. To minimize research team member biases in selecting participants for profile pictures, research team members recruited 40 participants from their social networks, and six participants were ultimately selected based on ratings from people unconnected to the study. The research team received three pictures (casual selfie, casual medium shot, full body formal picture) apiece from the 40 participants. Then, 25 undergraduate students rated each of the pictures on the perceived race of the participant, believability of the photographs as online dating profile pictures, and attractiveness. The six participants whose pictures were selected for study profiles were rated as racially homogeneous (at least 70% of ratings indicated the same race) and believable as profile pictures (mean of at least 6.5 on a 10-point scale). The pictures with the highest attractiveness ratings were selected from the pictures that met these race and believability thresholds (see Table 1 for ratings). The six participants selected for this study included one Black, Latinx, and White man and woman. The research team built all study profiles using selected participants' photographs. Study profiles consisted of three photographs of each person, user generated biographical text, and responses to categorical questions about user demographics, interests, and dating app intentions. Photographs of the six participants were duplicated so that experimental and control conditions included two sets of identical profiles, except for an additional sentence disclosing prior victimization in the experimental condition.

The research team proposed more than 50 profile names and voted to select the most race-neutral masculine and feminine names for study profiles. All cis-male profiles were named Chris and cis-female profiles were named Katherine. Each study profile consisted of the three pictures from participants, basic demographic information that was standardized across all profiles (e.g., age 25, employed as an accountant, income of $38,000/year, and kids not desired), and profile bio text. Research team members read articles about online dating bios to inform text for study profile bios. Phrases for profile bios were selected from text drafted by and voted on by the research team. An additional gender-neutral sentence disclosing prior victimization was discussed at length before being finalized for the experimental condition. The term "victim" was used instead of "survivor" because identifying as a survivor reduces the stigma attached to victimization (Dunn, 2005). The final bio text for women is below, with the italicized text only appearing in experimental group profiles:

Table 1 Mean ratings of female and male study pictures from 1 (lowest) to 10 (highest) and percent agreement regarding perception of subject race

	Black female/male	White female/male	Latinx female/male
Attractiveness	8.1/7.8	6.8/7.2	7.4/6.0
Believability	8.5/7.9	7.5/7.4	7.7/8.6
Racial perception (percent agreement)	67%/94%	67%/91%	83%/75%

Finally figured life out: it's like an elevator; on the way up, sometimes you have to stop and let people off... and sometimes you have to stop and let new people in
In my past I was a victim, but I'm empowered toward my future.
I am looking forward to good conversations, plenty of laughter, eating lots of food, and building a potential relationship
Swipe so we can begin our journey! ❤

Bio text used for men was as follows:

Life is like a coin; you can spend it any way you wish, but you can only spend it once. Let's go spend some together!
My friends would probably say I'm the life of the party, but somehow I always end up being the responsible one
In my past I was a victim, but I'm empowered toward my future.
It's all about taking chances so why not take one with me?

Data collection

Each member of the 12-person research team was randomly assigned a study profile race (Black, Latinx, or White), gender (cis-male or cis-female), condition (victim disclosure or control), and dating app to begin the study. No more than one cis-male and one cis-female study profile could be on the same app at the same time so that 12 profiles were actively engaged in data collection across the six study apps at any time during the data collection period, which covered 8 weeks from October through December, 2019. Researchers swiped or attempted to match with 1,000 dating app users per study profile per app. Thus, researchers "swiped right" on every dater profile they were exposed to. Each of the 12 profiles was launched on all six study apps so that the final dataset included at least 72,000 swipes. The dataset included information on study profiles (race, gender, condition), information on matches (race, age, location), number and content of messages sent by matched users, and outcome of each swipe (match or no match). When not explicitly stated in matched profiles, researchers estimated the gender (cis-male, cis-female, transgender) and race/ethnicity (Black, White, Latinx, Asian, Indian, other) of matches. If there was any doubt as to race, the researchers coded this information as unknown. This information was verified by at least one additional member of the research team. After completing the 1,000 swipes and waiting for a period of at least 24 h with no new matches, researchers entered demographic data on matches and deactivated profiles.

Analyses

An a priori power analysis was conducted to determine the appropriate sample size for this study. Prior research that used a similar audit design with online dating apps provided data points for conducting the power analysis (Evans, Blount-Hill and Szkola 2019). Power analyses were conducted separately using match rates for men

and women in both the experimental and control groups, because the match rate among men was significantly lower than that of women. Using G*Power (Buchner et al. 2019) and based on the α error probability (0.05), and prior sample proportions (0.033 and 0.037), a sample size of nearly 7,500 for women and at least 109,000 for men would yield strong power (0.95) to detect a small effect of victim disclosure on match outcomes. The research team was able to collect a sample size of 37,000 swipes for cis-male profiles and 37,000 swipes for cis-female profiles for a total of 74,000 attempts to match with online daters.

The unit of analysis in this study was a swipe and the dependent measure was the rate of successful matches out of the total number of swipes. Study data were first analyzed to generate descriptive statistics on study profiles and demographics of matched users. This study's outcome was binary (match vs. non-match) and thus nonparametric, which necessitated the use of Mann–Whitney tests to compare across groups. Due to multiple testing of bivariate relationships, Bonferroni correction[4] was used (Reinhart, 2015). A series of regression models were run to determine the interactive effect of study profile race and victim disclosure on the likelihood of matching with other dating app users. Another series of regression models considered the association between study profile characteristics (race, victim disclosure) and the racial homogeneity or heterogeneity of matches. Linear regression was selected for interaction terms (Mustillo et al., 2018) and to reduce error in comparisons of model results due to Mood's (2010) warning against logistic regression models when comparing across samples.

Results

The overall match rate across all profiles was 9.15%. Profiles with bios disclosing prior victimization (8.17% match rate) received significantly fewer matches than control profiles (10.12% match rate), $Z = -9.233$, $p < 0.001$. Cis-female profiles matched at a much higher rate (14.34%) than men profiles (3.95%), so subsequent analyses will consider each gender group profiles separately.

Main effects: race and gender

Black female profiles disclosing prior victimization matched at a lower rate (12.43%) than the Black female control group (13.75%), but this was not significant with Bonferroni correction, $Z = -2.31$, $p = 0.026$. The difference between Black male profiles in the experimental (4.53%) and control groups (3.97%) was not significant, $Z = -1.539$, $p = 0.124$. Latina female profiles disclosing prior victimization matched at a significantly lower rate (13.37%) than the Latina control group (16.85%), $Z = -5.327$, $p < 0.001$. Latino male profiles disclosing prior victimization also matched at a lower rate (2.52%) compared to Latino male control profiles (3.30%), but this was not significant with Bonferroni correction, $Z = -2.636$, $p = 0.008$. White female profiles disclosing prior victimization matched at a significantly lower

[4] Bonferroni correction involves dividing the alpha level ($p = .05$) by the number of analyses (11) to increase the threshold for determining significance (Bonferroni correct $p = .005$).

rate (11.40%) than White female control group (18.57%), $Z = -10.998$, $p < 0.001$. White male profiles disclosing prior victimization also matched at a significantly lower rate (4.05%) compared to White male control profiles (5.45%), $Z = -3.605$, $p < 0.001$ (Figs. 1 and 2).

The next set of analyses compared female profiles disclosing prior victimization to determine if race and victim disclosure interacted to affect match outcomes. The difference between the match rates of White (11.40%) and Black (12.43%) females disclosing prior victimization was non-significant, $Z = -1.802$, $p = 0.072$. Similarly, there was no significant difference between the match rates of Latina (13.37%) and Black (12.43%) females disclosing prior victimization, $Z = -1.593$, $p = 0.111$. There was a significant difference between Latinas (13.37%), who matched at a significantly higher rate than White females (11.40%) disclosing prior victimization, $Z = -3.270$, $p = 0.001$.

Analyses also tested for differences among the Black, Latino, and White male profiles. There was no significant difference between the match rates of White (4.05%) and Black (4.53%) males disclosing prior victimization, $Z = -1.306$, $p = 0.191$. White (4.05%) and Black males (4.53%) both matched at a significantly higher rate than Latino males (2.52%) disclosing prior victimization, $Z = -4.713$, $p < 0.001$ (White), $Z = -5.989$, $p < 0.001$ (Black) (Table 2).

Regression models

The first regression models tested the association between profile race and victim disclosure on match outcomes. Dating app was included in the model as a control variable. Two separate linear regression models were run for females and males due to the significantly higher match rate among female online dating profiles. White

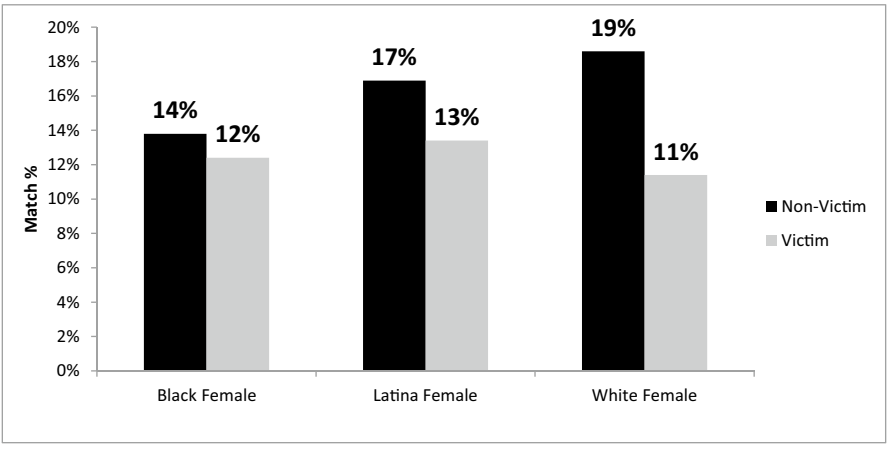

Fig. 1 Percentage of swipes that resulted in successful matches for female study profiles by race and disclosure of prior victimization

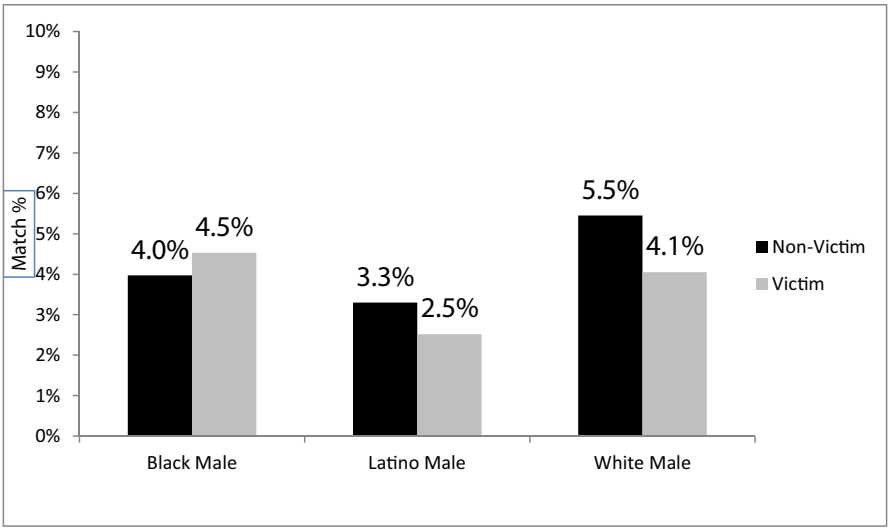

Fig. 2 Percentage of swipes that resulted in successful matches for male study profiles by race and disclosure of prior victimization

cis-female study profiles not disclosing prior victimization constituted the reference group. The first model indicated that among White cis-female profiles, disclosing prior victimization significantly reduced the likelihood of matching. Latina and Black cis-female profiles were significantly less likely to match relative to White cis-female profiles, and the negative coefficient was even greater for Black cis-female and Latina profiles disclosing prior victimization. Dating app was significant in

Table 2 Rank sum tests comparing the percentage of swipes that resulted in a match across experimental (disclosure of past victimization) and control (no disclosure) study profiles by sex and race

Match percentage				
Condition	Victim	Non-victim	*Z*-score	*p*-value
Main effect	8.2%	10.1%	−9.23	<.0001
Sex				
Female	12.4%	16.4%	−10.94	<.0001
Male	3.7%	4.2%	−2.41	.016
Race				
Black	8.8%	8.9%	−.21	.837
Latinx	7.9%	9.6%	−4.5	<.001
White	7.7%	12.0%	−11.13	<.001
Sex/race				
Black female	12.4%	13.8%	−2.23	.026
Latina female	13.4%	16.9%	−5.33	<.001
White female	11.4%	18.6%	−10.99	<.001
Black male	4.5%	4.0%	−1.54	.124
Latino male	2.5%	3.3%	−2.65	.008
White male	4.1%	5.5%	−3.61	<.001

model 1, indicating that differences across the six study dating apps affected match rates.

Model 2 focused on cis-male study profiles and indicated that among White cis-male profiles, disclosing victimization significantly reduced matches. The Black cis-male non-victim profile was significantly less likely to match relative to the White cis-male non-victim profile, and the Black cis-male profile disclosing victimization was even less likely to match with dating app users in the sample. Latino profiles, both those disclosing and not disclosing victimization, were significantly less likely to match relative to White cis-male profiles. Dating app was not significant in this model, suggesting some degree of uniformity among cis-female dating app users' preferences in men across all study apps (see Table 3).

The following regression models examined the racial homogeneity or heterogeneity of matches to test the interaction between victimization disclosure and racial congruence between study profiles and successful matches. These models only included data on swipes that resulted in a match. Model 3 focused on user matches with cis-female study profiles, using the White cis-female profile as the reference category, and included study profile race and victim disclosure as predictors of the likelihood of a racially homogeneous (coded 0) or heterogeneous match (coded 1). The model was significant ($p < 0.001$). Compared to the White non-victim cis-female profile, cis-male users who matched with the Black cis-female profiles, regardless of victim disclosure ($p < 0.001$ for both), were significantly more likely to be a race other than Black. Heterosexual cisgender online daters who matched with the Latina victim and non-victim profile were significantly less likely to be Latino ($p < 0.001$ for both). The White cis-female victim disclosing profile was significantly more likely to attract interracial matches ($p = 0.010$) (Table 4).

The final model considered the racial heterogeneity of matches with cis-male study profiles and was significant ($p < 0.001$). Using the White cis-male non-victim

Table 3 Linear regression models predicting match success by race and victim disclosure compared to White profiles not disclosing previous victimization

	Model 1: female profiles $N = 37{,}000$		Model 2: male profiles $N = 37{,}000$	
Ref: White, non-victim disclosure	Coef	SE	Coef	SE
White, disclosing victimization	−0.072***	0.006	−0.014***	0.004
Black, no victimization disclosed	−0.048***	0.006	−0.015***	0.004
Latinx, no victimization disclosed	−0.017**	0.006	−0.022***	0.003
Black, disclosing victimization	−0.059**	0.006	−0.009*	0.004
Latinx, disclosing victimization	−0.052***	0.006	−0.029***	0.004
Control: dating app^	−0.028***	0.001	0.000	0.001
R^2	0.024***		0.002***	
F	148.77	13.71		

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

^Both models were adjusted for *dating app*, which was included to control for the degree of variance explained by changes in these values

Table 4 Linear regression models predicting racial congruence (0 = same race match; 1 = different race match) of matches by race and victim disclosure compared to White profiles not disclosing victimization

	Model 3: female profiles $N = 5306$		Model 4: male profiles $N = 1462$	
Ref: White, non-victim disclosure	Coef	SE	Coef	SE
White, disclosing victimization	0.058*	0.023	−0.148***	0.040
Black, no victimization disclosed	0.335***	0.021	0.164***	0.041
Latinx, no victimization disclosed	0.262***	0.020	0.257***	0.041
Black, disclosing victimization	0.327***	0.021	0.061	0.039
Latinx, disclosing victimization	0.376***	0.021	0.188***	0.047
Control: dating app	−0.006	0.004	0.029***	0.008
R^2	0.093***		0.079***	
F	90.56	20.91		

*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$

Both models were adjusted for *dating app*, which was included to control for the degree of variance explained by changes in these values

profile as the comparison category, users who matched with the White cis-male profile disclosing prior victimization were significantly more likely to be White ($p < 0.001$). Matches with Black and Latino study profiles favored mixed-race. Dating app users who matched with Latino victim and non-victim profiles were significantly more likely to be interracial ($p < 0.001$ for both). Users who matched with the Black male non-victim profile were significantly more likely to be racially heterogeneous ($p < 0.001$). There was no significant relationship between Black cis-male victim disclosing profiles and the race of matches.

Discussion

This study provides an initial measure of the stigma of victim disclosure in dating apps. The experimental design and analysis of a large sample of attempts to match with dating app users allows for determination of a causal relationship between victim disclosure and dating app success. Nearly all study profiles received fewer matches in the victim disclosure condition, indicating that victim disclosure is perceived negatively by heterosexual dating app users. Given that the study was conducted on dating apps in the greater New York City area, the results can only be generalized to the users of the six study apps within each dating app's radius for accessing potential matches, which consists of the tristate area: New York City, Long Island, and the Mid and Lower Hudson regions in New York, and the most populous cities of northern New Jersey and western Connecticut.

The results of this experimental dating app audit indicate that those who disclose prior victimization face stigma manifested as fewer matches. This could be due in part to the phrasing of the experimental manipulation. Study profiles disclosed being a "victim," which may evoke different connotations than the term "survivor"

(Ovenden, 2012). Use of dating apps as the study site limits our interpretations of how victims would be perceived in different social spheres. Hypothetically, prior victimization should not influence one's job prospects or educational opportunities, but knowledge of someone's prior victimization could affect how their friends, relationship partners, and even family members view, communicate with, and act toward them. That the victim profiles (i.e., victim label) received fewer matches across all race/ethnicities and genders suggests that victim stigma is not specific to any race or gender. Similar to how a felony record (i.e., criminal label) has a similar effect on housing outcomes, regardless of whether housing seekers are men or women, Black, White, or Latinx (Evans, Blount-Hill, and Cubellis 2018). This result once again confirms that similar to the criminal label, the victim label tends to have a negative impact on victims.

The racial congruence analyses indicate the extent to which victim stigma is compounded by race. A surprising finding was that relative to the White cis-male and cis-female profiles, dating app matches for nearly all other profiles were more likely to be interracial. This finding persisted in the victim condition, with one exception. Dating app users who matched with the White cis-male profile disclosing victimization were more likely to be White. It appears that the White cis-male profile's admission of prior victimization discouraged women of color from matching. This reinforces stereotypes of cis-male victims being perceived as weak and also suggests that stereotypes are stronger when the perceiver is a cis-female of a different racial or ethnic group. This explanation is supported by other research. In the Black community, the cultural message to Black women is to be independent, resilient, and be a breadwinner for the family. At the same time, culturally, they also expect men to be assertive and aggressive in the relationship. Black women's gender role socialization with their community affects their behaviors and expectation toward their partners (Wallace, 2007). They tend to prefer men with masculine characteristics such as muscular bodies and cool personalities (Ford, 2012). Thus, men who are perceived as not strong enough (due to their victimization status) will not be considered ideal dating partners.

Similarly, this disparity can be found in Latino communities. Their patriarchal and machismo culture emphasizes rigid gender roles and male dominance over women. Latina women who subscribe to the machismo culture tend to prefer typical masculine men, although not all Latinas prefer traditional Latino men (Faulkner, 2003). Thus, men who lack typical indicators of masculinity (i.e., victims) will be excluded.

Victim history is a concealable aspect of one's identity; that is, others may not know of someone's past victimization experience unless he or she chooses to disclose this information (Quinn et al., 2014). Still, some individuals who experience victimization choose to disclose the incident(s), be it upon the onset of a new relationship or over a course of weeks, months, or years as their relationships develop. While some may be met with sympathy and support, others experience one or more negative social consequences, namely fewer dating prospects. As such, it is recommended that stigma reduction tactics be employed to reduce stigmatization of victims and the consequences that stem from it.

Limitations

A primary limitation of this study was its unnatural approach to disclosing victimization. Although the hashtag #MeToo shows that people are more comfortable publicly revealing their past victimization, dating app profiles are an uncommon space to disclose this information. There may be social norms about referencing one's victimization in dating apps such that other contexts may be deemed more appropriate. It is unclear how profile bio revelations of victimization might have affected the findings because no users who matched with study profiles expressed dubiousness in their text messages. Additionally, victimization disclosures were nebulous in that they did not reference specific types of victimization. The research team felt that revealing a specific type of victimization (sexual, physical, etc.) would have made the experimental manipulation even more unnatural, although testing various types of victimization disclosures could have provided distinctions between the extent to which victims of different types of crimes are stigmatized.

Another recurring issue was profiles being locked out of apps, which happened to six profiles on three different apps. The reason for this is never conveyed by the app developers, but since the locked accounts were evenly split between victim and control profiles, it was likely not due to victim disclosure statements. After waiting at least 2 weeks, the research team was able to re-create these profiles on the same apps and complete data collection.

A confound of the study was that dating app profile bio text was not neutral. The victim disclosure statement is followed by a declaration of empowerment, which could invoke competing cognitions in dating app users that support a successful underdog. This could have had a positive effect on the study results.

An inherent limitation of dating apps is the impossibility of discerning active and passive users. We do not know how many of the non-matched dating app users the research team attempted to match with were active during data collection. As the number of inactive users who still have live profiles decreases, the match rate of study results also declines. A final limitation is the inability to access a truly random sample. Each dating app uses its own unpublished algorithm to expose dating app users to other users of that app. While the research team had no control over selection of dating app users, the app's algorithm could have had a positive (connecting study profiles to the most highly rated users) or negative (connecting study profiles with the lowest rated and most inactive profiles) effect on study results.

Future directions

The current audit study used heterosexual dating apps due to their popularity and ease of accessing a large sample quickly. Future studies should consider extending this design to LGBTQ-oriented dating apps because gender minority folks are likely to experience different social reactions from dating app users. Experimental audit designs are one of many ways to measure behavioral reactions to victims. We feel that dating app choices provide a reliable alternative to survey or interview inquiries

about someone's willingness to date a victim. The experimental quantitative analysis focusing on match outcome indicates some level of romantic or personal interest that is comparable across groups. Qualitative research could build on this method and attempt to access dating app users who would be willing to discuss their reasons for or against starting a relationship with someone stigmatized. In addition, qualitative research could explore theoretical underpinnings for racial incongruence. Disclosing the research study prior to conversations could influence how potential participants respond, but if participants remain blind until the conclusion of conversations, this would be a more natural way of gauging reactions to stigmatized characteristics. Debriefing would be required in this scenario. The most realistic measure of reactions to victim disclosure would occur in-person after initial introductions and conversations have taken place, but the amount of information and potential confounds that would need to be controlled for and the ethical implications of this design would make it a difficult undertaking. The hope is that future research will build on this method of measuring stigmatized features in more creative and subtle ways.

Conclusion

This study examines how disclosed victim status affects the ability to enter into romantic relationships in a dating app context. We found that victim label, similar to the criminal label, tends to have a negative impact on meeting dating partners — almost all study profiles received fewer matches in the victim disclosure condition. Although they had not inflicted harm on others, people might think victims bear at least some responsibility for their victimization, as the JWB suggests. The finding of this study reveals that this is particularly true among non-White female users. Negative social reactions reinforce stigma and thus discourage victims from disclosing their victimization. It is important for victims or survivors to get help to overcome negative outcomes caused by their victimization. We believe that this study can potentially assist with informing efforts toward stigma reduction caused by victim labels.

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