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1 **Full title: A mixed methods PAR study investigating social capital as a resource for Black and**  
2 **other racially minoritised communities in the UK: A study protocol**

3

4 **Short title: Social capital as a resource for Black and other racially minoritised communities in**  
5 **the UK**

6

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## 26 **Abstract**

27           Understanding how different Black and other racially minoritised communities thrive is an  
28 emerging priority area in mental health promotion. Literature demonstrates health benefits of social  
29 capital (social resources embedded within social networks). However, its effects are not always  
30 positive, particularly for certain subpopulations who are already disadvantaged.

31           The CONtributions of social NETworks to Community Thriving (CONNECT) study will use  
32 Participatory Action Research (PAR) to investigate social capital as a resource that benefits (or  
33 hinders) racially minoritised communities and their mental health. The CONNECT study was  
34 designed within a partnership with community organisations and responds to local policy in two  
35 South-East London Boroughs, thereby providing potential channels for the action component of PAR.  
36 Taking an anti-racism lens, we acknowledge the underpinning role of racism in creating health  
37 inequities. We apply an intersectional framework to be considerate of overlapping forms of  
38 oppression such as age, gender, socioeconomic status, and sexual orientation as an essential part of  
39 developing effective strategies to tackle health inequities. Key components of this mixed methods  
40 PAR study include (1) involving racialised minority community members as peer researchers in the  
41 team (2) collecting and analysing primary qualitative data via interviews, photovoice, and community  
42 mapping workshops, (3) developing relevant research questions guided by peer researchers and  
43 collaborating organisations and analysing secondary quantitative data accordingly, (4) integrating  
44 qualitative and quantitative phases, and (5) working closely with community and policy partners to act  
45 on our findings and use our research for social change.

46           The PAR approach will allow us to engage community (voluntary sector and government)  
47 and academic partners in decision making and help address imbalances in power and resource  
48 allocation. Knowledge generated through this collaborative approach will contribute to existing

49 community initiatives, policies, and council strategies. This will ensure the views and experiences of  
50 racially minoritised communities drive the changes we are collaboratively committed to achieving.

51

## 52 **Introduction**

53           Understanding how different Black and other racially minoritised communities thrive is an  
54 emerging priority area in mental health promotion [1]. Moreover, we need to better understand how  
55 experiences of thriving are connected to and influenced by social networks and resources, and  
56 subsequent “social capital”. We use the term “racially minoritised”, to acknowledge that  
57 “minoritisation” is a social process shaped by power and systemic disadvantage, in which dominant  
58 groups have and continue to contribute to the structural oppression of Black and other racially  
59 minoritised groups [2,3]. We consider “thriving” to be a living concept, rather than a static or internal  
60 construct [4] and to mean realising one’s potential, living a happy and healthy life, having meaning  
61 and purpose, and having fulfilling relationships [5,6].

62           The CONtributions of social NETworks to Community Thriving (CONNECT) study aims to  
63 learn about how Black and other racially minoritised communities thrive through improving  
64 understanding of “social capital” [7]; the nature and influence of social networks and the resources  
65 embedded within (such as social support, information channels, social credentials) [8] and how they  
66 contribute to social inequities and subsequent mental health. Understanding how social capital and  
67 networks operate around issues such as (1) community safety, (2) violence against women and girls,  
68 (3) skills and employment, and (4) food security, can teach us about what makes communities thrive,  
69 the resources they need, and how this can be collectively supported, nurtured, and sustained in the  
70 future. We recognise that people’s ability to “thrive” will depend to a significant extent on the  
71 structural, material, political, economic, social, environmental and ideological environments they  
72 inhabit [4,6]. Therefore, we put questions of structure, power, context, access to resources and  
73 injustice front and centre. We will use a Participatory Action Research (PAR) approach, which will  
74 allow for us to (1) investigate the benefits of social relationships in context, (2) help build trusting,

75 sustainable relationships, which are likely to increase the novelty and impact of the research findings  
76 [3,9] and (3) support research focused on change and improvement rather than describing the status  
77 quo [10].

78         A large body of empirical work suggests that deep and meaningful close relationships play a  
79 vital role in promoting thriving [11–13]. This research shows that people who are more socially  
80 integrated and experience more supportive and rewarding relationships with others have better mental  
81 health, higher levels of subjective well-being, and lower rates of morbidity and mortality. Our social  
82 relationships also provide resources that may create economic, and other, opportunities through the  
83 generation and accrual of “capital”, for example including skills and credentials facilitated by one’s  
84 relationships [14]. Bourdieu framed social capital as accumulated actual or virtual resources acquired  
85 by individuals and maintained that social capital resides in the individual and is linked to social  
86 connections that a person can utilise for advancement [15]. Bourdieu’s work emphasises structural  
87 constraints and unequal access to institutional resources based on class, gender, and race.

88         Although there is a wealth of literature demonstrating the health benefits of social capital, it is  
89 also acknowledged to be a “double-edged” phenomenon, as its effects on health are not always  
90 positive [16]. This is particularly so in certain subpopulations [9], with some groups benefitting from  
91 the systemic exclusion of other groups, often based on race, class and geography [17]. For example,  
92 the same strong ties that bring benefits to members of one group (e.g., white people using social  
93 capital for economic advantage), can inhibit others, such as those from racially minoritised  
94 backgrounds, from accessing it [18]. This results in the inequitable pattern of health outcomes through  
95 limited connections with people in power, fostering group intolerance, excluding some groups from  
96 resources, or even causing division and strife within minoritised communities over scarce resources  
97 [17]. Furthermore, racism and discrimination profoundly shape people’s environments and  
98 opportunities, affecting healthcare access and experiences, formal education, informal networks, jobs,  
99 and careers, increasing the likelihood of facing poor quality housing, neighbourhood deprivation and  
100 violence, and food insecurity [19–22]. Social capital has been related to racial disparities in health at  
101 the individual and at the group level [23]. Therefore, social capital needs to be taken seriously as a

102 determinant of health disparities [17] and there is a need for improved understanding about how such  
103 social networks and resources, and subsequent social capital, may play a role in different Black and  
104 racially minoritised communities. Research has emphasised the need to look at population subgroups,  
105 with an intersectional focus, to better disentangle the relationship between social capital and health  
106 [9].

107         There is little consensus on how to build or strengthen social capital [24]. However, Brune  
108 and Bossert [25] describe general principles on how to foster social capital, such as building on  
109 existing organisation in communities and developing participation mechanisms (e.g., developing  
110 management and leadership skills of community members with the goal of strengthening community  
111 organisation and self-management). The simultaneously positive and negative roles that social  
112 networks play within and between systematically disadvantaged groups, and how these are embedded  
113 in communities, can be harnessed using co-production approaches (e.g., PAR). Previous research has  
114 also highlighted the importance of community-based participatory research approaches for authentic  
115 voices in fostering and sustaining transformational change in policies and practices that are driving  
116 the social determinants of health and wellbeing [26]. These approaches aspire to benefit and centre the  
117 voices of marginalised groups [27].

## 118 **Project development**

119         This study builds on over a decade of our research and engagement work that has focused on  
120 identifying ways to reduce health inequities. The South-East London Community Health study  
121 (SELCoH), the UK's largest community epidemiological cohort study, highlighted the need to  
122 examine local data to get a clearer picture of health outcomes and inequalities particularly in urban  
123 communities, rather than relying on national figures, to better plan local services[28,29]. [30].

124         The prevalence of common mental disorders (CMD) in the SELCoH sample was 24.2%, and  
125 the study showed significantly poorer health outcomes in the Black Caribbean group compared to the  
126 Black African group, for almost all health indicators except hazardous alcohol use [28]. Phase 2 of  
127 SELCoH showed effects of discrimination on CMD was worse among recent migrants and Black and

128 Mixed ethnic groups, with discrimination experiences generally most prevalent among the Black  
129 Carribean group [29]. SELCoH highlighted the importance of avoiding commonly made comparisons  
130 between wide ethnic groups, such as White versus Black [28]. Instead, SELCoH emphasised how  
131 intersecting identities of varying privilege and disadvantage (e.g., socioeconomic status, migration  
132 status, ethnicity etc.) show specific differences in odds for CMD, and highlight health inequalities  
133 [31]. A study of social networks and social support using SELCoH data showed differences across  
134 socio-demographic factors in types of social support and social networks [32]. The study found  
135 protective factors for CMD included perceptions of emotional and instrumental support, alongside the  
136 size of family and friend networks [32].

137           The CONNECT study builds on this previous research as well as on prior and ongoing trust  
138 and relationship building through the HERON network (<https://heronnetwork.com>), which was set up  
139 alongside SELCoH as a mechanism to support reciprocity and sustainable engagement. The study was  
140 designed within a partnership with community organisations and responds to local policy in two  
141 South-East London Boroughs, thereby providing potential channels for the action site of PAR.  
142 Collaborators for our study include leadership from local council, mental health charities and  
143 community organisations, who are key partners working in strategies to (1) promote community  
144 safety, (2) prevent violence against women and girls, (3) promote employment and skills and (4)  
145 improve food security. Fig 1 shows the CONNECT theoretical model which illustrates that systemic  
146 racism affects access and opportunities, which can affect the four key areas our partners work in, and  
147 in turn impact on community thriving.

148

149 **Fig 1. CONNECT theoretical model.** This model illustrates that systemic racism affects access and  
150 opportunities, which can affect social capital and the four key areas our partners work in (promoting  
151 community safety, preventing violence against women and girls, promoting employment and skills  
152 and improving food security), and in turn impact on community thriving. This model has been  
153 adapted from Gilbert et al's model [17] for Black social capital and social mobility in Black  
154 communities.

155

156 Our study was driven by community engagement work carried out by above-mentioned  
157 partners who co-created the research proposal and protocol with the study team and identified specific  
158 areas that can inform their strategies and policies. For example, this research will be used to support  
159 improvements in the local authority's children's social care and services. As much of the domestic  
160 abuse seen in South-East London takes place within the context of children and families, the attention  
161 to prevent and build social capital should be focused here. As our study is closely aligned with our  
162 partners' workstreams and strategies, this partnership will enable the voice of local people to be heard  
163 and will ensure the views and experiences of communities drive the changes they are committed to  
164 achieving.

## 165 **Study aims and objectives**

166 The overall aim of this research is to investigate and understand how social networks and social  
167 capital act as resources that promote community thriving and identify ways to amplify social  
168 connections and improve mental health, focusing on the intersectional experiences of racially and  
169 ethnically minoritised communities. In our study, we will focus on four priority areas:

- 170 (a) community safety
- 171 (b) preventing violence against women and girls
- 172 (c) developing skills and employment
- 173 (d) food security

174 The objectives are:

- 175 1. To explore the role that social networks and social capital play in promoting thriving. We will  
176 investigate what the social networks are that people rely on in their day to day lives, what  
177 purpose these networks serve, including what resources (e.g., social, psychosocial, material,  
178 opportunistic) they offer, and what factors shape, constrain, and support them.
- 179 2. To understand how social relationships, networks, and their associated social capital  
180 generated by individuals and groups relate to mental health and place. We will map existing



181 social capital embedded within social networks and how they are utilised at the community  
182 level (e.g., organisations, places), how individuals and groups utilise them, and how this  
183 relates to mental health.

184 3. To examine how both protective factors and adversities cluster, and how they are associated  
185 with cross-sectional and longitudinal trajectories of mental health using local and national  
186 quantitative data.

## 187 **A Participatory Action Research approach**

188 We believe communities know best what they need to thrive and be healthy [33,34], and that  
189 they should be involved in shaping how health and care support is provided [35]. However,  
190 researchers' and even community organisations' engagement with people from minoritised  
191 communities is often extractive and transactional, with resources being taken out of communities or  
192 organisations, rather than being put in [36]. Without reciprocity, a give and take approach, in which  
193 both parties are satisfied, power and resource imbalances are exacerbated, perpetuating inequality  
194 [37].

195 The CONNECT study will help overcome this gap by using a participatory approach [38] to  
196 knowledge generation and incorporating peer researchers from the local communities to optimise  
197 benefit for these communities and minimise power-based inequities in more traditional and  
198 university-led approaches to research [27,39]. PAR is based on a cycle of reflection, data collection,  
199 and action that aims to reduce health inequities through involving people from communities affected  
200 by the phenomenon under study who in turn take actions to improve health and wellbeing in their  
201 communities [40]. PAR emphasises (1) engagement with local perspectives and priorities [38]; (2)  
202 does research with/supports research by local communities (rather than doing research to, or about  
203 them); and (3) identifies ways to create change led by those most affected by the phenomenon being  
204 studied.

205 We will employ an anti-racism praxis to develop a successful community–institutional  
206 partnership, by acknowledging racism as a social construct and naming structural and institutional

207 racism, increasing inclusivity and representation and strategising to dismantle power structures within  
208 our team [41,42]. We will do this by holding space for racially minoritised groups by including  
209 members of these communities as peer researchers in all stages of the study and engaging and  
210 financially recompensing organisations that are embedded or connected with populations we are  
211 working with.

## 212 **An integrated knowledge translation approach**

213 To directly impact and lead to more equitable local policy and practice, our study will also  
214 adopt an Integrated Knowledge Translation (IKT) approach which is defined as “a model of  
215 collaborative research, where researchers work with knowledge users who identify a problem and  
216 have the authority to implement the research recommendations” [43]. IKT involves developing  
217 partnerships between researchers and “knowledge users”, or stakeholders, who utilise the research  
218 throughout the research process and apply the research into practice [44]. This means being inclusive  
219 not just by those who are affected by the research (e.g., peer or community researchers, community  
220 members, service users, health professionals), but also decision makers who have the power to enact  
221 the specific change researchers are hoping to achieve. These decision makers are included at all stages  
222 of the research process [45]. The relationships with knowledge users are created to enhance the  
223 relevance and uptake of research findings [9]. “Knowledge users” for our study include leadership  
224 from local council, mental health charities and community organisations mentioned above, who were  
225 involved with this study from its inception.

## 226 **Materials and Methods**

### 227 **Study Design**

228 PAR research will be conducted using a sequential mixed methods approach involving both  
229 primary qualitative research and secondary quantitative data phases. Research will be carried out in  
230 multiple locations in the UK, however this protocol describes the procedure for the first geographical  
231 area only (two Boroughs in South-East London). We plan to expand the study to another urban area

232 and an additional rural or coastal area in the UK, using our learnings from South-East London to  
233 shape how the study will be adapted and implemented in other locations. Fig 2 shows a flowchart of  
234 the approach and steps needed to complete the study.

235

236 **Fig 2. Flowchart of CONNECT study approach**

237

## 238 **Implementation of PAR approach and collaborative research**

### 239 **model**

240 Our PAR approach [38] will involve recruiting up to ten peer researchers who (1) identify as  
241 being from Black or other racially minoritised groups, (2) are over the age of 16 years, and (3) reside  
242 in the study area. Selection criteria will also include (1) having a deep knowledge of the study area,  
243 (2) being active members of the community, (3) being passionate about health equity and supporting  
244 all members of the community, and (4) having some experience in, or knowledge of, community  
245 engagement, volunteering with local organisations or qualitative research methods. Peer researchers  
246 will be recruited through local community organisations and snowball sampling at the beginning of  
247 the project. All peer researchers will undergo appropriate training, through a free online research  
248 methods course ([Research Methods: A practical guide to peer and community research](#)) developed by  
249 members of our research team (CW and AE) and additional bespoke training sessions dedicated to  
250 conducting semi-structured interviews and community mapping workshops. This training will include  
251 1:1 follow up and evaluation with experienced researchers from the wider research team to ensure  
252 competency. The research team will collectively engage in reflective practices on their own  
253 positionality in the research process. Finally, all members of the research team, including peer  
254 researchers, are required to undergo the same General Data Protection regulation (GDPR) and  
255 safeguarding policy training. In the event of peer researchers leaving the study team, they will be  
256 replaced using the same recruitment techniques. New peer researchers will have access to video

257 recordings and detailed notes of all training sessions and will be supported through one to one  
258 guidance from an existing research team member.

259 A priority and moral responsibility of PAR is “a duty of care”, to focus on the safety and  
260 support of peer researchers throughout the research process. The online research methods course used  
261 for training includes a module about why it is important to stay safe and how to protect oneself as a  
262 researcher. There will be additional team discussion and reflection sessions around safety and support,  
263 and we will co-produce a safety and support protocol. Additional wellbeing support in the form of  
264 group debrief sessions, monthly one-to-one support and weekly optional drop-in sessions will be  
265 offered. Peer researchers will also have access to speak to a clinical psychologist who is part of the  
266 wider research team.

267 Through the training process, and following this, peer researchers will be involved in  
268 developing research questions, co-learning opportunities such as delivering training based around  
269 their own expertise, collecting primary qualitative data, transcribing interviews, supporting analysis of  
270 primary data, refining topic guides and contributing to research outputs.

271 Peer researchers will be paid at an hourly rate of £25, subject to any relevant tax and national  
272 insurance contributions, for up to 5 hours per week, for 12 months. We will also work with individual  
273 researchers to identify goals relevant to their personal development and identify appropriate  
274 opportunities to help them achieve their goals. This approach will help build community research  
275 capacity and enable researchers to participate as valued partners in the research process [46,47].

276 In addition to working with community members, we will take an IKT [43] approach,  
277 whereby the study team will collaborate closely with leadership from local council and local  
278 community organisations throughout. Close collaboration will be achieved through regular advisory  
279 and update meetings as well as written updates and feedback. The frequency of updates and meetings  
280 will vary from biweekly to quarterly with different partners and collaborators, guided by stakeholder  
281 mapping. Our model of collaborative research is outlined in Fig 3. The collaborators’ feedback was  
282 used to identify priority research questions for the project to address. Additionally, the collaborators

283 were asked to provide feedback on draft interview questions, with particular attention given to the  
284 value of the information that would be gathered. Further improvements will be made to the interview  
285 questions based on collaborator's responses and feedback throughout. Our research team, including  
286 peer researchers, will work collaboratively to create a framework that establishes a 'way of working'  
287 as part of the PAR and IKT process. This will ensure that roles and responsibilities are explicitly  
288 discussed and recorded. Every effort will be made to foster democratic, dynamic, and iterative  
289 processes in the co-creation of knowledge [48], however ultimate leadership of, and responsibility for,  
290 the project lies with the university researchers. This responsibility includes coordination of  
291 recruitment and data collection, analysis, and outputs, as well as planning and facilitating consistent  
292 meetings with collaborators to enable regular reflection and feedback throughout, as well as action on,  
293 and implementation of, findings. Data ownership will be shared with collaborating organisations as  
294 per existing data sharing agreements.

295

296 **Fig 3. Collaboration and co-production model**

297

## 298 **Mixed methods approach**

299 Research using mixed methods combines qualitative and quantitative approaches to integrate  
300 numerous perspectives, to amplify the strengths and reduce the limitations of each approach, and to  
301 gain a fuller understanding of the data [49]. Through a sequential mixed methods approach we aim to  
302 triangulate a deeper understanding of findings across qualitative and quantitative research phases,  
303 particularly knowledge generated through the lived experiences and expertise of peer researchers  
304 using PAR. The study's sequential mixed methods approach is detailed in Fig 2.

305 The qualitative phase and quantitative phase of the mixed methods approach are described  
306 below. Findings stemming from the qualitative interview phase (objective 1) and reflexive learning  
307 through the PAR process will guide the quantitative analyses, and the focus of other sequential  
308 qualitative methods, such as Photovoice and community mapping workshops (objectives 2 and 3). For

309 example, interview findings may guide which quantitative variables are potential mediators or  
 310 moderators linked to social capital, in the associations between food security and mental health. Key  
 311 results from each method and research phase, including PAR insights, will be triangulated for  
 312 commonalities and inconsistencies between the results to produce thematic maps [50]. Meta-themes  
 313 will be identified from cyclical discussions of findings and thematic maps with peer researchers and  
 314 will be presented as integrated results. The cyclical process within PAR enables critical reflexivity, an  
 315 opportunity to use findings through the process to tailor our study's focus and analysis, e.g., within  
 316 Photovoice, community mapping and quantitative analysis, and determine which actions ultimately  
 317 become priorities. Incorporating a PAR approach across the mixed methods allows us to generate  
 318 richer collaborative and integrated knowledge to inspire decision making, offer actionable insights,  
 319 and challenge imbalances of power and resources across council strategies, local policies, and  
 320 community enterprises.

## 321 **Qualitative phase (Objectives 1 and 2)**

### 322 **Participants**

323 The inclusion and exclusions criteria for study participants are listed in Table 1.

324

325 **Table 1. Eligibility criteria**

	<b>Number</b>	<b>Inclusion criteria</b>	<b>Exclusion criteria</b>
<b>Semi-structured interviews</b>	Up to 70	<ul style="list-style-type: none"> <li>• Aged 16 and over</li> <li>• Residing in study area within the past 3 years</li> </ul>	<ul style="list-style-type: none"> <li>• Aged 15 or under</li> <li>• Does not reside in study area now or has not within the past 3 years</li> </ul>
<b>Photovoice</b>	Up to 15 participants, 2 groups	<ul style="list-style-type: none"> <li>• Identifies as being Black or a member of another racially minoritised group</li> </ul>	<ul style="list-style-type: none"> <li>• Does not identify as being Black or a member of another racially minoritized group</li> </ul>
<b>Community Mapping Workshops</b>	Up to 20 participants per workshop, 3 workshops =60 total		

326

327

## 328 **Sampling**

329           We will conduct up to 70 semi-structured interviews (to address objective 1). We are aiming  
330 for this sample size to ensure data are collected to allow for detailed analysis of the four key topic  
331 areas (community safety; preventing violence against women and girls; developing skills and  
332 employment; food security). This is important as we will use findings to inform recommendations and  
333 actionable insights for local council and community organisations. Saturation is planned to be  
334 achieved at the group level (i.e., saturation in each of the four key topic areas).

335           We will carry out two Photovoice workshops with up to 15 participants each to allow for trust  
336 building among participants, which will help guide the discussion and reflection following individual  
337 photo taking. Having up to 30 participants overall will allow for a range of new insights and  
338 perspectives of their communities and create a range of photographic recordings and evidence to raise  
339 awareness and motivate change.

340           We will host three community mapping workshops with up to 20 participants each. Having  
341 three groups will allow us to stimulate discussions through a variety of different types of community  
342 mapping (e.g., mental maps – how people perceive areas; activity maps – where people socialise;  
343 hazard maps – safe/risky places; resource maps – where people access different resources). Including  
344 up to 20 participants in each group will allow us to have a diverse group, to ensure representation of  
345 different characteristics and to give us an idea of the different views and perceptions of their  
346 neighbourhoods, as well as the resources that exist within their communities.

## 347 **Recruitment**

348           Recruitment will begin on 1<sup>st</sup> June 2023. We will use a mix of opportunistic, snowball and  
349 purposeful maximum variation sampling to recruit participants from a range of racially minoritised  
350 backgrounds, ages and intersecting identities. The project will be publicised via our websites, e-  
351 newsletters, and social media channels. We will also recruit participants through our collaborators’

352 social media and e-newsletters, as well as by e-mails to stakeholders and community organisation  
353 contacts, through distributing flyers, and by attending events and visiting community spaces to engage  
354 with the community in person. In addition, we may contact individuals who have agreed and  
355 consented to be re-contacted via other related research projects.

356           People who are interested in taking part will be able to contact the peer researchers by e-mail,  
357 study phone, or direct social media message. Peer Researchers can refer to a co-developed (1)  
358 interview protocol and a (2) risk and safety protocol, throughout the interview data collection process.  
359 All participants will be provided with a participant information sheet which will include full details  
360 about the study, what is involved, how we will process and store data, confidentiality and anonymity,  
361 information about study/data withdrawal, any potential benefits, or risks of involvement. Participant  
362 information sheets will clearly state that participation is voluntary, and participants may withdraw  
363 from the project at any time. All participants must provide written consent prior to taking part in the  
364 research. We will allow a minimum of 48 hours to follow up participants to ask if they had any  
365 questions and resupply a link to a consent form if it has not yet been completed. Up to two further  
366 contact attempts (for a total of three attempts maximum) will be made to those indicating an interest  
367 to participate.

368           Participants will also be invited to take part in photovoice, which is a qualitative method used  
369 for community-based participatory research to document and reflect upon people's reality through  
370 photography, to empower minoritised populations and to promote positive social change [51,52].  
371 Such a visual and interactive research method enables individuals and communities to show aspects of  
372 their lives in more creative ways [53,54]. Photovoice can capture things we struggle to express  
373 verbally and can help engage community and decision makers after the research [51].

374           We will invite all participants who took part in semi-structured interviews who provided  
375 specific consent to take part in a workshop, and additional stakeholders from community  
376 organisations in relevant areas to take part in a participatory community mapping workshop to better  
377 define which resources exist and how they are utilised. Information about the mapping workshops will



378 be contained in the original information sheet and provided to any new potential participants  
379 (community organisation representatives) who had not taken part in an interview.

## 380 **Procedure**

381            Depending on participants' and researchers' preferences with regards to accessibility, health,  
382 safety, or any other reasons, the interviews will take place online (via Microsoft Teams or Zoom), via  
383 telephone, at the University campus, or in person at an appropriate community location. The  
384 interviews can take place as walking interviews in communities to gain a sense of how social  
385 relationships are linked to different places within the community, and how individuals identify with  
386 groups and places in these communities.

387            We will ask questions related to the role that social networks and social capital play in  
388 promoting thriving. We will investigate which networks people rely on in their day to day lives, what  
389 purpose these networks serve, whether they are threatened, and if so, by what/whom.

390            Participants will be reimbursed for their time to take part in the study interviews and  
391 workshops with an e-gift voucher, reflecting the amount of time involved in line with our previous  
392 and on-going studies and University guidelines for vouchers. Semi-structured interviews will last up  
393 to 1 hour and be reimbursed at £15 voucher per interview.

394            The interviews will be complimented with several photovoice groups. These photovoice groups  
395 will involve (up to 15) community members and 3 facilitators and will be carried out in a workshop-  
396 style format. The participant photographers will undertake a group training session which will focus  
397 on both photographic skills and guidelines, as well as ethical issues of informed consent, privacy,  
398 confidentiality, and anonymity. The photovoice workshops will be developed using an existing toolkit  
399 (South-East London Photography - SELPh) and adapted to the projects' research questions and  
400 research objectives. Some of the key components of the photovoice workshops, split across 6 weeks,  
401 will include: (1) Recruitment of community members and facilitators to the group. These can include  
402 community members that are already involved in the interviews and community mapping workshop  
403 components of the study; (2) delivering an initial workshop and introducing photovoice. This will

404 allow the group members to become familiar with the participatory method and understand the aims  
405 and objectives. In addition, it is important to highlight the ethical considerations through different  
406 scenarios and discussions and establish ground rules with the group; (3) Providing group members  
407 with cameras so that they can take photographs based on the initial workshop and related discussions.  
408 The group members can then bring their photographs to a dedicated workshop session where they will  
409 have the opportunity to discuss their photographs with other members and share the stories and  
410 context behind the photos; (4) Organising a public engagement event in the form of a photography  
411 exhibition to engage community members and decision makers.

412 Building on preliminary work with our partners (e.g., existing engagement work) and the  
413 semi-structured interviews, the research team will host three participatory community mapping  
414 workshops to help develop a social and physical map of different communities, that illustrate which  
415 resources exist and how they are utilised (to address objective 2). We will invite 20 participants per  
416 workshop (60 participants in total). The workshops will be designed in co-production with peer  
417 researchers and key partners based on the 'ways of working' framework. Workshops will be co-  
418 facilitated by at least one newly trained peer researcher, one more experienced researcher, and one  
419 community partner. Community mapping workshops will last 2 hours and participants will be  
420 reimbursed at £30 per workshop session.

421 These workshops will help (1) triangulate interview data, (2) identify any gaps, (3) develop a  
422 basis to address these gaps and (4) address where additional support is needed to help communities  
423 thrive. We will also explore the potential role/utility and feasibility of using other ways to map  
424 community social networks, places and assets/resources, using digital apps and visualisation of  
425 existing local data.

## 426 **Data analysis and management**

427 The PAR and IKT approaches used in this study emphasise integrating community members  
428 and other relevant stakeholders at each stage of the research process, including data analysis. The

429 analysis will be flexible and iterative to include different perspectives, with findings informing the  
430 action research cycle of the PAR process.

431           Semi-structured interviews will be audio-recorded and transcribed verbatim by a researcher or  
432 university-approved transcribing service. Community mapping workshop data will be recorded  
433 through a mixture of notetaking, audio-recording (e.g., of presentations, Q&As, any breakout group  
434 sessions), online collaboration software such as Miro, Jamboard, White board, and screen shots or  
435 images of artefacts created by participants (not of people's faces). All primary data sources will be de-  
436 identified (retaining a pseudonym) before inputting into NVivo to support analysis using a thematic  
437 analysis approach. Authors GG, ZA and SC will have access to information that could identify  
438 individual participants during data collection, if these participants have consented to being contacted  
439 about further participation in the study. This will be saved in password protected files and deleted  
440 once data collection is complete.

441           Reflexive thematic analysis [55,56] will be used to analyse qualitative data sources. The  
442 whole research team, including peer researchers, will be involved in the analysis of interview data  
443 together with partner organisations. This will involve familiarisation, open/descriptive coding, coding  
444 framework development, deductive and inductive identification of thematic patterns within and across  
445 datasets using a constant comparative approach. Second raters will help check interpretations against  
446 the data. We will examine patterns and relationships between themes.

### 447 **Quantitative secondary data analysis phase (Objective 3)**

448           Insights gained from participatory workshops and semi-structured interviews will be used to  
449 generate research questions that guide our quantitative analysis phase. This will ensure that our  
450 examination of associations between indicators of social networks and mental health are appropriate  
451 and useful. We can achieve this by analysing the patterns in which financial and other insecurities  
452 cluster together across different aspects of social status and their associations with trajectories of  
453 mental health both cross-sectionally and over time.

454 To explore these associations, we will use secondary datasets, such as the South East London  
455 Community Health study (SELCoH [28], the Adult Psychiatric Morbidity Survey (APMS) [57], and  
456 Understanding Society [58]. These datasets have racially and ethnically diverse samples and include  
457 indicators of adversity (e.g., discrimination, poor mental health) and socio-demographic measures  
458 (migration status, income, geographic information). These datasets are anonymised and either openly  
459 accessible via the UK Data Archive (e.g., Understanding Society, Welfare Conditionality) or available  
460 via collaboration with the Health Inequalities Research Group (HIRG) at King's College London (RR  
461 is lead for the HIRG data advisory and has access to APMS data covering the purposes of this work).

462 All secondary data are available in already anonymised form and will be analysed by  
463 appropriately trained members of the research team. Secondary quantitative data will be analysed  
464 using Stata, R and MPlus. Descriptive statistics and appropriate regression models will be used to  
465 examine relationships between social network related indicators and mental health, accounting for  
466 potential confounders. In taking an intersectional approach, latent class analysis will be used to  
467 identify groups defined by multiple advantaged or disadvantaged statuses (e.g., Black migrant  
468 women). Multilevel modelling will enable examination of between-area variation, where appropriate.  
469 Linear mixed effects models and related methods will be used to assess longitudinal associations  
470 between financial insecurities and adversity with social and mental health outcomes.

## 471 **Ethical considerations**

472 This research was approved by the King's College London Research Ethics Committee for  
473 Psychiatry, Nursing and Midwifery on 10<sup>th</sup> November 2021; approval number: HR/DP – 21/22-  
474 26357. Written informed consent will be obtained electronically.

## 475 **Status and timeline of the study**

476 At the time of writing, seven peer researchers have been recruited in total and have begun  
477 training in research methods. Recruitment of participants will begin on 1<sup>st</sup> June 2023 and will continue

478 for approximately 7 months. The rest of the timeline will be co-developed as a part of the  
479 participatory process.

480 Due to the iterative nature of the study, amendments are likely. Any changes will be made  
481 through discussions with members of the community and project stakeholders, who are drawn from a  
482 wide range of policy, research, community initiatives and service delivery. This iterative process has  
483 guided the project from the beginning and will continue to do so beyond dissemination.

## 484 **Discussion**

485 Due to the innovative methods used, this study will provide an important foundation and  
486 precedent for the future development of community research. The processes developed for this study  
487 can be used as a tool in other research where the goal is to examine inequities in marginalised  
488 communities and engage the community throughout the research process. This is important as genuine  
489 social change requires a commitment to these types of research strategies that make apparent,  
490 continuously reflect upon, and minimise power imbalances within the research process.

491 Despite the strengths and novelty of the study design, several limitations should be  
492 highlighted. Although there are clear principles of PAR (community engagement, partnership, action,  
493 and change) there continue to be pitfalls in the implementation of this approach that further perpetuate  
494 structural and institutional racism [41]. Although PAR, in its most ethical use, engages community  
495 and academic partners in shared decision making, resource allocation, and power distribution, the  
496 application of this approach often falls short in addressing the inequitable distribution of power and  
497 resources among community - academic partnerships.

## 498 **Dissemination and implications for policy, research, and practice**

499 The plan for dissemination of findings is substantial to the nature of this co-produced  
500 research. Sharing findings with local communities and those directly concerned by the research is our  
501 dissemination priority. Through co-production with peer researchers, we will ensure engagement and  
502 dissemination is designed in a way that promotes equitable access (i.e., in formats or forums that

503 enable equitable participation and engagement) such as art-based knowledge translation, using various  
504 genres, such as visual arts, creative writing, and multimedia including video and photography (such as  
505 photovoice), to communicate research [59].

506         Dissemination will also consist of academic peer-reviewed journals, summary reports, and lay  
507 summaries, as well as presentations internally, and at conferences. Other outputs will be developed  
508 and shared with non-academic policy, professional, and public audiences, including local councils,  
509 service users, and community organisations. These will include community forums, panel discussions  
510 and podcasts. We will focus on the benefits the research provides for the community and will develop  
511 further outreach ideas with the peer researchers. Policy dissemination will be developed using  
512 stakeholder mapping exercises, capacity building workshops, engagement of policy makers in  
513 structured deliberative dialogues, and collaboration with public media [59]. Our IKT approach, with  
514 close partnerships with community organisations and local decision makers who have the authority to  
515 implement the research recommendations, will aid in ensuring the views and experiences of racially  
516 minoritised communities drive the changes we are collaboratively committed to achieving.

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