



Are housing and neighbourhood empowerment beneficial for mental health and wellbeing? Evidence from disadvantaged communities experiencing regeneration

Ade Kearns^{a,*}, Elise Whitley^b

^a *Urban Studies, School of Social and Political Sciences, University of Glasgow, 25 Bute Gardens, Glasgow, G12 8NU, UK*

^b *MRC/CSO Social and Public Health Sciences Unit, 200 Renfield Street, Glasgow, G2 3QB, UK*

ARTICLE INFO

Keywords:

Mental health
Mental wellbeing
Disadvantaged communities
Empowerment
Regeneration

ABSTRACT

Community engagement and empowerment are central to delivery and outcomes from regeneration programmes, yet evidence for health gains in such contexts is sparse and mixed. This study addresses this issue in respect of mental health and wellbeing in disadvantaged communities in the UK, using a sample of 2862 householders living through housing improvements and regeneration in Glasgow. Feelings of empowerment were more strongly associated with mental wellbeing (WEMWBS) than mental health (SF-12 MCS). Neighbourhood empowerment was more strongly associated with mental wellbeing and mental health than housing empowerment, although its association with mental health disappeared in the period of welfare reform and austerity. Proactive forms of empowerment, such as influencing decisions affecting an area or taking action oneself to improve things, were more strongly associated with mental wellbeing than reactive or passive forms of empowerment. There is much scope to improve feelings of empowerment in disadvantaged communities and to contribute to national objectives to enhance mental wellbeing.

Background

Engagement, empowerment and health

This study examines, in the context of disadvantaged communities undergoing varying degrees of housing improvement and area regeneration, whether feelings of empowerment are associated with residents' mental health and wellbeing over time. The potential link between community engagement and health is recognised by the body responsible for providing guidance and advice for health, public health and social care practitioners in the UK, the National Institute for Health and Care Excellence (NICE). NICE advocates for community engagement in the 'planning, development and management of services, as well as in activities which aim to improve health or reduce health inequalities' (NICE 2008, p.2), and yet the evidence connecting health change to community engagement is weak (Milton et al., 2011). South and Phillips (2014) attribute this evidential gap to two things: poor conceptualisation, and narrow choice of outcomes. In most cases, community engagement is viewed as a 'means to an end' of health delivery rather than as an end of increased community empowerment that will

produce health benefits. In their words 'the distinction is between community engagement as a way to "deliver" resources for health, compared with a process of empowerment that is itself a "source" of health' (p.693).

South and Phillips (2014) identify four types of community engagement for health: a delivery mechanism for standardised public health intervention; a direct intervention that uses lay knowledge and skills to improve health; collective action on the social and environmental determinants of health; and as part of a governance reform to enhance community influence within the health system. The fact that most public health policies and programmes conceive of community engagement in the first two ways (delivery mechanism or direct intervention) means that effectiveness is most often measured by short-term outcomes of individual behaviour change, such as reduced substance abuse (Fawcett et al., 1995) or healthy eating and increased physical activity (Phillips et al., 2014).

However, outcomes from community engagement may also extend beyond behaviour changes, an argument reflected in a review of empowerment and health and wellbeing (Woodall et al., 2010). This review found evidence for the impacts of empowerment interventions

* Corresponding author.

E-mail address: Ade.Kearns@glasgow.ac.uk (A. Kearns).

<https://doi.org/10.1016/j.ssmph.2020.100645>

Received 21 October 2019; Received in revised form 4 August 2020; Accepted 7 August 2020

Available online 20 August 2020

2352-8273/© 2020 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY license (<http://creativecommons.org/licenses/by/4.0/>).

upon individuals, not only in behaviour change and social outcomes such as social networks and support, but also three psychological and cognitive outcomes: improved self-efficacy and self-esteem (Wallerstein, 2006); greater sense of control (Laverack, 2006a); and increased knowledge and awareness (Crossley, 2001). A more recent systematic review examined the effects of different approaches to community engagement within public health programmes upon a range of outcomes, finding the effects on participant self-efficacy (in relation to health behaviours) to be greater than upon other outcomes such as health behaviours, cardiovascular disease, obesity etc. (O'Mara-Eves et al., 2015 & 2013). Five studies in the review found positive effects of engagement upon 'community outcomes', including on area improvement (DCLG, 2006), social support (Fried et al., 2004), and perceived empowerment (Winkleby, Feighery, Dunn, Kole, & Killen, 2004), which is also examined in the present study. Also relevant, the review found that community engagement approaches which involved people in intervention delivery had greater effects upon outcomes than interventions arising from community mobilisation or identified need, or those programmes which engaged people in intervention design (whether through collaboration or consultation) or evaluation. Moreover, engagement in a single component was more effective than engagement in multiple components (need identification, design, delivery, evaluation). Lastly, there were larger effects (for health behaviours) reported for area-wide or universal interventions than for targeted interventions, and also larger effects for health behaviours and other health outcomes (though not so for self-efficacy) from interventions of shorter duration (usually less than six months).

Here, we wish to consider the effects of community engagement in area-based regeneration (rather than in public health programmes) upon the psychological outcomes of mental health and mental wellbeing. Past studies in the regeneration field have mostly used either the Mental Health Inventory (MHI-5) included within the SF36 survey tool (Berwick et al., 1991) or the General Health Questionnaire (GHQ-12) Mental Health scale (Goldberg & Williams, 1988). However, these scales focus poor mental health rather than considering more positive aspects of mental wellbeing, entities that should be regarded as distinct and not simply opposite ends of 'a single bipolar dimension' (Keyes, 2005, p. 539). While mental health can be adversely affected by poor living conditions, particularly at home, regeneration also involves wider area improvements and aspects of process or delivery, such as engagement with residents, that may affect mood and self-perception in ways that may impact more on mental wellbeing. Thus, we might expect mental wellbeing outcomes to be affected more by aspects of regeneration than mental health outcomes.

Individual and collective empowerment

Rappaport (1987) defined empowerment as 'a process ... by which people, organisations and communities gain mastery over their lives' (p.3). For the World Bank (2011), empowerment is about being able to make choices and convert those choices into outcomes, applies to both individuals and groups, and operates through three pathways: individual, organisational and community (ibid.; Zimmerman & Rappaport, 1988). Zimmerman (1995) conceptualised individual or psychological empowerment as having three components: the intrapersonal, interactional and behavioural. At the intrapersonal level, individuals require a belief in their own control, competence and efficacy in order to pursue outcomes. This intrapersonal empowerment may be undermined in disadvantaged communities where helplessness can exist as a learned response to uncontrolled circumstances (Rappaport, 1984), although its extent is contested (Seligman & Peterson, 2001). The interactional component of individual empowerment refers to a person's understanding and awareness of the socio-political environment in which they live, so that they are able to identify causal agents to act upon and the resources required in order to exert more control over their situation.

Although a distinction is often made between individual and

community or collective empowerment, it is also argued that the two are interrelated. For Riger (1993) empowerment cannot be individualistic without at the same time being communal. People cannot achieve social change on their own, and have to act collectively and through organisations in order to become empowered (the so-called 'ecological route' to empowerment (Speer & Hughey, 1995)). The relationship between intrapersonal and interactional empowerment may be complicated by the fact that people who feel empowered may nonetheless not know how to act to pursue desired changes in their individual or community conditions. Conversely, people may understand how to pursue change but not feel sufficient efficacy to act upon this (Speer, 2000), or may feel increased empowerment in circumstances where the decision-making processes that distribute power remain unchanged (Gruber and Trickett 1987). It may also be the case that individual and collective aspirations differ so that empowerment at the individual level does not transfer to the collective level (Skerratt & Steiner, 2013).

Like others, we concur that, even where power is held by an individual, it is also relational (McCubbin, 2001) and that psychological characteristics of individuals, such as 'self efficacy', like all forms of power, are socially embedded (Franzblau & Moore, 2001). However, where power is socially enacted or 'requires collective action' (McCubbin, 2001: 80), the mental health and wellbeing impacts may be greater than where it is enacted individually, as people may gain other psychosocial benefits such as a sense of belonging and trust in others, factors known to be positively associated with psychological health (Giordano & Lindström, 2016). Thus, in most instances, we would expect more collective forms of empowerment to have greater impacts upon mental health and wellbeing than more individual forms, although we expect both to have positive effects.

Empowerment in context

The form that empowerment takes may be context-dependent, varying according to 'the settings and environments in which people live' (Hughey et al., 2008; Speer, 2000; Speer et al., 2013). Key characteristics of community settings and participatory development processes that are empowering include: a culture or belief system that inspires change and focuses beyond the individual; core activities that are engaging and meaningful and offer skills development; a relational environment that offers care, support and belonging; an opportunity structure that offers involvement to people with varied backgrounds; leadership that is motivating and inspiring; and organisational mechanisms capable of adapting to internal and external changes (Maton, 2008; Maton & Salem, 1995).

Maton (2008) identifies a number of empowering settings, including the locality domain, defined as 'settings that empower citizens in impoverished communities to take action to improve the locality in which they live' (p.5) is of particular interest for the current research. In this locality domain, which includes disadvantaged communities receiving area regeneration programmes delivered through community housing organisations, a similar set of factors that influence empowerment has been identified, including the smaller size of some communities, their residential stability, the depth of experience of local activists, and the extent of community organisations' wider networks, all of which support more empowered groups (Lawson and Kearns 2010). Against this, some communities have such substantial problems of poor quality housing and inadequate services that these issues consume the majority of the time and effort of local activists and groups, leaving little space for pro-active developments (Lawson & Kearns, 2010). Thus, even among disadvantaged communities, the scope for collective engagement varies, despite the presence of community 'anchor' organisations with a remit for localised development and service delivery (Henderson, 2015).

The effectiveness of community engagement thus depends upon context. At the level of the residential block or neighbourhood, Dupéré & Perkins, 2007 considered that context may be the combination of

environmental stressors and social resources. They found, for an American city, that higher levels of participation in community organisations were associated with better mental health in neighbourhoods with average levels of environmental stressors but not in neighbourhoods with high or low levels of stressors. Moreover, another form of social resource, informal ties with neighbours, was only effective in advantaged, mostly white communities. The present study specifically focuses on deprived areas, addressing lack of evidence about community engagement's effects in this context. In such circumstance, there are differences of view as to whether empowerment should be individualised or more radical and collective, involving communities organising and mobilising to become more powerful in relation to their lives and health (Green et al., 2015; Laverack, 2006a; Woodall et al., 2012).

One model of community empowerment merges individual and collective qualities, having three components: capability, deciding and achieving (Lawson & Kearns, 2014). Capability is often referred to in policies for disadvantaged communities as 'capacity-building', comprising having relevant knowledge and information about one's prevailing circumstances, understanding of the organisational and policy context applicable to the situation, and critical awareness through which to challenge policy norms and assumptions. In their development of a conceptual model for 'empowerment as a strategic process of intervention', Cavalieri and Almeida (2018) stipulate that competencies and critical awareness are functional at the three levels of individual, community and organisation. Deciding refers to being in the position, or having the opportunity, to make choices for one's community, Achieving is the ability to institute actions (directly or indirectly) in order to implement the decisions made and convert choices into outcomes (Albuquerque et al., 2016). These components combine to result in three types of empowerment outcome: psychological (feeling empowered), political (being party to decision-making) and practical (changing things in a desired direction) (Lawson & Kearns, 2014).

However, not everyone desires the same form of empowerment, or involvement in decisions and actions to the same degree. Recent studies in different contexts have identified inactive and passive forms of empowerment. In a regulated consumer market, Ioannidou (2018) distinguished between the 'active empowered' consumer who makes a move to change where they get their goods and services from (in this case energy) and the 'passive empowered' consumer who does not. As she says, 'the fact that some consumers remain passive does not mean that they are not empowered' (p.145) as they may have judged that the outcome of taking action does not guarantee a better outcome. The inactivity of the 'passive empowered' may also reflect their own personal characteristics and capabilities. However, the provision of consumer information that underlies this decision is itself an empowerment process, not to be eclipsed by a focus only on consumer action as an empowerment outcome. In rural community settings, Galiè & Farnworth, 2019 extend the usual concepts of power such as 'power to' and 'power over' (Pansardi, 2012) to include a new, relational concept of 'power through' in which 'the empowerment of one individual may change even if he or she does not act' (p.14). This is because the empowerment of the individual in such settings is mediated by other relational factors, one or more of which may change, including: the empowerment status of significant others related to them, the way their personal characteristics affect their relations to others, and judgements made by their community.

Our study setting is a combination of these last two: a regulated social housing market serving disadvantaged tenants and a deprived community existing within a planning system. In this situation people may also value more passive, reactive or pro-active forms of empowerment. The first two are more relational (e.g. feeling empowered by having good relations with a service provider or by seeing their response to customer feedback) and the latter more active (e.g. taking action to change things directly). For some people, being kept well informed by those responsible for key services to meet their needs may be enough to make them feel empowered in a passive sense as citizens. Others require

a degree of response on the part of policy-makers and service providers to views they have expressed in order to recognise that they are being treated with dignity and respect and identify this reactive form of empowerment (Poverty & Inequality Commission 2020). Lastly, there is empowerment derived through acting oneself, both deciding and instituting a course of action. We would expect mental health and wellbeing impacts to be greater with proactive empowerment, where people have invested their own efforts to produce a return. Very often, such proactive empowerment is necessarily collective, particularly to produce change at the community level, and this collective endeavour and achievement may have added psychological returns.

Community engagement and regeneration

Community engagement has been a central means of delivery and an end in itself for area regeneration programmes in the UK for at least two decades (Imrie & Raco, 2003), although the sincerity of this focus has been questioned (Somerville 2011). Such area regeneration programmes can be housing-focused and/or more holistic. The former consist mostly of housing works with resident engagement over the nature of improvements to dwellings and housing services within an area. More holistic regeneration, on the other hand, incorporates a mixture of housing and neighbourhood improvements, with resident engagement over the nature, sequencing, timing and governance of area level changes to the physical, social and economic environments (Breese, 2008). We thus refer to housing empowerment and neighbourhood empowerment in our own study, to reflect the effects of engagement for these two approaches. A review of community engagement initiatives in the UK, specifically including studies of housing and regeneration, reported that such engagement can improve participants' skills and sense of political efficacy and impact positively on the delivery of housing services and on the planning of other services (Milton et al., 2011). However, a separate review of community engagement programmes found that none measured community level outcomes (South et al., 2010), despite such engagement potentially producing social outcomes that are either valuable in and of themselves, or on a pathway to health improvement (Nutbeam, 1998; Rogers & Robinson, 2004; South & Phillips, 2014).

Few studies have investigated mental health and wellbeing outcomes from community engagement initiatives and fewer still from area-based programmes in disadvantaged communities that include community engagement elements. This is despite a review from nearly twenty years ago concluding that 'the process of regeneration may be a critical factor in generating positive or negative outcomes of health and wellbeing' (Popay, 2001, p. 6). Since this review, there have been five studies of mental health and wellbeing from area regeneration programmes in the UK; three found no improvement in mental health for adults in the recipient communities (Critchley et al., 2004; Huxley et al., 2004; Stafford et al., 2014) and two reported mental health gains (Blackman & Harvey, 2001; White et al., 2017).

Only in the case of the New Labour Government's flagship regeneration programme New Deal for Communities (NDC), which ran from 1998 to 2011, was the impact of community engagement within these mostly housing-led regeneration programmes specifically evaluated. The NDC initiatives around the UK contained four types of community engagement approaches: resident-led with community values; resident-led but becoming instrumental over time; instrumental approach to engagement to achieve physical changes, while containing community empowerment values; and emphasis on physical changes with a purely instrumental approach to engagement. The evaluation reported no gains in mental health in areas with the resident-led types of community engagement, but that mental health deteriorated in areas with the third type of engagement (instrumental with empowerment values) (Popay et al., 2015).

Present study

Overall, there is very little evidence regarding the effects of community engagement or empowerment in area regeneration programmes on mental health and wellbeing and a particular paucity of evidence from deprived areas. Our aim is to investigate whether, in the most deprived areas, changes in psychological empowerment over time are associated with changes in mental health and wellbeing outcomes for residents. We consider three hypotheses:

1. The effects of empowerment will be greater upon mental wellbeing than upon mental health.
2. Neighbourhood empowerment will have greater effects than housing empowerment.
3. Proactive forms of empowerment will be more strongly associated with mental health and wellbeing than passive or reactive forms.

Study context

This study takes place in Glasgow, Scotland. The Scottish Government's approach to community empowerment over the past decade or more has comprised two main elements: trying to make public services more responsive to communities; and giving communities more rights, responsibilities, and access to resources. The first of these national objectives has been pursued through 'Community Planning', which was given a statutory basis by the Local Government in Scotland Act 2003. Through Community Planning Partnerships (CPPs) within each district, local authorities and other public bodies are required to work together and in consultation with communities, businesses and voluntary organisations and groups to improve and coordinate public services and 'ensure they meet the needs of local people'. However, most assessments conclude that Community Planning has struggled to involve local communities (Matthews, 2014; Sinclair, 2008, Audit Scotland, 2013). The second objective is encapsulated in the Community Empowerment (Scotland) Act 2015, which along with an Action Plan is seen as 'a means to tackle a wide range of issues faced by communities' (Rolfe, 2018, p. 582; Scottish Government and COSLA 2009). The Act provided new rights for community empowerment including the right to: request participation in discussions with public bodies about how to improve local outcomes; purchase neglected or abandoned local land and buildings that are detrimental to community wellbeing; and request the transfer of public land or buildings for better use by the community (Scottish Community Development Centre 2019).

Within this context, Glasgow is Scotland's largest city, a post-industrial conurbation previously reliant upon heavy industry such as shipbuilding for a large part of its employment. It has 48% of its neighbourhoods among the most deprived quintile of local areas in Scotland (Scottish Government, 2016a). It also has a poor health record, including male life expectancy 3.7 years less than the national average and the lowest mental wellbeing recorded for Scottish cities (Understanding Glasgow, 2018). Community engagement and empowerment in Glasgow's deprived neighbourhoods are facilitated in relation to both housing and regeneration. The city's social housing stock (the largest in the UK) was transferred from the local authority to a social landlord, Glasgow Housing Association (GHA) in 2003, a move intended to 'promote community empowerment, community control and community ownership' (GHPSG, 2000, p. 2). Local committees were to have a say in all housing decisions made by GHA through a federated structure of Local Housing Organisations (LHOs) or via a second transfer of the housing stock to the ownership of a smaller, local housing association over the next ten years (GCC, 2002). This 'community ownership' model was promoted in national policy as 'a way to empower tenants' within social housing (Scottish Office, 1999), although scepticism was expressed about the ability of a large organisation such as GHA to decentralise power (Gibb, 2003). From 2003 to 2015, GHA undertook an extensive programme of improvements to its housing stock organised on

an area-by-area basis across the city, including both individual and collective local consultations with tenants about the programme of works.

Soon after stock transfer, GHA along with the city council identified fifteen parts of the city for area regeneration over the next decade or more, with some areas being completely demolished and redeveloped and others improved and partially rebuilt (GHA, 2006). Tenant consultation and community engagement were to be central to this programme of area renewal and, in the larger regeneration areas, local consultative forums were created to help produce master plans for the areas. The Scottish Government also provided funds to assist community-led regeneration beyond the major physical environmental changes brought about by regeneration partners. The Empowering Communities Fund offers grants to communities for a range of purposes including: strengthening community organisations; supporting projects to tackle poverty and promote inclusion; assisting community asset ownership; and facilitating participatory budgeting whereby communities have more say in how public money is spent in their area.

To summarise the situation regarding community engagement activities, we can consider two sets of circumstances. In communities subject to area regeneration, engagement comprised periodic community involvement over a six year period (circa.2006–12) in the design of the area renewal programme through collaboration early on, and later through consultation. There has also been community consultation on renewal delivery from time to time, which continues to happen occasionally though not continuously. In other communities with substantial amounts of social housing, engagement occurred over a ten-year period, circa. 2005–15 (though not uniformly or continuously with the whole community) involving tenant consultation on the delivery of housing improvements, and limited individual tenant choice over aspects of how these are to be achieved. These are the two main sets of community engagement activities in our study areas (see below). In addition, all the communities experienced to varying degrees engagement in the form of consultation about community needs via the Community Planning process, and they may have experienced what O'Mara-Eves et al. (2015) call 'self-mobilised' and 'lay-delivered' interventions or forms of engagement via the use of the Empowering Communities Fund. However, for the most part, community engagement took the form of consultation about the design and delivery of improvements rather than community involvement in delivery itself. With regard to the duration of engagement, it is worth noting that although the recent systematic review found that shorter durations of 6 months were more effective than longer ones, beyond this the review could only distinguish between durations of less than or more than two years, although the largest effect on self-efficacy was found for interventions of two years or more duration (O'Mara-Eves 2015). In our case, the community engagement activities occurred over longer periods of six or ten years, but within this the activities were sporadic rather than continuous, with some communities or parts thereof experiencing little or no engagement about the regeneration for long periods at a time (Lawson & Kearns, 2014). This makes it difficult to draw conclusions about whether the duration of regeneration and its associated engagement activities influences its impacts. In any case, our study is not an evaluation of the regeneration per se, but rather an examination of how, over time, psychological empowerment that occurs in the context of ongoing community engagement activities associated with area regeneration of one form or another may be associated with mental health and wellbeing outcomes for residents.

Methods

Data are based on three repeated surveys of adult householders carried out in 2008, 2011 and 2015 in the 15 city of Glasgow areas identified for regeneration. The study communities are relatively disadvantaged, with all but one falling within the 15% most deprived nationally (Walsh, 2008) and all having a social housing share above the

city rate. The areas were classified into five types according to the type of activity they were subject to, ranging from complete redevelopment, through partial redevelopment, to varying degrees of housing improvement and new build (Egan et al., 2010). In the communities subject to ongoing area regeneration (N = 6), all dwellings were sampled; in the other study areas (N = 9) a random sample of postal addresses was used. One adult householder was interviewed per household on each occasion. Response rates to the surveys were 47.5%, 45.4% and 47.0%, respectively; these are in line with declining response rates in recent years and lower response rates in Glasgow than other districts (Scottish Government, 2010, p. 2013). As our focus was on the impact of changes in empowerment over time, analyses were based on a longitudinal sample of respondents who were interviewed and resident at the same address at 2 timepoints (T1 and T2).

Empowerment

We measure empowerment in a psychological sense, i.e. feelings of empowerment, rather than in other respects such as decision-making or the achievement of desired goals, which have a political and material rather than psychological basis. We examine two forms of empowerment – Individual (Housing) Empowerment and Collective (Neighbourhood) Empowerment – both having individual and collective elements. Individual (Housing) Empowerment relates to housing services alone, i.e. services to dwellings, their occupants and residential buildings, and is based on respondents' satisfaction (very satisfied, fairly satisfied, neither satisfied nor dissatisfied/don't know, fairly dissatisfied, very dissatisfied) with three aspects of their landlord or factor. These questions were asked of respondents in a module specifically about their housing, namely: "The way you are kept informed about things that might affect you"; "Their willingness to take account of residents' views when making decisions", and "The overall housing service provided by your landlord". The first of these questions represents a passive form of empowerment, with second and third representing a reactive form of empowerment. In the case of Glasgow, the stock transfer followed a decision made by tenants who were unhappy and sought improvements in all three respects: being kept informed, being listened to, and having good quality housing and associated services. Housing empowerment is mostly individual, though not entirely. For the most part, housing and the meaning of the home are individualised in western societies, with housing a positional good from which people derive not only shelter and accommodation but also ontological security and self-esteem (Hiscock et al., 2001). Housing providers have a strong focus on individual tenants, seeking to improve their customer services and individual consumer rights (Mills, 2009). Although social landlords are encouraged to set up tenants' representative groups for consultation purposes, their existence and involvement is very variable, so that most tenants see their relation to their landlord as an individual one, although in some areas there may be an effective tenants group (Lawson & Kearns, 2010).

Collective (Neighbourhood) Empowerment relates to spatial and service planning for a local area, and is similarly based on respondents' strength of agreement with three statements about their local area: "On your own, or with others, you can influence decisions affecting your local area"; "People in this area are able to find ways to improve things around here when they want to"; and "The providers of local services, like the council and others, respond to the views of local people". The first two of these questions represent proactive forms of empowerment, whilst the last represents reactive empowerment. These questions are distinct from the housing ones, since they were asked in a different module within the survey introduced as being about the local neighbourhood, they did not refer to the landlord, and nor does the council provide housing services any longer. The services asked about in this neighbourhood module related to the environment and public amenities (such as street lighting, libraries, schools, play areas etc.). Neighbourhood empowerment is mostly collective, though not exclusively. The official mechanisms set up to support community empowerment in

respect of local services, land and buildings are collective in nature, requiring active community organisations to exercise the relevant powers. Although it is possible that individuals may seek to achieve empowerment over neighbourhood issues, we consider this to be far less common than collective efforts.

All individual empowerment responses were scaled from 1 (worst) to 5 (best), with changes in individual empowerment responses between T1 and T2 ranging from -4 (worsening) to 4 (improving). Individual (Housing) and Collective (Neighbourhood) Empowerment summary measures were also constructed by summing the three relevant responses to produce a score between 3 (worst response for all three questions) and 15 (best response for all three questions). Change in these summary empowerment scores between T1 and T2 ranged from -12 (worsening) to 12 (improving).

Mental health and wellbeing

Mental health and wellbeing at both time points were assessed using the SF12 mental component summary (MCS) (Ware, Kosinski, & Keller, 1996) and the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS) (Tennant et al., 2007) respectively. Analyses focussed on changes in these outcomes over time, considering the difference between MCS and WEMWBS scores between T1 and T2 adjusted for (baseline) scores at T1.

Analysis

Analyses focus on associations between *changes* in empowerment between T1 and T2 and *changes* in wellbeing and mental health over the same period. There was variation in the number and magnitude of categories in the change in empowerment variables and so Slope Indices of Inequalities (SII) were derived (Regidor, 2004) to allow comparison of their respective impact on mental health and wellbeing. In least squares regression models SII coefficients represent the difference in outcome (change in SF12MCS or WEMWBS from T1 to T2) comparing the most improved (most positive) with the worst (most negative) change in the relevant empowerment measure. All analyses are based on multilevel models for observations nested within individuals and nested within area type (complete/partial redevelopment, other). Basic analyses are adjusted for baseline outcome value, baseline empowerment, and interval in years between the two responses (T1 and T2). Fully adjusted models also include confounding variables (measured at T2): sex, age group, citizenship status (white British, other), housing tenure (renter, owner-occupier), employment status (working, not working, retired) and presence of any long-standing illness. Analyses were repeated stratified by (a) area type and (b) year of interview to explore any potential effect modification.

Results

Based on the sampling criteria (respondents interviewed and resident at the same address in at least 2 waves) 78% and 55% of those interviewed in 2008 and 2011 respectively were included in the analyses, resulting in a total of 2862 pairs of interviews. Characteristics of the analytical sample at both time points are presented in Table 1. Almost two thirds of respondents were female with mean age 53 and 57 at T1 and T2 respectively. Just over 20% of respondents were working at each time. The proportion not working was 6% lower by T2, while the proportion who reported being retired rose by a similar amount, reflecting the increased age at T2. Similarly, respondents were more likely to report having a long-standing illness at T2 (48% versus 38% at T1). Mean (SD) SF12 MCS and WEMWBS scores were similar at both time points (SF12 MCS: 48.5 (11) versus 49.1 (12) and WEMWBS: 49.7 (10) versus 49.3 (11) at T1 and T2 respectively). Respondents who were interviewed in 2008 or 2011 but who were excluded from the analyses (because they were not interviewed or had moved in subsequent waves) were very similar in terms of these characteristics to those who were

Table 1
Respondent characteristics at T1 and T2.

	Values at T1 N (%)	Values at T2 N (%)
Sex		
Male	1060 (37.0)	–
Female	1802 (63.0)	
Age group		
16-39	619 (21.6)	447 (15.6)
40-54	834 (29.1)	780 (27.3)
55-64	573 (20.0)	533 (18.6)
65+	836 (29.2)	1102 (38.5)
Citizenship status		
White British	2534 (88.5)	2534 (88.5)
Other	328 (11.5)	328 (11.5)
Housing tenure		
Renting	2350 (82.1)	2343 (81.9)
Owner occupied	512 (17.9)	519 (18.1)
Employment status		
Working	638 (22.4)	603 (21.1)
Not working	1191 (41.8)	1039 (36.3)
Retired	1024 (35.9)	1220 (42.6)
Long standing illness		
No	1758 (61.5)	1476 (51.6)
Yes	1099 (38.5)	1386 (48.4)
Mean (SD) SF12 MCS	48.5 (11.0)	49.1 (11.8)
Mean (SD) WEMWBS	49.7 (10.3)	49.3 (10.7)

included.

Table 2 presents responses to the Individual (Housing) Empowerment questions at both time points. Responses overall were more positive at T2 than at T1, with the percentages giving positive answers (agree

Table 2
Individual (housing) empowerment at T1 and T2.

	Values at T1 N (%)	Values at T2 N (%)	Change from T1 to T2	N (%)
Landlord/factor keeps me informed				
Strongly disagree	83 (2.9)	99 (3.7)		
Disagree	200 (7.0)	214 (8.0)	Worsening	745 (27.8)
Neutral/Don't know	574 (20.1)	271 (10.1)	No change	1051 (39.2)
Agree	1405 (49.3)	1475 (54.9)	Improving	884 (33.0)
Strongly agree	589 (20.7)	627 (23.3)		
Landlord/factor takes residents views into account				
Strongly disagree	113 (4.0)	125 (4.7)		
Disagree	243 (8.5)	250 (9.3)	Worsening	828 (30.9)
Neutral/Don't know	785 (27.5)	525 (19.6)	No change	923 (34.5)
Agree	1210 (42.4)	1274 (47.5)	Improving	927 (34.6)
Strongly agree	500 (17.5)	510 (19.0)		
Overall service provided by landlord/factor				
Strongly disagree	98 (3.5)	96 (3.6)		
Disagree	179 (6.3)	174 (6.5)	Worsening	706 (26.8)
Neutral/Don't know	755 (26.7)	432 (16.2)	No change	987 (37.4)
Agree	1296 (45.8)	1347 (50.6)	Improving	945 (35.8)
Strongly agree	502 (17.7)	613 (23.0)		
Housing empowerment score				
Mean (SD)	11.1 (2.6)	11.4 (2.7)	Worsening	956 (36.3)
			No change	531 (20.2)
			Improving	1143 (43.5)

or strongly agree) increasing by 8% for being kept informed, 6% for having views taken into account, and 11% for being satisfied with the overall service. For each item, the proportion whose answer was more positive at T2 than at T1 exceeded the proportion giving a less positive answer at T2 (33–36% improving versus 27–31% worsening).

Table 3 shows the equivalent data for the Collective (Neighbourhood) Empowerment questions. The level of perceived neighbourhood empowerment was lower than for housing empowerment: at T2, looking at the level of agreement with each item, just over half the sample considered themselves empowered in neighbourhood terms, compared with around seven-in-ten respondents who felt empowered in housing terms. Again, the responses were more positive at T2 than at T1, although the increases in percentages answering agree or strongly agree were less marked than in the case of the housing empowerment questions: 1% for influencing decisions, 6% for ability to improve things and 5% for responsive services. For two items (improving things and responsive services), the proportion giving a more positive response at T2 compared with T1 exceeded the proportion giving a less positive answer. However, this was not true for influencing decisions, where 35% of respondents gave a less positive (or more negative) answer at T2 than at T1, compared with 34% who gave a more positive (or less negative) answer at T2.

Associations of changes over time in Individual (Housing) Empowerment with changes in wellbeing and mental health are presented in Table 4. Analyses stratified by area type and year were similar and results are therefore presented for all respondents combined. In basic analyses, improvements in housing empowerment over time were associated with positive changes in both wellbeing and mental health;

Table 3
Collective (neighbourhood) empowerment at T1 and T2.

	Values at T1 N (%)	Values at T2 N (%)	Change from T1 to T2	N (%)
Can influence local decisions				
Strongly disagree	205 (7.2)	155 (5.4)		
Disagree	496 (17.3)	644 (22.6)	Worsening	986 (34.6)
Neutral/Don't know	837 (29.3)	716 (25.1)	No change	908 (31.9)
Agree	1098 (38.4)	1149 (40.3)	Improving	956 (33.5)
Strongly agree	224 (7.8)	188 (6.6)		
Can improve things				
Strongly disagree	161 (5.6)	88 (3.1)		
Disagree	390 (13.6)	395 (13.9)	Worsening	913 (32.1)
Neutral/Don't know	850 (29.7)	773 (27.1)	No change	953 (33.5)
Agree	1201 (42.0)	1415 (49.7)	Improving	981 (34.5)
Strongly agree	258 (9.0)	178 (6.3)		
Local service providers respond to people				
Strongly disagree	170 (6.0)	120 (4.2)		
Disagree	394 (13.8)	373 (13.1)	Worsening	851 (29.9)
Neutral/Don't know	883 (30.9)	765 (26.9)	No change	962 (33.8)
Agree	1215 (42.5)	1406 (49.4)	Improving	1031 (36.3)
Strongly agree	195 (6.8)	185 (6.5)		
Neighbourhood empowerment score				
Mean (SD)	9.9 (2.6)	10.0 (2.4)	Worsening	1170 (41.2)
			No change	418 (14.7)
			Improving	1250 (44.0)

Table 4

Slope Index of Inequality (SII) (95% CI) for change in Mental Wellbeing Score (WEMWBS) and Mental Health Score (SF12 MCS) from T1 to T2 comparing most positive versus most negative change in Individual (Housing) Empowerment from T1 to T2.

	Basic Adjustment ^a	Full Adjustment ^b
<i>WEMWBS (all respondents)</i>		
Landlord/factor keeps informed	5.20 (3.43, 6.97) ***	5.92 (4.26, 7.58) ***
Landlord/factor takes views into account	5.74 (3.94, 7.54) ***	6.00 (4.32, 7.69) ***
Satisfied with landlord/factor service	6.20 (4.40, 8.00) ***	6.89 (5.19, 8.58) ***
Combined housing empowerment score	5.80 (4.10, 7.50) ***	6.38 (4.78, 7.97) ***
<i>SF12 MCS (all respondents)</i>		
Landlord/factor keeps informed	4.10 (2.17, 6.03) ***	4.27 (2.43, 6.11) ***
Landlord/factor takes views into account	3.51 (1.54, 5.47) ***	3.18 (1.31, 5.04) ***
Satisfied with landlord/factor service	5.25 (3.29, 7.20) ***	5.14 (3.26, 7.02) ***
Combined housing empowerment score	4.26 (2.40, 6.11) ***	4.24 (2.47, 6.02) ***

* $p < .05$, ** $p < .01$, *** $p < .001$.

^a Adjusted for baseline WEMWBS/SF12MCS, baseline empowerment and time between T1 and T2.

^b Adjusted also for sex, citizenship, age, employment status, LSI and tenure at T2.

for example respondents with the most improved view of housing empowerment overall saw a 5.80 (95% confidence interval (CI): 4.10, 7.50) increase in WEMWBS and a 4.26 (2.40, 6.11) increase in SF12 MCS when compared with those whose view of housing empowerment saw the greatest decline over time. These associations were similar or stronger after further adjustment for confounders. Within housing empowerment, results indicate somewhat stronger associations for 'service satisfaction' (WEMWBS: 6.89 (5.19, 8.58); SF12 MCS: 5.14 (3.26, 7.02)) than for 'views taken into account' or 'being kept informed'.

Similar results for associations of changes in Collective (Neighbourhood) Empowerment and changes in wellbeing and mental health are shown in Table 5. Stratified analyses of wellbeing were similar and results are presented for all respondents combined. Again, respondents with the greatest improvement in neighbourhood empowerment also had improved WEMWBS scores and these associations were more marked than for housing empowerment (SII (95% CI) for neighbourhood empowerment score: 9.48 (7.85, 11.21)) and strong associations remained after adjustment for confounders (8.90 (7.29, 10.51)). Within neighbourhood empowerment, results indicate stronger associations with mental wellbeing for 'influencing decisions' (8.14 (6.50, 9.78)) and 'improving things' (8.07 (6.34, 9.80)) than for 'responsive services' (6.74 (5.04, 8.44)). Results for SF12 MCS were different according to the years in which respondents were interviewed. Results for those interviewed in 2008 and then in 2011 were similar to those for housing empowerment with respondents with the greatest improvement in neighbourhood empowerment overall having SF12 MCS scores 4.98 (2.28, 7.68) greater than those with the greatest worsening. In contrast, results for respondents who were interviewed for the second time in 2015, regardless of the timing of their first interview, showed no or slightly negative associations between neighbourhood empowerment and SF12 MCS. Moreover, in the fully adjusted analysis, the negative association was somewhat stronger for 'responsive services' than for the other two items.

Discussion

The value of community empowerment is well recognised and many initiatives, national and local, have aimed to promote empowerment,

Table 5

Slope Index of Inequality (SII) (95% CI) for change in Mental Wellbeing Score (WEMWBS) and Mental Health Score (SF12 MCS) from T1 to T2 comparing most positive versus most negative change in Collective (Neighbourhood) Empowerment from T1 to T2.

	Basic Adjustment ^a	Full Adjustment ^b
<i>WEMWBS (all respondents)</i>		
Can influence local decisions	8.99 (7.22, 10.76) ***	8.14 (6.50, 9.78) ***
Can improve things	7.87 (6.02, 9.75)***	8.07 (6.34, 9.80) ***
Local service providers respond to people	7.27 (5.44, 9.09)***	6.74 (5.04, 8.44) ***
Combined neighbourhood empowerment score	9.48 (7.85, 11.21) ***	8.90 (7.29, 10.51) ***
<i>SF12 MCS (respondents interviewed 2008 to 2011)</i>		
Can influence local decisions	5.39 (2.41, 8.37)***	4.13 (1.35, 6.91) **
Can improve things	4.35 (1.28, 7.42)**	4.13 (1.28, 6.98) **
Local service providers respond to people	6.88 (3.84, 9.92)***	5.98 (3.13, 8.82) ***
Combined neighbourhood empowerment score	5.96 (3.07, 8.85)***	4.98 (2.28, 7.68) ***
<i>SF12 MCS (respondents interviewed 2008/2011 to 2015)</i>		
Can influence local decisions	-0.52 (-3.17, 2.13)	-1.24 (-3.71, 1.23)
Can improve things	-0.16 (-2.98, 2.66)	-0.02 (-2.63, 2.59)
Local service providers respond to people	-0.71 (-3.46, 2.03)	-2.28 (-4.82, 0.27)
Combined neighbourhood empowerment score	-0.74 (-3.37, 1.88)	-1.66 (-4.10, 0.78)

* $p < .05$, ** $p < .01$, *** $p < .001$.

^a Adjusted for baseline WEMWBS/SF12MCS, baseline empowerment and time between T1 and T2.

^b Adjusted also for sex, citizenship, age, employment status, LSI and tenure at T2.

particularly in disadvantaged communities. The potential for empowerment to improve health and health behaviours has been recognised by NICE (2008), which advocates for community engagement in the planning, development and management of services. However, in spite of its potential importance in determining population health and decreasing health inequalities, there is little evidence regarding the impact of community engagement and empowerment on health outcomes, particularly among disadvantaged groups. The present study adds to the evidence about community engagement's impacts in disadvantaged communities those officially defined as the most deprived areas. A recent systematic review found no evidence that engagement was particularly beneficial in disadvantaged places, but covered only six studies, with 'disadvantaged' being identified merely by location in the inner city (O'Mara-Eves et al., 2015).

The same review called for research that was long-term and using a range of outcome measures (O'Mara-Eves et al., 2015). Our results focus on measures of both mental health and mental wellbeing, are based on a large sample of over 2000 respondents who were interviewed at the same address on at least two occasions, with a longitudinal design to give additional confidence in the directionality of the observed associations. Previous studies in the UK, even those conducted over time, have tended to use repeat cross-sectional samples, so our design represents an advance. Past research in Glasgow reported positive cross-sectional associations between one item of neighbourhood empowerment ('influencing decisions') and both mental health and wellbeing (Baba et al., 2017); we have confirmed this finding longitudinally, and extended it by including other empowerment variables.

However, alongside these strengths, there are also some limitations that should be considered when interpreting the results. Our longitudinal design required respondents to have been interviewed and resident at the same address at two survey waves and, thus, regular house-movers

were excluded, even though residential instability is common in deprived areas. Those taking part in two or more surveys were more likely to be female and were generally older than those who were not included. Our study is therefore not wholly representative of all residents of deprived areas. In addition, our study did not include a measure of proactive empowerment in relation to housing, to see whether the added effect of proactivity is present across policy sectors and we highlight this as an area for future research.

Our measures of Individual (Housing) and Collective (Neighbourhood) Empowerment are at an individual rather than at a collective level, and derived from a quantitative survey. A recent synthesis review of the measurement of community empowerment suggested three things (Laverack & Pratley, 2018). First, that a mixed methods approach would be best, although this was rarely done, otherwise there would be gaps, particularly at the community level (Cyril et al., 2016). Second, the complexity of empowerment is such that summary indices that combine variables should be used. Nevertheless, many of the measurement domains pertain to necessary conditions that would enable people to do such things as make their own choices or interact with institutions to address injustices, rather than being empowerment outcomes (Laverack, 2006b; Laverack & Pratley, 2018; Narayan 2005). The measures we have combined are more about perceived and psychological empowerment outcomes rather than empowerment conditions, and include variables that directly relate to some of the dimensions in the World Bank's Empowerment and Inclusion Index, such as effectiveness in obtaining services and effectiveness of local political influence (Alsop et al., 2006). Thirdly, the review described how collective empowerment could be measured through the use of clustered sampling designs and the aggregation of individual survey responses at the community level. Although, we have not done this, our survey was conducted in particular selected areas where engagement with improvements had occurred, so that the responses at the individual level are very much within a community context. But as the review also said, 'The evidence suggests that individual and collective levels of empowerment are closely associated' (Laverack & Pratley, 2018, p. 14). In our study we have used measures of psychological empowerment that reflect the fact that empowerment can be individual or collective, relate to different spaces in the residential domain – namely consumption of housing and use of the neighbourhood – and be achieved through different modes of operation from the passive, through the responsive to the reactive. Moreover, existing work specifically in deprived areas is limited and our results provide an important insight into experiences in such localities.

We have explored the impact of longitudinal changes in empowerment on mental health and wellbeing using data from 15 deprived areas in Glasgow to understand whether the effects of empowerment differ between domains of activity and types of empowerment. We found that psychological empowerment was higher, and positive views increased by more over time, in respect of housing than neighbourhoods. Further, at the individual level, changes in both types of empowerment were positively associated with changes in mental health and wellbeing. Our data are derived from disadvantaged communities where sense of efficacy can be low and feelings of helplessness may be high (Overmier, 2002), with the potential for gain from community initiatives and regeneration programs that include community engagement and empowerment components. Thus, the main finding of positive associations between changes in empowerment and changes in mental health and wellbeing are socially important. However, the fact that the positive association between Collective (Neighbourhood) Empowerment and mental health disappeared in the post-2011 period and a negative association with the 'responsive services' form of empowerment emerged may be of political importance. This is the period during which welfare reforms and austerity measures were introduced in the UK (commencing in mid-2010). Glasgow was one of the older industrial areas hardest hit by welfare reforms (Beatty & Fothergill, 2014) with deprived communities being hardest hit by cuts to public services (Hastings et al., 2017).

The effects of empowerment were greater in relation to mental

wellbeing than mental health, supporting our first hypothesis, and may reflect the mental wellbeing scale's inclusion of measures of positive affect, such as optimism, and positive functioning, such as clear thinking and competence (Tennant et al., 2007). These traits may be impacted by interactions and experiences that positively reinforce individual's status regarding service providers and decision-makers, and/or their ability to bring about change directly. The Scottish Government has an objective of annual improvements in mental wellbeing but has reported that the target indicator has remained static in recent years (Scottish Government, 2016b, p. 2017). Our results suggest that enabling empowerment for individuals and communities may have a marked impact upon mental wellbeing and are therefore substantive in policy terms.

Although both types of empowerment were strongly associated with mental wellbeing, associations with Collective (Neighbourhood) Empowerment were more marked than with Individual (Housing) Empowerment, in accord with our second hypothesis. Thus, the positive affect that comes from empowerment is greater where feelings of empowerment are embedded in and shared with others, adding important evidence that is currently lacking. A recent systematic review reported that evidence for links between social capital and mental wellbeing is weak or absent because 'most studies focus on negative aspects of mental health, such as depression and disorders', making specific reference to the lack of studies that use the WEMWBS scale (Nyqvist et al., 2013, p. 402). Our results for Collective (Neighbourhood) Empowerment, a form of bridging and linking social capital (Putnam, 2000), are important in illuminating the role of the meso level in psychosocial health (Nyqvist et al., 2013).

Our finding of associations over time between Individual (Housing) Empowerment and mental health reflects a long-standing recognition of the importance of home environment for mental health, whereby empowerment in relation to the service provider or landlord can help prevent conditions detrimental to mental health such as disrepair and dampness (Evans et al., 2003). However, our study was conducted in areas with a high presence of social housing, a sector firmly regulated to produce responsive services and encourage tenant participation, and is also undergoing reforms, including proposed tenant engagement over landlord regulatory performance (Ainsworth & Strachan, 2019). A concern for the future in Glasgow, as in the rest of the UK, is that the recent rapid growth of the private rented housing sector, tripling in size in Glasgow since 199, is outstripping the effectiveness of regulatory reforms to improve landlord registration and repair behaviour (Livingston et al., 2018). This is an area in need of policy improvement to avoid increasing numbers of younger households finding themselves relatively powerless against private landlords.

The most proactive forms of empowerment, 'influencing decisions' and 'improving things yourselves', had the strongest associations with mental wellbeing, partially confirming hypothesis three. Reactive forms of empowerment, 'responsive services', 'satisfaction with housing services' and 'landlord takes views into account', had the next strongest associations, followed lastly by the most passive form of empowerment, 'being kept informed'. However, for mental health the strongest association was found for reactive forms of empowerment, possibly indicating the high importance of good services and high standards for mental health, in line with much past research on housing environments.

It is interesting that in health terms, a stronger link between wellbeing and health outcomes has been reported in more individualistic countries (Okely et al., 2018), and that the UK is identified as a country with very strong support for individualism as an organising social principle (European Commission 2017). However, it has been observed that wellbeing measures such as CASP-12 and CASP-19 (used in the EU research) have an individualistic bias, and that wellbeing has not often been measured in collectivist societies (Uchida, Norasakkunkit and Kiyama 2004). Our findings that proactive empowerment has a strong association with mental wellbeing are therefore important, as our measure (WEMWBS) contains items about socially-situated affect.

Moreover, the study took place in a country, Scotland, often remarked as being more socialist than the dominant part of the UK, and defined by 'collective sentiment' (Brown, 2014). The results indicate that in a more collectivist culture, proactive and collective forms of empowerment are important for mental wellbeing, in accord with previous suggestions. The challenge for Scotland is that proactive empowerment is lower in larger urban areas than in smaller towns and rural areas (Scottish Government, 2016c).

Despite recent policy attention to community empowerment and its central role in regeneration policy in particular, the most effective, proactive form of empowerment, 'influencing decisions', was the least commonly reported by participants, and all forms of Collective (Neighbourhood) Empowerment had much lower rates of 'strong agreement' than Individual (Housing) Empowerment. In policy terms, the results indicate that there is great scope for further improvements in community engagement and empowerment in both spatial and community planning in Scotland. This requires much stronger requirements and funding support to things such as community workshops and independent advice agencies to stimulate greater public engagement in planning processes (Scottish Government 2019).

Conclusion

We found strong associations over time between Individual (Housing) and Collective (Neighbourhood) Empowerment and mental health and wellbeing, indicating that empowerment can be a 'source of health' beyond behaviour change and through a variety of means, including service delivery and governance arrangements (South & Phillips, 2014). We also demonstrated that the process of regeneration in disadvantaged communities may be as important to health and wellbeing outcomes as the improvements themselves (Popay, 2001). Furthermore, for low-income communities, the housing sector is an important empowering setting alongside area regeneration or 'locality development' (Maton, 2008). In both cases, empowerment is context-dependent and reliant upon organisational characteristics of the community setting involved (Maton & Salem, 1995). As Christens (2012) argues, understanding how contexts moderate processes of psychological empowerment is important for community development. For deprived areas in a post-industrial city like Glasgow, the further development of empowerment in the housing and community sectors to achieve mental health and wellbeing gains may require several things: organisational adaptation by planning bodies (Matthews, 2014); nurturing of individual and organisational capability within communities to increase influence and proactivity and their effects (Lawson & Kearns, 2010; Speer et al., 2013); and incorporation of empowerment measures into evaluation frameworks (Christens, 2012).

Localised empowerment may be more important than ever in the current period when trust in politicians is low and citizens' sense of empowerment over other key domains of their lives such as employment, the economy, and the future in general has been diminished (Osborne, 2013). Local empowerment through housing services, neighbourhood and community development and involvement in planning may be important counterweights to wider societal and political trends. Enabling people to feel empowered through these means can build community capacity and support the sustainability of any changes made (Wells et al., 2007), and may also enhance residents' mental health and wellbeing.

Author statement

AK had the original idea for the study, which was developed with EW. EW analysed the data and AK wrote the first draft of the paper. Both authors have reviewed and approved the final version.

Ethics

The project received ethics approval from NHS Scotland A Research Ethics Committee Ref: 05/MRE/10/89.

Acknowledgements

This research was carried out as part of the Glasgow Community Health and Wellbeing (GoWell) Research and Learning Programme (www.gowellonline.com). GoWell is a collaborative partnership between the Glasgow Centre for Population Health, the University of Glasgow and the MRC/CSO Social & Public Health Sciences Unit. GoWell is sponsored by Glasgow Housing Association (Wheatley Group), the Scottish Government, NHS Health Scotland and NHS Greater Glasgow & Clyde (Award No. 301367-01). EW is funded by the Medical Research Council (MC_UU_12017/13) and the Chief Scientist Office, Scottish Government (SPHSU13). The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript. The authors have no conflicts of interest to declare.

References

- Ainsworth, S., & Strachan, V. (2019). *Our regulation of social housing in Scotland: Analysis of consultation responses, final report*. Edinburgh: Scottish Housing Regulator & Progressive Partnership.
- Albuquerque, C., Santos, C., & Almeida, H. (2016). Assessing 'empowerment' as social development: Goals and processes. *European Journal of Social Work*, May, 1–13.
- Alsop, R., Bertelsen, M., & Holland, J. (Eds.). (2006). *Empowerment in practice: From analysis to implementation*. Washington D.C.: World Bank.
- Audit Scotland. (2013). *Improving Community Planning in Scotland*. Edinburgh: Audit Scotland.
- Baba, C., Kearns, A., McIntosh, E., Tannahill, C., & Lewsey, J. (2017). Is empowerment a route to improving mental health and wellbeing in an urban regeneration context? *Urban Studies*, 54(7), 1619–1637.
- Beatty, C., & Fothergill, S. (2014). The local and regional impact of the UK's welfare reforms. *Cambridge Journal of Regions, Economy and Society*, 7(1), 63–79.
- Berwick, D. M., Murphy, J. M., Goldman, P. A., Ware, J. E., Barsky, A. J., & Weinstein, M. C. (1991). Performance of a five-item mental health screening test. *Medical Care*, 29(2), 169–176.
- Blackman, T., & Harvey, J. (2001). Housing renewal and mental health: A case study. *Journal of Mental Health*, 10(5), 571–583.
- Breese, R. (2008). Towards a holistic approach to regeneration: The importance of operational dimensions. *Journal of Urban Regeneration and Renewal*, 2(2), 173–187.
- Brown, G. (2014). *My Scotland, our Britain: A future worth sharing*. London: Simon & Schuster.
- Cavaliere, I. C., & Almeida, H. N. (2018). Power, empowerment and social participation – the building of a conceptual model. *European Journal of Social Science Education and Research*, 5(1), 174–185.
- Christens, B. D. (2012). Targeting empowerment in community development: A community psychology approach to enhancing local power and well-being. *Community Development Journal*, 47(4), 538–554.
- Critchley, R., Gilbertson, J., Green, G., & Grimsley, M. (2004). *Housing investment and health in Liverpool*. Sheffield: CRESR, Sheffield Hallam University.
- Crossley, M. L. (2001). The 'armistead' project: An exploration of gay men, sexual practices, community health promotion and issues of empowerment. *Journal of Community & Applied Social Psychology*, 11(2), 111–123.
- Cyril, S., Smith, B. J., & Renzaho, A. (2016). Systematic review of empowerment measures in health promotion. *Health Promotion International*, 4, 809–826.
- DCLG. (2006). *Neighbourhood management: An overview of the 2003 and 2006 round 1 pathfinder household surveys*. London: Department of Communities and Local Government, Neighbourhood Renewal Unit.
- Dupéré, V., & Perkins, D. D. (2007). Community types and mental health: A multilevel study of local environmental stress and coping. *American Journal of Community Psychology*, 39, 107–119.
- Egan, M., Kearns, A., Mason, P., Tannahill, C., Bond, L., Coyle, J., ... Walsh, D. (2010). Protocol for a mixed methods study investigating the impact of investment in housing, regeneration and neighbourhood renewal on the health and wellbeing or residents: The GoWell programme. *BMC Medical Research Methodology*, 10, 41.
- European Commission. (2017). *Special eurobarometer 467: Future of Europe social issues*. Brussels: European Commission.
- Evans, G. W., Wells, N. M., & Moch, A. (2003). Housing and mental health: A review of the evidence and a methodological and conceptual critique. *Journal of Social Issues*, 59(3), 475–500.
- Fawcett, S. B., Paine-Andrews, A., Francisco, V. T., Schultz, J. A., Richter, K. P., Lewis, R. K., Lopez, C. M., et al. (1995). Using empowerment theory in collaborative partnerships for community health and development. *American Journal of Community Psychology*, 25(5), 677–695.

- Franzblau, S. H., & Moore, M. (2001). Socializing efficacy: A reconstruction of self-efficacy theory within the context of inequality. *J Community Applied Psychology, 11* (2), 83–96.
- Fried, L. P., Carlson, M. C., Freedman, M., Frick, K. D., Glass, T. A., Hill, J., Zeger, S., et al. (2004). A social model for health promotion for an aging population: Initial evidence on the experience corps model. *Journal of Urban Health, 81*, 64–78.
- Galliè, A., & Farnworth, C. R. (2019). Power through: A new concept in the empowerment discourse. *Global Food Security, 21*, 13–17.
- GCC. (2002). *Glasgow housing transfer: Stage two notice*. Glasgow: Glasgow City Council.
- GHA. (2006). *People and communities: Transformational regeneration areas – a discussion paper*. Glasgow: Glasgow Housing Association.
- GHPSG. (2000). *Better homes, stronger communities: A framework for tenant-led change*. Glasgow: Glasgow Housing Partnership Steering Group.
- Gibb, K. (2003). Transferring Glasgow's council housing: Financial, urban and housing policy implications. *European Journal of Housing Policy, 3*(1), 611–629.
- Giordano, G. N., & Lindström, M. (2016). Trust and health: Testing the reverse causality hypothesis. *J Epidemiol Commy Health, 70*, 10–16.
- Goldberg, D. P., & Williams, P. (1988). *A users' guide to the general health questionnaire*. London: GL Assessment.
- Green, J., Tones, K., Cross, R., & Woodall, J. (2015). *Health promotion, planning and strategies*. London: Sage.
- Hastings, A., Bailey, N., Bramley, G., & Gannon, M. (2017). Austerity urbanism in England: The 'regressive redistribution' of local government services and the impact on the poor and marginalised. *Environment and Planning A, 46*(9), 2007–2024.
- Henderson, J. (2015). *Community anchors*. Glasgow: What Works Scotland.
- Hiscock, R., Kearns, A., Macintyre, S., & Ellaway, A. (2001). Ontological security and psycho-social benefits from the home: Qualitative evidence on issues of tenure. *Housing, Theory and Society, 18*(1–2), 50–66.
- Hughey, J. N., Peterson, A., Lowe, J. B., & Oprescu, F. (2008). Empowerment and sense of community: Clarifying their relationship in community organizations. *Health Education & Behaviour, 35*(5), 651–663.
- Huxley, P., Evans, S., Leese, M., Gately, C., Rogers, A., Thomas, R., & Robson, B. (2004). Urban regeneration and mental health. *Social Psychiatry and Psychiatric Epidemiology, 39*, 280–285.
- Imrie, R., & Raco, M. (2003). *Urban renaissance? New Labour, community and urban policy*. Bristol: Policy Press.
- Ioannidou, M. (2018). Effective paths for consumer empowerment and protection in retail energy markets. *Journal of Consumer Policy, 41*, 135–157.
- Keyes, C. L. M. (2005). Mental illness and/or mental health? Investigating axioms of the complete state model of health. *Journal of Consulting and Clinical Psychology, 77*(3), 539–548.
- Laverack, G. (2006a). Improving health outcomes through community empowerment: A review of the literature. *Journal of Health, Population and Nutrition, 24*(1), 113–120.
- Laverack, G. (2006b). Using a "domains" approach to build community empowerment. *Community Development, 41*(1), 4–12.
- Laverack, G., & Pratley, P. (2018). *What quantitative and qualitative methods have been developed to measure community empowerment at a national level? WHO health evidence synthesis report 59*. Copenhagen: WHO Regional Office for Europe.
- Lawson, L., & Kearns, A. (2010). Community empowerment' in the context of the Glasgow housing stock transfer. *Urban Studies, 47*(7), 1459–1478.
- Lawson, L., & Kearns, A. (2014). Rethinking the purpose of community empowerment in neighbourhood regeneration: The need for policy clarity. *Local Economy, 29*(1–2), 63–80.
- Livingston, M., Berry, K., Gibb, K., & Bailey, N. (2018). *Private renting reforms: How to evidence the impact of legislation*. Edinburgh: Scottish Parliament & SPICE.
- Maton, K. I. (2008). Empowering community settings: Agents of individual development, community betterment, and positive social change. *American Journal of Community Psychology, 41*, 4–21.
- Maton, K. I., & Salem, D. A. (1995). Organizational characteristics of empowering community settings: A multiple case study approach. *American Journal of Community Psychology, 23*(5), 631–656.
- Matthews, P. (2014). Being strategic in partnership – interpreting local knowledge of modern local government. *Local Government Studies, 40*(3), 451–472.
- McCubbin, M. (2001). Pathways to health, illness and wellbeing: From the perspective of power and control. *Journal of Community & Applied Social Psychology, 11*, 75–81.
- Mills, N. (2009). The consumer and social housing. In R. Simons, M. Powell, & I. Greener (Eds.), *The consumer in public services: Choice, values, difference*. Bristol: Policy Press.
- Milton, B., Attree, P., French, B., Povall, S., Whitehead, M., & Popay, J. (2011). The impact of community engagement on health and social outcomes: A systematic review. *Community Development Journal, 47*, 316–334.
- Narayan, D. (Ed.). (2005). *Measuring empowerment: Cross-disciplinary perspectives*. Washington D.C.: World Bank.
- NICE. (2008). *Community engagement to improve health*. London: National Institute for Health and Clinical Excellence.
- Nutbeam, D. (1998). Evaluating health promotion – progress, problems and solutions. *Health Promotion International, 13*, 27–44.
- Nyqvist, F., Forsman, A. K., Biuntoli, G., & Cattani, M. (2013). Social capital as a resource for mental well-being in older people: A systematic review. *Ageing and Mental Health, 17*(4), 394–410.
- Okely, J. A., Weiss, A., & Gale, C. R. (2018). The interaction between individualism and wellbeing in predicting mortality: Survey of health ageing and retirement in Europe. *Journal of Behavioural Medicine, 41*, 1–11.
- Osborne, H. (2013). *Pressure and job insecurity felt by UK workers at twenty year high*. The Guardian. <https://www.theguardian.com/money/2013/may/20/british-workers-less-secure-more-stressed> Accessed 26.8.2019.
- Overmier, B. J. (2002). On learned helplessness. *Integrative Physiological and Behavioral Science, 37*(1), 4–8.
- O'Mara-Eves, A., Brunton, G., McDaid, D., Oliver, S., Kavanagh, J., Jamal, F., Matoesic, T., Harden, A., & Thomas, J. (2013). Community engagement to reduce health inequalities in health: A systematic review, meta-analysis and economic analysis. *Public Health Research, 1*(4), 1–140.
- O'Mara-Eves, A., Brunton, G., Oliver, S., Kavanagh, J., Jamal, F., & Thomas, J. (2015). The effectiveness of community engagement in public health interventions for disadvantaged groups: A meta-analysis. *BMC Public Health, 15*, 129.
- Pansardi, P. (2012). Power to and power over: Two distinct concepts of power? *Journal of Political Power, 5*(1), 73–89.
- Phillips, G., Bottomley, C., & Schmidt, E. (2014). *Well London Phase- 1: Results among adults of a cluster-randomised trial of a community engagement approach to improving health behaviours and mental well-being in deprived inner-city neighbourhoods*. *Journal of Epidemiology & Community Health, 68*, 606–614.
- Popay, J. (2001). *Regeneration and health: A selected review of research*. London: Nuffield Institute for Health & Kings Fund.
- Popay, J., Whitehead, M., Carr-Hill, R., Dibben, C., Dixon, P., Halliday, E., ... Walthery, P. (2015). The impact on health inequalities of approaches to community engagement in the new deal for communities regeneration initiative: A mixed-methods evaluation. *Public Health Research, 3*(12), 1–148.
- Poverty and Inequality Commission. (2020). *Dignity and respect in public services the view of people with direct lived experience of poverty*. London: PIC.
- Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. London: Simon & Schuster.
- Rappaport, J. (1984). Studies in empowerment: Introduction to the issue. *Prevention in Human Services, 3*, 1–7.
- Rappaport, J. (1987). Terms of empowerment/exemplars of prevention: Toward a theory for community psychology. *American Journal of Community Psychology, 15*(2), 121–147.
- Regidor, E. (2004). Measures of health inequalities: Part 2. *Journal of Epidemiology & Community Health, 58*, 900–903.
- Riger, S. (1993). What's wrong with empowerment. *American Journal of Community Psychology, 21*, 279–292.
- Rogers, B., & Robinson, E. (2004). *The benefits of community engagement. A review of the evidence*. London: Active Citizenship Centre. Home Office.
- Rolfe, S. (2018). Governance and governmentality in community participation: The shifting sands of power, responsibility and risk. *Social Policy and Society, 17*(4), 579–598.
- Scottish Government. (2010). *Report on response to scottish government population surveys*. Edinburgh: Scottish Government.
- Scottish Government. (2013). *Scottish household survey methodology and fieldwork outcomes 2012*. Edinburgh: Scottish Government.
- Scottish Government. (2016a). *SIMD 2016 council area profiles: Glasgow city*. Edinburgh: Scottish Government.
- Scottish Government. (2016b). *National performance framework*. Edinburgh: Scottish Government.
- Scottish Government. (2016c). *Scottish social attitudes survey 2015: Attitudes to social networks*. Edinburgh: Civic Participation and Co-Production. Scottish Government.
- Scottish Government. (2017). <https://www2.gov.scot/About/Performance/scotPerfomrms/indicator/wellbeing>.
- Scottish Government. (2019). *Community involvement in the planning process*. <http://www.gov.scot/policies/planning-architecture/community-planning-process/> Accessed 26.8.2019.
- Scottish Government and COSLA. (2009). *Scottish community empowerment action plan – celebrating success, inspiring change*. Edinburgh: Scottish Government.
- Scottish Office. (1999). *Investing in modernisation: An agenda for Scotland's housing*. Edinburgh: Scottish Office.
- Seligman, M. E. P., & Peterson, C. (2001). Learned helplessness. In *International encyclopaedia of the social & behavioural Sciences*.
- Sinclair, S. (2008). Dilemmas of community planning. *Public Policy and Administration, 23* (4), 373–390.
- Skerratt, S., & Steiner, A. (2013). Working with communities-of-place: Complexities of empowerment. *Local Economy, 28*(3), 320–338.
- Somerville, P. (2011). *Understanding community: Politics, policy and practice*. Bristol: Policy Press.
- South, J., & Phillips, G. (2014). Evaluating community engagement as part of the public health system. *Journal of Epidemiology & Community Health, 68*, 692–696.
- South, J., Raine, G., & White, J. (2010). *Community health champions: Evidence review*. Leeds: Centre for Health Promotion Research, Leeds Metropolitan University.
- Speer, P. W. (2000). Intrapersonal and interactional empowerment: Implications for theory. *Journal of Community Psychology, 28*(1), 51–61.
- Speer, P. W., & Hughey, J. (1995). Community organising: An ecological route to empowerment and power. *American Journal of Community Psychology, 23*, 729–748.
- Speer, P. W., Petersen, A. N., Marmstead, T. L., & Allen, C. T. (2013). The influence of participation, gender and organizational sense of community on psychological empowerment: The moderating effects of income. *American Journal of Community Psychology, 51*, 102–113.
- Stafford, M., Badland, H., Nazroo, J., Halliday, E., Walthery, P., Povall, S., ... Popay, J. (2014). Evaluating the health inequalities impact of area-based initiatives across the socioeconomic spectrum: A controlled intervention study of the new deal for communities, 2002–2008. *Journal of Epidemiology & Community Health, 68*, 979–986.
- Tennant, R., Hiller, L., Fishwick, R., Platt, S., Joseph, S., Welch, S., ... Stewart-Brown, S. (2007). The warwick-edinburgh mental well-being scale (WEMWBS): Development and UK validation. *Health and Quality of Life Outcomes, 5*, 63.

- Uchida, Y., Norasakkunkki, V., & Kitayama, S. (2004). Cultural constructions of happiness: Theory and empirical evidence. *Journal of Happiness Studies*, 5, 223–239.
- Understanding Glasgow. (2018). *Glasgow indicators: Health*. https://www.understandingglasgow.com/indicators/health/comparisons/scottish_cities Accessed 29.1.2019.
- Wallerstein, N. (2006). *What is the evidence on effectiveness of empowerment to improve health?* Copenhagen: WHO Health Evidence Network.
- Walsh, D. (2008). *Health and wellbeing in Glasgow and the GoWell Areas – deprivation based analyses*. Glasgow: Glasgow Centre for Population Health.
- Ware, J., Kosinski, M., & Keller, S. D. (1996). A 12-item short-form health survey: construction of scales and preliminary tests or reliability and validity. *Medical Care*, 34(3), 220–233.
- Wells, R., Ford, E. W., McClure, J. A., Holt, M. L., & Ward, A. (2007). Community-based coalitions' capacity for sustainable action: The role of relationships. *Health Education & Behaviour*, 34(1), 124–140.
- White, J., Greene, G., Farewell, D., Dunstan, F., Rodgers, S., Lyons, R. A., ... Fone, D. (2017). Improving mental health through regeneration of deprived neighbourhoods: A natural experiment. *American Journal of Epidemiology*, 186(4), 473–480.
- Winkleby, M. A., Feighery, E., Dunn, M., Kole, S., & Killen, J. D. (2004). Effects of an advocacy intervention to reduce smoking among teenagers. *Archives of Pediatrics and Adolescent Medicine*, 158(3), 269–275.
- Woodall, J., Raine, G., South, J., & Warwick-Booth, L. (2010). *Empowerment and health & well-being: Evidence review*. Leeds: Centre for Health Promotion Research, Leeds Metropolitan University.
- Woodall, J. R., Warwick-Booth, L., & Cross, R. (2012). Has empowerment lost its power? *Health Education Research*, 27(4), 742–745.
- World Bank. (2011). *What is Empowerment?* Washington: World Bank Group.
- Zimmerman, M. A. (1995). Psychological empowerment: Issues and illustrations. *American Journal of Community Psychology*, 23(5), 581–599.
- Zimmerman, M. A., & Rappaport, J. (1988). Citizen participation, perceived control and psychological empowerment. *American Journal of Community Psychology*, 16, 725–750.