Designing a Recovery-Orientated System of Care: A Community Operational Research Perspective.

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Abstract

Theory suggests health focused Community Operational Research (COR) projects and their participants can benefit from balancing a "glass half empty" concern for deficits, problems and weaknesses with a "glass half full" concern for identifying health assets and bringing them into use. We present a COR systemic intervention in the care of persons with addiction and substance use/ misuse problems in Clydeplace, Scotland (anonymised). Our research reveals how the Whole Person Recovery System is situated within a wider General Community Recovery System that offers a variety of health assets that can be mobilised to create and increase recovery capital. The project involved 20 semi-structured interviews, two asset mapping workshops, a certificated "health issues" course completed by seven "champions", and action planning and implementation. In the interviews participants found gaps were more easily identified than assets. During the workshops participants identified 388 discrete assets and gaps, prioritised these using a simple voting system and developed a series of actions to mobilise health assets including bringing into use local facilities and amenities and involving a number of individuals and groups in local events and activities. Our study suggests that even in the impoverished system of Clydeplace, a "Community Catalyst" in the form of a Community Operational Researcher can act to stimulate the co-development of health assets, build relationships and enable the creation of social capital. It is not clear though when such systems become "self-catalysing."

Keywords

OR in health and social care, Community Operational Research, substance misuse, social capital, recovery capital, health assets, systems.

1. Community Operational Research and health and social care improvement

Operational Research (OR) has a longstanding tradition of social responsibility (e.g., see Ackoff, 1974; Churchman, 1970; Ormerod & Ulrich, 2013; Rosenhead, 1986,) and has frequently challenged OR scholars to tackle societal issues. This mission has particularly been taken on board by scholars focussing on community-based OR interventions. While the term 'Community Operational Research' (COR) originates in the UK (Rosenhead, 1986) there is a long international history of often eminent contributions to community-based interventions of diverse theoretical and practical kinds from outwith and often prior to the OR movement, including Dewey's early 20th century experimentalist and progressive educational movement (Masters, 1995), Moreno's psychodrama with Viennese prostitutes in 1913 (McTaggart, 1994), Collier's 1945 and Lippitt & Radke's 1946 social reform followed by Lewin's action research 1947 (McKernan, 1991), later Freire's critical pedagogy (Shor, 1993) and, as an often cited early example of COR, Ackoff's (1970) 'A black ghetto's research on a university'. More recent COR publication is highly diverse, tackling issues such as community resilience, (Helfgott, 2018), crime (Fabusuyi, 2018), peace (Pinzon-Salcedo & Torres-Cuello, 2018), social impact (White, 2018), ethics (Romm, 2018), processes of engagement (Brocklesby & Beall, 2018), empowering indigenous voices in disaster response (Morgan & Fa'aui, 2018) amongst many others that can be found in the recent special issue on COR in the European Journal of Operational Research (vol. 268, issue no 3).

The relationship between COR and the work of health and social care professionals, managers and other workers, as well as those using their services, is similarly indicated by a growing number of published empirical examples of COR applied to a set of health and social care problems. For instance, in their recent overview, Walsh et al (2018) refer to contributions from Ritchie et al (1994), Cohen & Midgley (1994), Midgley & Milne (1995), Boyd et al, (2001, 2007), Taket & White (2004), Walsh & Hostick (2004), Waltner-Toews et al (2004), Smith et al (2009), Sommer & Mabin (2015) and Frerichs et al (2016). As health and social services around the world are faced with diverse and severe challenges such contributions are of increased societal relevance. Walsh et al (2018) further argue that COR can offer a timely, systemically consistent, effective and vital response to these challenges by helping to create more sustainable health and social care through community-led health and social care systems.

In this paper we focus on the challenges posed to community by addiction and substance use/ misuse. Looking at an economically and socially challenged community in Central Scotland we take into consideration that although substance use/ misuse is seen as affecting all groups in society

(Daddow & Broome, 2010) it is the poorer, multiply deprived communities that are both more vulnerable and more likely to be severely affected. Engaging with a community less likely to have access to the kinds of resources for recovery highlighted by Granfield & Cloud (2001) allows us to provide insights relevant to a wider range of communities affected by resource constraints. Our paper aims to be relevant to the COR community, contributing to the ongoing debates about the support and development of communities affected by addiction and substance use/ misuse. It is also directed towards health and social care scholars, professionals and policy makers. Communicating with these diverse audiences is challenging (Kittler, 2018) but we also believe cross-fertilisation is important and so we are trying to bring these communities closer together on the vitally important and challenging problems posed by addictions and substance use/misuse. We will begin with the community challenge of substance use/misuse and the concepts of recovery and recovery capital. We consider the role of assets based approaches, then we introduce a well-known systems approach to recovery – Daddow, Broome, & Street's (2010) Whole Person Recovery System – and highlight how this is part of a wider system containing many of the health assets vital for recovery. We then discuss how we attempted to explore this wider system, through our engagement in the pilot COR project carried out in Clydeplace, Scotland (anonymised), to see how more health assets could be mobilised to create and increase the supply of recovery capital in the community. We end by discussing briefly the implications of the project for the further development of COR.

2. Recovery and recovery capital

Internationally, substance use and misuse or problematic drug and alcohol use are associated with complex and apparently intractable social and health issues, but these are regarded as disproportionately severe in Scotland (Scottish Government, 2008a). Drug deaths in Scotland in 2016 were at their highest recorded level, over twice as high as ten years ago (National Records of Scotland, 2017) with Scotland's drug-death rate being higher than those of all other EU countries and around two and a half times that of the UK as a whole. These figures point at the significance of finding an adequate response to this development and echo calls to find solutions to a generally rising and seemingly intractable trend with a potential for "radical harm reduction response now" (McCauley et al, 2017). However, unsystematic and isolated interventions lack a more comprehensive understanding of the drug use/ misuse problem and hence tend to be less effective than desired. For instance, a large gap exists between medical treatments (such as alcohol detoxification or treatment of heroin addiction with methadone substitution) and reintegration of

individuals into mainstream society with "maintenance" being seen as a form of "indefinite dependence" (Public Health England, 2012, p.3). This, coupled with the failure to address the emotional and social needs of people with problems (White, 2006) increases pressures to find more ethical, broadly acceptable and effective approaches in the care and treatment of people affected by substance use/ misuse.

An approach that takes a more holistic view is based on the notion of "recovery". Recovery movements arose in the 1980s in the US with grass-root organisations in mental health (e.g., Deegan, 1988). Gradually the movement spread around the world being seen as a useful and radical idea in the field of mental health generally (Shepherd, Boardman, & Slade, 2008). In the US the concept of person-centered recovery also subsequently spread to addiction services (e.g., White & Cloud, 2008) and led to the formation of addiction recovery communities and recovery systems combining the process of individuals recovering within the community and with community support to fulfil societal roles. In this understanding, recovery (from substance dependence) could be defined as "*a voluntarily maintained lifestyle characterised by sobriety, personal health and citizenship*" (The Betty Ford Institute Consensus Panel, 2007, p. 222; italics in original). Taking increased interest in the topic and further emphasizing the individual's contribution to this process, the UK Drug Policy Commission (2008, p.6) understands recovery as "voluntarily sustained control over substance use which maximises health and wellbeing and participation in the rights, roles and responsibilities of society". Yet, there remained little UK-based evidence on recovery concerning substance use and misuse (Best et al, 2010).

Expanding the social view of recovery, Cloud & Granfield (1999) employed Bourdieu's (1980) concept of social capital which is seen as a useful meso-level concept (Bebbington, 2002) that continues to be widely applied, for instance, see Putnam (2001), Hawkins & Maurer (2010) or Nussio & Oppenheim (2014) (who focus on anti-social capital typified by corrupt, criminal or anti-social behaviour). Capital, Cloud & Granfield (2008) argue, is "a body of resources that can be accumulated or exhausted" (p. 1972) and through a complex interplay between field and habitus explains practice (Outsios and Kittler, 2018). Thus, recovery capital is "the sum total of one's resources that can be brought to bear on the initiation and maintenance of substance misuse cessation" (Cloud and Granfield, 2008, p.1972). According to Pascoe & Robson (2015) this perspective provides a robust explanation for the spontaneous recovery from substance misuse by some veterans from the Vietnam War returning to their homes (Robins, Davis, & Nurco, 1974) suggesting that recovery "strongly correlates to the social context and the resources that adhere to a person's social position" (Granfield & Cloud, 2001, p.1456). This view is strongly supported by evidence from the Framingham studies on the power of

peer influence. For instance, regarding cessation of smoking or the spread of clinical obesity, a significant role of the social network has been found (Christakis & Fowler, 2007; Christakis & Fowler, 2008; Litt, Kadden, Kabela-Cormier, & Petry, 2009).

Monitoring successful recovery and the accompanying need for a robust measurement of recovery itself has remained challenging despite recent progresses in the patient-centred measurement of recovery. The 28 recovery indicators proposed by Neale et al (2016a, see table 1) from their Delphi study and the related patient reported outcome measurement (PROM) tool for recovery from drug and alcohol dependence (Neale et al, 2016b) now offer a discrete basis for consistent outcomes measurement that can help place patients seeking recovery at the heart of recovery systems.

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Yet, while recovery PROMs are a welcome development for policy and practice, the "capital" needed to enable a measureable individual recovery is a more diffuse concept. It is not a fixed resource, like water in a bottle, possessed by an individual seeking recovery. Instead, recovery capital is also a property of the wider system that can be increased or reduced by the actions of other individuals, groups and other system elements. This follows from Cloud & Granfield (2008), who subdivide recovery capital into four components: *Social capital* (which they see as resources from relationships and which are therefore partly produced by others), *physical capital* (tangible assets such as property and money but again often under the influence of someone else), *human capital* (skills, aspirations, educational attainment which again reflect a life history) and *cultural capital* (values, beliefs and attitudes that necessarily derive from and are shared with wider society).

Social capital is a prominent component of recovery capital that can itself be subdivided into *bonding capital* (a measure of social cohesion within a group, Narayan, 1999), *bridging capital* (cuts across different community groups building connections between them, Schuller, Baron, & Field, 2000) and *linking capital* (the extent to which individuals build relationships with institutions and individuals who have relative power over them, e.g., to provide access to services, jobs or resources, Woolcock 2001). This means, for instance, that bonding capital is necessary for groups to form but without bridging capital they can become isolated and disenfranchised both from other groups needed to build social capital and from the rest of society while linking capital provides groups with points of access to resources.

These subdivisions of recovery capital highlight the diversity of stakeholders (human and institutional) involved in, and the complexity of, recovery processes. Therefore, recovery occurs within a complex systemic milieu in which a recovering individual is one of many participants. Hence, it is important to understand how the wider system relates to recovery capital if this it to be increased and recovery expedited. While adding some conceptual complexity the subdivisions of capital and of social capital also allow a more sophisticated understanding when suggesting practical ways in which COR might support groups and communities in responding to challenges posed by substance use/misuse and suggest close proximity to assets based approaches which could also add to our understanding of recovery.

3. Assets based approaches

The social view of recovery is consistent with the international consensus that health is socially determined (Marmot & Bell, 2012). It also resonates with reoccurring criticisms of health and social care practices like that of the former Chief Medical Officer in Scotland who highlights the way medical deficit models have led to policies and practices that disempower populations and communities (Burns, 2010). Those critics in contrast often tend to promote "salutogenesis", a concept initially introduced by the sociologist Antonovsky (1979, 1987), that focuses on causation of health and the way that social and individual "assets for health" can be mobilised rather than on disease and risk factors (Mittelmark & Bauer, 2017). This view has gained support in the wellbeing literature (e.g., Aked et al, 2008) and in sensitive social contexts, such as child protection (e.g., Taylor, 2004). In the form of "strength" based assessments, it is a key part of the Scottish Government's view of quality in drug and alcohol services (Scottish Government, 2014). Health assets are seen as factors or resources that enhance "the ability of individuals, communities and populations to maintain and sustain health and wellbeing and to help to reduce health inequalities" (Morgan and Ziglio, 2007 p.18). These assets comprise attributes ranging from skills and interests within the local population to physical and economic resources. The convergence with social capital is striking. Health assets can be seen as productive or enabling capacities of individuals, groups and communities and as having a role in relation to recovery capital, especially to bonding, bridging and linking capital. Health assets may be lying dormant or be underutilised (Rotegard et al, 2010) for many reasons, perhaps because they are unrecognised, undervalued, or there are psychological, bio-medical, social, cultural, political, physical, economic or other systemic barriers.

From a COR viewpoint health assets offers an interesting re-framing for communities affected by addictions and substance misuse that changes the overarching perspective from seeing this behaviour as consequences of individually diagnosed clinical and social deficits (potentially regarded as blameworthy by socially judgmental actors), within a commodified care system that is struggling to cope with demand, to one of looking for clinical and social strengths systemically in the wider community, in order to create a synergistic climate for recovery by identifying and mobilising health assets. Thus, a COR project in these terms involves helping participants to empower themselves by using a variety of tools and techniques to seek more reflective, more critically aware and more widely shared appreciations of challenging situations. The salutogenic perspective suggests COR project participants can benefit from balancing a "glass half empty" concern for deficits, problems and weaknesses with a "glass half full" concern for identifying health assets and bringing them into use. Such a lens could deliver insights especially on how health (and any other) assets may be recognised, developed and mobilised in order to increase bridging, linking and bonding capital for recovery. This will be illustrated in our discussion of the Clydeplace project (see section 5) following the development of an explicit systems perspective in the recovery movement.

4. A systems approach to creating recovery capital

The contribution of systems thinking in the field of addictions and substance use/ misuse took a significant turn in the project reported by Daddow & Broome (2010). They describe an extensive systems project involving drug and alcohol users who contributed to a "systemic understanding of the problem" (p. iv). They modelled three processes they called *"The Hold"* (the balance between escape from suffering via drugs versus desire to get "clean"), *"The Struggle"* (a balance between factors weakening or strengthening the "decision" to recover) and *"The Recovery"* (the balance between the "baggage" of the past and coping). The stage "Resolving to exit The Hold" (see figure 1) highlights the recurring decision to strive to recover that individuals must make. Achieving this requires "acquiring and building recovery capital" (p. iv) with the help of medical and psychosocial interventions. Daddow & Broome (2010) acknowledge that, while the Whole Person Recovery System is based on "the strongest account" (from participants), it is not "an ideal model" (p. 52) and it is only tested partially. Despite these limitations, their work represents a considerable achievement in making sense of the systemic complexity that typifies the individualistic focus on substance use/ misuse.

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The Whole Person Recovery System shows how recovering individuals need personal qualities or attributes to begin and maintain a recovery journey. This is especially seen in "Resolving to exit The Hold" (figure 1) without which recovery is impossible – it is a psychological gateway. But it also highlights how sensitive the position of the individual recovery journey is to influences originating in the wider system. This model more clearly reflects the roles and influences of a variety of actors and processes in the system and how these may expedite or impede recovery than is apparent from orthodox medical deficit models. Whilst clinicians know well that the rest of the community has a potentially vital role to play in providing resources that can help individuals gain this resolve, the clinical task often features imperatives to treat immediate harm rather than having time and space to help develop community resources. This often leaves clinicians both overwhelmed and frustrated as they deal with a complex adaptive system using linear medical deficit tools – diagnosis, prescriptions and psychological support such as counselling – within resource constrained services.

Following our discussion, it becomes apparent that the Whole Person Recovery System highlights how recovery lies at a nexus of dynamic variables with influences from outside of the individual. Thus, a recovering individual may have the positive psychological attribute of "opening to triggers that weaken The Hold" (for instance willingness to seek help) – but the trigger events are probably external, like the threats of becoming homeless or of violence. Similarly, each element of the system has a shared influence where the recovering individual is in contact with the wider system. From this perspective, it is this complexity that makes recovery simultaneously both difficult, because it is a non-linear logic model, and yet possible for health assets to be mobilised to weaken The Hold, win The Struggle and expedite Recovery. Yet, when the Whole Person Recovery System is *in focus*, the wider system tends to remain *out of focus*, containing many of the health assets vital for recovery. So a key task then is to attempt to consider and model at least part of the wider system, to see how a potentially wider set of health assets can be brought into play. Accordingly, the COR project carried out in Clydeplace provided an opportunity to explore the wider system for a community affected by substance use/ misuse. It is to this we now turn.

5. A COR substance use and misuse project in Clydeplace – policy context

The overarching policy of the Scottish Government is based on the view that partnerships are efficient, effective and acceptable ways to integrate national government and local priorities in all elements of the economy. This is especially visible in healthcare since the publication of Better Together (Scottish Government, 2008b) where it states explicitly that there is a mutually beneficial relationship between people and staff of the NHS as partners, or co-owners of the health system. Realising these mutual benefits requires a significant degree of shared understandings between current or potential partners which may be quite limited (Howieson et al, 2013, Walsh et al, 2018). However COR is especially well placed to respond to the partnership agenda because COR projects often do involve facilitating the development of shared understandings between participants about the situation they face including both about where there is consensus and where there is not. This shared understanding can then become the basis for coordinated action between participants aimed at improving the situation from their perspective – as exemplified by the many COR projects listed earlier in this paper.

The national policy commitment can also be seen in the requirement to integrate national outcomes with local priorities and to incorporate both health and social care which provided a strategic framework for the West Dunbartonshire Community Health & Care Partnership (2011). Other policy imperatives came from the Scottish Government's commitment to the recovery agenda (Scottish Government, 2008a), the framework for action on alcohol (Scottish Government, 2009), the Health, Efficiency, Access & Treatment (HEAT) targets (concerning especially the numbers of screenings and alcohol brief interventions occurring within 3 weeks from referral received to appropriate treatment) (West Dunbartonshire Community Health & Care Partnership, 2011) and from the National Quality Standards for Substance Misuse Service which require person-centred, outcome-based and whole population prevention through the local Alcohol and Drug Partnership (ADP).

All of these policy elements are combined in the delivery plan of the West Dunbartonshire ADP comprising many partners including local charities and voluntary organisations. The situation in West Dunbartonshire was especially challenging with drug related deaths considerably higher, and in three of the five years from 2006 – 2010 double, those of Scotland as a whole (West Dunbartonshire Community Health & Care Partnership, 2011). The ADP Delivery Plan (West Dunbartonshire Alcohol & Drug Partnership, 2012) explicitly states its aim is "through efficient and effective partnerships with key stakeholders, to reduce the harmful effects of alcohol and drugs and promote recovery in local

communities" (p. 2). Key ADP public health outcome and performance indicators are presented in table 2.

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Within the policy context of this initiative an opportunity arose to work with the ADP on a pilot COR project to explore the identification and mobilisation of local health assets by building bonding, bridging and linking capital thereby helping to modify the environment in which not only people with substance use/ misuse issues live but, systemically, helping the broader community to identify and bring into play or increase utilisation of health assets in order to aid recovery in Clydeplace (anonymised). Clydeplace is a community in the west of Glasgow with a population of over 600 residents staying mainly as council (social rented) house tenants. The community lies within the 15% most deprived areas of Scotland (Scottish Government, 2012) with around 30% of the working age population classed as employment-deprived compared to 18% for the local council and 13% for Scotland. Clydeplace suffers from high levels of substance use/ misuse, a number of associated fatalities, antisocial and criminal behaviour and a high proportion of people using drug and alcohol services. Some houses are utilised as a "Centre" by the council for homeless people. The level of antisocial behaviour and crime led to a "Public Reassurance Area" (Association of Chief Police Officers in Scotland, 2007) being created in January 2011 by the council and police to address local fears (West Dunbartonshire Community Safety Partnership: Clydeplace Area Profile, 2011, Update of Progress in the Public Reassurance Area).

In addition to individuals known at Clydeplace, a number of agencies were identified as sources of advice, support to and participation in the project including the Community Safety and Antisocial Behaviour Services, the Community Learning and Development Officer at West Dunbartonshire Council, Public Reassurance Officer, the Police Service (Community Liaison Officer, West Dunbartonshire and local police officers for Clydeplace), local NHS Addiction Services staff and general adult psychiatry colleagues in the local NHS, the West Dunbartonshire Housing department and Alternatives (a community based volunteer run charity providing a range of services to individuals and families currently or previously affected by drugs). A worker was recruited who had a strong track record in urban and rural Scotland as a community development professional. ADP funded the researcher and expenses for 12 months from January 2014, with some additional ADP funding being made available in 2015. The ADP comprises a range of agencies working together in a

partnership but relationships can be somewhat political. It was anticipated that the COR project worker who was seen as relatively neutral and accepted by both the agencies of the ADP and residents of the community could work with these differing interests.

6. Outcome considerations

The project evolved during discussions with the ADP who were keen to support it but a key discussion concerned outcomes. The ADP has a range of 32 public health outcome and performance indicators that it applies to assess projects for support (see table 2 above). These indicators have been drawn from a bigger list of ADP indicators in seven wider categories, reflecting the Scottish national policy commitments discussed earlier (see table 3). Ten of these are more obviously "outcome" indicators (whether clinical, non-clinical individual, social or corporate) of which some are uni-dimensional (e.g. "number of alcohol / drug related deaths") and others multi-dimensional (including "recovery outcomes"). Other indicators are more clearly process related (e.g. the number of alcohol brief interventions on NHS premises) and some appear to be composite outcome/ process indicators (e.g. the number of young persons receiving support for drug/alcohol misuse).

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While the indicators of table 2 reveal what conditions must be fulfilled to gain the support of the ADP they form only one perspective in the Clydeplace COR project. COR projects by their very nature mean that the participants who are directly involved in meetings agree their own outcomes (however these may be expressed and however these change during a project) as documented in the mental health projects reported by Walsh and Hostick (2004) and the other health projects mentioned earlier. It is from this sense of ownership over what is being achieved by these participants, defined in their own terms, engaging with the wider system as well as with themselves, that COR projects gain much of their meaning and strength (see e.g. Midgley and Ochoa-Arias, 2004; Johnson, 2011 for further reading). Normally only some of the table 2 indicators can apply to individual projects and for the Clydeplace COR project support was justified on grounds of the project contributing at minimum to the number of community awareness-raising activities run by ADP partners, the number of people participating in community awareness events, the number of clients accessing education/training/employment and the number of community-based awareness sessions

delivered to the target group. This support allowed for the project to explore the broader objective of modelling the wider system, and to see how more health assets can be brought into play.

Another basis for outcomes measurement considered for the Clydeplace COR project was that of the concept of "recovery" itself. As highlighted earlier the direct measurement of recovery outcomes, like health outcomes more generally, has hitherto been very limited and at the time the project was being planned there were no consistent and validated recovery indicators available, with the important work by Neale et al (2016a,b) being published later. This gap in recovery measurement is reflected in the ADP's seven national outcomes (table 3) of which only one refers to recovery. Other outcomes in table 3 concern risk reduction but this seems to be primarily prevention by education (e.g., no. of alcohol/ drug education sessions delivered to young people in schools). Moreover many of the 53 performance indicators in table 3 are what Donabedian (1988) terms structure or process rather than outcome indicators. Only seven performance indicators are categorised as indicative of "recovery" (e.g. no. of clients with sustained tenancies) which contrasts strongly with Neale et al's (2016a) 27 recovery indicators shown in table 1. The focus of the project therefore became that of mapping elements of the wider system especially the bonding, bridging and linking capital and then facilitating project participants attempts to increase these, thereby helping to modify the system in which people with substance use/ misuse issues live and systemically helping the broader community to identify and bring into play, or increase, the utilisation of health assets.

7. Project design

The systemic intervention consisted of the facilitation of a process of inquiry and action planning by local residents with the support of local charity and volunteer organisations, the ADP and its partners. This comprised providing a certificated "Health Issues In The Community Course", carrying out a "road show" to introduce the project to the community and invite involvement, eliciting community experiences qualitatively (primarily through 20 semi-structured interviews), identifying "champions" to take the project forward and carrying out two workshops. In these workshops gaps and health assets were mapped (the term "strengths" was used), unmet needs and gaps in current provision of services and support were identified and possible solutions were explored to meet these needs and fill gaps by mobilising or bringing into play unused or under-utilised health assets. A public event was held in September ("Clydeplace Day") and a final action planning workshop in November 2014.

From January to March 2014 the "road show" was organised to introduce the project to the ADP partners and other Clydeplace groups involved in or affected by recovery. These nominated potential interviewees and usually provided meeting places. 20 semi-structured "orientation" interviews were conducted with current or past residents which captured detailed accounts of social, economic and environmental changes experienced by local residents. Interviews took place in a local hospital, voluntary sector offices, cafes and in a church hall or were conducted by phone. Interviews lasted between 60 and 90 minutes identifying main themes. The other purpose of the interviews was to create a more empathic relationship between the project worker and local residents, to engage their participation and to guide facilitation of subsequent meetings.

Participants were also invited onto a Health Issues In The Community (HIIC) course (Community Health Exchange, 2015) in May 2014. HIIC is an established certificated short course aimed at inspiring local people to get involved and improve their communities by identifying issues, needs, opportunities and solutions. The objectives in Clydeplace were to use HIIC to catalyse and develop community engagement in identifying and mobilising community assets including creating new partnerships with local service providers thereby creating bonding, bridging and linking capital. After a "taster" session with ten participants in May 2014 the course completed with seven participants in September 2014. These participants then with the support of the facilitator helped organise and deliver the workshops and community events and subsequent actions.

A workshop was set up in which community representatives, the ADP, local voluntary organisations including a group of people in recovery who provide outreach and mutual support, the Red Cross, the Homeless Centre and the local Church met for mapping strengths (the "glass half full" mentioned earlier), gaps (the "glass half empty" mentioned earlier) and ideas and solutions. Based on insights from the orientation interviews and on practical questions based on Daddow & Broome (2010; What do we have? Where are the gaps? What are the issues? What can we do?) 14 questions were generated that were used in subsequent workshops (table 4). A key aim was to start a dialogue in which different individuals, groups and agencies have a forum to share information.

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Participants, working in small groups around tables, were given a flipchart page with a question posed by the facilitator written in the bullseye of a target with three concentric circles. Participants

were asked to discuss the question and write responses on sticky paper notes and to place these on the flip chart. Higher priority issues were placed closer to the centre (see figure 2 for an example). This led to 14 "asset maps" with 388 paper notes expressing discrete issues being prioritised by the participants (see table 4). Flipcharts were then displayed side by side and participants were invited to browse all of them. Each participant was given three sticky spots and asked to look at all of the flipcharts, discuss them with other participants, and to vote for their personal priority by placing a sticky spot on any issue they felt justified it, as is shown in figure 2. Participants were told they could place all three spots on one issue if they felt very strongly about it. This proved a very effective way of enabling all participants to talk to each other in a relatively relaxed atmosphere and to express their views both within groups and between groups. Finally an action planning event built on the workshop and focused on priorities and opportunities for action.

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8. Findings

Gaps were easily identified in the orientation interviews. Prominent gaps Clydeplace residents raised promptly were the lack of meeting places, shops, buses and employment opportunities. However, interviewees found it very difficult to identify discrete strengths. The most frequently mentioned strength was the view of the river to which some long term residents added pride in their homes and good local friendships. But as an ageing group the long term residents also described the loss of relationships and support as friends moved away or died. They also described the loss of families to the community as the area became a "hot spot" for "troubled people" and transient housing. As well as emphasising gaps more frequently and strongly than strengths the interviews highlighted dwindling assets and shrinking recovery capital as bonding, bridging and linking capital declined.

Table 4 summarises the results of the workshops and illustrates how the 14 questions were responded to by the participants in terms of prioritising questions. The prioritisation is additionally reflected in two rankings. Ranking R1 illustrates the relevance of a question in terms of the respective number of issues associated with it in total (i.e. across all three areas of higher, medium and lower importance). The question "What gaps are there in opportunities for people in recovery … to take part in community life?" had the highest number of issues addressed while questions about

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the asset side of opportunities for people in recovery to take part in community life had the lowest number of discrete issues raised by participants. Those issues ranked as higher priority by groups (closer to the middle of the target) also received the most individual votes. Looking more closely at the issues classified as higher priority in the previous round, our ranking R2 represents the mean number of sticky spots received from individual participants in the following round. Table 4 gives examples of discrete issues receiving the most votes (presented under the topics in brackets and italics). Ranked this way, for instance, "*Teach coping skills from early age*" is among the highest ranked priority issues.

These rankings do not necessarily imply there are objective differences in importance between the issues raised. Instead our findings highlight the intensity of the dialogue that occurred and it reveals differences of view between participants. Our illustrations suggests how important therefore the process of rating priority both on the flipcharts and by voting was to participant dialogue. It enabled interaction between diverse participants and an opportunity for learning by participants in a safe, structured and intuitive process. The need for this is highlighted by the asset / gap "Treat them as an equal" which indicates a sense of social differentiation, a profane boundary around "them" as distinct from the sacred "us" in Midgley's 1992 terms, and also of a perceived inequality faced by "them" compared to "us". Yet ironically this inequality may be both cause and consequence of the very act of categorising of "them" by "us". The importance of dialogue then is that it might lead to a change in the perceived importance of issues.

It follows therefore, from a COR viewpoint, unless differences are surfaced any consensus risks being oppressive to individuals and groups. So every issue raised remains available for discussion and a possible basis for action to COR project participants. Therefore, the Clydeplace project created many dialogical encounters and preserved as many of issues as possible. It is also interesting though that although the rankings reveal differences of view they also suggest a relatively higher degree of consensus than may be expected in some communities that the authors have experienced in other similar settings. Voting and discussion did not suggest outstanding differences of view. It raises the question as to whether a more radical dialogue is helpful or not in a COR project. Consensus is needed for highly coordinated action but it may be symptomatic of low expectations amongst participants.

Nevertheless, diverse assets were mobilised by the participants, led by the "Champions", who had taken the Health Issues in the Community course. A key asset brought into use was the Recreation Building (unused for several years), being used for a public "goodwill" event, "Clydeplace Day", in

which lots of residents and groups associated with local people – of which addictions issues was just one interest – took part. During this event for instance the café was run by local residents in recovery from addictions but without this characteristic on display. It was simply a café. Other assets mobilised were the adjacent playing fields (used by visitors for football for several years but not by locals), the local Church hall (except for perhaps a few parishioners not used by the local community), individual resident volunteers (previously not active), non-resident volunteers (including individuals in recovery, previously not active), voluntary groups with membership extending beyond Clydeplace (previously not active in Clydeplace), charities including the Red Cross, Y-Sort-It (a group for 12-25 years olds), Alternatives (a community based drug project) and others (all previously either not active or only marginally active in Clydeplace). A new partnership was created with the Red Cross at the homeless centre providing continuing regular sessions with people affected by substance use/ misuse. There was an attempt by residents to form a high profile local Community Trust seeking to acquire and utilise the recreation building via a complex asset transfer from council ownership; there was increased interest in the conduct of community led local surveys, Clydeplace bicycle recycling (to occur in the recreation building but started outwith Clydeplace in the premises of a helpful business owner) and local networking. Each of these outputs can be seen, arguably, as arising from improvements in bridging, linking and bonding capital although direct measurements of these were not undertaken.

While Clydeplace participants expressed themselves in appropriate public fora, disseminating and sharing their experiences and achievements (e.g. Community Health Exchange, 2015) as well as through the ADP, leading to additional context-specific insights, in the remainder of this paper we want to focus on the more general implications for COR, substance use/ misuse and communities that the project has revealed. The process of recovery within the Whole Person Recovery System is captured in figure 1 which is simplified for clarity with only one negative feedback loop (see Daddow & Broome 2010 for details on other feedback loops).

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INSERT FIGURE 3 HERE

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Other suitably qualified project workers might be able to produce similar results within any given time period. However, it is important to understand how the wider *system* relates to recovery if this is to be expedited – without which underlying problems may not be clearly recognised and maybe misunderstood by important stakeholders, especially those living with or affected, whether directly

or indirectly, by substance use/ misuse. Indeed the whole community recovery system has a tension within it arising from the generation of social and antisocial capital. Figure 3 shows the Whole Person Recovery System as embedded as a sub-system of a "Whole Community Recovery System". According to Daddow & Broome (2010) key to "Resolving to exit The Hold" is "Acquiring and building recovery capital". In figure 3 this activity is expanded into three conceptual models: An "Asset Co-Developer" and "Relationship Builder" together influence a "Social Capital Generator". This produces a flow of social capital for recovery as well as, hypothetically, for other "Community Recovery Systems" but potentially it can also produce "anti-social" capital. If the Social Capital Generator ceases to work properly then chronic depletion of recovery capital occurs and this impedes the recovery of individuals. However, the need for a Public Reassurance Area shows anti-social capital (following Nussio & Oppenheim, 2014) has been generated instead in a Community Substance Use/ misuse system (shown as a small circle in figure 3), typified by criminal and anti-social peer influences, as some residents seek substances to aid "escape" (Daddow & Broome, 2010) and suppliers respond to this demand. Depletion of recovery capital and accretion of anti-social capital weakens the activity of "Resolving to exit The Hold", undermining individual recovery but consistent with the Framingham heart studies and Putnam (2001), also adversely influences the community generally. The tension between social and anti-social capital can be further explored. For instance, one can be seen as a "sacred" and the other a "profane" boundary (Midgley, 1992) around domains of social capital, thereby defining a dynamic region contested between rival systems.

Yet, even in the impoverished system of Clydeplace, a "Community Catalyst" in the form of a Community Operational Researcher can act to stimulate the "Asset Co-Developer" and the "Relationship Builder" sub-systems and thereby enable the creation of social capital. Other case studies are needed to more fully explore the relationship between asset co-development, relationship building and social capital generation which we have identified tentatively, but another question can also be raised as to when the external catalyst can be removed, if ever? When will the system become self-catalysing, with what Best & Laudet (2010) call "'contagious' values and behaviours of well-being and hope that are integral to recovery" (Daddow & Broome, 2010, p.3)? This remains unclear but it is an important problem for further research to explore how depletion of social and recovery capital and increases in anti-social capital can be avoided. This is important not simply for communities facing chronic problems of substance use/misuse but also for any community recovering from more general socio-economic decline or facing socio-economic threats to health and wellbeing.

9. Reflections for the further development of COR

The potential within the COR domain to aid communities with local or wider societal challenges has led to increased interest amongst scholars and practitioners as demonstrated in the recent special issue on Community Operational Research in the European Journal or Operational Research in which Johnson, Midgley, & Chichirau (2018) identify emerging trends and new frontiers in COR. This study is adding to the current debate by shedding light on the way the disciplinary viewpoint of COR can be applied to help communities to respond to the many challenges posed to them by substance use/ misuse. Our empirical research relates to some of the other current theory and practice developments in Community Operational Research and in Health Research, for instance the Whole Systems perspective of the WISE project (e.g., Kennedy et al, 2014). In recent COR contributions, two of the new frontiers depicted in Johnson, Midgley, & Chichirau (2018) are particularly relevant – "resilient cities" and "developing countries".

In considering "resilient cities", focusing on a distinct type of regional context on the periphery of one of the UK's major cities (Glasgow, UK) our research resonates strongly with Helfgott's (2018) report on a Nepalese resilience project. Helfgott explores the way strength-based multi-stakeholder processes can help build 'systemic resilience' (the ability of a system to withstand, recover from or improve following a disturbance) through iterative processes of exploring critically "what" , "for whom", in "what time-frame", with scenario development, revising plans to cope with future uncertainties, implementing with external support if necessary and evaluative learning. Since substance use/ misuse can lead to the accretion of anti-social capital in particular communities, our research suggests helping communities to explore the wider system. Better understanding the wider community system allows bringing into play underutilised assets, which may have more general resilience benefits. This insight is particularly relevant to cities where substance use/misuse is seen as a greater problem. Moreover, salutogenic COR projects focused on substance use/misuse might apply some or all of Helfgott's (2018) framework. For example, we note the potential for explicit use of scenarios may help to enhance dialogue and both whole person and whole community recovery. We also note Fabusuyi's (2018) finding that approaches that address crime should emphasize improvement and leveraging of a neighborhood's social cohesion and informal social controls for crime reduction to be sustainable. Since crime is often part of the social milieu of substance use/misuse leading to the generation of anti-social capital, our research suggests that some salutogenic substance use/misuse COR projects could focus usefully on sustainable amelioration of crime.

Johnson, Midgley, & Chichirau (2018) also highlight the frontier of COR in developing countries. This is of particular interest given the emphasis on health systems strengthening (World Health Organisation, 2007) and the need for sustainable high quality healthcare in poorer countries. A potential question for further COR driven studies could tackle the question as to how our research based on a salutogenic process focused on substance use/misuse in a multiply deprived community of the UK can transfer to the much poorer urban and rural communities of developing countries? For example, in eSwati (formerly Swaziland) in Africa where the authors are currently working with the WHO and the Ministry of Health on health systems strengthening, the population of 1.1m people faces severe health challenges. eSwati obtained 23% (US$ 223m) of government revenue from international aid provide by the Global Fund, USAID, the Taiwanese Government, the United Nations, the World Bank, the European Union and the Japanese government and nearly half of which (US$ 105m) was for HIV/AIDS and TB prevention and control (Ministry of Economic Dvelopment and Planning, 2018). So while there is considerable financial effort and the aid appears clearly necessary, key goals are to achieve sustainability after these specific aid projects finish and increase resilience. This may be achieved, Walsh, Kittler & Mahal (2018) suggest from a COR viewpoint, by empowering, developing and enabling communities to plan their own health and community improvements. Our research suggests this can be achieved with some aid being used to catalyse the development of assets, the building of relationships and the generation of social capital. Future research within the COR domain should be able to further substantiate our findings and recommendations and identify additional perspectives that are helpful in supporting initiatives tackling current societal challenges. For instance, we note the identity barriers to community led healthcare observed by Walsh, Kittler & Mahal (2018). This suggests that more attention needs to be given, as Johnson et al (2018) suggest, to the emerging trend of behavioural operational research as well as cross pollination of COR with other domains within operational research, management science and systems thinking.

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Appendix

Table 1

Neale et al's (2016a) recovery indicators

1. Not drinking too much; 2. Not using street drugs; 3. Not experiencing cravings; 4. Taking care of mental health; 5. Coping with problems without drugs/alcohol; 6. Feeling emotionally stable and secure); 7. Feeling like a worthwhile person; 8. Taking care of physical health; 9. Managing pains/ill-health without drugs/alcohol; 10. Taking care of appearance; Eating a good diet; 11. Sleeping well; 12. Getting on well with people; 13. Feeling supported by people; 14. Having stable housing; 15. Having a regular income; 16. Managing money well; 17. Having a good daily routine; 18. Going to appointments; 19. Spending time on hobbies without drugs/alcohol; 20. Participation in education, 21. Training or work; 22. Feeling happy with overall quality of life; 23. Feeling positive; 24. Having realistic hopes and goals for oneself; 25. Being treated with respect/consideration by people; 26. Treating others with respect/consideration; 27. Being honest and law-abiding; 28. Trying to help and support other people.

Note: "3. Not experiencing cravings" was initially identified but later excluded from the list of indicators; Neale et al, 2016a)

Table 2

ADP public health outcome and performance indicators

1. Number of Alcohol Brief Interventions (ABIs) in NHS settings; 2. Number of ABIs in non-NHS settings; 3. Number attending naloxone training events; 4. Number of alcohol/drug related deaths; 5. Physical health section of ROSC interview; 6. Physical health domain of Recovery Treatment Process; 7. Number of people drinking at harmful levels; 8. Number of people drinking at dependent levels in; 9. Number of people misusing illicit drugs; 10. Number of community-based awareness sessions delivered to target group; 11. Assess recovery capital of individual residents; 12. Assess social, human, cultural and physical capital via Recovery Treatment Process; 13. Number of clients accessing education/training/employment; 14. Number of clients moved to mainstream housing; 15. Number of YP (under 18) receiving support for drug/alcohol misuse; 16. Number of YP (18-25) receiving support for drug/alcohol misuse; 17. Number of family members receiving support for their own drug/alcohol misuse; 18. Number of YP placed on Child Protection Register as result of parental/carer substance misuse; 19. Number of children moved to LA as a result of parental/carer substance misuse; 20. Number of alcohol-related house fires; 21. Number of reported incidents of street drinking; 22. Number of detections of drug supply crimes; 23. Community feedback on community safety initiatives; 24. Number of community awareness-raising activities run by ADP partners; 25. Number of people participating in community awareness events; 26. Number of people engaging with services via proactive identification; 27. WARM assessment; 28. Staff attitudes to recovery; 29. Identify staff 'therapeutic champions' for ROSC; 30. Training on Recovery Treatment Process Manual delivered; 31. Number of LAS staff attending other therapeutic training; 32. Recovery-based outcomes for clients;

Note: ADP measures based on West Dunbartonshire Alcohol & Drug Partnership (2012) performance indicators.

Table 3

Medium and Long Term Outcomes: West Dunbartonshire ADP Delivery Plan 2012 (Selected examples)

| National Outcomes	High Level Outcomes	Local Outcomes	Individual Outcomes	Performance Indicators (no./example)	Targets
Health People are healthier and experience fewer risks as a result of alcohol	Reduced acceptability of hazardous drinking and drug misuse	Reduce alcohol related mortality in WD	Reduce risk-taking Behaviour	(seven) No. of alcohol interventions	Reduce alcohol related Deaths by 3 in 5 years
Prevalence Fewer adults and children are drinking or using drugs at levels or patterns that are damaging to themselves or others	Reduce impact of alcohol/drug misuse on communities in West Dunbartonshire	Reduce impact of alcohol/drug misuse on communities in West Dunbartonshire	Reduce impact of alcohol/drug misuse on communities in West Dunbartonshire	(five) No of alcohol/ drug education sessions delivered to YP in schools)	Set baselines and targets for Local Outcomes
Recovery Individuals are improving their health, well-being and lifechances by recovering from problematic drug and alcohol use	People affected by alcohol/drug misuse make positive life choices that sustain their long term recovery	1. Service users are fully involved in planning their own sustainable recovery	Improve employability skills	(seven) no of clients with sustained tenancies)	Set baselines and targets for Local Outcomes
Families Children and family members of people misusing alcohol and drugs are safe, well-supported and have improved life-chances	Reduce the harmful impact of alcohol/drug misuse on children and young people	Increase no. parent/carers receiving support for alcohol/drug problem	Increase no. parent/carers receiving support for alcohol/drug problem	(ten) No. of YP placed on child protection register due to parental/carer substance misuse)	Set baselines and targets for Local Outcomes
Community safety Communities and individuals are safe from alcohol and drug related offending and anti-social behaviour	Reduce alcohol and drug related violence and offences in WD	Reduce no. alcohol-related house fires	Reduce criminal activity	(seven) No. alc-related house fires (pa)	Set baselines and targets for Local Outcomes
Local environment People live in positive, health-promoting local environments where alcohol and drugs are less readily available	Increased knowledge and change attitudes to alcohol, drinking and drug misuse	More people are aware of risks of alcohol consumption and drug misuse	More people are aware of risks of alcohol consumption and drug misuse	(seven) No. of community awareness raising activities run by ADP partners)	Set baselines and targets for Local Outcomes
Services Alcohol and drugs services are high quality, continually improving, efficient, evidencebased and responsive, ensuring people move through treatment into sustained recovery	Individuals in need receive timely, sensitive and appropriate support	Improve access to local addiction services	Increase motivation and feeling of responsibility	(ten) No. people achieving positive outcomes after attending CAT Therapeutic Groups (2012-13)	Aachieving positive outcomes after attending CAT Therapeutic Groups

Source: *West Dunbartonshire ADP Delivery Plan (2012)*

Table 4

Assets and Gaps

Topics/Questions *(Example of Asset or Gap of Higher Importance)*	Higher Importance			Medium Importance			Lower Importance				Rank	
	n	M	*SD*	n	M	*SD*	n	M	*SD*	**n**	R1	R2
[What] Gaps [are there] (in opportunities for people in recovery, living in Clydeplace, to take part in community life)[?] *(Local person who knows the area well could raise awareness of opportunities for community involvement)*	10	1.80	*1.55*	17	0.82	*0.53*	26	0.23	*0.51*	**53**	1	10
[What] Gaps [are there](in services provided by health professionals and third sector to Clydeplace). *(Recovery services that are available outside of office hours)*	12	3.08	*1.62*	12	0.75	*0.62*	18	0.11	*0.32*	**42**	2	3
What can we do to help friends, families and communities? (What's missing?) *(Be less judgmental)*	5	2.00	*1.22*	14	0.29	*0.47*	22	0.00	*0.00*	**41**	3	9
What helps people be resilient and overcome everyday challenges and struggles of recovery? *(Having a safe and stable house to live in)*	7	2.71	*1.11*	10	1.10	*0.32*	15	0.00	*0.00*	**32**	4	6
[What] Gaps [are there](for people in recovery in opportunities for personal development). *(Need opportunities to gain real work experience)*	9	2.67	*1.12*	14	0.93	*0.62*	8	0.00	*0.00*	**31**	5	7
How can friends, family, and communities have a positive influence / support people on their recovery journey? (What have we got?) *(The view from Clydeplace! Accessible, uplifting, not owned)*	5	1.80	*1.48*	12	0.83	*0.39*	13	0.00	*0.00*	**30**	6	11
What can trigger, enable or help recovery begin? *(Non-judgmental support / services)*	3	2.67	*0.58*	10	0.80	*0.42*	12	0.00	*0.00*	**25**	7	8
[What] Recovery services [are] provided by health professionals and third sector to Clydeplace residents [?] *(Local Addictions Services)*	7	3.71	*2.63*	7	1.86	*0.38*	9	0.44	*0.73*	**23**	8	2
What can we do to help / support roles models and peer support? (What's missing?) *(We need to develop more peer support projects)*	9	1.33	*0.71*	13	0.00	*0.00*	1	0.00	*N/A*	**23**	9	12
What can we do to support and help the recovery process to begin? *(Organisations need to support staff to be more self-reflective of their attitudes)*	2	3.00	*1.41*	8	1.13	*0.83*	10	0.00	*0.00*	**20**	10	4
How can recovery role models/ peer support influence the recovery journey? (What have we got?) *(Positive Role Model)*	10	0.80	*0.42*	8	0.00	*0.00*	1	0.00	*N/A*	**19**	11	14
What opportunities are there for people in recovery for personal development? Interests, skills, volunteering? *(Local Road Project offers gardening and woodcraft)*	6	2.83	*1.60*	7	1.14	*0.38*	5	0.40	*0.55*	**18**	12	5
What can we do to help people be resilient? *(Teach coping skills from early age/ Treat them as an equal)*	4	3.75	*0.50*	8	0.88	*0.83*	4	0.00	*0.00*	**16**	13	1
What opportunities are there in Clydeplace for people in recovery to take part in community life? *(Family activities on the shore, use the natural environment)*	1	1.00	*N/A*	6	0.50	*0.84*	8	0.00	*0.00*	**15**	14	13
N, mean, SD by each category, *N across categories*	90	2.4	1.2	146	0.8	0.5	152	0.1	0.2	**388**		

Figure 1

An abridged Whole Person Recovery System.
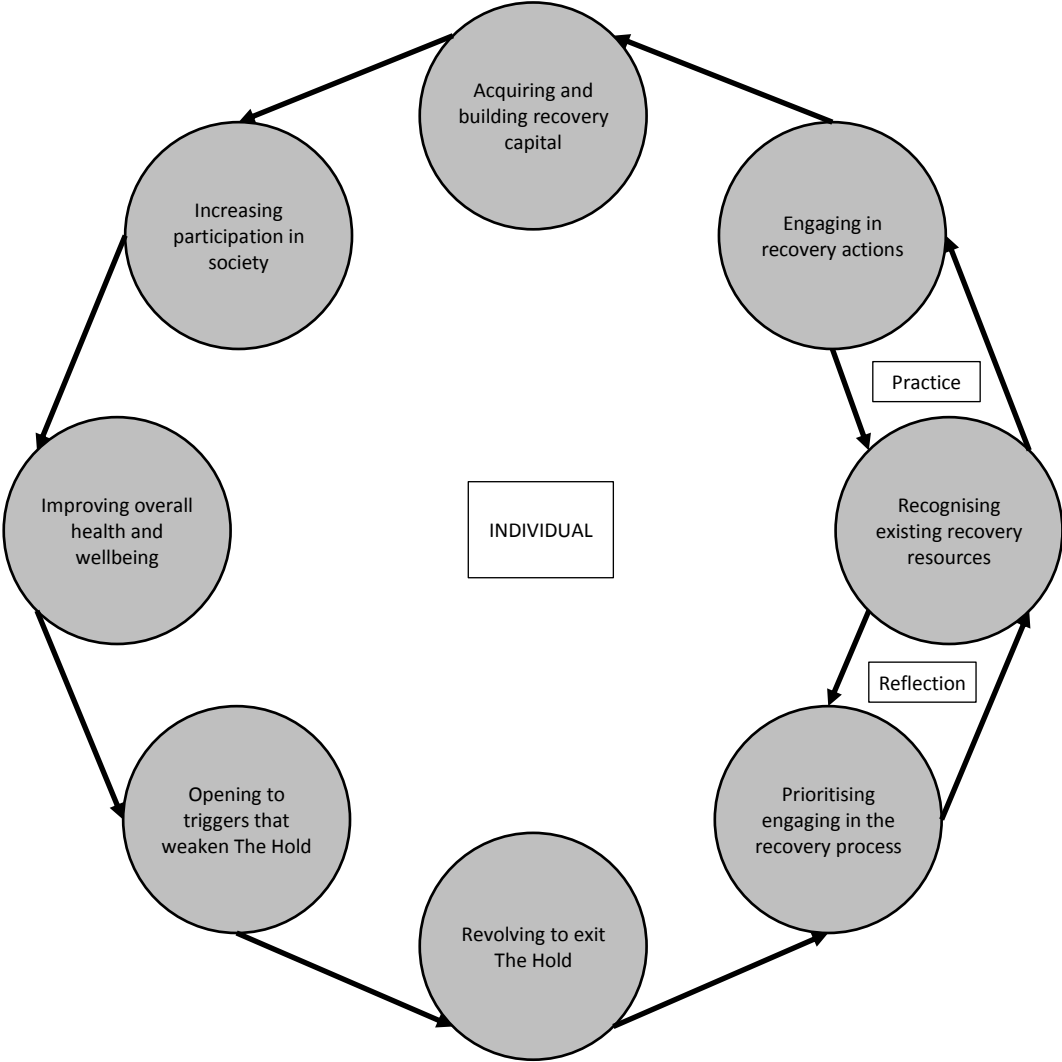
Adapted and abridged from Daddow & Broome, 2010.

Figure 2

Workshop Example: What helps people be resilient and overcome everyday challenges and struggles of recovery?

Figure 3

A Whole Community Recovery System