

Upscaling Green Social Prescribing and Urban Agriculture in Cities: Reflections on Social and Horticultural Therapy in the UK

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Abstract

Post-COVID policy making has accelerated investment and support for urban greening initiatives. Even prior to the pandemic, we have witnessed across the globe an ever-increasing appetite for the idea of bringing nature into the city through parks, allotments, urban farms and other green assets. Indeed, the latter in particular has seen perhaps the largest growth in support, with Urban Agriculture (UA) continuing to be mainstreamed on an international level. This piece reflects on UA in the UK, with an explicit focus on the concept's relationship with Green Social Prescribing (GSP). We reflect on geographers' work in this area, before highlighting practice on the ground and demonstrating the increased impact of UA schemes which adopt this practice. In doing so, we hope that this piece influences key actors to be aware of these opportunities and challenges, alongside influencing more geographers to engage with the growing field of GSP.

Keywords

Urban Agriculture; Green Social Prescribing; Nature-Based Interventions; Green Infrastructure

Introduction

In the post-COVID cityscape, interest in urban greening is at an all-time high (Marchi et al., 2022). From mundane forms of the practice to more radical forms, such as the UK's most recent 'skypark' in Manchester, modelled on New York City's popular High Line (see National Trust, 2022), a range of actors are increasingly exploring more creative ways to enhance the concept in urban environments. In a similar manner to the rise in general greening of the urban landscape, there has also been an increased focus on Urban Agriculture (UA), the growing of food or rearing of livestock in cities (Schoen et al., 2020). Even prior to the pandemic, investment in this concept was growing, with funders, policymakers and the public showing an increased interest in the practice (Schoen and Blythe, 2020). Yet, with many UA sites playing a vital role during the repeat lockdowns, through supplying food and providing natural havens for city dwellers, support for the concept has increased even more (Caputo et al., 2020; Kirby et al., 2021).

Indeed, studies on UA have rapidly expanded amongst geographers: ranging from the concept's relationship with gentrification (Hawkes et al., 2022), to its motivations and impacts (Kirby et al., 2021) and even the informal side of the practice (Hardman et al., 2018). Parece et al.'s (2016) analysis of the potential of UA reveals the substantial benefits it can bring to neighbourhoods, from enabling more self-sufficiency, to connecting often fragmented communities. Their reflections reveal the wide-ranging opportunities which arise from the practice, such as increasing urban biodiversity and its role in healthy place-making practice. Tornaghi (2014: 493) adds to this by revealing how some 'projects in post-industrial cities are even playing with the urban form' and calls for a 'research agenda for a critical geography of UA' to advance studies within the broader field.

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48 In this paper, we aim to build on this burgeoning research, with a particular focus on Green
49 Social Prescribing (GSP), an approach gaining traction both within UA practice and
50 geographical studies. Natural England (2022) describe GSP as ‘the practice of supporting people
51 in engaging in nature-based interventions and activities to improve their mental health’. The
52 concept connects individuals or groups to Nature-Based Interventions (NBIs), such as UA sites,
53 which offer an array of activities (NHS, 2022). As Kiely et al. (2022) argue, there is an appetite
54 to mainstream GSP within conventional global health systems, with UA often at the centre of
55 this global upscaling drive.

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57 Indeed, there is a growing research base within the field of geography itself, such as Mitchell et
58 al’s (2021) work on the need to upscale GSP practices in urban environments, to reflections on
59 specific interventions, such as McGuire et al’s (2022) analysis of community gardening on
60 prescription or Pitt’s (2014) work on the impact of therapeutic interventions. Bell et al. (2018)
61 demonstrate how geographers are pioneering critical work around the concept. In this context,
62 they encourage deeper engagement with GSP and highlight how geographers are uniquely
63 placed, given the transdisciplinary nature of work in the area and ability to employ
64 methodologies which help to understand the real value and impacts of such an approach.

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66 This paper reacts to such a call for a deeper understanding of practice, whilst also raising
67 awareness around innovation in UA to enable more resilient projects. With the latter, many
68 schemes are financially vulnerable, with a range of projects closing in recent years (Hardman et
69 al., 2022). We begin by reflecting on practice with UA spaces and how many, whether an

allotment, community gardening or large-scale urban farm, are now incorporating GSP into their spaces. In this sense, diversifying their activities to generate new revenue alongside enabling further impact, either through formal programmes or informal self-referrals. We then proceed to ground our article's thoughts through a case study, to further illustrate these points and to showcase UA and GSP on a more detailed level; reflecting on the power of projects which are diversifying their offerings and thinking in more creative ways to engage urban communities and, in part, responding to Bell et al's (2018) call for more deeper understandings of GSP. Ultimately, this paper aims to encourage more work with GSP, both from UA practitioners and geographers.

Background

Growing Social Prescription

The social, environmental, economic and health benefits of UA are well documented (see for example Al-Chalabi, 2015; Gray et al., 2020; Holland, 2004; Kirby, 2021). Post-COVID, there has been a further rise in studies exploring the idea of bringing food into the cityscape, with geographers at the forefront of this drive, in part due to their unique positions and ability to draw on a range of methodological tools. Recently, work has shown the impact of urbanisation on UA (Willkomm et al., 2020), to issues around the distribution of such assets within the built environment (Kamble et al., 2022). Within geographical studies, a particular growth area has involved work around the health (dis)benefits of UA, with a range of studies demonstrating the value of the practice in terms of mental, physical and general wellbeing benefits (Bell et al., 2018; Pitt, 2014), to studies exploring concerns around contamination and human health (Chipungu et al., 2015).

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94 ‘Social Prescribing’, a community referral process that enables GPs, nurses and other health care
95 professionals to refer people to a range of local, non-clinical services, is becoming ever more
96 popular (PHE, 2019). The concept of social prescription is not reserved to merely green
97 infrastructure, but has also been popular within other areas, such as the arts and culture sector.
98 An example here can be seen with museums, which are facing increased economic pressures as a
99 result of local authority budget cuts and wider austerity measures (The Museum Association,
100 2018; Thomson et al., 2018). In terms of GSP and UA, social prescribing champions and related
101 positions are now starting to become commonplace on many sites, from the micro to macro-scale
102 spaces (Kiely et al., 2022). Studies have shown that the spectrum of UA sites, from allotments to
103 rooftop growing, can help to reduce pressure on conventional health services through reducing
104 hospital admissions and care requirements (Howarth et al., 2020).

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106 The concept is flourishing across the UA range, with a variety of funding streams attracting
107 actors in the sector to the concept, highlighting how the idea is very much at the centre of the
108 NBI movement. In particular, larger sites are exploring GSP at scale, with evidence showing that
109 some are considering the movement centre to their economic futures, through combining formal
110 referrals with an informal self-referral model (Northern Roots, 2023). Despite the upscaling of
111 GSP within UA, Bell et al. (2018) argue that this should not be viewed as a magic fix, but rather
112 an activity alongside traditional treatment for conditions. There is also constraint with GSP and
113 the nascent high-tech UA sector, which is gaining traction amongst investors and media at
114 present (see for example De Oliveira et al., 2021). Indeed, observers have noted the potential
115 negative health issues related to this expanding movement, with projects often located

underground or in areas which can have a negative impact on project participants (Caputo et al., 2020).

Funding Restrictions and GSP in UA

Whilst the pandemic has led to more interest in UA, there are still significant barriers to the practice, ranging from intense competition for funding, to soil conditions and vandalism (Bell et al., 2016). With funding, even if a UA project is successful in the extremely competitive environment, evidence suggests that this often requires additional activities that can put strain on existing operations, resulting in unsustainable expansion in some cases (see for example The Salford Star, 2015). Those UA projects which consistently rely on grant funding are often the most prone to ceasing operations, with studies showing that many have faced sudden closure, which has in turn impacted negatively on communities and the advancement of the general concept of city production in some areas (Hardman et al., 2022).

Despite the GSP agenda gaining popularity within the UA movement, the competitive nature of the funding for this concept is still preventing many projects from gaining access to the movement (see for example GMHSC 2021). Finance in the GSP arena is somewhat restricted at present and is often focussed on pilot schemes, such as trials (Kiely et al., 2022). In the UK, funding varies regionally, although there is work at a national level to explore models for sustaining activities (NHS, 2022). Risk averse health managers and an inability to recruit specialised actors who can facilitate GSP on UA sites are also argued to be key barriers in preventing spaces from embedding the concept (Howarth et al., 2021). As Fixsen and Barrett

(2022) demonstrate, some spaces offering GSP are finding it difficult to ensure a steady stream of participants, with barriers ranging from transport issues to wider social and health issues.

Those who lose out in the funding race are often smaller sites, which are ill equipped to be able to afford time to submit competitive bids or deliver complex GSP projects for fairly tiny amounts money (Court et al., 2022). The pilot scheme nature of funding is occasionally viewed as a distraction by such spaces, whilst reporting mechanisms for the grants are also viewed as excessive. With personnel often numbering much lower on such UA spaces, this results in an often lack of time to divert from core activities and focus on grant schemes (Schoen et al., 2021). As Court et al (2022) show, the lack of historic success is also a barrier here, with actors dissuaded from applying based on previous efforts which have often failed to secure funding.

The Impact of GSP in the UA Movement

Despite the barriers to UA and GSP, there is clear evidence that the latter is having a major impact, when implemented correctly on productive spaces. Kim et al. (2021) highlight an example in South Korea, in which GSP on community gardens led to increased self-esteem and reduced depression amongst participants. Similarly, Leavell et al. (2019) showcased how similar impacts were witnessed across UA projects implementing GSP in the USA, with mental health, social connections and physical health amongst the many benefits. Although there is some disagreement in the terms used for the approach, the movement is clearly rising rapidly on a global scale.

The wider evidence base on GSP shows up some impressive metrics: from reducing GP visits by 40% (Ewbank, 2020), to helping to avoid up to 50% of Accident & Emergency admissions amongst participants (Varnam, 2019). Adding to this, the UK's NHS (2022) highlight how a survey of General Practitioners (GP) showed that they perceived that the concept could reduce their workload by 60%, particularly amongst regularly attendees to their surgeries. The latter was based on the upscaling of the system, beyond much of the pilot work currently undertaken on UA and similar sites. Indeed, the NHS (2022) highlights how social prescribing champions and a network of supporting actors are being rolled out in England, to aid with the mainstreaming of the practice. Reflecting on the use of such statistics, Bell et al (2018) highlight that, whilst the data will be appealing to policy makers and other key actors, there is a need for more depth, given the diverse array of people involved in GSP. This is echoed by Fixsen and Barrett (2022: 11), who call for more comparative studies of 'social prescribing in different socioeconomic localities' to enhance our understanding of the concept.

We now proceed to reflect on a case study to demonstrate how small-scale UA practitioners can embed GSP and elements of the wider social prescribing agenda, through creative means; in part, providing that depth which has been called for within geographical studies. Through the case study, we hope to show how other projects can follow suit, through revealing the impacts, both from a coordinator and user perspective. The case study acts as a tool for conveying the power of these spaces, the potential for GSP and potential for additional revenue generation. More importantly, it demonstrates how smaller sites can seize on the momentum behind GSP and avoid losing out on the significant pots of funding that exist globally at present. In doing so, we

hope to encourage these vital UA spaces to explore GSP more, alongside raising awareness for similar studies within the broad field of geography.

Reflections on Innovation: The Get Up & Grow Model

Get Up & Grow is an organisation that promotes and supports the health and wellbeing of local communities across Oldham and Rochdale in Greater Manchester, UK (see figure 1). A key focus of their activities surrounds the use of Social and Horticultural Therapy (SHT). SHT is a process that uses the interactions with plants and gardens to improve physical and mental health and is a form of GSP (Thrive, 2022). The horticultural aspect of SHT is defined as the active involvement with plants or plant-related activities to improve a person's state of health and wellbeing. Whereas the social aspect of SHT relates to the social connectiveness and interaction created when involved in horticultural activities (Cipriani et al., 2017). Get Up & Grow combines the therapeutic and social aspects of the horticultural therapy by providing sessions which aim to increase social connectiveness and interaction by engaging with nature-based activities. Using SHT to improve a person's physical or mental health can include viewing plants, planting activities and the involvement with regards to caring for them (Brown et al., 2011).

[INSERT FIG 1]

Figure 1: Greater Manchester in the UK with Get Up & Grow's primary operating area highlighted (contains OS data Crown Copyright and database right 2023)

Engagement with plants in these contexts have been proven to have a positive impact on health and wellbeing. For example, through improving cognitive and sensory motor functional improvement, emotional stability, increasing social connection, and overall life satisfaction (Soderback et al., 2004). Get Up & Grow create specialised SHT sessions to help improve the health and wellbeing for those living with dementia, residents of supportive living, and disabled adults, and wanted to have a methodological approach to capture the positive impact their sessions have on the physical and mental health of their participants. The organisation is an example of a small-scale UA champion who has recently adopted GSP as a means to generate more funding, further impact and enable more sustainable operations in general. Formed prior to the pandemic, Get Up and Grow operates from a number of community gardens and sites across Oldham and Rochdale, whilst relying on mostly grants and some income from activity deliver. The space in which they operate contain some of the most deprived areas in England. Indeed, Oldham was once labelled the most deprived town in England and is currently ranked the least affluent in the region (Oldham Times, 2022). Rochdale faces similar issues, with the Office for National Statistics (ONS) (2023) showing how the town currently is in the 'bottom 20% of local authority areas for health'. Miah et al. (2020) argue that they are amongst the most multicultural areas in the country and have long faced issues around fragmentation within their respective communities. In part, projects such as Get Up & Grow, aim to tackle this through bringing such

communities together through community gardening and GSP activities. We now proceed to reflect on the opportunities, along with the barriers, to such an organisation adopting GSP; reflecting on lessons for other providers to follow suit and seize on the movement's momentum.

Method

Our research with Get Up & Grow was supported by a grant from the Ideas Fund and focussed on exploring the impact of their activities from 2020 – 2022. A key focus here was to explore innovation in terms of tackling mental health and general wellbeing, given the areas in which they operated were above the national levels for these conditions and had significant pressure on their conventional health systems (see for example Oldham Council, 2021). Whilst we explored their wider operations, our key focus was around their community garden operations in Oldham. We adopted a methodological approach with Get Up & Grow that could capture the impact of each SHT session and enable participants to evaluate how the sessions have impacted their health and wellbeing both within and outside the sessions. How the impact of the project is captured correlates to the underpinning principles of Heron's (1996) co-operative inquiry approach. Heron's (1996) approach is centred around the ethos that research should be done 'with' people not 'on' people and rather to empower participants, as opposed to exploiting them. By supporting participants of the Get Up & Grow sessions to actively engage with how the project has impacted their health and wellbeing further means they were viewed as co-researchers. It also encouraged participants to co-create the delivery of the SHT sessions, so they are designed to meet their needs and interests; a core value of Get Up & Grow and their overall mission.

[INSERT FIG 2]

Figure 2: Part of the community garden operated by the organisation in the area (author's own)

A range of tools were used to understand the impact of SHT within Get Up & Grow's UA spaces in Oldham: from interviews with community members and participant observation, to diaries focussed on collecting broader health and wellbeing data. This centred around the weekly sessions in which the researchers built up a rapport with the local community, with sessions often attracting up to 20 attendees at a time; in this context, a Research Assistant was embedded in the group, to collect observational data, carry out the interviews and train the community on how to complete the diaries. A snowball sampling approach was used with the qualitative data, which involved engaging a number of actors, from the organisation itself, to residents and others in the locale.

Alongside the weekly observed sessions, some 15 interviews were conducted and 20 diaries completed with organisers and participants. The participants were mainly older women from the local community, with a few younger members on an ad-hoc basis; this was predominantly due to Get Up & Grow's core activities occurring during the working week. Participants were recruited from those who attended the sessions on a weekly basis, with diaries kept from the beginning of the field activities in 2021, to the end of the study's funding in 2022; this enabled a reflection over several growing seasons of the project. Thematic analysis, through NVivo, was used for the qualitative material and the diaries to collate the meta themes and to ascertain the impacts and challenges of the work. Ethical approval was obtained through our institutional processes which, given the focus on collecting participant health data, were robust and detailed; the latter should be noted for geographers delving into this field of study and the

added layer of complexity with research in this emerging area.

Of note were the diaries, which have been identified as an effective tool in research for collecting subjective data over a long period of time, especially when investigating health and well-being related issues given that the process can identify how daily lives and routines impact health related issues (Milligan, Bingley, and Gatrell, 2005). Incorporating reflective learning within a diary entry is beneficial for processing new knowledge from a learning or unsettling experience; identifying what has been learnt and how to make sense of a situation (Moon, 2005). Reflective learning enables participants to observe and manage learning experiences to formulate action plans for future effective learning (Harrison et al., 2003). Reflective field diaries can enhance written communication and critical self-reflection skills as the process encourages the participant to move beyond recording facts and knowledge towards a personal reflection on how the experience has impacted them (Dummer et al., 2008). Such an approach is popular across the field of GSP research, with other studies using diaries as a tool for reflecting on the impact of projects and interventions (Howarth et al., 2020). The purpose of the reflective field diaries in this context was to encourage participants to reflect on how the engagement with nature and social interactions has impacted their mood, and in turn physical and mental health over a period of time. The outcome of the reflective field diaries enabled participants to identify their own behaviour changes, thus promoting independence on how they can continue to engage with nature for the benefit of their health and wellbeing. Combining this with the wider qualitative material enabling a more holistic view of SHT within a UA setting, along with broader activities practised by Get Up & Grow.

Innovative Practices

Weather conditions and seasonal changes are barriers for implementing horticultural therapy all year round (Cipriani et al., 2017). Get Up & Grow purposely co- ordinate their sessions to be engaging throughout the varied seasons and appeal to people with different interests related to nature, for example ceramic painting, pottery making, or hosting food sessions that used harvested produce. Figure 3 is an example of how seasonal SHT activities can be hosted all year round and fall in-line with the growing season; enabling maximum value from UA spaces, particularly those with adjoining buildings like the one situated at the Get Up & Grow community garden site.

[INSERT FIG 3]

Figure 3: an overview of Get Up & Grow's engagement activities (author's own)

The reflective field diaries identified how the vast supply of SHT activities enabled participants to foster new skills and interests in nature. For instance, one participant previously would not independently engage with creative activities, such as pottery making. By the end of the cycle of sessions, the participant pursued enjoyment out of the nature-based creative sessions and considered it to be a therapeutic activity that they wanted to advance beyond the initial programme. The all-round nature of the activities enabled income generation outside of the growing season, ensuring that the organisation's funding transcended the growing seasons. In this sense, the model showcased in figure 3 demonstrates a simple way of enabling social

prescription beyond the productive season, enabling schemes to keep active during the more challenging times of the year.

The coordinator of Get Up & Grow noted how:

‘The therapeutic activities are co designed by the groups interest with adaptations implemented so the sessions can be pitched at any level and is inclusive for everyone. The sessions are tailored to the group, Person centred and co-created is a important factor as well as the agreed outcome and time of the session’

In this sense, the array of activities resulted in a more inclusive programme overall, enabling participants to be somewhat select in how they took part. Furthermore, by stretching the activities into the winter months, the coordinator noted how impact was greater. Evidence shows that social isolation is felt more during the darker and colder months, with participants benefiting from these regular sessions beyond the growing season (Bell et al., 2018; Howarth et al., 2020). Data from the participants corroborated these findings, with meta qualitative data revealing that attendees felt more confident, better connected to their community and generally healthier through attending the sessions.

[INSERT TABLE 1]

Table 1: a flavour of the qualitative field diary material, showing the impact of figure 3’s activities

Qualitative material, showcased in table 1 above from the field diaries, adds depth to these meta themes through demonstrating the power of the various activities. Respondents voiced how they variety of work impacted significantly on their mood, social activities and general enjoyment. Several also voiced it as an escape from day-to-day activities, especially in the winter months with their long drawn out dark nights. Although only one case study, this demonstrates how a UA scheme has adapted: expanding beyond GSP to broader activities which have resulted in further impact, revenue during the ‘off-season’ and a closer working relationship with the community. Moving forward, Get Up & Grow has designed GSP packs to attract more residents from the diverse community and to further the space as a hub; moving beyond individual outcomes and aiming to be an important asset for breaking down barriers in the fragmented area (Miah et al., 2020). Such findings link well with the wider literature base, with wider studies demonstrating the power of even small-scale UA sites on impacting participants’ health and wellbeing alongside community cohesion (Bell et al., 2018).

Discussion

Our piece here highlights how interest in GSP is at an all-time high in the post-COVID city, however significant barriers still prevent the concept from flourishing. The very concept of social prescribing is under the media and academic spotlight at present, with some articles even critiquing the approach (Kiely et al., 2022). Indeed, as we outlined at the beginning of this piece, the concept is gaining attention within geographical research, with a host of studies showcasing the impact and potential of the practice (see for example Parece et al., 2016; Pitt et al., 2014; Wlilkomm et al., 2020). This paper has, in part, responded to Bell et al’s (2018) call for more depth around GSP, through reflecting on practice within a ‘typical’ UA project in a deprived

community. In doing so, we have aimed to highlight the immense impact of the approach, even in the smallest of spaces, with the data showcasing the value of GSP to the wider community.

Our reflections also highlight the wider benefits for UA schemes, which are often under-funded, even in the post-pandemic age. Studies have highlighted how UA spaces face ever-increasing competition for funds and the need to diversify activities to enable greater impact (Schoen et al., 2020). As evidenced earlier in this article, there is a plethora of UA projects which have ceased to exist, mostly due to the lack of diversity in their activities and over-reliance on certain streams of funding. Our argument here is that GSP and the wider social prescribing movement offers an opportunity to diversify, whilst enhancing impact and income generation for UA spaces. We also argue that smaller sites, such as the Get Up and Grow case study, offer immense value; in this sense, GSP should not be the preserve for larger UA actors alone, but rather embedded across the spectrum where feasible. Through smaller UA sites adopting GSP and associated practices, this could lead to more recognition alongside extra funding. The ‘hub and spoke’ model often used for GSP in the UK, with central organisations bringing together link workers and practice partners, enables smaller UA sites to be part of larger programmes; enabling new knowledge transfer networks to form and enhancing resilience in the longer term. This model is being enacted in Oldham with larger sites, such as Northern Roots – the largest urban farm and eco-park in the UK – linking with smaller actors to enhance impact (see Northern Roots, 2023).

There are challenges to adopting GSP and other forms of social prescribing on smaller UA sites. Indeed, many of the activities highlighted in our case study required the use of a building, which may not be feasible in some contexts. Adding to this, working with communities with particular

needs often requires a certain level of experience. In the case of Get Up and Grow, the lead practitioner had attended several courses to gain skills in the area, all of which were costly and again could be a potential barrier to small-scale providers. Another core issue is the need for evidence, with funders often wishing to see the impact of their investment. Our case study shows how working with a research partner can enable this evidence collection, whilst ensuring that small UA teams are not overstretched, given their focus on delivering GSP and wider services from their spaces. Innovation, through involving students or other groups, is perhaps another way to collate this crucial material.

Moving Forward

Through adopting a strategy to embed social prescription activities all year long, UA sites can further their impact, generate more income and potentially operate more sustainable models. We argue that UA actors should engage with GSP champions, through their local networks, to explore opportunities for getting involved in the burgeoning practice. This in turn could help to fuel the UA movement more broadly within cityscapes through offering new land tenure opportunities, with health service providers, to ensuring projects are more resilient and able to move away from ad-hoc grant funding. Although GSP will not solve all issues in the UA movement, it offers yet another direction and opportunity space for projects to explore and to move away from ad-hoc grant funding. Although GSP will not solve all issues in the UA movement, it offers yet another direction and opportunity space for projects to explore and to further its impact in the cityscape.

Geographers play a vital role in enabling these movements, through spatial analysis, ethnographic and other methods; capturing the impact of these concepts on the ground. Beyond this, it is important for our discipline to raise awareness around the cumulative impacts and meta opportunities of GSP and UA: its potential to shape urban form, create healthier cityscapes and, perhaps most importantly, to cast a critical lens over practices. Our piece also highlights the immense growth in these areas, particularly with regards to funding and a general appetite for GSP within the post-COVID city. Through continuing to pursue interdisciplinary work and connections, Geographers can play an important part in capturing the evidence base for UA projects which partake in GSP. We call for even further collaboration with research domains, ranging from public health to psychology, nursing, sociology and beyond, to provide data for policy-makers and other decision-makers who can help advance such practices.

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