

The amplifying effect of perceived group politicisation: Effects of group perceptions and identification on anxiety and coping self-efficacy among members of UK COVID-19 mutual aid groups

Mutual aid groups developed and mobilised in communities across the UK and globally at the outset of the pandemic in order to support vulnerable community members with practical assistance, emotional support, and advice, with some understanding their work in political terms. This study adopted a ‘social cure’ lens to investigate the effects of group identification and group perceptions on anxiety and coping self-efficacy among members of UK Covid-19 mutual aid groups. Survey data were collected from self-identified members of these groups ( $N = 844$ ) during the initial period of ‘lockdown’ restrictions in April – May 2020. Correlational analyses showed that identification with the mutual aid group was linked to more positive group perceptions and better self-reported psychological outcomes. Perceived group politicisation showed the reverse pattern. Mixed support for the ‘social cure’ model was evident; the effect of group identification on coping self-efficacy (but not anxiety) was serially mediated by perceived support and collective efficacy. Perceived group politicisation was a significant moderator, seeming to amplify the indirect effect of group identification on coping self-efficacy via perceived support. Results are discussed in light of previous empirical work on the social cure and Covid-19 mutual aid groups. Please refer to the Supplementary Material section to find this article’s Community and Social Impact Statement.

*Keywords:* mutual aid, social cure, social identity, Covid-19, volunteering

Despite the difficult circumstances, the Covid-19 pandemic brought about an increase in community participation and engagement in the United Kingdom (UK) and elsewhere (Mak & Fancourt, 2020; Sitrin & Colective Sembrar, 2020). One key aspect of this community response has been the development and mobilisation of Covid-19 mutual aid groups in the UK and internationally. These groups, which numbered over 4000 across the UK during the first national ‘lockdown’ of spring 2020 (Covid-19 Mutual Aid, 2020) have provided invaluable practical, emotional, and often financial assistance to vulnerable community members since the beginning of the pandemic. Some of these groups understand mutual aid in political terms while others adopt a more pragmatic ‘service provision’ perspective on their work (Singh Dhillon, 2020). These groups have contributed significantly to their communities but, as related research on volunteering indicates (Bowe, et al., 2020; Gray & Stevenson, 2019) as well as recent research on Covid-19 mutual aid groups (Mao et al., 2020) it is also probable that mutual aid groups have equipped their members with the psychological resources to better cope with the manifold threats to mental health caused by the pandemic. An extensive body of work has demonstrated the positive effects of social support and group identification on physical and mental health across a range of challenging or stressful contexts, the so-called ‘social cure’ (e.g. Haslam, Jetten, Postmes, & Haslam, 2009). However, this research has underexplored the way in which these processes play out within specific social and political contexts and has largely left unexamined the links between the social cure, collective action, and social change (Wakefield, Bowe, Kellezi, McNamara, & Stevenson, 2019). Informed by this body of work, this study investigates the relationships between group perceptions and identification, anxiety and coping self-efficacy among members of UK Covid-19 mutual aid groups, particularly focusing on the way in which perceiving the mutual aid group as political or not, may be related to social cure processes.

## **Covid-19 Mutual Aid Groups**

The pandemic motivated a significant community response across the UK and one important aspect of this has been the widespread proliferation of mutual aid groups. Some of these groups formed at the beginning of the pandemic, while others developed from pre-existing organizations such as parish councils (Tiratelli & Kaye, 2020). Organised generally on a hyper-local basis and via social media, these groups fulfilled practical tasks such as grocery shopping and collecting medication, but also provided invaluable emotional support and advice to members of the community, many of whom were struggling with physical and mental health issues as well as economic disadvantage (Jones, et al., 2020). Without mutual aid groups, vulnerable people would have had to rely on assistance from local government, which was frequently perceived as too slow or inadequate in its provision (O'Dwyer, Beascochea-Seguí, & Souza, 2020; Tiratelli & Kaye, 2020).

Recent research on mutual aid groups has suggested that their members are disproportionately female (Jones, et al., 2020; Wein, 2020), in line with other studies which have reported women's higher levels of engagement in Covid-19 volunteering (Mak & Fancourt, 2020) and general helping behaviour during the crisis (Ipsos MORI, 2020). Thus, as with the pandemic's gendered impact in domains such as caring responsibilities and employment (e.g. The Fawcett Society, 2020; Warren & Lyonette, 2020), it seems that the community response to Covid-19 has also been bound up with gender.

In a similar way, an analysis of the geographical location of mutual aid groups found that their presence was positively related to the median age, happiness, life satisfaction, and wealth at the local authority level (Felici, 2020), and in another report their presence was linked to areas with higher levels of social capital and where working age people had more time, chiefly via the

government's 'furlough' scheme (Tiratelli & Kaye, 2020), suggesting that, mirroring the country's broader experience of the pandemic so far, the community response was also shaped by pre-existing economic and social inequalities.

Research has suggested that members of mutual aid groups are interested in politics and willing to engage in political action but view their mutual aid activities as apolitical (Wein, 2020). However, mutual aid as a concept has its roots in the anarchist thought of Peter Kropotkin (1902, as cited in Kinna, 1995) – it describes a different model of society to the neoliberal capitalist status quo, one based on reciprocity, altruism, and resistance to hierarchy. On this, Singh Dhillon (2020) describes two not necessarily mutually exclusive versions of UK Covid-19 mutual aid. The first of these works as (likely short-term) service provision/crisis response by partnering with third sector organisations, local government, and even perhaps the police. The second takes a more independent and critical approach and understands mutual aid during Covid-19 as an opportunity to radically restructure society over the long-term, and *what it means* to be a member of that society, in line with principles of localism, reciprocity, and equality (Covid-19 Mutual Aid, 2020). Members of these groups may advocate lack of engagement with and independence from the local authorities and police; their work is long-term activism rather than short-term crisis response. Given the different types of mutual aid groups, it is plausible that the outcomes of association with these groups may differ.

To provide further relevant contextual information relevant to mutual aid groups, the UK government allocated emergency funding of £3.2 billion to local authorities at the end of March 2020, as well as £5 billion in cashflow support (Ministry of Housing, Communities & Local Government, 2020). Local authorities supported their communities with the provision of hardship grants for individuals (generally with strict eligibility criteria), as well as small grants

for voluntary organisations, such as mutual aid groups. However, this should be contextualized by recognizing the significant financial pressures which local authorities have been experiencing due to budget cuts by the UK government over the past decade, a drop in funding estimated at be nearly £16 billion by 2020 (Local Government Association, 2020).

### **Anxiety, Coping Self-Efficacy, and Covid-19**

The psychological impact of Covid-19 through ‘lockdown’ conditions and disruption to social contact, employment, and education, has been extensively examined in recent empirical work (see Serafini et al., 2020 for a review). The emergence of a new, incurable virus is fundamentally an existential threat therefore some research has focused on the prevalence and determinants of anxiety in particular (e.g., Fancourt, Steptoe, & Bu, 2020; Serafini et al., 2020; Shevlin et al., 2020). In the UK context, studies have pointed to the increased prevalence of anxiety relative to other pre-pandemic time periods (Shevlin et al., 2020) but have also noted its rapid decline as restrictions were eased after the first lockdown (Fancourt et al., 2020). Various determinants of increased prevalence of anxiety during Covid-19 have been identified, including being female (Fancourt et al., 2020), of younger age, having children in the home, receiving a low income (Fancourt et al., 2020; Shevlin et al., 2020), high estimates of personal risk, and pre-existing health conditions in self and others (Shevlin et al., 2020).

On the other hand, self-efficacy, or an individual’s belief in their own ability to exercise influence over their life and accomplish desired tasks (Bandura, 1977), may serve as a protective factor against psychological distress during the pandemic. In particular, coping self-efficacy, defined as “the perception of one’s capability for managing stressful or threatening environmental demands” (Benight et al., 1999; p. 2442) may be relevant given it has been linked to lower psychological distress following disasters such as a serious hurricane in Florida

(Benight et al., 1999) and the 1995 Oklahoma City bombing (Benight et al., 2000). During the pandemic, recent research has also related coping self-efficacy to lower levels of acute stress disorder among nurses in Jordan (Shahrour & Ali Dardas, 2020) and among healthcare and emergency workers in Italy (Vagni, Maiorano, Giostra, & Pajardi, 2020). These findings, taken together, suggest that coping self-efficacy may be a protective factor against psychological distress during Covid-19. However, coping self-efficacy, like other efficacy beliefs, is not a personality trait but a set of beliefs which is influenced by social and contextual factors (Bandura, 2006), one of which may be group membership and processes.

### **The Social Identity Approach to Health and Well-Being**

An extensive body of research now supports a view of social identities as “powerful psychological resources that have an important role to play in managing and improving health” (Jetten, Haslam, Cruwys, Greenaway, & Haslam, 2017, p. 789) and has applied this framework to a range of physical and mental health issues, including stress, anxiety and depression (Haslam et al., 2016) , and eating disorder recovery (McNamara & Parsons, 2016). The ‘social cure’ paradigm specifies a number of specific mechanisms through which groups and group identification affect health and wellbeing (Jetten, et al, 2017). Chief among these are the ‘social cure’ and ‘social curse’ hypotheses which state that, depending on the content of the social identities and the social value attached to them (e.g., DeMarco & Newheiser, 2019), group membership can have either a positive or negative effect on health and well-being. Perceived social support and collective self-efficacy have been posited as primary mechanisms linking group identification to health and wellbeing outcomes (Häusser, Junker, & van Dick, 2020; van Dick & Haslam, 2012). There is developing empirical support for the serial mediation of the relationship between group identification and health and wellbeing outcomes by perceived

support and collective efficacy, as reported in a cross-sectional study of burnout among Italian teachers (Avanzi, Fraccaroli, van Dick, & Schuh, 2015) and a longitudinal study examining the impact of group processes on emotional exhaustion, chronic stress, and depressive symptoms among German undergraduate students (Junker et al., 2018).

A number of studies using a ‘social cure’ approach are of direct relevance to this study. First, some work has examined the way in which groups equip their members with the necessary psychological resources to cope with traumatic or stressful events. For example, Muldoon et al. (2017) explored the effects of social identity processes on post-traumatic stress and post-traumatic growth in Nepal, shortly after the 2015 earthquake. They found that the extent to which people had been affected by the earthquake (earthquake experience) was positively related to post-traumatic stress and post-traumatic growth, and that these relationships were mediated by increased perceptions of the collective efficacy of Nepalis. The relationship between earthquake experience and post-traumatic growth was also mediated by community identification.

Secondly, and related particularly to the issue of volunteering, Bowe et al. (2020) conducted a mixed-method investigation of community volunteering in England. Interview analysis suggested that community identification and volunteering were dynamically related, with community relationships and wellbeing central to participants’ accounts of volunteering. Analysis of survey data with volunteers and non-volunteers also showed that the positive effect of volunteering on well-being was serially mediated by community identification and social support. Similarly, an analysis of interview data with volunteers in southeast England underscored the importance of group dynamics in participants’ accounts of their experiences of volunteering (Gray & Stevenson, 2019). Their analysis points to the relevance of shared identity

for the promotion of volunteering and particularly for facilitating an enduring commitment to the work.

Taken together, these studies support the relevance of a ‘social cure’ approach to understanding psychological distress during Covid-19 and the potential role played by voluntary groups in mitigating this. Given that, for many, mutual aid is indistinguishable from formal volunteering, it is likely that similar findings will be reported with members of Covid-19 mutual aid groups. However, Wakefield et al. (2019) make a salient point in their review of the ‘social cure’ field by arguing for future research to situate these group processes within particular social and political contexts and projects – to examine the ways in which people “harness the positive potential of their group, (re)define their identities towards collective action, set their own agenda, and ultimately overcome social challenges” (p. 8). Covid-19 mutual aid groups, given their frequent political basis, present an ideal opportunity to investigate these issues.

### **The Current Study**

The present study investigates the relationships between group perceptions, identification, coping self-efficacy and anxiety in the context of UK Covid-19 mutual aid groups. The aims of the present paper are (1) to investigate relationships between ingroup identification and ingroup perceptions, coping self-efficacy, and anxiety; (2) to test whether the association of ingroup identification with both coping self-efficacy is mediated by perceived support and collective efficacy (Avanzi, et al., 2015; Häusser, et al., 2020); and (3) to examine the potential moderating role of perceived group politicisation on these two mediation models. Specifically, we hypothesised that ingroup identification would be positively related to both perceived support (H<sub>1</sub>) and collective efficacy (H<sub>2</sub>). We further hypothesised that perceived support and collective efficacy would mediate the relationship between ingroup identification and coping self-efficacy



(H<sub>3</sub>) and the relationship between ingroup identification and anxiety (H<sub>4</sub>). Lastly, we hypothesised that perceived group politicisation would moderate the indirect effects of ingroup identification on coping self-efficacy (H<sub>5</sub>) and on anxiety (H<sub>6</sub>). Given the differences in perceived politicisation of mutual aid groups in the UK and the lack of research on the effects of group politicisation in this context, we did not predict the direction of these moderating effects.

## **Method**

### **Participants**

The central organising website (Covid-19 Mutual Aid, 2020) was our starting point for participant recruitment as it listed the details of over 4000 groups at the time of data collection. Depending on the contact details provided on this website, invitations to participate in the study were posted in Facebook groups, WhatsApp chats (with permission from the group administrator) or emailed to the group administrator for circulation to its wider membership. The median response time was 14 minutes. Approval for this project was granted by the first author's institutional ethics committee.

The total number of participants was 844. In line with other work on mutual aid groups (Jones, et al., 2020; Wein, 2020), participants were overwhelmingly female (85%). The mean age of the sample was 48 years ( $SD = 12.91$ ). Further demographic information about the sample is provided in Table 1.

A cross-sectional survey format was adopted. Data were collected online from the 29<sup>th</sup> April to the 17<sup>th</sup> May 2020. A nationwide 'lockdown' was announced by the UK Prime Minister Boris Johnson on the 23<sup>rd</sup> March. Following widespread media coverage announcing the 'end of lockdown' a few days before, on the 10<sup>th</sup> May, Johnson announced some very modest easing of

lockdown restrictions: the most notable of these was encouraging those unable to work from home to return to work. The majority (67%) of participants completed the survey before any easing of lockdown restrictions had taken effect.

### ***Measures***

**Ingroup identification.** We used the group level self-investment dimension of a multicomponent measure of ingroup identification (Leach, et al., 2008) to assess the extent to which participants identified with their mutual aid group. Relationships were investigated between the group level self-definition dimension of this measure but not used in subsequent analyses (see S1 for an account of this procedure). Ten items were used in this analysis, which gauged three components of ingroup identification: satisfaction (e.g., “I am glad to be a member of my mutual aid group”), solidarity (“e.g., “I feel a bond with members of my mutual aid group”) and centrality (e.g., The fact that I am in my mutual aid group is an important part of my identity“) All responses were on a 7-point scale: 1 (strongly disagree) to 7 (strongly agree). This 10-item measure of ingroup identification showed good reliability ( $\alpha = .93$ ) and we averaged responses to create a composite measure.

**Perceived support.** Two items were used to measure the extent to which participants perceived and expected support from their group: “If I needed emotional support from the group, I could count on it” and “If I needed practical assistance from the group, I could count on it”. They were asked to respond on a scale of 1 (strongly disagree) to 7 (strongly agree). The relationship between the two items was significant ( $r = .58, p < .001, 95\% \text{ CI } [.52, .63]$ .) therefore a composite variable was created by averaging responses across the items.

**Perceived collective efficacy.** The perceived collective efficacy of the mutual aid group was measured using two items: “I feel our mutual aid group is able to make a difference” and

“As a group, we are able to organise ourselves effectively to help our community”. Responses were on a 7-point scale: 1 (strongly disagree) to 7 (strongly agree). The relationship between the two items was significant ( $r = .79, p < .001, 95\% \text{ CI } [.74, .83]$ ) therefore a composite variable was created by averaging responses across the items.

**Perceived group politicisation.** Two items were used to measure the perceived politicisation of the mutual aid group – “My mutual aid group is political” and “We often discuss political issues amongst ourselves”. Responses were on a 7-point scale: 1 (strongly disagree) to 7 (strongly agree). The relationship between the two items was significant ( $r = .59, p < .001, 95\% \text{ CI } [.54, .65]$ ) therefore the items were averaged to create an overall score.

**Coping self-efficacy.** This was measured with 13 items which tapped people’s confidence in their ability to cope in challenging circumstances (Chesney, Neilands, Chambers, Taylor, & Folkman, 2006). Items gauged the extent to which they reported being able to use problem-focused coping (6 items, e.g. “Break an upsetting problem down into smaller parts”), stop unpleasant thoughts and emotions (4 items, e.g. “Make unpleasant thoughts go away”) and seek out help from friends and family (3 items, e.g. “Get friends to help you with the things you need”) when they were having problems or things were not going well for them. Responses were on an 11-point scale: 0 (‘cannot do at all’), 5 (‘moderately certain can do’) and 10 (‘certain can do’). The 13 items showed good reliability ( $\alpha = .96$ ) and responses were summed to create a composite measure of coping self-efficacy.

**Anxiety.** This was recorded using the Generalised Anxiety Disorder Assessment (GAD-7) (Spitzer, Kroenke, Williams, & Löwe, 2006). Participants were asked to state the extent to which they had been bothered by seven problems over the preceding two weeks (e.g., feeling nervous, anxious, or on edge; trouble relaxing, becoming easily annoyed or irritable). Responses

were not at all, several days, more than half the days, or nearly every day – these were summed to give a composite score in which higher scores corresponded to greater anxiety.

## **Results**

### **Overview of Analysis**

We firstly examined simple correlations between ingroup identification, perceptions of the mutual aid group (perceived support, collective efficacy, and perceived group politicisation), and coping self-efficacy and anxiety. To assess H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub>, and H<sub>4</sub>, we conducted two mediation analyses using PROCESS version 3.2 (Hayes, 2017) to determine whether perceived support and collective efficacy mediated the relationship between ingroup identification and coping self-efficacy, and between ingroup identification and anxiety. Lastly, addressing H<sub>5</sub> and H<sub>6</sub>, we conducted moderated serial mediation analyses to investigate whether these relationships were affected by perceived group politicisation.

### **Correlational Analysis**

Simple correlations between study variables are displayed in Table 2. As can be seen, an increased perception of the mutual aid group as political was related to lower levels of ingroup identification, perceived support and collective efficacy. It was also significantly and negatively related to coping self-efficacy and positively related to anxiety. Ingroup identification was positively and significantly related to perceived collective efficacy, coping self-efficacy, and perceived support. Anxiety was negatively and significantly related to ingroup identification. These correlations suggest that, among our sample at least, perceived group politicisation was related to more negative group perceptions as well as poorer self-reported psychological outcomes. Ingroup identification was, as expected, consistently linked to positive group perceptions and better psychological outcomes.

## Mediation Analysis

Prior to the mediation analyses, we inspected the data for accuracy and appropriateness for regression. Ten outliers were identified and removed from the dataset, using a Mahalanobis distance cut off value of 22.458, ( $df = 6, p < .001$ ). Subsequent to this, the analyses were rerun on data including these outliers – this did not alter the results. No issues were identified in relation to normality or homoscedasticity.

We conducted two mediation analyses to determine whether the effect of ingroup identification on coping self-efficacy and anxiety was serially mediated by perceived support (stage-1 mediator) and collective efficacy (stage-2 mediator). Age and gender were included as covariates in both mediation models given previous research suggesting greater prevalence of anxiety among women and younger people during Covid-19 (e.g. Shevlin et al., 2020). We used model six in version 3.4 of Hayes' (2017) PROCESS macro. We calculated confidence intervals using bootstrapping with 5,000 samples in both analyses and all variables defining products were mean centred. The statistical model and unstandardised coefficients for coping self-efficacy and anxiety are displayed in Figures 1 and 2.

In line with H<sub>1</sub>, and H<sub>2</sub>, ingroup identification positively predicted both perceived support from the mutual aid group, ( $B = .655, 95\% \text{ CI } [LLCI = .637, ULCI = .757]$ ) and collective efficacy ( $B = .406, 95\% \text{ CI } [.305, .436]$ ). Perceived support was a positive predictor of collective efficacy ( $B = .394, 95\% \text{ CI } [.267, .403]$ ) which then positively predicted coping self-efficacy ( $B = .105, 95\% \text{ CI } [.254, 5.980]$ ). Perceived support was also significantly related to increased coping self-efficacy ( $B = .160, 95\% \text{ CI } [1.426, 6.529]$ ). Age was a significant, positive, covariate of coping self-efficacy ( $B = .251, 95\% \text{ CI } [.428, .743]$ ). Consistent with H<sub>3</sub>, the total effect of ingroup identification on coping self-efficacy was significant ( $B = .180, 95\% \text{ CI } [2.927, 6.628]$ )

however this effect became non-significant when perceived support and collective efficacy were included, indicating full mediation ( $B = .005$ , 95% CI [-2.511, 2.784]).

The same model was tested with anxiety as the outcome variable (see Figure 2). Similarly in line with H<sub>1</sub>, and H<sub>2</sub>, ingroup identification was significantly and positively related to both perceived support from the mutual aid group, ( $B = .659$ , 95% CI [LLCI = .638, ULCI = .756]) and collective efficacy ( $B = .415$ , 95% CI [.315, .445]). Perceived support was positively related to collective efficacy ( $B = .336$ , 95% CI [.269, .402]). Perceived support and collective efficacy were not related to anxiety. Age was a significant, negative, covariate of anxiety ( $B = -.108$ , 95% CI [-1.136, -.079]). Counter to H<sub>4</sub> and the results of the mediation analysis for coping self-efficacy above, the total effect of ingroup identification on anxiety was negative and non-significant ( $B = -.016$ , 95% CI [-.412, .260]) but became positive and significant when the mediators were included ( $B = .590$ , 95% CI [.122, 1.078]). None of the indirect pathways were significant. Clearly, mediation could not be supported here given the lack of a significant total effect of ingroup identification.

### **Exploratory Analyses**

We then conducted a moderated serial mediation analysis to examine to what extent the indirect effects of group identification on coping self-efficacy through perceived social support and collective efficacy depended on the extent to which the mutual aid group was perceived as political (H<sub>5</sub>). In this model, ingroup identification was entered as the X variable, coping self-efficacy as the Y variable, perceived social support as the stage-one mediator, collective efficacy as the stage-two mediator, and perceived group politicisation as the moderator. Age and gender were again included as covariates. We used model 85 in version 3.4 of the PROCESS macro (Hayes, 2017) to test this model. Figure 3 displays the conceptual model.

The moderated mediation analysis for coping self-efficacy was tested with several regression analyses. The analyses showed that coping self-efficacy was only predicted by perceived support ( $B = 3.960$ ,  $SE = 1.283$ , 95% CI [1.47, 6.45]) and the covariate variable of age ( $B = .577$ ,  $SE = .082$ , 95% CI [.41, .74]). The effect of the interaction between ingroup identification and perceived group politicisation on coping self-efficacy was non-significant. All variables accounted for 13% of the variance in coping self-efficacy. The effect of the interaction between ingroup identification and perceived group politicization on perceived support was significant,  $B = .084$ ,  $SE = .022$ , 95% CI [.040, .127]. Further, the effect of the interaction between ingroup identification and perceived group politicization on collective efficacy was also significant,  $B = .065$ ,  $SE = .017$ , 95% CI [.0316, .099]. We then decided to further analyse the conditional indirect effects of ingroup identification on coping self-efficacy. Against our hypotheses that all indirect effects would be moderated by perceived group politicisation, only the indirect effect of ingroup identification on coping self-efficacy through perceived support depended on the level of perceived group politicisation,  $index = .33$ , 95% CI [.094, .672]. The difference in perceived group politicisation was not significant for other indirect effects such as the effect of ingroup identification on coping self-efficacy via collective efficacy,  $index = .19$ , 95% CI [-.008, .423] and the serial multiple mediation,  $index = .07$ , 95% CI [-.003, .189].

Further slope analysis of the indirect effect (ingroup identification on coping self-efficacy through perceived support) by using one standard deviation above and below the mean value of perceived group politicisation showed that at a high level of perceived group politicisation, the effect ( $B = 3.142$ ,  $SE = 1.034$ , 95% [1.139, 5.187]) was bigger than the effect at a low level of perceived group politicization ( $B = 2.305$ ,  $SE = .757$ , 95% [.833, 3.829]). Figure 4 presents the

unstandardised path coefficients of the indirect effects at both low (-1.265) and high (1.265) levels of perceived group politicisation.

We finally tested the same moderated mediation model for anxiety ( $H_6$ ). The analyses showed that anxiety was only predicted by ingroup identification ( $B = .541, SE = .252, 95\% CI [.050, 1.032]$ ) and the covariate variable of gender ( $B = 1.024, SE = .482, 95\% CI [.046, 1.950]$ ). The effect of the interaction between ingroup identification and perceived group politicisation on anxiety was non-significant. All variables accounted for 9% of the variance in anxiety. As with coping self-efficacy, the effect of the interaction between ingroup identification and perceived group politicisation on perceived support was significant,  $B = .080, SE = .020, 95\% CI [.043, .122]$ , as was the effect of this interaction on collective efficacy,  $B = .054, SE = .018, 95\% CI [.022, .091]$ . Counter to  $H_6$ , none of the indirect effects were moderated by perceived group politicisation.

## **Discussion**

Results from correlational analysis showed that ingroup identification was linked in general to more positive group perceptions as well as better self-reported psychological functioning (specifically, coping self-efficacy). On the other hand, perceived group politicisation was related to lower levels of ingroup identification, more negative group perceptions, and poorer self-reported psychological functioning. Further, results indicated that, in line with previous ‘social cure’ research and as expected, the effect of ingroup identification on coping self-efficacy was serially mediated by perceived support and collective efficacy. Further, perceived group politicisation was a significant moderator of this indirect effect of identification on coping self-efficacy via perceived support. We found little evidence for ‘social cure’



processes for anxiety; indeed, surprisingly we observed a positive relationship between ingroup identification and anxiety.

This study lends some support to recent research which has emphasised the relevance of ‘social cure’ processes to volunteering (Bowe, et al., 2020; Gray & Stevenson, 2019), finding here that these positive effects are also observable during the uniquely stressful and challenging period of the pandemic. The study also extends work in this area by situating social cure dynamics within a political context (Wakefield, et al., 2019); the results here are suggestive of an amplifying effect of understanding one’s group as political on coping self-efficacy, itself a determinant in lower risk of psychological distress during stressful or challenging circumstances (e.g., Benight et al., 1999; Shahrour & Ali Dardas, 2020). In particular, understanding one’s mutual aid group as political strengthened the indirect effect of ingroup identification on coping self-efficacy via perceived support. Thus, for those who perceived their group as more political, ingroup identification led to higher coping self-efficacy through perceiving increased support from their fellow group members, as compared to those who perceived their groups to be less political. We did not find a significant moderated indirect effect of identification on coping self-efficacy through collective efficacy, surprisingly. These findings might be driven by increased expectation of reciprocal support based on shared political values tied to longer-term political goals, which could plausibly be dissociated from judgements on the group’s actual effectiveness in achieving these goals. Further research is needed here to understand the ways in which perceived support and collective efficacy interact with perceived group politicisation and impact more broadly on health and wellbeing.

The null results found here in relation to anxiety are counter to previous work which has linked group identification to improved mental health outcomes, including anxiety (Haslam, et

al., 2016). This could plausibly be explained by the inclusion of individual identification with the mutual aid group rather than degree of group identification *in* the mutual aid group as the predictor variable (Häusser, et al., 2020). Given previous work which has linked wellbeing impacts of volunteering to increased community identification (e.g., Bowe et al., 2020), it might also be related to our decision to focus on identification with the mutual aid group, rather than the wider community. A final alternative explanation is linked to the context in which data were collected – the first period of ‘lockdown’ restrictions in the UK and consequently a period of great general uncertainty and anxiety. There might be something qualitatively different about the *experience* of anxiety (and consequently, the factors which might mitigate it) if it is a response which is shared by large amounts of the population, given the existential threat posed by a new virus against which there was as yet no vaccine. This may also be a potential explanation for the unexpected positive relationship we observed between ingroup identification and anxiety.

Ingroup identification was negatively related to perceived group politicisation. Perceived group politicisation was also related to lower coping self-efficacy and higher anxiety. Other work has found that members of mutual aid groups conceptualise their work as apolitical due to the potential to alienate potential or current members or cause conflict (O’Dwyer et al., 2020). It seems plausible that a majority of our participants here also took such a view of the work done by their groups, given the way in which perceived group politicisation was related to less positive group perceptions and poorer self-reported psychological functioning

In line with previous research on Covid-19 volunteering generally (Mak & Fancourt, 2020) and mutual aid specifically (Jones, et al., 2020; Wein, 2020), it is apparent from these data that any prototypical ‘mutual aider’ is most likely to be female. Given these findings, it is clear that Covid-19 should be understood as a gendered phenomenon – it appears to have been women

in the main who contributed to the community response. Further research should explore the reasons behind this but more importantly, it should also attend to the *consequences* of mutual aid for women's participation in political processes, particularly other forms of community organising and local government, to understand the wider societal impact. Policy makers should also recognise that the bulk of the community response to Covid-19, like other forms of unseen labour, has been shouldered by women. To 'build back better', there needs to be a shift in societal attitudes towards this 'caring' labour, accompanied by legislative changes which would recognise and compensate it fairly (e.g., increasing carer support payments)

There are a number of limitations to the current study. Firstly, and as mentioned above, despite previous research which has emphasised the importance of community identification to volunteering (e.g., Bowe, et al., 2020), our survey did not include this measure. We made this decision as our focus was on identification with the mutual aid group, rather than identification with the broader community. However, identification with the mutual aid group is clearly not independent of community identification. The relationship between community identification and identification with the mutual aid group would be an interesting question for future research, particularly given the political basis of some groups which could potentially lead to a situation where these identities are perceived as incompatible (i.e., if the political views of the group are perceived to be in the minority in the community). Secondly, a degree of caution may be warranted because of the weaker correlation between the two indicators comprising perceived group politicisation relative to other study variables. This may be due to the combination of items which could plausibly be conceptualised as having a effect/reflective *or* causal/formative relation (Bollen & Lennox, 1991; Diamantopoulos & Winklhofer, 2001) to the latent variable – perceived group politicisation. Given that measures of internal consistency are unimportant for

causal/formative indexes (Bollen & Lennox, 1991), following Diamantopoulous and Winkelhofer (2001), we also assessed the external validity of the constituent indicators of perceived group politicisation by examining their correlations with study variables. There were no significant differences between these correlations which suggested the quality of the indicators. Finally, we acknowledge shortcomings with the recruitment strategy and sample, particularly in relation to the over-representation of white, non-religious, and middle-class participants. We note here in particular the claim that mutual aid is a distinctive and commonplace practice of BIPOC and working-class communities (Zuri, 2020). Future research must take a broader view of the practice of Covid-19 mutual aid, particularly examining the ways in which religious and BIPOC communities have and continue to practice mutual aid.

In summary, and in line with previous research on the ‘social cure’, this study shows that group identification had positive consequences for coping self-efficacy (but not anxiety) among participants in Covid-19 mutual aid groups during the initial phase of the Covid-19 crisis, an effect which worked through increased perceived support from the group and perceptions of collective efficacy. Perceiving one’s mutual aid group as political amplified the effect of group identification on coping self-efficacy via perceived support. Taken together, these results demonstrate the relevance of ‘social cure’ processes to the mostly spontaneous development and mobilisation of Covid-19 mutual aid groups and, as well as this, underscore the need for more work to elaborate the ways in which perceptions of one’s group as political is related to both wellbeing and psychological outcomes *and* collective action and social change.

Table 1

*Demographic and group-related characteristics of the sample*

<i>UK Region</i>	Percentage
Northern Ireland	3%
Wales	8%
Scotland	20%
Northwest England	8%
North East England	5%
West Midlands	12%
East Midlands	5%
Yorkshire and the Humber	3%
East of England	8%
South East England	13%
South West England	6%
Greater London	9%
<i>Mutual Aid Group</i>	
Newly formed	66%
Developed from a pre-existing organisation	18%
Not sure	15%
<i>Religious affiliation</i>	
Yes	26%
No	74%
<i>Socio-economic classification*</i>	
Managerial, administrative, and professional	76%
Intermediate occupations	11%
Small employers or own account workers	8%
Lower supervisory and technical workers	2%
Semi-routine or routine occupations	4%

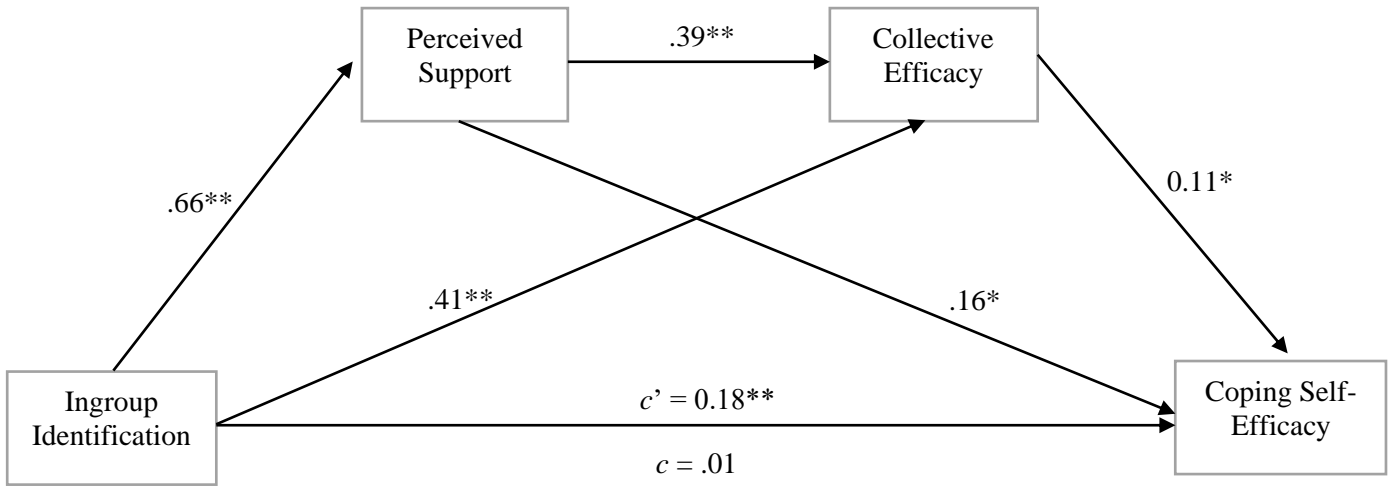
\* Assessed using National Statistics Socio-economic Classification (Rose & Pevalin, 2003).

Table 2

*Simple correlations between study variables*

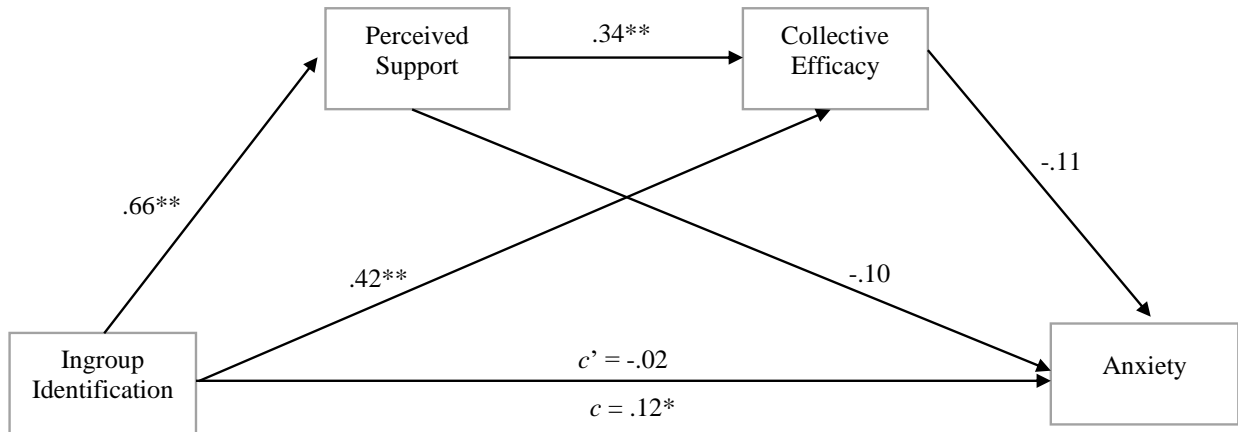
	1	2	3	4	5	6
1. Coping Self-Efficacy	—	-.57**	.22**	.25**	.20**	-.11*
2. Anxiety	—	—	-.08*	-.10*	-.02	.09*
3. Collective Efficacy	—	—	—	.68**	.67**	-.23**
4. Perceived Support	—	—	—	—	.65**	-.19**
5. Ingroup identification	—	—	—	—	—	-.13**
6. Perceived Group Politicisation	—	—	—	—	—	—

*Note:* \*\* $p < .001$ , \* $p < .05$ .



**Figure 1.** Serial mediation model (without covariates) for coping self-efficacy.  $c'$  is total effect of ingroup identification on coping self-efficacy;  $c$  is direct effect of ingroup identification on coping self-efficacy.

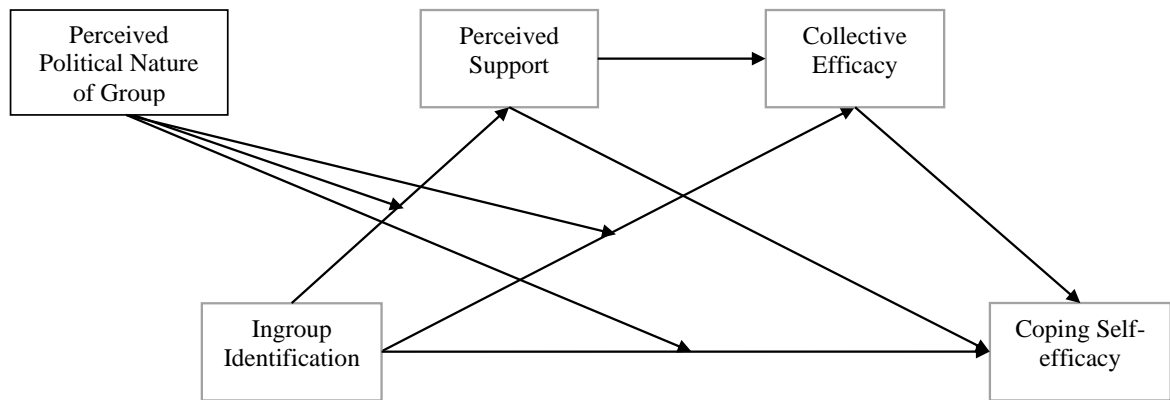
*Note:*  $** p < .001$ ,  $* p < .05$  All coefficients are standardised.



**Figure 2.** Serial mediation model (without covariates) for anxiety.  $c'$  is total effect of ingroup identification on anxiety;  $c$  is direct effect of ingroup identification on anxiety.

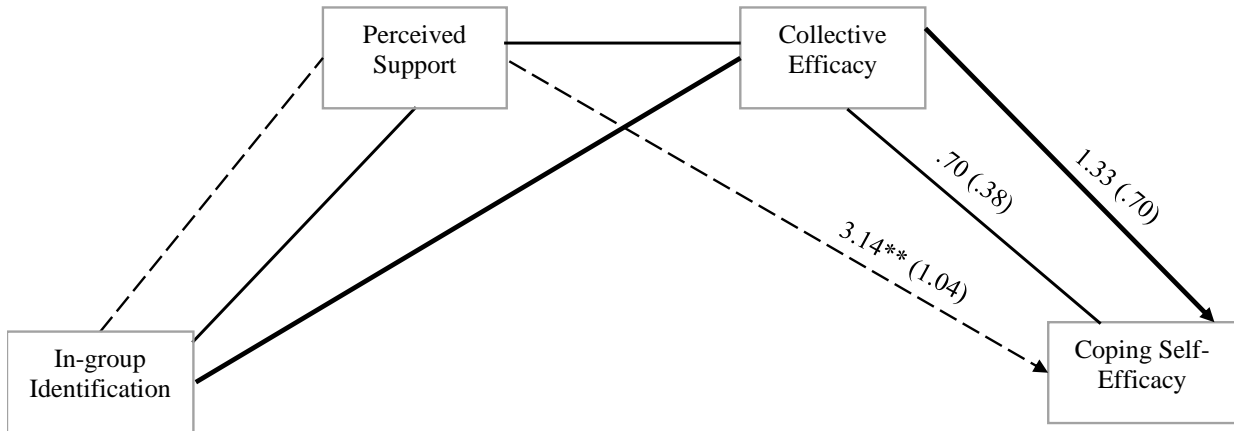
Note:  $** p < .001$ ,  $* p < .05$  All coefficients are standardised.



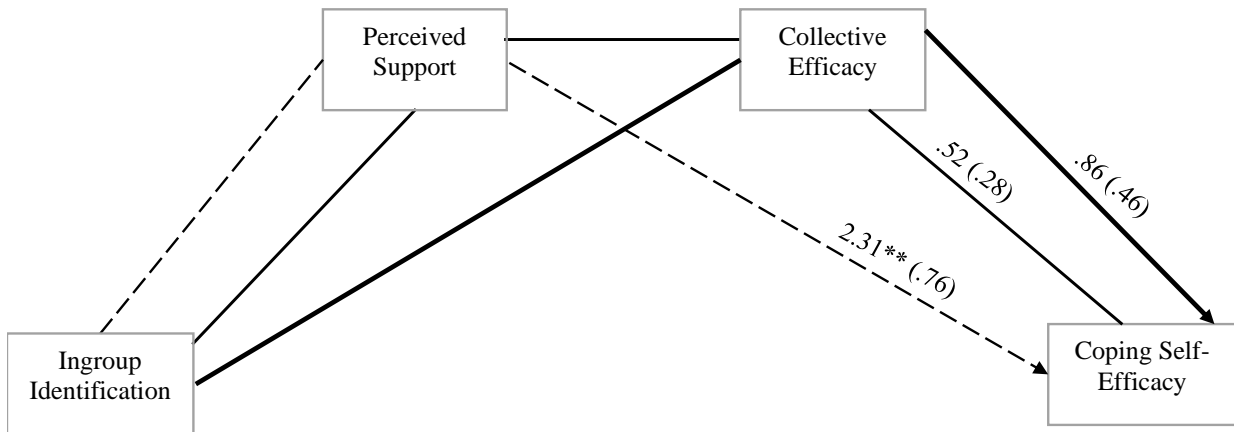


**Figure 3.** Moderated serial moderation model specifying the indirect effect of ingroup identification on coping-self-efficacy through perceived support and collective efficacy, moderated by the group’s perceived group politicisation. Age and gender have been controlled.

*High Perceived Group Politicisation*



*Low Perceived Group Politicisation*



**Figure 4.** Unstandardised path coefficients of indirect effects in the serial mediation model (without covariates) for coping self-efficacy at high (+1 SD) and low (-1 SD) levels of perceived group politicisation. Standard errors are provided in parentheses.

## **S1: Procedure for selection of group level self-investment components of ingroup identification as study variables**

We included all five components of Leach and colleagues' (2008) multicomponent measure of ingroup identification in our survey as we were interested in *which* components were related to social cure processes. The two additional components (the three others which define the group-level self-investment dimension are detailed in the Measures section), which refer to the group level self-definition dimension, are described here.

*Individual self-stereotyping.* This was measured with two items: "I have a lot in common with the average member of my mutual aid group" and "I am similar to the average member of my mutual aid group". The two items were significantly correlated ( $r = .69, p < .001, 95\% \text{ CI } [.64, .74]$ ) and were averaged to create an overall score.

*In-group homogeneity.* Two items were used to assess the extent to which participants perceived their mutual aid group as homogeneous: "Members of my mutual aid group have a lot in common with each other" and "Members of my mutual aid group are very similar to each other". The relationship between the two items was significant ( $r = .63, p < .001, 95\% \text{ CI } [.58, .69]$ ) and a composite variable was created by averaging responses across the items.

We decided to retain only the components reflecting the group level self-investment dimension – satisfaction, centrality, and solidarity – for subsequent analysis on the basis of correlational analysis (see Table S1). As can be seen, there were stronger relationships between the self-investment components of identification and the study variables, in comparison to the self-definition components. For example, perceived group politicisation was not significantly related to either in-group homogeneity or ingroup self-stereotyping, but it had significant negative relationships with solidarity and satisfaction. Similarly, anxiety was not significantly related to the self-definition components, but it was significantly related to satisfaction. Taking these results together, we took them to suggest a stronger relationship

between group-level self-investment, and the study variables (in particular coping self-efficacy and anxiety, given our theoretical questions), therefore items from these three identification components (satisfaction, centrality, and solidarity,  $\alpha = .93$ ) were averaged to create a composite measure of group-level self-investment. This variable was used for ingroup identification in the subsequent mediation analyses.

Table S1

*Simple correlations between study variables, including both self-investment and self-*

	1	2	3	4	5	6	7	8	9	10	11
1. Coping Self-Efficacy	—	-.57**	.21**	.22**	.22*	.09*	.22**	.14**	.04	-.12**	.20*
2. Anxiety	—	—	.07	-.09*	-.07	.06	-.08*	-.06	.02	.09*	-.02
3. Collective Efficacy	—	—	—	.65**	.57*	.36**	.67**	.26**	.14**	-.22**	.67*
4. Perceived Support	—	—	—	—	.62*	.38**	.62**	.32**	.14*	-.17**	.65*
5. Solidarity	—	—	—	—	—	.62**	.78**	.42**	.18*	-.14**	.89*
6. Centrality	—	—	—	—	—	—	.55**	.42**	.24*	-.00	.84*
7. Satisfaction	—	—	—	—	—	—	—	.39**	.22*	-.19**	.88*
8. Ingroup Self-Stereotyping	—	—	—	—	—	—	—	—	.41*	-.04	.47*
9. Ingroup Homogeneity	—	—	—	—	—	—	—	—	—	.03	.25*
10. Perceived Group Politicisation	—	—	—	—	—	—	—	—	—	—	-.13**
11. Ingroup identification	—	—	—	—	—	—	—	—	—	—	—

*definition components of ingroup identification*

Note: \*\* $p < .001$ , \* $p < .05$ .

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