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Consequences of Perceived Personal and Group Discrimination Against People with Physical Disabilities

Abstract

Objective: To analyze the consequences for self-esteem of perceived discrimination against people with physical disabilities, as individuals and as a group. **Method:** A structural model based on the psychosocial literature was tested in a sample of 288 Spanish participants with different degrees of physical disability. This model predicted that personal perceived discrimination would be associated with the internalization of stigma that, in turn, would be negatively associated with the self-esteem of people with physical disabilities. On the other hand, group perceived discrimination, was predicted to enhance group identification and promote intention to contribute to collective action and hence have a beneficial effect on the self-esteem of people with physical disabilities. **Results:** The model provided a good fit to the data. The relationship between personal discrimination and the self-esteem of people with physical disabilities was completely mediated by internalized stigma. The model also showed that group perceived discrimination had only an indirect effect on self-esteem. **Conclusion:** This research makes two main contributions. From a theoretical perspective we found that perceived personal and group discrimination influence self-esteem through different paths. From an applied point of view, our results may contribute to the design of interventions to enhance the quality of life of people with physical disabilities.

Keywords: Perceived discrimination; physical disabilities; internalized stigma; self-esteem.

Impact and Implications

- Our results underline that the perception of personal discrimination is negatively related to the self-esteem of people with physical disabilities. This association is totally mediated by internalized stigma; in other words, in people with physical disabilities who accept the negative social stereotype of their group, the perception that one has been discriminated against has a negative impact on self-esteem.
- We also found that group perceived discrimination had a smaller, indirect effect on self-esteem via effects on in-group identification and collective action intentions.
- Our results can be used in the design of interventions to enhance the self-esteem of people with physical disabilities. At the individual level such interventions should focus on preventing the internalization of the stigma and at the group level on encouraging group identification and increasing participation in associations.

In disability studies the concept of 'ableism' refers to the fact that "from the moment a child [with disability] is born, she emerges into a world where she receives messages that to be disabled is to be less than…, a world where disability may be tolerated but in the final instance, is inherently negative" (Campbell, 2008, p. 151). The concept of ableism is very similar to that of stigma (Goffman, 1963). From a psychosocial perspective, Crocker, Major, and Steele (1998, p. 505) noted that "stigmatized individuals possess (or are believed to possess) some attribute, or characteristic, that conveys a social identity that is devalued in some particular context"; having a physical disability may constitute such an identity. There is much empirical work showing that people with physical disabilities are stigmatized in various aspects of their daily lives (e.g. Krahe & Altwasser, 2006; Park, Faulkner, & Schaller, 2003). Stigma may be reflected in feelings of discomfort and anxiety during the interaction (Hebl, Tickle, & Heatherton, 2000) or take the form of negative stereotypes such as the belief that "people with disabilities are different from fully human people" or that "the burden of disability is unending for the family and they are the most perfect objects of charity" (Block, 2018, p.1). Louvet (2007) showed that job applicants with a physical disability were rated more negatively than applicants without disabilities and the devaluation was higher in ratings of issues related to competence. There is ample evidence that the perception of being discriminated against has negative consequences for the well-being of stigmatized people in general and that of people with physical disabilities in particular (Barg, Armstrong, Hetz, & Latimer, 2010). Moreover, when stigma is internalized, that is, when people belonging to the stigmatized group accept the negative view that society has of them, the consequences are much worse (e.g. Pérez-Garín, Molero, & Bos, 2015).

The main objective of this study was to examine the consequences of perceived discrimination in people with physical disabilities in Spain using structural analysis. We predicted that personal perceived discrimination would be associated with the internalization of the stigma and hence negatively related to self-esteem. On the other hand, we predicted that group perceived discrimination would enhance group identification, thereby promoting the collective action intention through the membership or participation in associations. We assumed that such membership or participation would have a beneficial effect on the self-esteem of people with physical disabilities.

Perception of Discrimination and Internalization of Stigma

Perceived discrimination may be defined as awareness of public stereotypes and discrimination. The meta-analyses of Pascoe and Smart Richman (2009) and Schmitt, Branscombe, Postmes and Garcia (2014) showed that perceived discrimination has negative effects on several aspects of the health and well-being of members of various stigmatized groups. Schmitt et al. (2014) concluded that in several groups there was a negative association between perceived discrimination and well-being, although this association was weaker in groups with unconcealable and uncontrollable stigmas such as race or gender. These meta-analyses also concluded that perceived discrimination was more strongly related to negative outcomes such as depression or anxiety than to positives outcomes such as self-esteem. However, the majority of the studies included in the meta-analysis dealt with racial or sexual discrimination. The aim of this study was to increase understanding of the consequences of perceived discrimination against people with physical disabilities. This group shares some characteristics with other devalued groups (e.g. ethnic minorities and women), such as the difficulty of concealing the stigmatized characteristic and the lack of control over the stigmatized characteristic

although there are differences in the perceived legitimacy and pervasiveness of the discrimination. Unlike the cases of race and sex discrimination, discrimination against people with physical disabilities is sometimes legitimized or rationalized (even by the members of the in-group) on the grounds that there is a social consensus that people with physical disabilities should be protected from doing certain activities 'for their own good' (Jetten, Iyer, Branscombe, & Zhang, 2013). Moreover discrimination against people with physical disabilities is pervasive, because in most cases it is not easy to hide a physical disability and it has an impact on many aspects of the social life of the person affected.

It should be noted that discrimination is not a unitary construct. Some studies have found that the perception of being personally discriminated against because of one's group membership (personal discrimination), and the perception that the in-group as a whole is discriminated again (group discrimination), have different consequences. Members of stigmatized groups tend to report lower rates of personal discrimination than group discrimination. This effect has been referred to as the personal-group discrimination discrepancy; it is very robust and has been found in a large variety of devalued groups (e.g. Bourguignon, Seron, Yzerbyt, & Herman, 2006; Dumon, Seron, Yzerbyt, & Postmes, 2006). Various types of explanations have been proposed. Motivational explanations (Dumont et al., 2006) posit that people tend to deny or minimize personal experiences of discrimination in order to maintain a positive self-image and a personal perception of control over events. Crosby (1984) argued that minimizing or denying the existence of personal discrimination allows the victim to avoid confronting the perpetrator, who usually has more power. Cognitive explanations have also been proposed; these suggest that the discrepancy between personal-group

discrimination proceeds from information-processing biases, which may be unconscious, for example episodes of group discrimination may be more accessible to recall.

Turning to outcomes of discrimination, it has been found that personal and group discrimination are differently related to the well-being of stigmatized people (Molero, Recio, García-Ael, Fuster, & Sanjuán, 2013). Studies of Latino and Latina adolescents in the US (Armenta & Hunt, 2009) and African immigrants and women in Belgium (Bourguignon et al., 2006) that controlled for variance in experience of personal discrimination, found that group discrimination was positively related to personal self-esteem. Bourguignon et al. (2006) argued that perceiving group discrimination might alleviate the negative effects of being personally discriminated against, because the individual affected feels that he or she is not alone in his or her plight. Schmitt et al.'s (2014) meta-analysis concluded that on some occasions, personal discrimination is more detrimental to the well-being of stigmatized people than discrimination against the group as a whole. However, it is difficult to draw a clear conclusion about this because the relationship between the perception of discrimination and well-being depends largely on the intergroup context. In the aforementioned meta-analysis, group discrimination was less detrimental in some cases (discrimination based on ethnicity or sex) than others (discrimination against people with HIV or people with mental illness). Hence the main objective of this research was to explore the effects of perceived personal and group discrimination in the case of people living with a physical disability. As far as we know this is the first time that the effects of both kinds of discrimination have been investigated in a single study.

One of the most negative consequences of personal discrimination may be the internalization of stigma. Internalization of stigma, or self-stigma, consists of the individual's personal acceptance of stigma as a part of her or his own value system and self-concept (Herek, 2007; Herek, Gillis, & Cogan, 2009). The internalization of stigma has mainly been studied in people with HIV and people with mental illness, and in both these populations it is associated with self-blame, anxiety or hopelessness and low self-esteem and low self-efficacy (Corrigan, Watson, & Barr, 2006; Lee, Kochman, & Sillema, 2002). Some disability researchers refer to similar concepts, such as internalized ableism (Campbell, 2008) or internalized oppression (Watermeyer & Gorgens, 2014), but as far as we know these concepts have not been explored empirically.

Perceived Group Discrimination, Group Identification and Collective Action Intention

A recent review by Dirth and Branscombe (2018), which examined disability from a social identity perspective, showed that a stigmatized identity can function as a psychological resource for well-being or a catalyst for political engagement and collective action on behalf of the stigmatized in-group. The research presented here was based on the proposal that group discrimination strengthens the stigmatized identity by enhancing in-group identification. The role of group identification has been studied for years within the framework of the rejection-identification model (RIM; Branscombe, Schmitt, & Harvey, 1999), which proposes that perceiving group discrimination increases in-group identification, thereby preventing some of the negative effects of the discrimination. In other words, according to the RIM, group identification plays a

mediational role in the relationship between perceived group discrimination and the magnitude of the negative outcomes of such discrimination.

The RIM has received support from studies examining the effects of discrimination in a variety of groups, such as black and Latino Americans (Branscombe et al., 1999; Cronin, Levin, Branscombe, van Laar, & Tropp, 2012), women (Leonardelli & Tormala, 2003), older adults (Garstka, Schmitt, Branscombe, & Hummert, 2004), people living with multiple sclerosis (Bogart, 2015) and people with disabilities in general (Bogart, Lund, & Rottenstein, 2018). However, other studies have provided only partial support (Armenta & Hunt, 2009, Bourguignon et al., 2006; Fernández, Branscombe, Gómez, & Morales, 2012) or no support for the model (Eccleston & Major, 2006; Fuster-Ruizdeapodaca, Molero, Holgado, & Mayordomo, 2014). A review by Schmitt et al. (2014) concluded that the results regarding possible moderation of the effects of group discrimination by group identification were inconsistent. In 46% of the samples, group identification did not moderate the effects of group discrimination on well-being, in 40% there was at least one significant moderator effect and in 11% at least one negative effect of group identification on well-being was found. The inconsistency in these results makes it necessary to study the stigmatized identity of a group that has rarely been studied from the perspective of group identity: people with physical disabilities.

Although the association between group identification and well-being is not always clear, there is clear evidence of an association between group identification and collective action intention (e.g. Dirth & Branscombe, 2018; Simon et al., 1998). In fact, identification with a group is a precondition for acting, as a member, to enhance its

status (Ellemers, 2001; Stürmer & Simon, 2004a, 2004b) or to achieve an improvement in material conditions for the group (e.g. improvement in the accessibility of buildings).

There are several studies showing that in the case of stigmatized groups, in-group identification is related to collective action intention, for example in people with HIV (Molero, Fuster, Jetten, & Moriano, 2011), lesbians and gay men (Nouvilas-Pallejá, Silván-Ferrero, Fuster-Ruiz de Apodaca, & Molero, 2017) and people with mental illness (Pérez-Garín, Molero, & Bos , 2017). However, the effect of collective action intention on well-being is not clear from these studies. In the case of people with HIV collective action had a positive effect on well-being (Molero et al., 2011), in the case of lesbians and gay men it had no effect (Nouvilas-Pallejá et al., 2017) and in the case of people with mental illness collective action was associated with both positive and negative effects (Pérez-Garín et al., 2017). A related study of a sample of adults with several kinds of disabilities by Nario-Redmond and Oleson (2016) showed that in-group identification predicted involvement in political organizations that seek to improve the status of its group.

History provides many examples of groups that have used collective action to try to improve their position (e.g., feminists, the gay movement, striking miners in the UK) (Stryker, Owens, & White, 2000). Collective action includes not only militant forms of intergroup action (e.g., revolts, strikes), but also more moderate forms (e.g., participation in social movements, signing a petition). One of the most common forms of social participation is to become enrolled in associations. Spain has a lot of associations representing the interests of people with various physical disabilities at local, regional or national levels, many of them are small and attendance and direct participation of people with disability is not always high (Díaz, 2008). There is also an

overarching body, the Spanish Committee of Representatives of Persons with Disabilities (CERMI) which represents the interests of people with all kind of disabilities (not just physical disabilities).

The present research

The main objective of this research was to examine the consequences of perceived discrimination in people with physical disabilities. We used structural analysis to test a model in which perceived personal discrimination is associated with the internalization of stigma, which, in turn, is negatively related to self-esteem. Our model also posited that perceived group discrimination would enhance group identification and hence collective action intention, which, in turn, would have a beneficial effect on self-esteem. This model (see Figure 1) was derived from the literature and has not been tested previously in people with physical disabilities.

Method

Participants

The study was conducted in Spain. The sample consisted of 288 people with a physical disability (46.4% men and 53.3% women) ranging in age from 18 to 82 years (M = 45.1; SD = 12.3). According to the Spanish administration's procedure for recognition, declaration and quantification of the degree of disability (Royal decree law 1971/1999, of December 23) 72% of participants were between 33% and 65% disabled (which entitles them to a Disability Certificate that gives access to certain benefits, rights and services) and 28% were more than 65% disabled (which means they also qualify for a non-contributory pension). The distribution of educational level was as follows, 47.9% of participants reported having secondary education and/or vocational

training, 26.9% had higher education, 22.7% had primary education and the remaining 2.4% reported having no formal education.

Measures

Multidimensional Perceived Discrimination Scale (Molero et al., 2013). This is a 20-item scale that measures perceptions of four different types of discrimination: blatant group discrimination, subtle group discrimination, blatant personal discrimination, and subtle personal discrimination. Like Pérez-Garín et al. (2017) we did not distinguish between blatant and subtle discrimination, using just two factors: group discrimination and personal discrimination, as this aligned better with our research objectives. The perceived group discrimination items capture the extent to which the respondent believes his or her group is discriminated against (e.g. “Spanish society treats people with physical disabilities unfairly” and “ Even though there is no express rejection, people treat people with physical disabilities differently"), whilst the perceived personal discrimination items capture the extent to which the respondent believes he or she has been personally discriminated against (e.g. "I have felt personally rejected for being a person with physical disability" or "Even though people seem to accept me, deep down, I think they have some misgivings because I am a person with physical disability"). Both subscales showed a good internal consistency in our sample (Cronbach’s alpha = .90 and .91 for group-based discrimination and personal discrimination respectively), these values are similar to those obtained in other studies (Cuadrado, García-Ael, Recio, Molero & Pérez-Garín, 2018; Cronbach’s alpha = .91 and .93 for group discrimination and personal discrimination respectively).

Stigma Scale for Chronic Illness 9-Item Version (SSCI-9). We used the Spanish adaptation of the internalized stigma subscale of the SSCI (Rao et al., 2009),

which has shown good psychometrics properties in people various types of disability (Silván-Ferrero, Recio, & Nouvillas-Pallejà, 2018). Respondents use a scale ranging from 1 (never or almost never) to 4 (always or almost always) to indicate how often they experience the form of stigma described in an item. In our study the scale showed good reliability (Cronbach's α =.91). Example items are "Because of my disability I felt left out of things ", "I felt embarrassed about my disability" or "Because of my disability, I felt embarrassed in social situations".

Group identification. We measured group identification using a previously validated six-item scale (Mael & Ashforth, 1992; Spanish validation by Moriano, Molero, Topa, & Lévy-Mangin, 2014). Example items are "When someone criticizes people with physical disability, it feels like a personal insult" and "When I talk about people with physical disability I usually say 'we' rather than 'they'". Respondents used a four-point Likert scale to indicate the degree to which they agreed with the statements presented. In our sample Cronbach's alpha for this scale was .84. Group identification was treated as a one-dimensional construct. Preliminary evidence for validity of this adapted measure was corroborated by confirmatory factor analysis, which showed a good fit to a one-factor model, χ^2 /df = 2.69, CFI = .97, NFI = .96, RMSEA = .07.

Collective action intention. This was measured with four items assessing perception of the effectiveness of collective action and intention to engage in it (Pérez-Garín et al., 2017). Sample items are "Collective action is a good way to defend the rights of people with disabilities" and "I am willing to participate in collective actions to support the rights of people with disabilities". Participants responded using a Likert scale, ranging from 1 (completely disagree) to 4 (totally agree), with higher scores indicating that the respondent believed that collective action was useful and was willing

to participate in it. In our sample, the internal consistency of the scale was reasonable (α = .80), and a one-factor model showed a good fit to the data, (χ^2 /df = 2.89, CFI = .99, NFI = .98, RMSEA = .08).

Self-esteem. This was measured with the Rosenberg Self-esteem Scale (Rosenberg, 1965) using the Echeburua (1995) Spanish-language version, which consists of 10 items (half are positively worded and half are negatively worded) relating to a person's sense of worth and personal value (e.g., "I am able to do things as well as most other people" and "On the whole, I am satisfied with myself"). Responses were given using a four-point scale, ranging from 1 (completely disagree) to 4 (totally agree). Previous studies have found that the Spanish version we used has good psychometric properties (Cronbach's alpha = .88; Baños & Guillen, 2000). In our sample Cronbach's alpha was .84. The adaptation we used was made in accordance with the International Test Commission guidelines (2010).

Procedure

Students on final courses in Social Work assisted with recruitment in return for course credits. They recruited participants mainly through personal contact and explained the goal of the study, the method that would be used and the time required to complete the various questionnaires. After completing the registration form and consent form participants filled out the on-line questionnaire, which took about 30 minutes. Participants were guaranteed anonymity and confidentiality. Questionnaire data were collected for a period of three months. The study was approved by the University Ethics Committee and was performed in accordance with the ethical standards of the Declaration of Helsinki (World Medical Association, 2013)

Data Analysis

We performed our analyses in three steps. First descriptive and correlation analyses were used to examine the relationships between the variables. Next we evaluated the proposed model through path analysis using AMOS 24 (Arbuckle, 2006). Multivariate normality was evaluated using Mardia's (1970) multivariate kurtosis coefficient, according to Bollen (1989) values lower than P(P + 2), where P is the number of observed variables, indicate multivariate normality. Mardia's coefficient was 2.19 and we used six observed variables, so by this criterion the data had a multivariate normal distribution. This allowed us to use the maximum likelihood estimation method in the confirmatory factor analysis (Raykov & Marcoulides, 2008). Calculation of Mahalanobis's distance revealed four multivariate outliers in the sample. Excluding these 4 participants did not change the significance of the regression coefficients of the proposed model or any other result. Most researchers recommend using sample sizes of at least 200, or 10 cases per parameter (Kline, 2011), so according to these standards our sample size was appropriate. We used various indices to assess model fit (Kline, 2011). We specified criteria for both acceptable fit: χ^2 /df < 3, CFI > .90, NFI >.90, SRMR < .10, RMSEA < .08 and excellent fit: χ^2 /df < 2, CFI > .95, NFI >.95, SRMR < .08, RMSEA < .06. In the third step of our analysis, we used a bias-corrected bootstrapping procedure to assess mediation effects. Ten thousand bootstrap samples were generated through random sampling from the data set. Using this procedure, an indirect effect is considered significant if its 95% confidence interval does not include zero. The direct effect is analyzed before and after introducing the mediator variable to determine whether doing so eliminates the direct path (total mediation) or reduces it significantly (partial mediation). The bootstrap procedure is useful for assessing mediation effects because it provides reliable estimates of direct and indirect effects, and more valid

confidence intervals than those calculated through the traditional Sobel test (Cheung & Lau, 2008).

Four participants were excluded from the final sample due to missing data (more than three items missing from at least one of the subscales). The percentage of missing values did not exceed 2% for most items and so no imputation was performed and the sample size for correlation and structural equation modeling analysis was 284. However to assess the reliability the scales it was necessary to exclude all participants with any missing data, so listwise deletion was used to discard the participants with incomplete information.

Results

Descriptive Analyses and Correlations

The descriptive statistics and correlations for all study variables are presented in Table 1. In general, the pattern of correlations was in accordance with our expectations (perceived personal discrimination was negatively associated with self-esteem and positively associated with internalized stigma). However, the correlation between group identification and self-esteem was lower than expected, which may indicate the involvement of mediating variables. Possible mediators were analyzed through path analysis in which all the variables were included.

Insert Table 1 here

Model Testing

The path analysis revealed that the proposed model offered an adequate fit to the data (see Figure 1). In fact, some of the fit indices met the criteria for excellent fit (χ^2 /df = 1.07, CFI = .999, NFI =.987, SRMR = .017, RMSEA = .016). As predicted, we found a positive association between personal discrimination and internalized stigma (β = .62, p = .000) and internalized stigma was negatively related to self-esteem (β = -.68, p = .000). Group-based discrimination predicted group identification (β =.36, p = .000), and group identification predicted collective action (β = .52, p = .000), whilst collective action was positively related to self-esteem (β = .13, p = .002).

Insert Figure 1 here

Mediation Analysis

There was an indirect relationship between personal discrimination and self-esteem mediated by internalized stigma. The bootstrapping results revealed that the mediating effect of internalized stigma gave rise to an indirect relationship (β = -.422, p = .000; 95% CI: -.503, -.340). To analyze the type of mediation we restricted the paths from personal discrimination to internalized stigma and from internalized stigma to self-esteem to 0 in the direct model. As shown in Table 2, the direct relationship between discrimination and self-esteem was β = -.458 (p = .000) and it decreased to β = -.055 (p = .322) when internalized stigma was introduced into the model (full mediation).

We also tested the mediating effect of group identification and collective action. In our model, which specified two predictors of self-esteem (personal discrimination and group discrimination), there was no direct relationship between group

discrimination and self-esteem (β =.082, p = .334) so there was no point in checking the mediating effect of both variables. However, we found a significant indirect effect of group discrimination on self-steem, via group identification and collective action (β = -.025, p = .004; 95% CI: .008, .047).

Insert Table 2 here

Discussion

There is ample evidence that perceived discrimination is detrimental to the physical and psychological well-being of members of stigmatized groups (Pascoe & Smart Richman, 2009; Schmitt et al., 2014). However, the rejection or stigma experienced varies across groups and social categories. For example, the stigma towards people with HIV is based both on a perceived threat to health (fear) and on the attribution of responsibility (controllability) for infection (Fuster, Molero, Gil de Montes, Agirrezabal, & Vitoria, 2013). The stigma faced by people with mental illness relates to the perception that they pose a danger, which means they are somewhat distrusted (e.g. Corrigan & Watson, 2002).

This research focuses on the effects of the stigma on a group with specific characteristics and about which there has been little research regarding the effects of discrimination. In the case of physical disability, the stigmatized characteristic (physical disability) is perceived as being outside the affected person's control. As physical disability cannot be hidden easily it is potentially a factor in all social interactions (its influence is pervasive) and in many cases discrimination against people with a physical

disability is legitimized on the grounds that it is for their own good (Jetten et al., 2013). The aim of this research was to check whether perceptions of personal and group discrimination differentially affect the self-esteem of people with physical disability. We proposed a model in which both personal and group discrimination are related to self-esteem via separate paths. We posited that perceived personal discrimination would be negatively related to self-esteem and that this relationship would be mediated by internalized stigma. We posited that perceived group discrimination would increase group identification, which in turn would increase collective action intentions and thus protect self-esteem from the negative consequences of discrimination.

As predicted we found that perceived personal discrimination was negatively related to self-esteem and that this association was mediated by the internalization of stigma. The negative association between perceived personal discrimination and self-esteem has be found in other devalued groups such as women (Bourguignon et al., 2006, Kobrynowicz & Branscombe, 1997), African Americans (Postmes & Branscombe, 2002) and African immigrants in Belgium (Bourguignon et al., 2006). There is also evidence of a negative association between internalized stigma and self-esteem in people with mental illness (Corrigan et al., 2006 or Morgades-Bamba, Fuster-Ruizdeapodaca, & Molero, 2017) and people with HIV (Lee et al., 2002). Our results are consistent with the proposition that internalized stigma fully mediates the relationship between personal discrimination and self-esteem which, as far as we know, is new to the literature. This implies that people who perceive they have been personally rejected because of a characteristic that is perceived negatively by society (in our research, a physical disability) may come to accept society's negative stereotype, and that it is this which is detrimental to their self-esteem.

On another hand, our model also shows that the influence of perceived group discrimination on the self-esteem appears to be indirect, through group identification and collective action intentions. The finding that these variables are related is not new. For example, research on the RIM (e.g., Cronin et al., 2012) has shown an association between group discrimination and group identification. An association between group identification and collective action intention has been also found in studies of various groups (e.g., people with HIV, Molero et al., 2011; lesbians and gay men Nouvilas-Pallejá et al., 2017; people with mental illness, Pérez-Garín et al., 2017). However our model shows that, in people with physical disability, collective action intention might help to overcome the negative effects of discrimination and enhance self-esteem. Our results are in line with work by Nario-Redmond and Oleson (2016). In a sample of people with various disabilities they found that group identification led to disability rights advocacy, however their sample was not composed exclusively of people with physical disabilities and they did not analyze the effect of political disposition on the wellbeing of participants.

Considering our proposed model as a whole, one can see that the associations are stronger in the path linking personal discrimination to self-esteem than in the path linking group discrimination to self-esteem. Unlike other studies (e.g. Bogart, 2015; Nario-Redmond et al., 2013) in our sample neither perceived group discrimination nor group identification were directly related to self-esteem or to internalized stigma. There are several possible reasons for this and they should be explored in future research. One concerns the specific characteristics of physical disability (uncontrollable and not concealable). Future research should also explore the role of other characteristics of disability stigma, such as the arguments use to legitimate or justify discrimination (even

by people with disabilities), or the role of associations for the defense of the rights of people with physical disabilities. A study of coping strategies of people with dwarfism (Fernández et al., 2012) found than in the USA the existence of an association which aims to facilitate the development of a common identity of which all members can be proud (Little People of America, LPA) helps to mitigate discrimination having a negative effect on the psychological wellbeing of this group. The absence of an association of this kind in Spain for people with physical disabilities may help to explain the small direct relationship between group identification and self-esteem that we observed.

In summary, this research makes two main contributions. From a theoretical perspective, we found that perceived personal and group discrimination seem to influence self-esteem through different paths: personal discrimination acts through internalized stigma and group discrimination through group identification and collective action intentions. From an applied point of view, our results can be used to inform the design of interventions to enhance the quality of life of people with physical disabilities. Preventing the internalization of stigma and promoting involvement disability rights groups might help to alleviate the effects of perceived discrimination on the well-being of people with physical disabilities.

However our research also has some limitations. ‘Physical disability’ is a very broad term and it will be necessary to investigate possible differences between different kinds of physical disabilities, for example whether the disability is innate or acquired as a result of an accident, and whether the severity of the disability matters. Moreover, because this study used a cross-sectional design, the explanations given in this research are tentative; firm conclusions about causality would require longitudinal research.

Future research should also take into account other aspects of well-being, such as positive emotions or resilience, and explore variables that may help to reduce or prevent self-stigma (e.g. social support or resilience). Finally, there is a need to determine whether these results can be replicated in other countries and groups with other disabilities, such visual or hearing impairments. In any case, we believe it is very important to continue studying the effects of discrimination on people with physical disabilities. The knowledge gained will make it possible to design specific policies actions aimed at improving their quality of life and well-being.

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2

Table 1

Descriptive statistics and Pearson correlation coefficients for the variables in the study

	M	*SD*	2	3	4	5	6
1. Perceived personal discrimination	1.95	.75	.78**	.62**	.32**	.08	-.43**
2. Perceived group discrimination	2.23	.75		.44**	.36**	.15*	-.30**
3. Internalized stigma	1.99	.72			.19**	-.01	-.68**
4. Group identification	2.70	.77				.51**	-.05
5. Collective action	3.15	.68					.15*
6. Self-esteem	3.21	.54					

Notes. Scores range from 1 to 5.
* $p < .05$; ** $p < .01$.

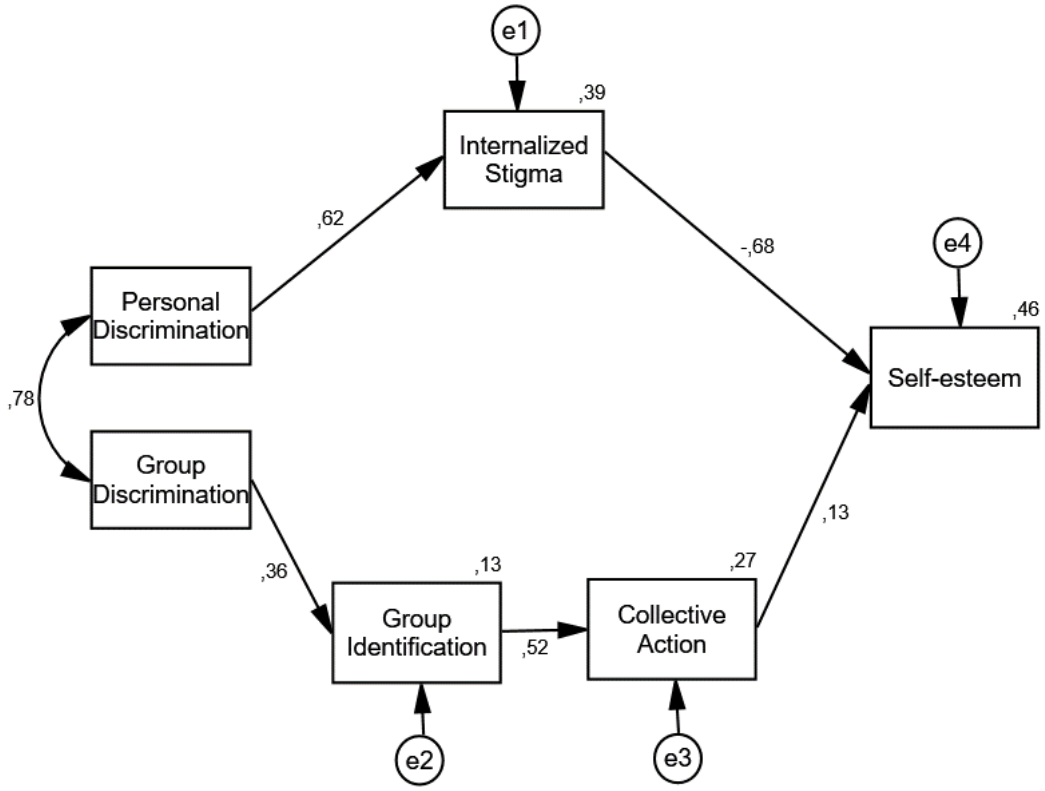

Figure 1.

Standardized regression coefficients of the proposed model. All the direct effects were significant, $p < .01$

1 Table 2. Results of mediation analysis

Mediation analysis	Direct beta without mediator	Direct beta with mediator	Indirect beta [CI]
Personal discrimination → Internalized stigma → Self-esteem	**-.458*****	-.055	**-.422***** [-.503 - -.340]
Group discrimination → Group identification and Collective action → Self-esteem	.082	-.047	.025 [.008 - .047]

2 * $p < .05$; ** $p < .01$; ***$p < .001$

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