

Exploring Barriers to Healthy Eating and Active Living in a Deprived UK Community: A Qualitative Study Using the Social Ecological Model

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Abstract

Research increasingly focuses on the factors linked to poor health outcomes and unhealthy lifestyle choices in socioeconomically deprived communities. This study aimed to explore participants' Healthy Eating and Active Living (HEAL) behaviours, alongside their attitudes, perceptions, and lived experiences, and to examine how these relate to the Social Ecological Model (SEM) as a framework influencing health-related behaviours. Data were collected in Barnsley, an area characterised by substantial deprivation and marked health inequalities. A total of 97 participants contributed through focus groups and individual interviews. Questions were developed using HEAL and SEM frameworks and explored the development and persistence of modifiable behaviours influencing physical activity, dietary habits, and long-term lifestyle patterns. Data were analysed using Deductive Thematic Analysis (Braun and Clarke in *Qual Res Sport Exercise Health* 11(4), 589–597, 2019). Three overarching themes emerged: dietary practices and access to unhealthy food options, mental health, and perceptions of government-led interventions. The SEM was applied to assess the impact of community-level strategies while also accounting for individual responsibility in relation to HEAL behaviours. Within the study setting, participants' attitudes toward HEAL were found to have a strong influence on behaviour, with many attitudes traced back to childhood and passed down from parents. This intergenerational transmission may help explain why many deprived communities across England experience poorer health outcomes, as inherited beliefs contribute to negative HEAL behaviours that develop into long-term health issues. Although national initiatives were viewed as informative, their effectiveness was limited by insufficient reach and communication to the wider population. In contrast, locally delivered interventions were often more successful in engaging residents; however, participants frequently noted that these initiatives were discontinued due to funding constraints.

Keywords: Healthy eating, Active living, Dietary habits, Behaviours

Introduction

In England, individuals residing in deprived areas are at greater risk of poor health outcomes [1, 2] and are more likely to engage in unhealthy lifestyle behaviours [3, 4]. Gaining deeper insight into the specific challenges faced by populations in these areas has been identified as an essential first step in addressing health inequalities [1, 2].

Existing literature highlights multiple interrelated issues affecting people from deprived backgrounds, including low levels of physical activity, poor-quality diets, and high consumption of food and alcohol [5]. These behaviours are commonly associated with elevated blood pressure, obesity, hyperglycaemia, and hyperlipidaemia [6].

Public health policy in England has responded proactively by introducing a range of programmes designed to reduce or prevent unhealthy behaviours, such as excessive alcohol intake, smoking, overeating, and poor mental health. Despite these efforts, rates of health problems linked to these factors continue to increase in many deprived communities. To explore why progress toward healthier lifestyles has been limited, the

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researchers designed focus group and interview questions informed by HEAL and SEM literature. Participants living in a deprived area in northern England were recruited using snowball sampling to take part in the study.

The study specifically sought to identify the origins of negative HEAL behaviours, evaluate the effectiveness of existing interventions in reducing local health inequalities, and understand the impact of unhealthy HEAL behaviours on participants' lives.

Materials and Methods

Defining the terminology

Several key concepts are used throughout this paper and form the foundation of the research. These terms are briefly clarified below.

Healthy Eating and Active Living (HEAL) refers to a set of interrelated and complex factors that together represent a holistic approach to health. In this study, HEAL primarily relates to behaviours intended to reduce the risk and impact of Non-Communicable Diseases (NCDs) [7]. Accordingly, the analysis focused on behaviours associated with diet and alcohol use, mental

health, availability of unhealthy foods and beverages, and participants' responses to government initiatives aimed at promoting HEAL.

Non-Communicable Diseases (NCDs) were a central concern of the study as they represent the long-term consequences of unhealthy HEAL behaviours. NCDs account for approximately 70% of deaths worldwide [7] and are typically defined by their long duration and slow progression over time [6]. The four primary categories—cardiovascular disease, cancer, chronic respiratory disease, and diabetes [6]—occur disproportionately among individuals from deprived socioeconomic backgrounds. Previous research has shown that slowing the progression of NCDs is possible by reducing associated risk factors [5, 7]. Therefore, examining the relationship between HEAL behaviours and NCDs provides an important starting point for reducing their overall burden.

Social determinants of health (SDH) are non-clinical factors that influence health outcomes [1].

Table 1 outlines the levels of influence described within the Social Ecological Model, which informed the analytical framework for this research.

Table 1. The social ecological model adapted from glanz and rimer, 2005 [1]

Level	Description
Intrapersonal/individual	Factors that shape behaviour, including knowledge, attitudes, beliefs, and personality traits
Interpersonal	Relationships and interactions with others that may offer social support or pose obstacles to personal development supporting healthy behaviours
Institutional and organisational	Rules, regulations, policies, and informal structures within organisations that may restrict or encourage recommended healthy behaviours
Community	Social norms—whether formal or informal—present among individuals, groups, and organisations that can either constrain or promote healthy behaviours
Public policy	Local, regional, and national policies and laws designed to regulate or support actions and practices aimed at disease prevention, early detection, control, and management

Context

Barnsley was selected as the study site due to its substantial levels of socioeconomic deprivation, as identified in the Indices of Deprivation (IOD) report [8], where it is ranked 39th out of 326 local authorities. Within the district's lower output areas (LOAs), 21% fall within the most deprived 10% nationally. All participants were recruited from this geographical area. Data were gathered between 6 December 2018 and 7 April 2019.

Sampling strategy

A snowball sampling approach was employed to recruit participants for both focus groups and individual

interviews. Six local authority employees working in the study area were initially contacted and acted as gatekeepers for recruitment. No incentives were offered for participation. In total, 13 focus groups were conducted, each comprising an average of 6 participants. Overall, 72 individuals took part in focus groups, including 61 females and 11 males. Participants ranged in age from 23 to 99 years, with a mean age of 65. All focus group participants self-identified as English or White English. In addition, 25 one-to-one interviews were completed, involving 17 females and 8 males. Interviewees ranged in age from 39 to 88 years, with an

average age of 54, and all reported their ethnicity as English or White English. The combined use of focus groups and interviews was informed by Hennink [9], who highlighted that employing both methods can generate a broader range of responses and facilitate a deeper exploration of participants' views, behaviours, and experiences.

Ethical issues pertaining to human subjects

Ethical approval for this research was granted by the University of Huddersfield, and all procedures adhered to the institution's ethical standards. The authors confirm that all participants provided informed written consent both to take part in the study and to allow the publication of anonymised data arising from their participation.

Data collection methods

All data collected were qualitative in nature. Focus group data were generated between 6/12/18 and 6/3/19, while interview data were collected between 6/2/19 and 7/4/19. Audio recordings were captured using an encrypted handheld recording device, and all recordings were transcribed with otter.ai, an online speech-to-text transcription platform. During data collection, participants were encouraged to discuss a range of open-ended questions, such as: "Were you supported when you decided to stop [smoking]?", "Was there support available?", and "How would you like the council to support this community?". Participants were also invited to describe their understanding of HEAL. Questions were intentionally broad to minimise the risk of leading responses. Examples included: "What do you think helps you engage in healthy behaviours?", "When you think about healthy living, what does that mean to you?", and "What does healthy eating mean to you?".

Data analysis

All focus group and interview recordings were transcribed prior to analysis. A Deductive Thematic Analysis was then conducted in line with the framework outlined by Braun and Clarke [10]. This analytical approach follows a top-down process in which predefined themes guide the examination of the data. Themes were derived from codes identified through engagement with the SDH literature, the HEAL framework, and the SEM.

Following this process, three core themes were established: diet and access to unhealthy options, mental health, and government interventions. Agreement on

codes and themes was reached collectively by the research team, with the deductive analysis undertaken by the lead author. Throughout the analysis, transcripts were systematically reviewed, and data segments relevant to each code were identified and organised accordingly.

Findings

During the thematic analysis, it became evident that most participants held HEAL beliefs broadly consistent with prevailing national guidance at the time of the study, particularly the Eatwell guidance [11]. Participants also demonstrated relatively high levels of awareness regarding nutrition and mental health. Despite this knowledge, many described barriers that limited their ability to engage consistently in healthy behaviours. These barriers included entrenched attitudes toward HEAL formed in childhood, as well as the widespread availability of unhealthy food and drink options, such as takeaways and off-licensed premises. Participants frequently noted that the high concentration and low cost of unhealthy options facilitated unhealthy choices, although some believed that healthier eating could be more economical. Time pressures were also commonly cited as a factor contributing to poorer dietary decisions. Alcohol consumption in the context of a healthy lifestyle was also explored. While many participants were aware of recommended alcohol intake levels, they felt that excessive consumption was shaped by external influences, including easy access and social pressures. Participants described a local culture around alcohol use that they perceived as encouraging unhealthy behaviours. In relation to mental health, participants demonstrated substantial awareness of its influence across multiple areas of life. Many felt that mental health both affected and was affected by HEAL behaviours. The deprived condition of the local environment was frequently identified as a contributing factor to declining mental health, aligning with existing evidence that highlights a strong association between socioeconomic status and mental health outcomes [1, 2]. When asked directly whether poor mental health influenced HEAL behaviours, participants overwhelmingly agreed, reporting increased smoking, alcohol use, and unhealthy eating during periods of low mood.

Findings associated with government interventions revealed a general perception that national-level initiatives were less effective than those delivered locally. However, participants also recognised that local programmes were often unsustainable due to limited

funding and resources. Many expressed a sense that their area had been neglected by the national government and believed that meaningful improvements would need to originate from sources beyond large-scale national initiatives.

Overall, these findings closely align with the theoretical frameworks introduced earlier in the paper, reinforcing the value of applying SEM and SDH perspectives when examining health behaviours in deprived communities. Empirical evidence is presented below to further elaborate on these results.

Links to empirical data

- *Diet and access to unhealthy options*

Findings indicated that participants generally expressed a desire to engage in HEAL behaviours; however, a range of external barriers frequently limited their ability to do so. In relation to diet, factors such as limited time for food preparation, insufficient cooking skills, and the perceived cost of healthier meals were commonly cited as contributors to unhealthy practices:

“Sometimes it’s the price of fruit and vegetables, and also not really knowing how to cook because parents or grandparents never showed them.”

“It’s difficult to make a proper meal after working all week. And if adults are making poor food choices, because many adults are overweight, then their children are unlikely to eat well either, since they just eat what they’re given.”

“Cooking something from scratch takes much longer than heating something in the microwave. Time is a big issue for people, and it’s not simply down to laziness.”

Older participants frequently reflected that during their childhood, food choices were driven more by affordability and convenience than by nutritional quality. Some felt these patterns had continued into later life, despite improved access to healthier food options:

“There were seven or eight of us to feed, so the easiest option was chips and a beef burger, and that’s what led to my health problems—too much fatty food.”

“My mum worked, so my dad cooked, and for him a meal meant chips with something else, usually cooked in the fryer. I didn’t really learn how to cook properly until I was about 16.”

“I was born in 1959, and my mum raised me and my brother on whatever she could afford. There wasn’t much choice when it came to buying healthy food.”

Alcohol intake was also described as a negative HEAL behaviour, particularly when consumption exceeded

recommended limits. Many participants felt that local drinking norms played a significant role in encouraging excessive alcohol use:

“Around here, drinking is seen as a fun social thing—it’s expected. If you don’t drink, people question why you’re spoiling the fun.”

“Heavy smoking and heavy drinking are quite normal behaviours on council estates.”

“We used to go out drinking every night, even when we were working. That’s what most people did, especially miners—you worked, then you went for a drink—and I think that influenced me.”

“A lot of people don’t see it as a problem. They think getting drunk and blacking out on the weekend is acceptable.”

Participants suggested that the concentration of outlets selling unhealthy food and alcohol reinforced and normalised these behaviours within the local area:

“There are pubs and off-licences everywhere. Alcohol is easy to buy, and supermarkets sell large packs of cheap drink. It’s normalised—it’s just part of everyday life. You drink at the weekend, feel rough, then do it all again the next week.”

“There aren’t many places that promote healthy eating, but there are loads of takeaways in this ward. If I wanted to eat out, I struggle to think of places that really offer or encourage healthy options.”

“On one high street alone, there are four takeaways, maybe eight or nine in total. Three are right next to each other. There used to be six or seven pubs too, although some have shut. No one needs that many takeaways or pubs in one place.”

Mental health affecting HEAL

Participants frequently described mental health, physical health, and the surrounding environment as closely interconnected:

“It’s about having an active mind as well. Health and well-being aren’t just about food—it’s mental health, physical health, nutrition, everything together.”

Other lifestyle pressures were also identified as interacting factors, including financial insecurity, stress linked to housing or employment uncertainty, and social circumstances:

“For me, healthy living is about coping with everyday stress. Managing money is part of that, and really, it comes down to looking after my mental health. Some days I feel fine, other times I feel quite low—it’s about keeping some balance.”

Participants overwhelmingly felt that poor mental health strongly influenced behaviour, particularly in relation to diet, alcohol use, and smoking:

“Some people turn to things like alcohol or illegal substances and end up in a really bad state.”

“They weren’t taking care of themselves at all—they drank too much, smoked too much, and some were even using drugs.”

Governmental interventions

To explore this theme, participants were asked about their perceptions of actions taken by both local government (LG) and national government (NG) to reduce unhealthy behaviours in the study area, and how effective they believed these interventions to be. In order to minimise bias, participants were not directly asked to judge whether interventions were positive or negative.

When discussing NG initiatives, many participants described a clear sense of detachment between national policies and their own daily lives:

“I wouldn’t link the government with healthy living at all [...] those ideas just don’t connect for me.”

“I’m not really interested in politics or anything like that. I don’t actually know what they’re doing.”

With further discussion, responses became increasingly consistent, with many participants suggesting that NG messaging felt patronising and that interventions would ultimately disadvantage them financially:

“It feels like we’re being lectured to, and all it does is push food prices up. We won’t eat less, we’ll just end up paying more.”

In contrast, participants generally spoke positively about the efforts made by LG to improve health within the community. However, there was widespread agreement that LG initiatives were restricted by NG policies and limited resources:

“They’re doing their best, and they’re brilliant, but everything is stretched—the NHS, exercise schemes, food programmes. They need more support. The government could put more money into these important areas.”

“Local councils don’t have much funding. If they did, they’d probably be doing a lot more, but nothing ever really comes through.”

“You’re shown leaflets and information, but then you look it up, and it’s not running anymore—no funding, no funding.”

Results and Discussion

In relation to the identified themes, several findings emerged that help explain the challenges faced by deprived communities in England. Notably, most participants demonstrated strong awareness of HEAL behaviours, yet found it difficult to sustain them due to environmental constraints and wider social pressures. Poor mental health was also found to significantly influence unhealthy HEAL behaviours, while governmental initiatives were frequently described as under-resourced and ineffective in achieving lasting change.

At present, the primary national strategy for encouraging healthy eating and drinking in the UK is the Eatwell guidance [11]. This guidance aligns with existing research promoting balanced and nutritious diets. For instance, it reflects the definition provided by Stipanuk and Caudill [12], who described a healthy diet as one that supplies appropriate macronutrients to meet physiological demands while remaining within caloric limits. As our findings indicate that most participants understand the principles of HEAL, this suggests that Eatwell guidance has been effective in raising awareness. However, translating this knowledge into sustained behavioural change remains problematic. While this study offers insight into some of these barriers, further work is needed to address them.

Participants expressed differing views regarding the affordability of healthy diets, with some suggesting that healthier eating can be less costly than unhealthy alternatives. Haws, Reczek and Sample [13] argue that although healthy food is commonly perceived as expensive, many nutritious options are in fact comparable in price, or even cheaper, than less healthy choices. As the current Eatwell guidance does not include cost information, a practical improvement may be to provide average prices for staple healthy foods, enabling individuals to compare costs more easily.

A frequently cited barrier to engaging in HEAL behaviours was a lack of time and practical skills. Similar findings have been reported by Withall, Jago and Fox [14] and Bukman *et al.* [15], suggesting that this issue extends beyond the present study. One broader social factor potentially worsening this problem is the reduction of Home Economics education in schools, which has been replaced by subjects that place less emphasis on practical life skills.

Older participants reported that childhood experiences strongly shaped their current HEAL behaviours, indicating that learned habits can persist across the life

course. Comparable conclusions were drawn by Bukman *et al.* [15]. This raises concerns about the behaviours currently being modelled to younger generations, particularly given the removal of food preparation skills from school curricula and the poor nutritional quality of school meals in deprived areas, as reported by O'Neill, Rebane and Lester [16].

While food-related decisions were largely influenced by personal beliefs and situational constraints, excessive alcohol consumption was more often attributed to social norms and community culture. Participants described alcohol use as a routine aspect of daily life and suggested that many individuals relied on it to cope with stress, anxiety, and depression. These observations are consistent with findings by Cucciare and Scarbrough [17]. Participants also felt that the high concentration of alcohol outlets reflected local attitudes, aligning with the SEM perspective that behaviour both shapes and is shaped by the social environment [1].

Many deprived communities, including the study area, experience significant alcohol-related problems. Despite being published at different times, both Baron *et al.* [18] and McLeroy *et al.* [19] argued that modifying the social environment can lead to changes in individual behaviour. Our findings suggest that addressing alcohol-related harm requires community-level interventions rather than focusing solely on individual responsibility, as social pressure and easy access strongly influence behaviour. Applying the SEM to identify effective structural changes may therefore be beneficial. Given the well-documented health inequalities affecting deprived populations [6, 20], it is likely that without targeted action, individuals from these backgrounds will continue to engage in unhealthy behaviours and experience poorer health outcomes compared with those from more advantaged groups, as argued by Adams *et al.* [21].

Moving the focus back to individual-level influences, our findings indicated that most participants perceived mental health as both strongly influencing, and being strongly influenced by, HEAL. Participants felt that poor mental health was more prevalent in deprived communities, which aligns with existing evidence demonstrating a robust association between socio-economic position and mental health [22, 23]. They further suggested that ongoing stress, limited opportunities for self-expression, and insufficient access to mental health services contributed to declining mental well-being. These views are consistent with contemporary theories on the determinants of health,

which emphasise the importance of social and economic conditions in shaping both HEAL behaviours and mental health [16].

Overall, findings relating to the causes and consequences of mental health did not generate novel insights; however, they did reaffirm the central role of mental health within HEAL and strengthened existing theoretical links between the SEM, determinants of health (DoH), and HEAL. Among participants, common mental health difficulties such as depression and anxiety were more frequently associated with overeating and excessive alcohol intake, whereas more severe mental health conditions were linked to the use of harder substances. This pattern of unhealthy eating and drinking during periods of poor mental health may reflect previously discussed values, attitudes, and belief systems. If this is the case, then alongside intergenerational transmission of such factors, the higher prevalence of mental health issues in deprived communities should be regarded as a significant driver of negative HEAL behaviours [3, 4].

Finally, participants' views on government-led interventions aimed at encouraging HEAL behaviours were explored. The study area has experienced substantial funding reductions, estimated at approximately 40–60% of government support, alongside high unemployment and comparatively low wages and health outcomes relative to less deprived regions. At both national and local levels, a range of initiatives exists, including programmes targeting physical activity, dietary guidance, and mental or emotional support. However, as participants reported, many were either unaware of these services or unable to access them. It became clear that few participants intentionally avoided learning about available schemes; instead, over time, many had become less inclined to seek support locally due to a belief that doing so would ultimately be ineffective.

While opinions on government interventions varied, participants generally expressed negative attitudes toward initiatives delivered by the national government and more mixed views regarding those implemented by local authorities. Although overall sentiment was broadly consistent, the reasons underpinning these attitudes differed considerably between individuals. Despite the difficulty of identifying a single shared explanation, the outcome—participants feeling disconnected from national initiatives and disengaged from local interventions—was particularly relevant to this study, as

it highlights a potentially overlooked factor in understanding resistance to adopting healthier behaviours.

Ultimately, this lack of confidence in both local and national interventions does not have a straightforward remedy. Importantly, this does not suggest that interventions are ineffective; rather, they often achieve modest yet meaningful successes, even in the face of understandable scepticism among the populations they aim to support.

Limitations

The authors acknowledge two principal limitations of this study. First, the research was conducted within a single geographical setting—Barnsley in South Yorkshire. If the study were to be replicated, it would be beneficial to include additional UK locations with comparable social and economic characteristics. Second, the sample size was relatively small, as the study relied on qualitative focus group methods. In future research, this limitation could be addressed by incorporating a longitudinal design, whereby participants take part in multiple sessions over an extended timeframe. Combining a larger and more diverse sample with longitudinal data would allow for a deeper understanding of behavioural changes over time.

Conclusion

The majority of participants demonstrated a clear understanding of what constitutes healthy eating. Continued use of national guidance, such as the Eatwell guide, has contributed to widespread agreement regarding what a healthy diet should involve. However, this knowledge does not consistently translate into everyday practice. On this basis, efforts to promote healthy eating may benefit from shifting away from simply increasing awareness of healthy foods, as this message appears well established. Instead, future initiatives should emphasise the speed, simplicity, and practicality of preparing healthy meals.

A relationship was identified between inherited attitudes toward healthy eating and living and the high concentration of unhealthy food and alcohol outlets within the study area. This finding is consistent with SEM-based theories. When asked about the impact of outlet density on behaviour, participants largely described negative effects. In relation to food outlets, many felt that ease of access encouraged unhealthy eating

through the ready availability of less nutritious options. Several participants also believed that this environment had contributed to the development of long-term unhealthy habits.

Mental health difficulties continue to disproportionately affect individuals living in deprived communities and appear to play a significant role in shaping HEAL behaviours. While governmental interventions are necessary to address these issues, careful consideration is required to ensure that such initiatives are both sustainable and genuinely effective.

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