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Research Paper

Becoming embedded: A process evaluation of weight management services developed with, not for, communities

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There is growing interest in whole systems-based approaches to obesity, yet little understanding about how these can be achieved or about the tensions inherent in navigating the social, emotional, and behavioural issues within behaviour change interventions. We were commissioned to evaluate a programme of place-based, whole-systems approaches to tackling obesity and health inequalities for adults, children and families in areas with higher-than-average obesity rates and socioeconomic deprivation. Underpinned by an embedded ethnography approach, this process evaluation explored how best to engage diverse communities in service delivery and development using evidence-informed approaches, and whether services can be co-produced with communities and people with lived experience. Our approach combined: focus groups and interviews with staff, service users, commissioners and other external partners (n=64); participant observation; membership of a Strategic Oversight Group; and qualitative research training for staff. This unique project demonstrates factors important for shaping a whole systems approach, including the value and challenges of community engagement, and the limitations caused by how services are commissioned. Consideration is needed regarding how systems and structures can facilitate or create barriers to 'embedded' research and the implementation of whole systems approaches, involvement and co-production, and take account of wider determinants of health and inequalities.

Introduction

Background

Obesity is a complex issue, with many contributing factors co-existing at multiple levels and in multiple settings (Garside et al. 2010). Within public health, there is a growing interest in the role of whole systems-based approaches to obesity, as part of a broader increase in awareness of the complexity of many public health problems (Bagnall et al. 2019). A whole system approach 'responds to complexity through an

ongoing, dynamic and flexible way of working… [in which] stakeholders agree actions and decide as a network how to work together in an integrated way to bring about sustainable, long-term systems change' (Public Health England 2019, p. 17). In a review commissioned by the National Institute for Health and Care Excellence, Garside et al. (2010) identified features of a whole system approach to obesity including: capacity building, creativity and innovation, embedded action and policies, and monitoring and evaluation.[1] Effective action to promote healthy weight across the life course requires a locally-focused, coordinated and collaborative approach (Public Health England 2019). However, there is an immediate tension between the short-term nature of many obesity interventions and United Kingdom (UK) commissioning practice (Scott et al. 2024), and the long-term, 'slow burn' approach necessary for successful, diverse whole system approaches to obesity (e.g., Safefood 2021), which go beyond 'intervention'. The term 'commissioning' has in recent years been widely used to refer to the authorisation and funding of public services (Sturgess 2018). In the UK context, commissioning is defined as 'the process of assessing needs, planning and prioritising, purchasing and monitoring health services, to get the best health outcomes' (NHS England n.d.).

Socially and economically disadvantaged communities often have the worst health outcomes (Bradley et al. 2016). In the case of obesity, the disproportionate impact on individuals and families living in more deprived areas has been a key driver in prioritising a coordinated and collaborative approach (Public Health England 2019). The ongoing impact of the COVID-19 pandemic (Bambra et al. 2020) has contributed to, and exacerbated, health inequalities in the UK (Mughal et al. 2022), further compounded by the cost-of-living crisis (Robinson 2023). There is an urgent need to focus on prevention of the underlying causes of ill health, rather than simply reacting to its effects (Pencheon 2015). Behaviour change approaches aim to understand the complexity of the decisions and behaviours of individuals in relation to their health and wellbeing (Teixeira & Marques 2017). However, context is important and 'an intervention is only as successful as its capacity to adequately respond to a problem in an environment for a certain target population' (Teixeira & Marques 2017, p. 667). Similarly, behaviour change interventions need to recognise and respond to the multiple and multi-level socio-cultural, economic, and environmental determinants of weight and obesity, as those which focus solely on individual behaviours are unlikely to be successful (Garside et al. 2010). To fully address and understand the wider picture requires resource-intensive community development approaches, which are often incompatible with commissioner expectations to do 'more with less' and a focus on short-term outcomes. It is also challenging to develop a rational, linear, evidence-to-policy whole system approach, as robust evidence for their effectiveness is inevitably some way behind implementation (Breslin et al. 2024).

Engagement, involvement, collaboration and co-production with the public, service users and communities is increasingly expected in the development and delivery of health and care services (Boyle & Harris 2009, Scott et al. 2024). While the services which are the focus of this paper were not co-produced, the organisation delivering them was interested in the potential for co-production and community-led approaches. In a published literature review, we have identified processes that may facilitate or hinder this potential, examining the challenges of realising co-production in commissioning practice. Challenges included service pressures, commissioning processes, and the wider political and economic environment (Scott et al. 2024).

Evaluation Scope

[1] The ten features identified were: Identifying a system, capacity building, creativity and innovation, relationships, engagement, communication, embedded action and policies, robust and sustainable, facilitative leadership, and monitoring and evaluation (Garside et al. 2010).

Evaluations are often undertaken to understand complexity of an intervention and to inform future developments (Moore et al. 2014). The study described in this paper focused on evaluation of the processes involved in developing and implementing services to change behaviour, rather than on outcomes and impact. The services evaluated provided support to adults, children and families in four London boroughs, the West of England and the Midlands. These areas all have higher than average obesity rates, high rates of relative socioeconomic deprivation, and limited or no existing provision of Tier 2 weight management services (Office for Health Improvement and Disparities 2021). BeeZee Bodies (BZB) were commissioned to deliver these services in 2021 as part of an Office for Health Improvement and Disparities programme which aimed to develop and expand place-based, whole-systems approaches to tackling obesity, promote healthier weight, and reduce the prevalence of persistent health inequalities (Office for Health Improvement and Disparities 2021). These Tier 2 (behavioural) weight management services were defined as:

> family-based multi-component programmes addressing dietary intake, physical activity, and behaviour change for children who are overweight or living with obesity, with the primary aim of weight maintenance and growing into a healthier weight, rather than weight loss (Department of Health and Social Care & Public Health England 2021).

The evaluation ran between November 2021 and July 2022. The project started with two research questions related to BZB's priorities for service development and delivery, developed iteratively with the authors as the project developed:

- how best to engage diverse communities in service development and delivery,
- how evidence and insights data can best shape and influence service development.

A third question emerged during discussions in the early stages of the project about the meaning and reality of co-production:

- whether, and how, services can best be co-produced with communities and people with lived experience.

Methodology

The project used an 'embedded ethnography' approach. Ethnography is a process of knowing and becoming through immersed observation, which aims to understand the culture of a pre-existing group from the perspective of its members, lending insights into behaviours, values, and emotions (Krane & Baird 2005). Embedded ethnography aims to facilitate effective service delivery through collaboration and interaction between researchers and those responsible for planning and delivering services (Ward 2021). The embedded ethnography approach used in this evaluation evolved from plans for a more standard process evaluation, as it became clear that the complexity and flexible nature of the services being evaluated required a correspondingly flexible and iterative methodology.

Data Collection

Our approach consisted of four main elements (see Table 1). Most of the activities in Table 1, except for some primary data collection as outlined below, took place online. Reflections on the practice of this methodological approach, including what it means to be 'embedded' whilst working remotely and online, will be explored further in an additional paper by the authors.

Activity	Undertaken by	Time period
Membership of the BZB 'Strategic Oversight Group'	Whole research team (all co-authors)	11/2021 – 7/2022
Qualitative research training for BZB staff	Second author	02–06/2022
Participant observation of team meetings	First author	02-06/2022
Primary data collection (focus groups and interviews)	First and second authors	06-07/2022

Table 1: Summary of data collection methods

Participation in Strategic Oversight Group Meetings

All co-authors were part of the Strategic Oversight Group (SOG) alongside members of the core BZB service delivery and operations team and representatives from three other external partners: an ethical marketing agency, an asset-based community development consultancy, and an inclusion advisor. The SOG met online every 1-2 weeks throughout the project to provide strategic advice and support to BZB's work, with a particular focus on working towards co-production and insights data collection (see Findings).

Qualitative Research Training for Staff

At the request of BZB, three online training sessions on qualitative data collection and analysis were developed and facilitated by the second author for BZB engagement and insights officers, whose role was to engage with people and communities in the areas in which the new services were being delivered. The aim was to inform BZB's insights data collection with local people and communities, which included monitoring data required by commissioners as well as focus groups and interviews with service users and community members. The training sessions, and further support provided by the BZB central team, provided an opportunity for engagement officers to reflect on their experiences and share learning. Fieldnotes from these sessions were included in our evaluation data.

Interviews and Focus Groups

Semi-structured focus groups and interviews were conducted (by the first and second author) with BZB staff (central team and frontline staff, n=33), service users attending BZB services (adults, parents and carers, children, and young people, n=23), Commissioners (n=4), and other organisations working with BZB (n=4). Further detail is provided in Table 2. 'Frontline staff' refers to those involved in operationally delivering BZB services.

Focus groups and interviews concentrated on the evaluation aims, adapted as needed for different participant groups:

- Expectations versus reality of service delivery (experience of using or delivering services, commissioning and/or working with BZB);
- Evidence and impact of BZB services (including internal BZB data collected/required, how evidence and impact are defined and future service development); and
- Working towards co-production (including understandings of co-production and what this might look like in practice).

Focus groups and interviews were digitally recorded then transcribed. Ethics approval for data collection was given by the University's Health, Science, Engineering & Technology Ethics Committee with Delegated Authority (HSK/SF/UH/04976).

Participant Group	**Interviews/Focus Groups**
Staff (n=33)	
Central team (n=5)	5 x online individual interviews
Frontline staff (n=20)	4 x online focus groups
Engagement staff (n=8)	3 x online focus groups/joint interviews
Service users (n=23)	
Adults (n=7)	2 x online focus groups
Children and young people (n=9)	2 x in-person focus groups
Parents and carers (n=7)	2 x in-person focus groups
Commissioners (n=4)	4 x online individual interviews
Organisations working with BZB (n=4)	2 x online individual interviews 1 x online joint interview

Table 2: Primary data collection: participants and methods

Observations of Meetings – Becoming 'Embedded'

Observation is a fundamental component of ethnographic research, and as such, an integral part of the process of becoming 'embedded' within an organisation. 'Embeddedness' has been identified as a means of improving evaluation rigour and, through its collaborative and adaptive approach with researchers and services working together, provides the means to develop a 'better on-the-ground understanding of the change process' (Churruca et al. 2019, p. 373). The research team worked with the BZB team to identify key meetings for the first author to attend as a participant observer. This involved participating in 38 meetings, taking notes, and writing up post-meeting reflections (fieldnotes). Meetings were attended across the range of services previously described, including internal insights planning meetings, central team updates, regional team meetings, staff training sessions, and follow-up workshops. Service user views and experience were sought via focus groups held at BZB in-person services, but we recruited fewer service users than hoped due to low attendance at the services visited, as well as low uptake from online service users. Service users were contacted through BZB staff, and so participant recruitment was reliant on this process.

The process of being invited to attend meetings positioned the BZB central team as gatekeepers who controlled what and who we had access to. Gatekeepers are often preoccupied with the delivery of services and full schedules and aligned research/evaluation is not always at the forefront of their minds (Mirick 2016). Our attendance was often opportunistic rather than strategic. We were invited to attend and observe more central team and engagement staff meetings, than service delivery-focused meetings, which appeared in part due to central team perceptions of what was 'relevant' but also highlights implications around trust and power in the research process. These factors and the primarily online nature of the work meant it was not possible to achieve a similar level of immersion and 'embeddedness', and thus relationship and rapport, with local services and service users.

The degree of 'embeddedness' is an important contextual factor in effective implementation (McCormack et al. 2013). Churruca et al. (2019) identified 'degrees of embeddedness: 'dichotomized research-practice', 'collaborative linking-up', 'partially-embedded' and 'deep immersion'. The evaluators' role in this project tracks most closely to 'collaborative linking up'. Beyond gatekeeping, the 'embedded'

relationship between the research team and the organisation was complicated by tensions between participant and observer roles. The research team were asked, in part, to bring academic expertise to BZB's work and development. In some elements of the methodology this felt appropriate, for example the SOG meetings where the sharing of ideas from group members was explicitly encouraged. From an ethnographic perspective though, as a participant observer, the first author noted some tensions and challenges to this. Seim (2021) suggested that the terms participant observation and observant participation can be used to distinguish the extent to which a researcher is positioned as a participant or observer. In this instance, for the first author, in becoming 'embedded' there was an ongoing process of negotiation between 'participant', with the associated expectations of the organisation (i.e., bringing expertise), and 'observer', with associated 'exploration' and 'participating or seeking to understand', central to the role of an ethnographic researcher.

Data Analysis

Qualitative data included transcripts of focus groups and interviews, and observation and fieldnotes from the other elements of data collection as outlined above. These data were analysed in NVivo20 using a reflexive thematic analysis approach to develop, analyse, and interpret themes and patterns of meaning (Braun & Clarke 2021). Initial theme generation, data coding, and theme development and review phases of the analysis process (Braun & Clarke 2021) were conducted by the first and second author, with input from the wider team. Initial themes were presented to the SOG for input and feedback, before being further refined.

Findings

Findings are summarised in relation to the three main aims of the evaluation: service delivery, evidence and insights, and working with people and communities. Participant identity is masked and therefore they are identified in quotations as follows:

- Central team staff: core BZB team who oversee service delivery and operations.
- Service delivery staff: frontline staff who directly deliver BZB services.
- Engagement team staff: staff who engage with people and communities in BZB service delivery areas.
- External partner: member of the SOG not employed by BZB.
- Commissioner: local authority staff who have commissioned BZB services.
- Service user: children, young people and adults who use BZB services.

Service Delivery

The majority of users of both adult and children and family services whom we spoke to as participants described a positive overall experience of BZB. Behavioural changes reported included reducing food portion sizes and increasing the involvement of children in shopping and cooking. A highly adaptable approach to service delivery, with input from staff and service users, was seen as helpful in developing a service that met people's needs. For example, adapting materials to be inclusive, accessible, and culturally appropriate (e.g., changing lunchbox suggestions to address the preferences of those likely to be using the service), identifying new resources when needed (e.g., staff training on the South Asian Eatwell Guide), and making adjustments for service users including those whose first language was not English and people living with a disability:

> I know [colleague] has been doing a lot of work on developing resources for kids with autism… So we're giving out all these resources and we're talking about all of these things thinking that everyone can understand. But having a chat with the mum and… we definitely need to simplify this a lot more, make it a lot more visual, and just have a lot more pictures on there and even thinking about the language that we're using. (Service delivery staff member).

However, the evolving nature of the services could require adaptations where managers and staff sought to be responsive to feedback from service users to ensure that services were accessible, appropriate and beneficial for all. Although we did not hear these perspectives directly from service users, staff raised and discussed some challenges identified from feedback received. This included the challenge of balancing the need for immediate action with longer-term strategic planning to develop inclusive and adaptable services for, and with, people and communities, while remaining cognisant of the wider contexts of poverty and the cost-of-living crisis, and related feedback from service users:

> …we've been told [by BZB central team] to use real food for the kids to weigh out, but then all of that food goes in the bin afterwards, and we've had a lot of parents feedback to us that that's quite insensitive when they're struggling to feed their family in the first place. (Service delivery staff member).

Other staff members described the difficulties in developing a service that meets the needs of communities 'when people are handing back potatoes, because they can't afford to cook them, to the food banks' (Engagement team staff member).

While, as noted, service users we spoke to were generally positive about the services provided, a critique was raised about the referral processes and the perceived stigma of being referred to weight management services. Staff related conversations with some parents/carers following referrals to BZB from the National Child Measurement Programme. Some were grateful and enthusiastic about being offered support, but others felt upset and/or defensive about what this meant for their child, or their parenting. This was echoed by some parents/carers:

> For my daughter [when she was referred]… she was like, "oh, I'm fat, that's why I have to go to this thing" so she wasn't very happy. So it's hard getting her to come [to BZB] every week, but she enjoys it and she sort of takes [learning from the sessions] onboard every week… I think she needs more of an incentive to come here, because… She's like "I don't want to go… Why do I have to go? Why have the school sent me?" (Service user – parent/carer).

Central team staff pointed out that service users who may have felt this way at the beginning often reported enjoying the service once they started attending, as evident in the quote above. However, this only considers the experiences of those who did use the service, and not those who may have been referred to BZB and not taken up the offer of support. Therefore, it is also important for organisations like BZB, and those who commission them, to consider how the initial approach is made, and assess how expectations and perceptions of weight management services, and people's behaviour, change once they start using a service.

A key element of BZB's approach was to embed engagement staff in communities to build relationships and trust, key mechanisms in community development approaches (Rycroft-Malone et al. 2016, Tembo et al. 2021). This included engaging with communities through events such as school visits and coffee mornings, outreach to GP surgeries and health centres, and attendance at local events. Although some challenges in this process were reported by staff, including a lack of engagement from GPs, overall, the presence of BZB in new areas was felt to have provided opportunities for engagement with local people and communities. Staff identified opportunities to build on these foundations, become more embedded in the community, and work with local people and communities to provide services that meet their specific needs. However, delivery staff described a tension between their capacity for

engagement with people and communities and the need to prioritise service delivery. The nature of service commissioning also provided obstacles to embedding services in communities (Scott et al. 2024), when some of the services evaluated were not recommissioned due to a lack of ongoing funding.

Evidence and Insights

Qualitative data collected by the BZB engagement teams through focus groups and interviews (see 'Qualitative research training' above) explored attitudes to health and weight management in relation to ethnic and cultural diversity, behavioural and neurodiversity, and poverty and inequality. Engagement and insights officers discussed the importance of building trust and engagement with local people and communities, often drawing on established relationships. However, the central team identified the importance and challenges of finding a balance between the skills and time needed for building relationships (engagement) and data collection (insights). Conflation of engagement and data collection also created some challenges around informed consent and trust with community members:

> …some people, even they don't trust this [insights data collection] process. They're thinking that you need to use them for something, but they don't know what… The awareness of people is less in this deprived area… they worry when you ask them to give your date of birth, or…sign here. (Engagement team staff member).

Despite most engagement and insights officers being local people with pre-existing relationships in their areas and communities, there was often a perception of services and organisations like BZB being 'parachuted' in and out of local areas, making it hard to establish trust. For example, one commissioner described people and communities as having been '*burnt before*' when describing their prior engagement with organisations or services who have then not been recommissioned (as indeed happened with some BZB services evaluated), contributing to a reluctance to re-engage. Engagement and insights officers also reported being asked by people what the benefit of taking part in a focus group or interview (for insights data collection) would be for themselves or their community, and their difficulty in answering these questions in the context of uncertain funding.

BZB central team staff reported that they had collected a large amount of 'insights' data, across several locations in which they deliver services, related to health and weight management on ethnic and cultural diversity, behavioural and neurodiversity, and poverty and inequality. However, further analysis of this data was outside the scope of this evaluation, so our understanding of it is limited to discussions and presentations in SOG meetings, and some first-hand observation of the data collection and analysis process through the training sessions previously discussed. The insights data were analysed by the central team, with input and collaboration from engagement officers. The BZB core team reported that these insights, and the connections built with communities, provided an opportunity to demonstrate to communities that they were listening, and responding, to their needs. Furthermore participants discussed how the time constraints of short-term contracts, alongside instability caused by Office for Health Improvement and Disparities changes to funding (in April 2022), made it difficult to use these data to inform service development, which highlights the previously outlined tensions between the short-term nature of interventions and the aim of sustainable long-term change. As discussed in the introduction, resource-intensive community development and whole systems approaches are often incompatible with commissioner expectations to do 'more with less' and focus on short-term outcomes. To effectively inform meaningful service development, further analysis of data and collaboration with communities would be needed (see 'working with people and communities' below).

The time and resources needed to collect and analyse insights data, and to implement learning in the context of contracts with specific key performance indicators (KPIs), also created challenges:

> It just feels like the public health landscape means that you can't ever truly invest in quality and innovation, and taking time to nurture, to think and reflect. It's always 'where's the next money coming in from?' Once the money goes out, it's 'what can we squeeze out to develop something?' And there's always the next rotation … (Central team member).

The 'next rotation' refers to the next round of service delivery with a new cohort of service users. This highlights the challenge of balancing longer-term, strategic service development with delivery targets and reporting requirements as well as funding cycles, all of which hinder the creation of sustainable, collaborative and whole systems approaches (Scott et al. 2024).

A key consideration in service development was how to best use routine data collection and other learning (e.g. the insights data) to ensure that services are inclusive of and meet the needs of diverse communities. The evaluation identified opportunities to do this in BZB services, but also that further consideration was needed on how best to do so meaningfully:

> I personally am not sure how you implement the cultural aspects of [weight management]. I think it is important to bring them [insights relating to cultural diversity] in and incorporate it, I think through representation of the people who are leading the groups, and also the groups themselves. But whether you need to have different groups for separate demographics, I'm not sure…. (Service delivery team member).

The role of information in individualising and standardising service delivery was also discussed:

> How strict do you be with what a programme is and how flexible that programme should be? Or do you have a… programme that has to be the same across every area? Or then do you adapt those? It's a real challenge … When and how you action things based on what information is the big challenge. And also… because we do have quite a lot of services, what services do you prioritise? (Central team member).

Participants raised questions about whether an inclusive service should consist of different services for different groups, or integrated services which can be adapted as needed. Members of BZB central team suggested that the logical next step would be to engage with people and communities in service design, drawing on learning on culture, diversity, and other key areas from the insights data collection.

Working Collaboratively

BZB established the Strategic Oversight Group (SOG) with the aim of bringing people together who had a range of expertise (including research, co-production and community-led approaches, ethical marketing, and equality, diversity, and inclusion). The SOG included the authors of this paper. There was a desire to draw on a range of perspectives, to create '*productive tension*, *which all members [of the SOG] were committed to working in partnership to resolve'* (Central team member).

As part of their focus on engaging people and communities, the BZB central team identified the aspiration to involve people with lived experience and communities in the development, delivery, and evaluation of services, as a central team member expressed: *'this year has really shifted our focus into being able to connect better with communities… It's so obvious we want to do it, but it's not easy'.* BZB tasked members of the SOG to provide strategic advice and support to enable them to do this. This included Asset Based Community Development, an approach to sustainable community-driven development (Russell 2021) which BZB were exploring.

As members of the SOG the authors provided advice and support on co-production theory, principles, and practice. Resulting discussions focused on how co-production was defined, and what this might look like in practice for an organisation like BZB, including people with lived experience and communities being equal partners and having a say in decision-making from the outset (Hickey 2018,

Social Care Institute for Excellence 2022). The SOG explored how co-production differs from engagement and consultation ('working with' rather than 'listening to'), and how 'co-production' can be misused or misunderstood. In December 2021 the SOG agreed a definition which drew on those developed by the Social Care Institute for Excellence (2022) and the University College London Co-Production Collective (2024):

> An approach in which practitioners and the public/communities/service users work together in equal partnership, sharing power and responsibility from the start to the end of a project, including planning, delivery, and evaluation.

The absence of public/lived experience perspectives within the SOG or other BZB strategic planning was discussed, but the central team felt that they needed to reflect further on how best to involve the diverse communities with whom they worked, particularly given the challenges of short-term and target-driven commissioning cycles (Scott et al. 2024), before involving community members and service users. As a result of these discussions, and the realisation that co-production was an ambition that BZB were not yet able to achieve in practice, the SOG were asked to help support BZB to 'work towards' co-production, as outlined in this internal document sent to staff in February 2022:

> Technically, what we are doing is *working towards co-production*. We are looking to speak to people in and outside our services a lot more and in different ways to find out how we can improve, and what else they need to reach their lifestyle and health outcomes…it also means staying in touch with them and feeding back what we have heard, what we intend to do, and the results of those things. This serves as 'an ongoing conversation' with real people, allowing them to actively be involved in decision making (BeeZee Bodies 2022, our emphasis).

Co-production in Practice (Rhetoric and Reality)

Aspirations for co-production need to be evaluated against conceptualisations (Smith et al. 2022), exploring how the reality matches up to the rhetoric. The internal BZB document quoted above talks mainly about consultation (seeking people's views) and engagement (keeping in touch and feeding back) but only hints at co-production, as defined above, in the final point about 'allowing them [public/communities] to be actively involved in decision making'. Even then the language of 'allowing' people to be involved could be viewed as some way from 'working together in equal partnership and sharing power and responsibility' (BeeZee Bodies 2022), or the Asset Based Community Development approach of community-led development, implying professional control over who is involved and in what, when and how. An external partner and SOG member identified the need in co-production to take risks and share power:

> I think setting out your [service delivery] model from the outset still gives you some scope and power, because… that's what you're negotiating on, as opposed to you get the money and then negotiate [with people and communities] around trying to bring it back around [to what matters to them]. So that might be part of the step, but there's a big risk attached to that, isn't there? What's your risk appetite? (External partner).

One solution suggested by a central team member was for organisations like BZB to be commissioned to coordinate a co-produced service, transitioning towards sharing power over time. But the SOG were clear that the planning and commissioning of future co-production and/or community-led approaches such as Asset Based Community Development also needs to involve people with lived experience and communities, for example in developing specifications and proposals, and in the commissioning process. Another suggestion from a member of the central team was a model in which a community could collectively decide, and invite in, external support, rather than services being

commissioned on their behalf. But these approaches were noted to again require additional time and funding, as well as established relationships. There is also an inherent assumption in many discussions around co-production and community-led approaches that there are people who want and are able to be involved, but the service users we spoke to had limited or no previous experience of co-production or other forms of involvement, and often limited capacity to be involved on an ongoing basis because of work and family commitments.

BZB's engagement and insight work demonstrated a genuine desire to hear from local people in the areas where services were being delivered, as well as the importance and value of increasing public, service user and community involvement in service development. However, as previously discussed, commissioning processes were found to be a substantial barrier, limiting both the scope for engagement and the potential for co-production:

> Everything is so reactive and short term that it's impossible to ever be truly co-productive, because the funding will run out, or we've got a report to write, so… We can't then keep that momentum and keep engaging communities… time and money is just the big thing, but I think that's always going to be the way. (Central team member).

There was a tension between the need to meet service delivery and outcome-focused objectives and KPIs set by commissioners, and a desire to work more collaboratively with service users and communities. Ongoing changes to commissioning processes, for example through the introduction of Integrated Care Systems (Dunn et al. 2022), were viewed as a potential opportunity to build ongoing relationships and trust, and enable co-production and the development of services with and by (rather than for) communities, as part of an effective whole systems approach:

> Rather than put a whole load of outcomes that we're expecting [in the service specification], we've just put them as more process kind of outputs… So the KPIs… are around how much they've [service users, public and communities have] engaged [with the service]… rather than are people engaging in healthier lifestyles?… Have they attended the 12-week course? … If you've got a flexible procurement service… you don't have to have such rigid KPIs, and you can write it into the contract. (Commissioner).

Overall, a number of internal (e.g. data management, staff training) and external (e.g. commissioning processes) factors were identified for consideration in working towards co-production, which was recognised by both BZB staff and commissioners as requiring additional time and resources. During this evaluation BZB achieved a more nuanced understanding of the challenges of doing co-production, including the way that services are commissioned, and participants identified a need for a culture shift in commissioning processes in order to facilitate embedded and meaningful co-production in service design and delivery.

A Note on Further Changes

Towards the end of this evaluation BZB became part of a much larger organisation, and around the same time several of the services involved in this study came up for retendering and/or were not recommissioned. These changes mean that BZB no longer exists as an organisation, the services evaluated have changed considerably, and many staff involved have changed roles or moved on. This exemplifies the tensions between current models of often short-term service provision and the longer-term investment and changes needed to build sustainability and importantly, trust in communities. This also highlights a further challenge to taking a whole-systems approach, when the 'system' is in constant flux.

Discussion

This evaluation highlighted the significant number of internal processes needed for successful engagement with, and service delivery in, diverse communities; and the training and skills that staff require to undertake this work. BZB were able to achieve a level of engagement with local people and communities and a better understanding of the diverse needs of the communities they were hoping to reach. But progress was limited by the ways in which services are commissioned and expected to be delivered, e.g. short-term service contracts which require fast set-up and roll outs, the demonstration of take-up and achievement of specific KPIs. Additional consideration should also be given to how local people and communities could be involved in the collection and interpretation of data, how they could ensure in the future that those people and communities who engaged with the work feel that their perspectives have been heard and/or used, and how these insights are communicated back to the communities engaged (Mathie et al. 2018). Without such considerations, a whole systems approach is not an achievable aim.

The need for services to prioritise continual development of internal processes that allow for both short-term service development and longer-term service development strategy need to be considered in relation to an increasing interest in approaches to developing services working with people and communities. There is still some way to go for organisations like BZB to be able to move from 'working towards' co-production to services developed and delivered 'with' and 'by' people and communities (Williams et al. 2020), not least in the face of organisational changes (see above). It is widely recognised that the term 'co-production' is a 'buzzword' which can be overused and over-promised (Beresford et al. 2021). This evaluation illustrates some of the challenges involved and the need for more reflection on how, when, where and by whom services are co-produced, and how the principles and rhetoric of co-production differ from practice.

The commissioning landscape, with short-term funding cycles, uncertain funding, and outcome-based KPIs (e.g. number of people attending services) are a particular challenge to developing the infrastructure necessary to implement a community-based, whole systems approach to obesity. Time and resources are needed for services to engage, and embed within, local communities (e.g. Tembo et al. 2021), and the challenges to building trust and obtaining informed consent experienced by BZB are reflective of this. The evaluation highlights the importance of greater collaboration with members of the public and communities from the outset, and this has been identified in other evaluations about whole systems approaches (Breslin et al. 2023). Our findings also highlight some of the tensions in making rhetoric around public engagement and co-production a reality in a funding landscape which is still often 'top-down'. Scott et al. (2024) found that:

> …co-production of health and care services is central to aligning services to meet the population's needs. However, this rhetoric is more an aspiration than an operational reality…. [and] funding cycles and governance structures are commonly in conflict with a co-productive approach. This disconnect between rhetoric and reality indicates a need for significant reform within the commissioning system (p8).

It is important to consider how meaningful and relevant services can best be delivered to, and with, diverse communities. This links to the wider context of socioeconomic deprivation and poverty, inequalities, and how weight management services more broadly fit within this context and the implications of the current UK economic crisis (Robinson 2023). This evaluation highlights the value of a community-engagement and insight-led approach, with involvement of members of public and communities in service development as well as awareness of wider social and socioeconomic contexts. But to do this in ways that are meaningful, effective and sustainable takes time and resources. Evaluation of whole systems approaches to obesity also require careful consideration of the programme's evaluability, the evaluation purpose, and the nature, role and quality of evidence (Gadsby et al. 2023).

Further exploration is also needed on what an authentically co-produced service would look like in this context and whether, when and how community members would even identify weight management as a priority. As highlighted by research in disadvantaged communities in Australia, more widespread acceptance of 'multiple realities' of fat, including its productive capacity, has suggested that in public health weight management and obesity interventions messages about 'fatness' may not resonate for all, particularly for those who do not see it as a risk factor or negative attribute (Zivkovic et al. 2018, p. 382). The problematisation of obesity in such communities, and differing views of obesity across different social classes, further emphasises the need for obesity interventions and wider policy to attend to disadvantaged groups' experiences and material constraints (Farrell et al. 2016). This calls into question whether weight management services can ever be fully co-produced if the 'need' for such a service is determined by some (commissioners, professionals) but not others (communities).

There are also questions about where weight management services sit within whole systems. To be considered as a determinant of health needs within whole systems approaches to obesity, weight needs to be considered alongside factors including physical activity, mental health, social support, and the cost of living (Bagnall et al. 2019, Garside et al. 2010, Public Health England 2019). Consideration needs to be given to how wider systems and structures, including commissioning processes, can embed whole systems approaches and wider determinants of health and inequality and how the public and communities can be involved (Breslin et al. 2023, Scott et al. 2024). Reflection is also needed on the ways in which weight management services are perceived and engaged with (or not), and how negative perceptions can be addressed. This includes how the perceptions and approaches of staff involved in weight management are also shaped by socio-economic factors; whole systems are circular, not linear and *all* stakeholders are moulded by context, not only the 'recipients' of weight management services (Breslin et al. 2023). There is also an on-going issue of whether a 'weight management' intervention can have any success if the wider issues are not addressed around the underlying causes of ill health, particularly the relationship between socio-economic circumstances and health inequalities. Lastly, whole systems approaches need to encompass more than the management or treatment of obesity through an intervention, even when such an intervention has co-production aspirations and listens to service users. The 'system' must involve local and national commissioners, broader public health messaging and related determinants of obesity such as housing and mental health support. Further consideration is now needed to how wider systems and structures, including commissioning processes for local and national programmes, can embed whole systems approaches and wider determinants of health and inequality, and how the public and communities can be meaningfully, effectively and inclusively involved.

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Conflicts of interest

The authors declare that they have no relevant or material financial interests that relate to the research described in this paper.

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References

Bagnall, A. M., Radley, D., Jones, R., Gately, P., Nobles, J., van Dijk, M., … & Sahota, P. (2019) Whole systems approaches to obesity and other complex public health challenges: A systematic review. *BMC Public Health*, *19*(1). https://doi.org/10.1186/s12889-018-6274-z

Bambra, C., Riordan, R., Ford, J., & Matthews, F. (2020) The COVID-19 pandemic and health inequalities. *Journal of Epidemiology and Community Health, 74*(11). http://dx.doi.org/10.1136/jech-2020-214401

BeeZee Bodies (2022) *Co-Production at BeeZee Bodies - Staff Explainer*. Internal document.

Beresford, P., Farr, M., Hickey, G., Kaur, M., Ocloo, J., Tembo, D. & Williams, O. (2021) Introduction: The challenges and necessity of co-production. In P. Beresford, M. Farr,, G. Hickey, M. Kaur, J. Ocloo, D. Tembo, & O. Williams (Eds.), *COVID-19 and co-production in health and social care research, policy, and practice: Volume 1: The challenges and necessity of coproduction* (pp. 3-16). Policy Press.

Boyle, D. & Harris, M. (2009) *The challenge of co-production: How equal partnerships between professionals and the public are crucial to improving public services*. NESTA, New Economics Foundation, The Lab.

Bradley E.H., Canavan M., Rogan E., Talbert-Slagle K., Ndumele C., Taylor L., & Curry L.A (2016) Variation in health outcomes: The role of spending on social services, public health, and health care, 2000-09. *Health Affairs*, *35*(5),760–768. https://doi.org/10.1377/hlthaff.2015.0814

Braun, V., & Clarke, V. (2021) *Thematic analysis: A practical guide*. Sage.

Breslin, G., Fakoya, O., Wills, W., Lloyd, N., Bontoft, C., Wellings, A., … & Brown, K. E. (2024) Whole systems approaches to diet and healthy weight: A scoping review of reviews. *PLoS ONE*, *19*(3). https://doi.org/10.1371/journal.pone.0292945

Breslin, G., Wills, W., Bontoft, C., Fakoya, O., Greco, H.A., Lloyd, N., … & Brown, K.E. (2023) Whole systems approach to diet and healthy weight: A longitudinal process evaluation in East Scotland. *Perspectives in Public Health, 143*(6), 347-357. https://doi.org/10.1177/17579139231203858

Churruca, K., Ludlow, K., Taylor, N., Long, J. C., Best, S., & Braithwaite, J. (2019) The time has come: Embedded implementation research for health care improvement. *Journal of Evaluation in Clinical Practice*, *25*(3), 373–380. https://doi.org/10.1111/jep.13100

Department of Health and Social Care & Public Health England (2021) *Child and family weight management services grant: Apply for funding.* DHSC. https://www.gov.uk/government/publications/child-and-family-weight-management-services-grant-apply-for-funding

Dunn, P., Fraser, C., Williamson, S. & Alderwick, H. (2022*) Integrated care systems: what do they look like?* The Health Foundation. https://www.health.org.uk/publications/long-reads/integrated-care-systems-what-do-they-look-like

Farrell, L. C., Warin, M. J., Moore, V. M., & Street, J. M. (2016) Socio-economic divergence in public opinions about preventive obesity regulations: Is the purpose to 'make some things cheaper, more affordable' or to 'help them get over their own ignorance'? *Social Science & Medicine*, *154*, 1-8. https://doi.org/10.1016/j.socscimed.2016.02.028

Gadsby, E.W., Hotham, S. & Merritt, R. (2023) The theoretical and practical difficulties of evaluating a community-based 'whole systems' obesity prevention intervention: A research team's critical reflection. *Perspectives in Public Health*, *143*(6), 337-346. https://doi.org/10.1177/17579139231195700

Garside, R., Pearson, M., Hunt, H., Moxham, T., & Anderson, R. (2010) *Identifying the key elements and interactions of a whole system approach to obesity prevention*. Peninsula Technology Assessment Group (PenTAG).

Hickey, G., Brearley, S., Coldham, T., Denegri, S., Green, G., Staniszewska, S., … & Turner, K. (2018) *Guidance on co-producing a research project*. INVOLVE/NIHR.

Krane, V., & Baird, S. M. (2005) Using ethnography in applied sport psychology. *Journal of Applied Sport Psychology*, *17*(2), 87–107. https://doi.org/10.1080/10413200590932371

Mathie, E., Wythe, H., Munday, D., Millac, P., Rhodes, G., Roberts, N., … & Jones, J. (2018) Reciprocal relationships and the importance of feedback in patient and public involvement: A mixed methods study. *Health Expectations*, *21*(5), 899–908. https://doi.org/10.1111/hex.12684

McCormack, B., Rycroft-Malone, J., DeCorby, K., Hutchinson, A.M., Bucknall, T., Kent, B., … & Wilson, V. (2013) A realist review of interventions and strategies to promote evidence-informed healthcare: a focus on change agency. *Implementation Science, 8,* 107. https://doi.org/10.1186/1748-5908-8-107

Mirick, R.G. (2016) Challenges in recruiting parents to participate in child welfare research: Implications for study design and research practice. *Child & Family Social Work*, *21*(4), 484-491. https://doi.org/10.1111/cfs.12165

Moore, G., Audrey, S., Barker, M., Bond, L., Bonell, C., Cooper, C., … & Baird, J. (2014) Process evaluation in complex public health intervention studies: the need for guidance. *Journal of Epidemiology & Community Health*, *68*, 101-102. https://jech.bmj.com/content/68/2/101

Mughal, R., Thomson, L.J.M., Daykin, N., & Chatterjee, H.J. (2022) Rapid evidence review of community engagement resources in the UK during the COVID-19 pandemic: How can community assets redress health inequities? *International Journal of Environmental Research and Public Health*, *19*, 4086. https://doi.org/10.3390/ijerph19074086

NHS England (n.d.) *Commissioning.* https://www.england.nhs.uk/commissioning (Accessed 28 June 2023)

Office for Health Improvement and Disparities (2021) *Supporting adult weight management services grant to local authorities for adult tier 2 behavioural weight management services.* OHID https://www.gov.uk/government/publications/adult-weight-management-services-grant-supporting-local-authorities/supporting-adult-weight-management-services-grant-to-local-authorities-for-adult-behavioural-tier-2-weight-management-services

Pencheon, D. (2015) Making health care more sustainable: The case of the English NHS. *Public Health, 129 (*10), 1335-1343. http://dx.doi.org/10.1016/j.puhe.2015.08.010

Public Health England (2019) *Whole systems approach to obesity: A guide to support local approaches to promoting a healthy weight.* Public Health England. https://assets.publishing.service.gov.uk/media/5d396e7140f0b604de59fde9/Whole_systems_approach_to_obesity_guide.pdf

Robinson, E. (2023) Obesity and the cost of living crisis. *International Journal of Obesity 47*, 93-94. https://doi.org/10.1038/s41366-022-01242-9

Russell, C. (2021) Getting to authentic co-production: An asset-based community development perspective on co-production. In E. Loeffler (Ed.), *The Palgrave handbook of co-production of public services and outcomes* (pp. 173-192). Palgrave Macmillan.

Rycroft-Malone, J., Burton, C. R., Bucknall, T., Graham, I. D., Hutchinson, A. M., & Stacey, D. (2016) Collaboration and co-production of knowledge in healthcare: Opportunities and challenges. *International Journal of Health Policy and Management, 5*(4), 221–223. https://doi.org/10.15171/ijhpm.2016.08

Safefood (2021) *Whole systems approach to childhood obesity: A review of the evidence.* Safefood. https://www.safefood.net/getmedia/db0860b3-3d9a-49ae-9875-5fe010169245/Safefood-2021-Whole-systems-approach-to-obesity_Accessible.pdf (Accessed 21st August 2025)

Scott, R. J., Mathie, E., Newman, H. J. H., Almack, K., Brady, L-M. (2024) Commissioning and co-production in health and care services in the United Kingdom and Ireland: an exploratory literature review. *Health Expectations*, *27*(3). https://doi.org/10.1111/hex.14053

Seim, J. (2021) Participant observation, observant participation, and hybrid ethnography. *Sociological Methods & Research*, *53*(1), 121-152. https://doi.org/10.1177/0049124120986209

Smith, B., Williams, O., Bone, L., & the Moving Social Work Co-production Collective (2022) Co-production: A resource to guide co-producing research in the sport, exercise, and health sciences. *Qualitative Research in Sport, Exercise and Health.* https://doi.org/10.1080/2159676X.2022.2052946

Social Care Institute for Excellence (2022) *Co-production: What it is and how to do it. SCIE.* https://www.scie.org.uk/co-production/what-how/#:~:text=Updated%3A%20July%202022,%2C%20carers%2C%20families%20and%20citizens. (Accessed 21st August 2025)

Sturgess, G. L. (2018) Public service commissioning: Origins, influences, and characteristics. *Policy Design and Practice*, *1*(3), 155–168. https://doi.org/10.1080/25741292.2018.1473100

Teixeira, P.J., & Marques, M.M. (2017). Health behavior change for obesity management. *The European Journal of Obesity, 10*(6), 666–673. https://doi.org/10.1159/000484933

Tembo, D., Hickey, G., Montenegro, C., Chandler, D., Nelson, E., Porter, K., … & Rennard, U. (2021). Effective engagement and involvement with community stakeholders in the co-production of global health research. *The BMJ*, *372,* n178. https://doi.org/10.1136/bmj.n178

University College London Co-production Collective (2024) *What co-production means to us.* https://www.coproductioncollective.co.uk/championing-co-production/what-does-co-production-mean-to-us (Accessed 28 Aug 2025)

Ward, V. (2021, Oct 13th) Embedding researchers in service organisations: What do initiatives look like and how can they be cultivated? *Evidence and Policy Blog.* https://evidenceandpolicyblog.co.uk/2021/10/13/embedding-researchers-in-service-organisations-what-do-initiatives-look-like-and-how-can-they-be-cultivated/

Williams, O., Sarre, S., Papoulias, S. C., Knowles, S., Robert, G., Beresford, P., … & Palmer, V. J. (2020) Lost in the shadows: Reflections on the dark side of co-production. *Health Research Policy and Systems, 18*(1). https://doi.org/10.1186/s12961-020-00558-0

Zivkovic, T., Warin, M., Moore, V., Ward, P., & Jones, M. (2018) Fat as productive: Enactments of fat in an Australian suburb. *Medical Anthropology*, *37*(5), 373-386. https://doi.org/10.1080/01459740.2018.1423563