Effects of Minority Stress on Group Identification and Collective Action among Sexual Minorities: A Longitudinal Test of the Rejection-Identification Model

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Abstract
Minority stress remains pervasive in various aspects of life among sexual minorities. Driven by the awareness of social injustice, some sexual minority individuals may undertake collective action to counteract discrimination, but this does not apply to all members of sexual minorities. The present study used a prospective, longitudinal research design to examine how different dimensions of minority stress (i.e., perceived discrimination and internalized stigma) interact to affect group identification and collective action. A total of 628 sexual minority individuals in Hong Kong were involved in the study. The results showed that prior discriminatory experiences were positively associated with collective action at follow-up through increased levels of group identification and commitment to social justice. The moderating effect of internalized stigma was found in which perceived discrimination was not significantly related to group identification and collective action among those with high levels of internalized stigma. The study extends the literature on the rejection-identification model by understanding collective action as a form of group-level coping in the face of discrimination. It highlights the importance of fostering group identification, strengthening collective action, and mitigating internalized stigma among sexual minorities in psychological practice.

Keywords
Perceived discrimination · Internalized stigma · Group identification · Collective action · Sexual minorities

Introduction
Collective action is the involvement in group-oriented actions by members of a group in the pursuit of common goals and interests, usually with the aim to improve the social conditions of the group (DeBlare et al., 2014; van Zomeren et al., 2008). There are various forms of collective action, such as signing petitions, donating, engaging in community organizations, and participating in public campaigns and protests concerning the rights of a group. In the context of disadvantaged groups, the basis of collective action originates from critical consciousness (Freire, 1970). To become liberated from oppressive environments, members of disadvantaged groups have to recognize how social oppression affects their life and subsequently take action to tackle the oppressive forces (Freire, 1970). The present study examines how minority stress experiences contribute to the group identification process and commitment to social justice, and thereby drive collective action among sexual minorities.

Minority Stress and Collective Action
Minority stress theory (Meyer, 2003) proposes that the minority group members are exposed not only to the general stress that is experienced by dominant social group members (e.g., physical, financial, and social stress) but also to excessive minority stress resulting from their marginalized status. The theory conceptualizes minority stress on a distal–proximal continuum. Distal stressors refer to objective prejudicial events and conditions that affect minority group members, such as discrimination and victimization (Meyer, 2003). In contrast, proximal stressors are more subjective and dependent on perceptions and appraisals of minority group identity (Meyer, 2003). As a proximal stressor, internalized stigma refers to the personal acceptance of negative societal evaluation toward oneself as a member of a stigmatized group.
(Corrigan & Watson, 2002). Internalized stigma among sexual minorities reflects the internalization of heterosexist biases and prejudices from society as part of their value system and self-concept (Herek et al., 2009). As posited by minority stress theory (Meyer, 2003), experiences of discrimination are viewed as a distal stressor, whereas internalized stigma (which has also been named as internalized homophobia, internalized homonegativity, and internalized heterosexism) is a form of proximal stressors representing internal and subjective interpretations of one’s sexual minority identity. Altogether, distal and proximal stressors subject sexual minority individuals to a hostile, stressful social environment, subsequently leading to adverse mental health outcomes (Meyer, 2003). The tenets of minority stress theory are well supported by the results of meta-analyses (Dürrbaum & Sattler, 2020; Newcomb & Mustanski, 2010), which have shown that discrimination and internalized stigma are related to depression, anxiety, substance use, and suicidal ideation among sexual minorities.

Although discrimination is detrimental to mental health, it may trigger group resilience and social change progress. Several studies have demonstrated that perceptions of discrimination are positively associated with minority group members’ involvement in social change efforts on behalf of their group (Cronin et al., 2012; Simon et al., 1998). This has also been the case for sexual minority individuals who engage in collective action to challenge heterosexist oppression and strive for lesbian, gay, bisexual, and transgender (LGBT) rights (DeBlaere et al., 2014). Previous research showed that experiences of gendered heterosexist discrimination were positively associated with commitment to sexual minority-related collective action among sexual minority women (Friedman & Leaper, 2010). Similarly, Dunn and Szymanski (2018) found that heterosexist discrimination was positively related to political activism among sexual minorities.

Nevertheless, previous findings have indicated that the mechanisms underlying discrimination and collective action are complex. Although members of disadvantaged groups often experience stigma and discrimination, only a small proportion of them participate in collective action to improve their group status in society (Stürmer & Simon, 2004a). It is plausible that collective action engagement may vary among members of disadvantaged groups depending on ingroup identification and the perception of injustice (Duncan, 2018; Radke et al., 2016). Therefore, it is vital to explore the potential mediating and moderating mechanisms that may explain the relationship between discrimination and collective action.

**Group Identification and Collective Action in the Face of Discrimination**

The rejection-identification model (Branscombe et al., 1999) posits that perceived group-based discrimination and stable attribution to prejudice lead to an increase in group identification and subsequently affect well-being among members of disadvantaged groups. On the basis of social identity theory (Tajfel, 1978; Tajfel & Turner, 1986), the model assumes that people derive their sense of self from the social groups to which they belong. In the face of group-based discrimination and rejection, members of disadvantaged groups may develop low self-esteem because their group is excluded from valued positions in society (Schmitt & Branscombe, 2002). To cope with the devaluation, members of disadvantaged groups tend to identify themselves more with their ingroup. Group memberships may act as psychological resources from which individuals can draw strength when responding to discrimination (Jetten et al., 2018). The members can gain a sense of belonging by identifying with their ingroup when they are unable to gain acceptance from the mainstream society (Jetten et al., 2001). Such an increase in ingroup identification may compensate for the psychological harm caused by group-based discrimination. It is therefore postulated that discrimination from the outgroup can stimulate collective response and cultivate ingroup identification (Branscombe et al., 1999; Jetten et al., 2001).

The rejection-identification model has also been employed to understand collective action among members of disadvantaged groups (Branscombe et al., 1999; Molero et al., 2011). As postulated in the rejection-identification model, members may cope with discrimination by adopting group-based strategies that strengthen their identification with an ingroup and entail a distancing from the mainstream society (Schmitt & Branscombe, 2002). They may turn toward their ingroup when confronting discrimination and respond collectively with a view to challenging the status quo (Jetten et al., 2018). This proposition is consistent with Duncan’s (2018) integrated model of personality and social psychological theories of collective action, which emphasizes that life experiences (e.g., personal experiences with discrimination) are linked to group consciousness and collective action. Empirical studies have found support for this claim and indicated that group identification explains the association between perceived discrimination and collective action (Cronin et al., 2012; Friedman & Leaper, 2010; Simon et al., 1998). People with higher ingroup identification may be more concerned with and commit to collective goals and interests, instead of individual prosperity. Specifically, Duncan and colleagues (2017) showed that queer consciousness (i.e., a politicized collective identity around sexual orientation) was related to LGBT-related political activism among sexual minorities. In a sample of people living with HIV/AIDS, Molero and colleagues (2011) found that perceived group-based discrimination was positively linked to ingroup identification, which predicted intentions to engage in collective action. Friedman and Leaper (2010) also showed that heterosexist discrimination was associated with greater identification with sexual minorities and higher commitment to collective action. Recent studies also revealed that perceived group discrimination was positively associated with
group identification, which in turn was associated with higher levels of collective action intention among people with physical disabilities (Molero et al., 2019) and people with hearing and visual impairment (Pérez-Garín et al., 2021).

Furthermore, previous studies proposed that group identification may lead to a stronger commitment to social justice among disadvantaged groups and motivate participation in collective action. As outlined in the integrated model of personality and social psychological theories of collective action (Duncan, 2018), experiences of discrimination may foster group consciousness by strengthening group identification and facilitating members’ appraisals of group disadvantage and injustice. This in turn may enhance their willingness to engage in group-based strategies that change the status quo (Duncan, 2018; van Zomeren et al., 2008). This notion is supported by previous work which indicates that members of disadvantaged groups must recognize their devalued group status as unfair before attempting to undertake social change efforts on behalf of their group (Cronin et al., 2012; Tyler et al., 1997). Klandermans (2002) also revealed that people would have higher levels of protest and union participation when they perceive the unjust treatment of their identified group. In addition, Dunn and Szymanski (2018) found that heterosexist discrimination was indirectly associated with collective action through heterosexism awareness, implying that discrimination may trigger one’s awareness of group-based oppression and motivate collective action among sexual minorities.

Although previous studies have found associations between perceived discrimination, group identification, and collective action (Bourguignon et al., 2020; Simon et al., 1998), these studies have some important limitations. First, the majority of the studies have relied on cross-sectional data and, thus, were not able to draw conclusions about the direction of the relationships between discrimination, group identification, and collective action (Bourguignon et al., 2020; Dunn & Szymanski, 2018; Friedman & Leaper, 2010; Simon et al., 1998). Longitudinal research is needed to make inferences about the direction of the effects and to test the rejection-identification model accurately. Second, the mediating role of group identification on the association between discrimination and collective action has rarely been examined among sexual minorities in areas where social stigma against LGBT individuals remains highly prevalent. Most of the previous work has been conducted in the United States and other Western liberal democracies in which sexual minority rights and civil society participation are considered fundamental human rights (Bourguignon et al., 2020; Dunn & Szymanski, 2018; Friedman & Leaper, 2010). Given the widespread stigma against sexual minorities and the growing political solidarity for LGBT rights in less democratic societies (e.g., Hong Kong), it is important to disentangle the dynamics of discrimination and collective action among sexual minorities in these regions (Chan & Mak, 2021b). Third, although several studies found that rejection-identification is linked to collective action, the effect appears to be small (Cronin et al., 2012; Friedman & Leaper, 2010; Simon et al., 1998). These findings imply that only some members of disadvantaged groups are motivated to participate in collective action even though most of them have experiences of discrimination and sympathize with the goals of collective action (Stürmer & Simon, 2004a). As such, it is critical to identify the moderating factors that explain why some people who have similar experiences of group-based discrimination are more or less likely to undertake collective action on behalf of their group.

**Considering the Moderating Role of Internalized Stigma**

While group-based discrimination and attribution to group prejudice are positively associated with group identification and collective action (Branscombe et al., 1999; Molero et al., 2011), internalized stigma is considered to diminish group identification and undermine collective action (Herek et al., 2009). This is in accordance with the tenet of minority stress theory (Meyer, 2003) that distal and proximal stressors are two distinct yet related stress processes affecting members of disadvantaged groups. Although experiences of discrimination (distal stressors) may signify social exclusion and marginalization, it does not guarantee that all members of disadvantaged groups would necessarily internalize the societal devaluation of their identity (proximal stressors). In contrast to discrimination that is imposed externally, internalized stigma is a proximal stressor that involves negative subjective interpretations of one’s stigmatized identity (Meyer, 2003). It may influence how members of disadvantaged groups view their groups and make sense of their experiences of group-based discrimination (Corrigan & Watson, 2002). People with internalized stigma often perceive societal rejection as legitimate and inevitable, and this perception is associated with the emotions of fear and hopelessness, which further predict disengagement and avoidance from their ingroup and related collective action (Corrigan & Watson, 2002). In a sample of people with mental illness, Pérez-Garín and colleagues (2017) found that group discrimination was positively associated with collective action, whereas internalized stigma was negatively associated with collective action. Herek and colleagues (2009) also indicated that sexual minority individuals experienced more internalized stigma when they reported less positive affect toward their group membership. Internalized homophobia was related to lower levels of ingroup identification and LGBT collective action among sexual minorities (Górska et al., 2017).

Not only may internalized stigma undermine collective action, but it may also mitigate the association between discrimination and collective action. Particularly, when members of disadvantaged groups believe that discrimination is legitimate
or they are blameworthy for the stigma, the protective effect of attributions on prejudice would diminish, and they are less likely to undertake collective action (Major & Crocker, 1993). This view is consistent with social identity theory which argues that group identification is attenuated and collective action is less likely when members perceive intergroup status differential as legitimate (Tajfel & Turner, 1986; van Zomeren et al., 2008). The theory suggests that the extent to which group members consider their low group status to be legitimate or illegitimate may determine whether they are motivated to identify with their ingroup and undertake attempts to improve their group’s status position collectively (Bettencourt et al., 2001; Ellemers et al., 1993; Tajfel, 1978). Nevertheless, while social identity theory may shed some insights on how perceptions of the ingroup may influence one’s identification and collective action, it is important to note that the perceived legitimacy of low ingroup status is not conceptually identical to internalized stigma (van Zomeren et al., 2008). Whereas the former is a more distal sociostructural characteristic of intergroup relations, the latter is a more proximal psychological process through which individuals accept society’s devaluation of their groups and integrate the views into their value systems (Corrigan & Watson, 2002).

The role of internalized stigma on group identification and collective action has rarely been examined in previous studies. As revealed by McNamara et al. (2013), having negative beliefs about one’s stigmatized identity would lead to active suppression of stigmatizing experiences and consequently reduce future community action. People with concealable stigma may hide their stigmatized identity from outsiders and socially withdraw themselves from the stigmatized group in order to avoid discrimination, and this may undermine the process of group identification and thus hinder collective action. Given the lack of research in this area, the moderating effect of internalized stigma on the association between discrimination and collective action warrants further investigation.

Overview of the Present Study

Grounded in minority stress theory (Meyer, 2003), the rejection-identification model (Branscombe et al., 1999), and social identity theory (Tajfel, 1978; Tajfel & Turner, 1986), the present study used a prospective, longitudinal research design to (1) examine the mechanisms underlying minority stress processes (i.e., perceived discrimination and internalized stigma), group identification, and collective action among sexual minority individuals and (2) test the moderating effect of internalized stigma on the association between perceived discrimination and collective action. It was hypothesized that perceived discrimination would be positively associated with private and public collective action via increased levels of group identification and commitment to social justice (Hypothesis 1). Also, it was hypothesized that internalized stigma would be negatively associated with collective action via reduced levels of group identification and commitment to social justice (Hypothesis 2). In addition, it was hypothesized that the association between perceived discrimination and collective action would be moderated by internalized stigma (Hypothesis 3), such that the association between perceived discrimination and collective action would be weaker among sexual minority individuals with higher levels of internalized stigma.

Method

Participants and Procedure

This study was part of a longitudinal study of the LGBT community in Hong Kong. As this study focused on the experiences of cisgender sexual minority individuals, those who identified as transgender and non-binary were not included in the analysis. The inclusion criteria of this study included: people who (1) were 16 years of age or above, (2) identified as lesbian, gay, bisexual, or otherwise not heterosexual, (3) had a gender identity that aligned with the sex assigned at birth, and (4) lived in Hong Kong. Participant recruitment messages were disseminated through LGBT social media, community organizations, and social venues. People who met the inclusion criteria were directed to an online survey hosted by Qualtrics. They were presented with the study information and were asked to provide informed consent before participating in the study. After completing the questionnaire at baseline (T1), they were asked to provide a personal email address for follow-up contact.

Participants who provided consent and personal email were followed up at one-year post-baseline (T2) and invited to complete an online questionnaire. Participants were followed up over a one-year time interval because one year has been considered an appropriate time frame for examining long-term effects in between-person studies (Masa et al., 2021; van Stekelenburg et al., 2013). A study of the German gay movement by Stürmer and Simon (2004b) also used a longitudinal panel design with a one-year interval between two points of measurement, showing the effect of collective identification on gay movement participation. In addition, large-scale collective actions such as pride parades and other LGBT community events are often organized once a year. By administering the questionnaire at the same time in the subsequent year, we had sufficient time to observe the effects of minority stress on collective action while minimizing seasonal effects that may potentially change the opportunities for collective action at different times of the year (van Stekelenburg et al., 2013).

A total of 628 sexual minority individuals completed the baseline questionnaire and provided consent for follow-up assessment. Around 48.9% (n=307) were male and 51.1% (n=321) were female. They had a mean age of 25.37 years old (SD=6.71, range=16–64). The majority of the participants were ethnically...
Chinese (n = 605, 96.5%). Around 76.4% (n = 480) reported a bachelor’s degree or above as their highest level of education. Half of them were in employment (n = 331, 52.7%), 43.5% (n = 273) were students, and 3.8% (n = 24) were not in employment or education. Around 48.4% (n = 304) had a monthly income of below HK$10,000, followed by HK$10,000–HK$20,000 (n = 181, 28.8%), HK$20,000–HK$40,000 (n = 99, 15.8%), and HK$40,000 or above (n = 44, 7.0%). Most of the participants identified as gay or lesbian (n = 400, 63.7%), followed by bisexual (n = 158, 25.2%), pansexual (n = 31, 4.9%), queer (n = 16, 2.5%), questioning (n = 14, 2.2%), asexual (n = 4, 0.6%), and other sexual orientations (n = 5, 0.8%). Among 628 participants in the second year, 396 (63.1%) completed the follow-up questionnaire in the second year.

**Measures**

**Perceived Discrimination**

Perceived discrimination was measured with 10 items from the Heterosexist Harassment, Rejection, and Discrimination Scale (Szymanski, 2006) at Time 1. The measure assesses experiences of rejection and discrimination in different areas, such as education (e.g., “How many times have you been treated unfairly by teachers or professors because of your sexual orientation?”), employment (e.g., “How many times have you been treated unfairly by your employer, boss, or supervisors because of your sexual orientation?”), and service provision (e.g., “How many times have you been treated unfairly by people in service jobs (by store clerks, waiters, bartenders, waitresses, bank tellers, mechanics, and others) because of your sexual orientation?”) (Szymanski, 2006). The items were rated on a 6-point Likert scale from 1 (the event has never happened to you) to 6 (the event happened almost all the time; more than 70% of the time). Higher scores represent more frequent experiences of discrimination in the past year. The measure also included a response option of not applicable (“not applicable to your situation; there is no such person or group of people in your life”). Responses of not applicable were not included in the analysis. The internal consistency (Cronbach’s alpha) of the scale in the present study was 0.92.

**Internalized Stigma**

Internalized stigma was measured by the nine-item Self-stigma Scale (Mak & Cheung, 2010) at Time 1. The scale assesses the extent to which participants endorse negative stereotypes of and attitudes toward their identity as a sexual minority person. A sample item includes “The identity of being a LGBT person taints my life.” The items were rated on a 6-point Likert scale from 1 (strongly disagree) to 6 (strongly agree). Higher scores indicate higher levels of internalized stigma. The Cronbach’s alpha for the scale in the present study was 0.90.

**Group Identification**

Group identification was assessed by three items based on the three-factor model of social identity (Cameron, 2004), i.e., in-group ties (“I feel strong ties to other sexual minority people”), in-group affect (“I am proud to be a sexual minority person”), and identity centrality (“Being a sexual minority person is a very important aspect of my life”) (Chan & Mak, 2021a; Mohr & Kendra, 2011) at Time 2. The items were rated on a 6-point Likert scale from 1 (strongly disagree) to 6 (strongly agree). The items have been used to measure group identification among people living with HIV (Chan & Mak, 2021a). Higher scores represent higher levels of identification with sexual minority identity. The Cronbach’s alpha for the scale in the present study was 0.74.

**Commitment to Social Justice**

Commitment to social justice was measured by the Social Justice subscale of Lesbian, Gay, and Bisexual Positive Identity Measure (Riggle et al., 2014) at Time 2. The subscale consists of five items assessing the extent to which one’s LGB identity has increased one’s concern with all forms of oppression and social justice. A sample item includes “My LGBT identity makes it important to me to actively educate others about LGBT issues.” The items were rated on a 7-point Likert scale from 1 (strongly disagree) to 7 (strongly agree). Higher scores indicate a stronger commitment to social justice. The Cronbach’s alpha for the scale in the present study was 0.90.

**LGBT Collective Action**

Collective action was measured by the 12-item LGBT Collective Action Scale (Chan & Mak, 2021b) at Time 2. The scale consists of two subscales, including private collective action (e.g., “Discuss LGBT issues with family and/or friends to raise their awareness of LGBT rights”) and public collective action (e.g., “Take part in demonstrations, protests, marches, and rallies for LGBT rights”). The items were rated on a 5-point Likert scale from 1 (never) to 5 (always). Higher scores indicate more frequent participation in collective action. The Cronbach’s alpha for the private collective action and public collective action subscales was 0.63 and 0.89 respectively.

**Data Analysis**

Prior to the main analysis, all variables were screened for normality (i.e., skewness ≤ 3.0 and kurtosis ≤ 10.0) (Weston & Gore, 2006). Skewness and kurtosis for all variables were within an acceptable range. Less than 0.1% of baseline data were missing at the item level. Pearson’s correlation coefficients
were used to examine the relationships between the study variables.

A sequential mediation model (Fig. 1) was examined to test whether perceived discrimination (T1) and internalized stigma (T1) would be related to collective action (T2) through group identification (T2) and commitment to social justice (T2) (Hypotheses 1 and 2). A two-step structural equation modeling was used to test the hypothesized sequential mediation model. First, a measurement model was estimated using confirmatory factor analysis (CFA) to determine how well the items or parcels represented the latent constructs. The latent constructs of group identification, commitment to social justice, and private collective action were manifested by their corresponding items. For perceived discrimination, internalized stigma, and public collective action, three sets of item parcels were created to represent the latent constructs (Russell et al., 1998). Upon the confirmation of the latent factor structure, a structural model was estimated to examine the structural relationships between the latent constructs, controlling for demographic variables (i.e., gender, age, ethnicity, education level, employment status, and monthly income level). Mplus version 8.6 was used to examine the measurement and structural models using full information maximum likelihood estimation, which can accommodate missing data and use all available data to estimate the parameters of the model. The goodness-of-fit of the models was evaluated by using the χ² statistic, comparative fit index (CFI), Tucker-Lewis index (TLI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR). Criteria for acceptable model fit were as follows: CFI and TLI values of 0.90 or above, RMSEA value of 0.08 or below, and SRMR value of 0.08 or below (Tabachnick & Fidell, 2007). A bootstrapping analysis was conducted to estimate the indirect effects of perceived discrimination (T1) and internalized stigma (T1) on collective action (T2). The bias-corrected 95% confidence intervals (CI) for the indirect effects were estimated using 1,000 bootstrap samples.

A latent moderated structural equation modeling approach (LMS) was used to examine the hypothesized moderated mediation model (Hypothesis 3), as depicted in Fig. 2. A latent moderated structural equation model was estimated by including the latent interaction terms (i.e., perceived discrimination×internalized stigma). The observed indicators of perceived discrimination and internalized stigma were standardized prior to model estimation. When the latent interaction terms were significant, we examined the indirect effects of perceived discrimination (T1) on collective action (T2) at low (1 SD below the mean), medium (the mean), and high (1 SD above the mean) levels of internalized stigma (T1).

**Results**

**Preliminary Analysis**

Perceived discrimination was positively associated with internalized stigma ($r=0.27$, $p<.001$), commitment to social justice ($r=0.12$, $p=.02$), private collective action ($r=0.13$, $p=.009$), and public collective action ($r=0.34$, $p<.001$). Internalized stigma was negatively associated with group identification ($r=-0.32$, $p<.001$) and commitment to social justice ($r=-0.14$, $p=.007$). As shown in Table 1, the results showed positive associations between group identification, commitment to social justice, private collective action, and public collective action ($rs$ ranged from 0.34–0.54, $p<.001$).
The measurement model showed a good fit to the data, \( \chi^2(155) = 511.25, p < .001 \), CFI = 0.94, TLI = 0.92, RMSEA = 0.06, SRMR = 0.06. All loadings of the measured variables on the latent constructs were statistically significant \((p < .001)\). This suggested that all latent constructs were adequately operationalized by their respective items or parcels.

The structural model showed a good model fit, \( \chi^2(315) = 758.76, p < .001 \), CFI = 0.92, TLI = 0.90, RMSEA = 0.05, SRMR = 0.05. Perceived discrimination was positively related to group identification \((b = 0.19, p = .003)\) and public collective action \((b = 0.42, p < .001)\), but not private collective action \((b = 0.08, p = .19)\). Internalized stigma was negatively related to group identification \((b = -0.39, p < .001)\). Group identification was positively related to commitment to social justice \((b = 0.67, p < .001)\), private collective action \((b = 0.15, p = .04)\), and public collective action \((b = 0.21, p = .009)\). Commitment to social justice was positively associated with private collective action \((b = 0.23, p = .004)\), and public collective action \((b = 0.15, p = .04)\). The model explained 39.4% and 33.5% of the variance in private and public collective action respectively. The unstandardized and standardized parameter estimates of the hypothesized models are presented in Table 2.

The results of the bootstrapping analysis indicated that there were significant indirect effects of perceived discrimination on private collective action \((b = 0.03, 95\% CI = 0.01, 0.08)\) and public collective action \((b = 0.04, 95\% CI = 0.01, 0.09)\) via group identification. It was also found that group identification significantly mediated the effects of internalized stigma on private collective action \((b = -0.06, 95\% CI = -0.12, -0.02)\) and public collective action \((b = -0.08, 95\% CI = -0.15, -0.03)\). As shown in Table 3, the sequential mediating hypothesis was supported. There were significant indirect effects of perceived discrimination on private collective action \((b = 0.03, 95\% CI = 0.01, 0.07)\) and public collective action \((b = 0.02, 95\% CI = 0.003, 0.05)\) via group identification and commitment to social justice, which provided

### Table 1 Descriptive Statistics and Correlations of Study Variables

|                      | 1     | 2     | 3     | 4     | 5     | 6     |
|----------------------|-------|-------|-------|-------|-------|-------|
| 1. Perceived discrimination (T1) | –     |       |       |       |       |       |
| 2. Internalized stigma (T1) | 0.27*** | –     |       |       |       |       |
| 3. Group identification (T2) | 0.04  | -0.32*** | –     |       |       |       |
| 4. Commitment to social justice (T2) | 0.12*  | -0.14** | 0.54*** | –     |       |       |
| 5. Private collective action (T2) | 0.13** | -0.09  | 0.39*** | 0.46*** | –     |       |
| 6. Public collective action (T2) | 0.34*** | -0.03  | 0.37*** | 0.34*** | 0.46*** | –     |
| Cronbach’s α          | 0.92  | 0.90  | 0.74  | 0.90  | 0.63  | 0.89  |
| Range                 | 1–6   | 1–6   | 1–6   | 1–7   | 1–5   | 1–5   |
| Mean                  | 1.49  | 2.50  | 4.09  | 5.44  | 3.07  | 2.03  |
| Standard Deviation    | 0.67  | 0.96  | 1.02  | 1.12  | 0.86  | 0.84  |

* \( p < .05 \), ** \( p < .01 \), *** \( p < .001 \)
support for Hypothesis 1. It was also observed that the indirect effects of internalized stigma on private collective action (\(b = -0.06, 95\% \text{ CI} = -0.12, -0.03\)) and public collective action (\(b = -0.04, 95\% \text{ CI} = -0.09, -0.01\)) via group identification and commitment to social justice were significant, which supported Hypothesis 2.

### Moderating Effect of Internalized Stigma

LMS was conducted to examine whether internalized stigma would moderate the effects of perceived discrimination on group identification, commitment to social justice, and collective action (see Fig. 2). The results showed that the interaction effect of perceived discrimination and internalized stigma was significantly associated with group identification (\(b = -0.12, p = .04\)). Specifically, the positive association between perceived discrimination and group identification was stronger among sexual minority individuals who had low levels of internalized stigma (\(b = 0.16, 95\% \text{ CI} = 0.002, 0.32\)). On the other hand, the association between perceived discrimination and group identification was not significant among those who had high levels of internalized stigma (\(b = 0.05, 95\% \text{ CI} = -0.03, 0.12\). Table 4 shows the conditional effects of perceived discrimination on group identification at low, medium, and high levels of internalized stigma.

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**Table 2** Unstandardized and Standardized Parameter Estimates of the Hypothesized Models

| Parameter estimates | Unstandardized | Standardized |
|---------------------|---------------|--------------|
| **Mediation model** |               |              |
| Perceived discrimination (T1) → Group identification (T2) | 0.19 (0.07)** | 0.14** |
| Perceived discrimination (T1) → Commitment to social justice (T2) | 0.09 (0.08) | 0.06 |
| Perceived discrimination (T1) → Private collective action (T2) | 0.08 (0.06) | 0.10 |
| Perceived discrimination (T1) → Public collective action (T2) | 0.42 (0.07)** | 0.33*** |
| Internalized stigma (T1) → Group identification (T2) | -0.39 (0.06)** | -0.42*** |
| Internalized stigma (T1) → Commitment to social justice (T2) | 0.10 (0.06) | 0.10 |
| Internalized stigma (T1) → Private collective action (T2) | -0.02 (0.04) | -0.04 |
| Internalized stigma (T1) → Public collective action (T2) | -0.02 (0.06) | -0.02 |
| Group identification (T2) → Commitment to social justice (T2) | 0.67 (0.09)** | 0.66*** |
| Group identification (T2) → Private collective action (T2) | 0.15 (0.07)* | 0.25* |
| Group identification (T2) → Public collective action (T2) | 0.21 (0.08)** | 0.24** |
| Commitment to social justice (T2) → Private collective action (T2) | 0.23 (0.08)** | 0.38** |
| Commitment to social justice (T2) → Public collective action (T2) | 0.15 (0.08)* | 0.17* |
| Perceived discrimination (T1) × Internalized stigma (T1) | 0.18 (0.04)** | 0.30*** |
| Private collective action (T2) → Public collective action (T2) | 0.15 (0.03)** | 0.56*** |

**Moderated mediation model**

| Parameter estimates | Unstandardized | Standardized |
|---------------------|---------------|--------------|
| Perceived discrimination (T1) → Group identification (T2) | 0.24 (0.07)** | – |
| Perceived discrimination (T1) → Commitment to social justice (T2) | 0.10 (0.07) | – |
| Perceived discrimination (T1) → Private collective action (T2) | 0.10 (0.05)* | – |
| Perceived discrimination (T1) → Public collective action (T2) | 0.30 (0.06)** | – |
| Perceived discrimination (T1) × Internalized stigma (T1) → Group identification (T2) | -0.12 (0.06)* | – |
| Perceived discrimination (T1) × Internalized stigma (T1) → Commitment to social justice (T2) | -0.05 (0.05) | – |
| Perceived discrimination (T1) × Internalized stigma (T1) → Private collective action (T2) | -0.06 (0.04) | – |
| Perceived discrimination (T1) × Internalized stigma (T1) → Public collective action (T2) | -0.003 (0.05) | – |
| Group identification (T2) → Commitment to social justice (T2) | 0.66 (0.08)** | – |
| Group identification (T2) → Private collective action (T2) | 0.15 (0.06)* | – |
| Group identification (T2) → Public collective action (T2) | 0.21 (0.07)** | – |
| Commitment to social justice (T2) → Private collective action (T2) | 0.22 (0.06)** | – |
| Commitment to social justice (T2) → Public collective action (T2) | 0.15 (0.06)* | – |
| Perceived discrimination (T1) × Internalized stigma (T1) | 0.24 (0.04)** | – |
| Private collective action (T2) → Public collective action (T2) | 0.15 (0.03)** | – |

* \(p < .05\); ** \(p < .01\); *** \(p < .001\)
In addition, the indirect association between perceived discrimination and collective action varied by levels of internalized stigma. Specifically, the indirect association between perceived discrimination and public collective action via group identification was stronger among sexual minority individuals who had low levels of internalized stigma ($b = 0.08$, $95\%$ CI $= 0.01, 0.14$), whereas the indirect association was not significant among those who had high levels of internalized stigma ($b = 0.02$, $95\%$ CI $= -0.004, 0.05$). Furthermore, the indirect effect of perceived discrimination on private collective action via group identification and commitment to social justice was stronger among sexual minority individuals who had low levels of internalized stigma ($b = 0.05$, $95\%$ CI $= 0.01, 0.10$), but the indirect effect of perceived discrimination on private collective action was not significant among those with high levels of internalized stigma ($b = 0.02$, $95\%$ CI $= 0.002, 0.04$). The results provided support for Hypothesis 3.

**Discussion**

The present study is one of the first studies to examine how different minority stress processes (i.e., perceived discrimination and internalized stigma) interact to influence group identification and collective action among sexual

### Table 3: Indirect Effects of Perceived Discrimination and Internalized Stigma on Collective Action

| Parameter estimates | Private collective action (T2) | Public collective action (T2) |
|---------------------|------------------------------|------------------------------|
|                     | $b$ (SE) 95% CI              | $b$ (SE) 95% CI              |
| **Indirect effects of perceived discrimination (T1)** |                           |                              |
| via Group identification (T2) | 0.03 0.01, 0.08 | 0.04 0.01, 0.09 |
| via Commitment to social justice (T2) | 0.02 -0.01, 0.07 | 0.01 -0.01, 0.06 |
| via Group identification (T2) and Commitment to social justice (T2) | 0.03 0.01, 0.07 | 0.02 0.003, 0.05 |
| **Indirect effects of internalized stigma (T1)** |                           |                              |
| via Group identification (T2) | -0.06 -0.12, -0.03 | -0.08 -0.15, -0.03 |
| via Commitment to social justice (T2) | 0.02 0.00, 0.07 | 0.02 0.00, 0.05 |
| via Group identification (T2) and Commitment to social justice (T2) | -0.06 -0.12, -0.03 | -0.04 -0.09, -0.01 |

### Table 4: Conditional effects of perceived discrimination at low, medium, and high levels of internalized stigma

| Parameter estimates | Group identification (T2) | Commitment to social justice (T2) | Private collective action (T2) | Public collective action (T2) |
|---------------------|--------------------------|-----------------------------------|-------------------------------|-------------------------------|
|                     | $b$ (SE) 95% CI          | $b$ (SE) 95% CI                   | $b$ (SE) 95% CI               | $b$ (SE) 95% CI               |
| **Direct effects of perceived discrimination (T1)** |                           |                                  |                              |                              |
| Low levels of internalized stigma (T1) | 0.16 0.002, 0.32 | - - - - | - - - - | - - - - |
| Medium levels of internalized stigma (T1) | 0.10 0.01, 0.20 | - - - - | - - - - | - - - - |
| High levels of internalized stigma (T1) | 0.05 -0.03, 0.12 | - - - - | - - - - | - - - - |
| **Indirect effects of perceived discrimination (T1)** |                           |                                  |                              |                              |
| via Group identification (T2) | - - - - | 0.05 -0.002, 0.11 | 0.08 0.01, 0.14 |                              |
| via Commitment to social justice (T2) | - - - - | 0.03 0.000, 0.07 | 0.05 0.01, 0.09 |                              |
| via Group identification (T2) and Commitment to social justice (T2) | - - - - | 0.02 -0.004, 0.04 | 0.02 -0.004, 0.05 |                              |

### Discussion

The present study is one of the first studies to examine how different minority stress processes (i.e., perceived discrimination and internalized stigma) interact to influence group identification and collective action among sexual
minorities. A major strength of this study is the use of longitudinal data, which may serve to elucidate the directionality of the associations between the variables and overcome the limitations of previous cross-sectional studies (Bourguignon et al., 2020; Friedman & Leaper, 2010; Simon et al., 1998). The prospective research design and longitudinal analytic technique take into account the temporal ordering of the variables under naturalistic conditions and provide a more precise estimation of the hypothesized direction of effects. The study design makes significant contributions to understanding the dynamic relationships between minority stress and collective action over time.

**Effects of Minority Stress on Group Identification and Collective Action**

Consistent with previous cross-sectional research (Dunn & Szymanski, 2018; Friedman & Leaper, 2010), the longitudinal findings in the present study demonstrated that, across the period of one year, prior exposure to discrimination was positively related to participation in private and public collective action among sexual minorities. The findings suggested that perceptions of discrimination may be a necessary impetus for efforts to change the group’s status position through collective action (Cronin et al., 2012). Most importantly, the results of mediation analysis provided empirical support for the rejection-identification model (Branscombe et al., 1999) in which prior heterosexist experiences were associated with increased identification with sexual minorities and subsequently predicted participation in collective action for LGBT rights. Perceptions of pervasive discrimination represent marginalization and rejection from the broader society. In the face of stigma and discrimination, having a collective identity is a common response because it can provide a positive frame of reference and allow sexual minority individuals to seek inclusion and support from the ingroup. This in turn may propel private and public collective action for LGBT rights.

The hypothesized sequential mediation model of minority stress and collective action was supported, which provided evidence for Hypothesis 1. Sexual minority individuals who encountered discrimination and rejection at baseline were more likely to identify with sexual minority identities and show concern with oppression and social injustice toward sexual minorities, which led them to undertake collective action for LGBT rights (Duncan, 2018; Dunn & Szymanski, 2018). They were willing not only to participate in private collective action to foster awareness and support for LGBT rights in their immediate environment, but also to take public collective action to advocate for structural changes for sexual minorities. Taken together, the findings extended previous research on the rejection-identification model (Branscombe et al., 1999; Molero et al., 2011) and showed that group identification resulting from discriminatory experiences might increase one’s awareness of oppression and mobilize collective action. Furthermore, it is important to note that the majority of participants were in early adulthood when identity was actively being formed. Group consciousness is most likely to be developed during this developmental stage in which individuals begin to explore different roles and identities (Duncan, 2018). There might be developmental and/or generational differences in life experiences and access to opportunity structures for collective action between sexual minority individuals in different stages of life. Building on the current work, future research could explore whether the developmental stage may moderate the relationships between minority stress, group identification, and collective action.

Although minority stress theory posits that both distal and proximal stressors contribute to negative health outcomes among sexual minorities (Meyer, 2003), the present study argues that distal and proximal stressors may play differential roles in predicting collective action. On the one hand, distal stressors such as discrimination and rejection were shown as a facilitator of collective action. On the other hand, it was found that proximal stressors such as internalized stigma were a hindrance to collective action (Herek et al., 2009). Consistent with Hypothesis 2, the negative relationship between internalized stigma and collective action was mediated by group identification and commitment to social justice. In accordance with previous research (Górska et al., 2017), sexual minority individuals who had higher levels of internalized stigma were less likely to identify with sexual minorities and feel connected to the LGBT community. They were also less concerned with prejudice and discrimination against LGBT individuals and other stigmatized groups, and thus were less likely to participate in collective action for LGBT rights.

**Moderating Effect of Internalized Stigma**

While the rejection-identification model asserts that discrimination as a form of rejection from the outgroup may lead minority group members to identify with their ingroup (Branscombe et al., 1999), the present study found that this proposition is not always true by revealing the moderating effect of internalized stigma on the relationship between perceived discrimination and group identification. The results showed that the positive association between perceived discrimination and group identification was stronger among sexual minority individuals who had low levels of internalized stigma. On the other hand, the association between perceived discrimination and group identification was not significant among those with high levels of internalized stigma. For those who strongly endorsed negative beliefs and attitudes toward sexual minorities, the
rejection-identification hypothesis did not hold, and their discriminatory experiences were not significantly related to group identification. It may be because when they espouse high levels of stigmatizing beliefs toward sexual minorities, they may perceive discrimination as legitimate and inevitable (Corrigan & Watson, 2002) and may not value the bonding and connection with the LGBT community (Chan & Mak, 2021a), which make them unlikely to identify with the ingroup when facing discrimination and rejection.

Furthermore, the indirect effects of perceived discrimination on collective action were moderated by internalized stigma, which provided support for Hypothesis 3. Specifically, the positive indirect association between perceived discrimination and public collective action through group identification was only found among sexual minority individuals with low levels of internalized stigma. For those with high levels of internalized stigma, the indirect association between perceived discrimination and public collective action was not significant. In other words, discriminatory experiences would not facilitate their identification with the ingroup or motivate their participation in public collective action (e.g., organizing educational activities, community events, and protests) because they internalized societal stereotypes about sexual minorities and developed negative views about their ingroup (Major & Crocker, 1993; McNamara et al., 2013). Similarly, the indirect association between perceived discrimination and private collective action was stronger among sexual minority individuals with low levels of internalized stigma, whereas this association was not observed among those with high levels of internalized stigma. The results imply that sexual minority individuals with high levels of internalized stigma would not resort to the LGBT community as a source of solidarity for coping with discrimination or become aware of the oppression directed toward their ingroup. Therefore, they may not engage in private collective action (e.g., discussing LGBT issues with family and/or friends) to foster acceptance of sexual minorities in their immediate environment.

**Limitations and Future Research Directions**

Despite the strengths of the study, there are a few limitations that may affect the generalizability and interpretation of the findings. First, the present study adopted a non-probability sampling, and the participants were recruited from LGBT organizations and spaces. Thus, the sample may be subject to self-selection bias and have greater identification with sexual minorities, which limits the generalizability of the results. Second, this study did not take baseline collective action into account, and therefore the findings do not provide insights into whether prior experiences of discrimination may affect changes in collective action. To strengthen conclusions about the temporal ordering of effects, future studies may consider adopting a cross-lagged panel design to disentangle the relationships. Third, the present study draws on the rejection-identification model to examine how different minority stress processes interact to affect group identification and collective action, but it does not account for other related variables in the collective action literature. Future work should build on the current research to further examine other personality characteristics and life experiences (e.g., developmental stage, family background) and group consciousness variables (e.g., efficacy) (Duncan, 2018; van Zomeren et al., 2008), so as to provide a more comprehensive picture of collective action among sexual minorities. Fourth, the internal consistency estimate for private collective action was below the acceptable threshold of 0.70, which could be attributed to the small number of items in the subscale. Given the inadequate internal consistency of this measure, the results should be interpreted with caution. Fifth, the current study included a sample of cisgender sexual minority individuals, and the experiences of transgender and non-binary individuals were not examined. As members of transgender and gender diverse communities may face more overt and blatant forms of oppression, their group identification and motivation for collective action may differ from those of cisgender sexual minorities and merit further research attention.

**Practice Implications**

The present findings revealed the importance of group identification among sexual minorities (Bourguignon et al., 2020). In response to stigma, collective action may provide a sense of belonging and acceptance that would buffer the damaging effects of discrimination and victimization (Branscombe et al., 1999; Chan & Mak, 2021b). Given the benefits of group identification and collective action, psychologists and human service professionals working with sexual minority clients should facilitate the building of support systems with peers with similar backgrounds and experiences. By offering a safe environment to share and discuss their challenges in a support group, sexual minority individuals may relate to others who have similar experiences with discrimination as they do. The consistent interaction through relationships with other ingroup members is integral not only to the acceptance of their sexual identity, but also to collective action for positive social changes because they can recognize that the challenges are commonly experienced by others in the LGBT community (McCullough et al., 2017). By educating themselves about the problems facing the community, they are more empowered to act with and on behalf of the LGBT community to undertake collective action to resist stigmatization. Such a social justice approach in psychological and human services is essential to improve wellness and equity for sexual minorities.

Nevertheless, it is important to note that collective action does not naturally stem from discriminatory experiences,
especially among sexual minority individuals who endorse self-stigmatizing beliefs. To mitigate internalized stigma, psychologists and human service professionals should be ready to address the thoughts and concerns that their clients have about the ingroup and identities. In particular, practitioners need to help their clients explore how oppressive experiences affect the internalization of stigma and recognize that internalized stigma is a normal and expected reaction to living in an oppressive environment (Puckett & Levitt, 2015). By bridging their internal experience and external oppression, the clients can detach from negative evaluations that pervade their sense of self.

Conclusion

In summary, the results of the present study extend the literature by identifying differential effects of minority stress on group identification and collective action among sexual minorities. The prospective research design allows for a better understanding of how prior discriminatory experiences are related to subsequent group identification and collective action participation. The results also indicated that internalized stigma moderated the effects of perceived discrimination on group identification and collective action, such that perceived discrimination was not significantly related to group identification and collective action among those who had high levels of internalized stigma. These findings highlight the importance of fostering group identification, strengthening collective action, and mitigating internalized stigma among sexual minorities in psychological practice (Bourguignon et al., 2020) and support the role of group-level coping (e.g., community connectedness and collective action) in the face of discrimination.

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Data Availability The datasets generated and/or analyzed during the current study are not publicly available due to concerns regarding confidentiality and data protection.

Code Availability Not applicable.

Compliance with Ethical Standards

Ethics Approval The study was approved by the Human Research Ethics Committee of the Education University of Hong Kong. All procedures performed in studies involving human participants were in accordance with the ethical standards of the institutional and/or national research committee and with the 1964 Helsinki declaration and its later amendments or comparable ethical standards. This article does not contain any studies with animals performed by any of the authors.

Conflicts of Interest The author has no conflicts of interest related to this study.

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