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Research Paper

The importance of sense of place for understanding health-related behaviours

Simon Pemberton[1*], Mark Lucherini[2], and Hannah Smith[3]

[1] School of Life Sciences, Keele University, Keele, UK; [2] Edinburgh Medical School, Edinburgh University, Edinburgh, UK; [3] NHS Business Services Authority, Newcastle-upon-Tyne, UK
* Corresponding author: Simon Pemberton, s.pemberton@keele.ac.uk

It is widely acknowledged that place matters for health. Previous research has explored the ways in which the material and physical dimensions of place may shape the health-related behaviours of individuals. However, to date there has been much less focus on the importance of individuals' 'sense of place' – the subjective and experiential aspects of place – in shaping health-related behaviours. This paper offers new insights into the importance of individuals' sense of place in shaping attitudes towards, and consumption of, nicotine and tobacco products. Our qualitative study involved 42 interviews with residents and those working in a superdiverse UK neighbourhood, Handsworth, Birmingham. The study identified that attitudes towards, and consumption of, nicotine and tobacco products were variegated, and informed by issues such as neighbourhood identity and diversity, local infrastructures of nicotine and tobacco provision, the normalisation and regulation of nicotine and tobacco products and the extent to which place-based communities and social solidarity were evident or absent. Subsequently, the implications for place-based approaches to health are considered.

Introduction

Place matters in shaping health (Pearce et al. 2012). In recent years there has been an abundance of research on how the social, cultural and physical environment of a neighbourhood may shape health-related behaviours (Macintyre et al. 2002, Bellazzecca et al. 2022). However, most studies to date have focused on the material aspects of place in shaping health, with less reference to how the experiential dimensions of place may also inform health outcomes (see McGowan et al. 2021).

This paper addresses this gap by drawing on recent research conducted in in a demographically diverse area – Handsworth, Birmingham, United Kingdom (UK) – that has been subject to the increasing migration-driven diversification of its population. The research explored the perceptions and use of nicotine and tobacco products – as a specific health-related behaviour – in Handsworth and was driven by the following questions:

- How important is sense of place in shaping individuals' attitudes towards the use of nicotine and tobacco products in superdiverse areas?
- How important is sense of place in shaping individuals' consumption of nicotine and tobacco products in superdiverse areas?
- What implications arise for informing place-based health interventions?

Existing work has identified place-based 'pathways' to nicotine and tobacco use (NTU), which link neighbourhood deprivation and smoking (Pearce et al. 2012). Such pathways encapsulate place-based 'practices' (including social practices and the importance of neighbourhood crime, disorder and stress; Glenn et al. 2020), as well as place-based 'regulation' and policy (including smoking legislation policies and tobacco retailing and advertising; Zheng et al. 2024). Other studies have also considered the importance of environmental norms - encapsulating the social, physical and symbolic landscape of a neighbourhood – and local contexts in shaping smoking and vaping practices due to the perceived permissibility of such behaviours (Mead et al. 2014). For example, Stead et al.'s (2001) research in Glasgow, UK provided clear insights into the connection between individual and social practices and smoking, whilst Thirlway (2016) uncovered the importance of local context in shaping nicotine and tobacco practices in working class areas in North-East England, UK.

More critical perspectives of place which have emerged over the last twenty-five years have also highlighted the need to examine the subjectivities and experiential dimensions of place on health-related behaviours (McCartney & Popay 2025, Popay et al. 2003). This includes work identifying the importance of social relationships and mechanisms that may shape health outcomes (Bellazzecca et al. 2022). However, to date there has been relatively little attention on the importance of individuals' 'sense of place' in shaping health-related behaviours, such as the use of nicotine and tobacco products. Consequently, this paper responds to this gap in knowledge.

Nicotine and Tobacco Use and Sense of Place

Place and Nicotine and Tobacco Use

Place effects on health have been studied over a considerable length of time. For example, Macintyre et al. (2002) identify contextual (local opportunity structures), compositional (characteristics of individuals) and collective influences (the socio-cultural and historical features of communities) which contribute to spatial variations in health outcomes and discuss how these may be informed by features of the neighbourhood or the people who live there. All three may come together to shape the health of individuals in different places. Other researchers have built on these ideas, especially through exploring the contextual relations which can shape specific health behaviours – such as nicotine and tobacco use – in different places (Bernard et al. 2007, Cummins et al. 2007).

More recently, research has attempted to understand how 'health takes place' in local settings through exploring everyday interactions and relationships (Andrews et al. 2014). For example, Antin et al. (2026) explore attitudes to smoking among 18-35 years olds in rural California and highlight the importance of intersecting social forces (inequities, isolation, stigma) that reflect the specificities of place. Importantly, they also reflect on the shifting nature of these intersections and the variable impact they can have on individuals at different times and within different places. Several studies have also focused on the importance of individuals' residential biographies, histories and experiences to highlight the subjectivities associated with place-based influences on health-related behaviours (Barnett et al. 2017, Popay et al. 2003).

Bell et al. (2010) identify how the de-normalisation of smoking in Canada has led many individuals using nicotine and tobacco products to feel a sense of discomfort of smoking in public, even in places

where they are theoretically allowed to smoke. This had led some users to smoke away from non-smokers in public spaces, reflective of place-based subjectivities positioning outdoor space as policeable by non-smokers. Tan (2013) has also highlighted how those using nicotine and tobacco products in Singapore have negotiated feelings of stigmatization and the denormalization and disapproval of such behaviours through their use of smoking spaces. Tan notes how such spaces can be 'enabling' insofar as they may help to rework stigmatising effects and act as an antidote to emotionally strenuous spaces, as well as fostering sociality and social networks between nicotine and tobacco users.

Nevertheless, work focusing on the importance of individual interactions, relations and experiences in shaping health-related behaviours – and informed by the features of different places – has not fed through into place-based health interventions. Such interventions aim to alter the environments and improve community conditions in which people live to reduce health inequalities and improve health outcomes (Dankwa-Mullan & Pérez-Stable 2015). In this respect, McCartney and Popay's (2025) critique of place-based approaches for improving public health in the UK identifies several key factors that have limited the effectiveness of such approaches. These include an over-reliance on statistical deprivation indices at the expense of more nuanced qualitative data capturing local experiences, and a lack of focus on socioeconomic and power relationships that transcend localities. In a similar vein, several systematic reviews undertaken by McGowan et al. (2021), Burgemeister et al. (2021) and O'Dwyer et al. (2007) all emphasise improving the material and physical aspects of place to shape health behaviours and outcomes (for example, improving housing, the public realm, green spaces, new cycle lanes etc.) rather than considering the experiential dimensions of place. Addressing this gap is therefore critical in helping to understand how and why place-based programmes may achieve positive health outcomes across different contexts (Bellazzecca et al. 2022).

Sense of Place and Health-Related Behaviours

One possibility for developing a more critical perspective encapsulating experiential dimensions of place in shaping health relates to the concept of 'sense of place'. However, this is relatively underexplored in the existing literature on nicotine and tobacco use. The term sense of place lacks a universal definition but has often been used by scholars to describe individuals' social, cultural and emotional connections to place; a person-to-place bond; and the relationship between people and the environments in which they live (Nelson et al. 2020). It encapsulates not only the physical and observable features of place but also the importance of individuals' subjective personal and emotional feelings associated with place (Massey 1985). Such experiences of place can be positive or negative (Wohl & Blit Cohen 2024).

Despite the difficulties in attempting to establish a clear definition and conceptual perspective of sense of place, Erfani (2022) developed a 'sense of place' framework based on three 'domains' associated with sense of place: *individual, community and place*. These overlap to highlight the interrelationships between the different domains. The individual domain reflects the subjective emotional, and affectual relationships individuals may have with places. The community domain reflects the relative importance of group identity and how this may shape individual's attitudes and place-based behaviours. Finally, the place domain reflects the importance of physical, social and cultural interactions shaping attitudes and behaviours, and how these are also informed by wider social, economic and political forces. Erfani acknowledges that such a definition and focus on specific domains is - by its very nature - reductionist and that the explanatory power of the approach comes when we consider the interrelations between the three domains.

We build upon Erfani's (2022) framing of 'sense of place' to develop and apply a new conceptual framing which explores the importance of sense of place in shaping individual's health-related behaviours. We acknowledge the importance of different place-based contexts and dynamics and how these may shape the inter-relations between the sense of place domains and health-related behaviours (Yousef & Valánszki 2023). Indeed, there is evidence that the diversity of local populations may serve to

shape the attitudes and health-related behaviours of individuals in specific ways (Pemberton & Phillimore 2018).

Methods

Study Area

Our study focusses on a specific area, Handsworth (a neighbourhood located in Birmingham, UK) which has been a traditional reception area for immigrants. The neighbourhood has a long history of 'superdiversity' – the migration-driven diversification of the local population - with increasing socio-cultural and demographic complexity evident (Vertovec 2007, 2019). Handsworth has also been identified as being highly deprived (Pemberton & Phillimore 2018) and with higher-than-average smoking prevalence: 29.7% compared to 13.7% for Birmingham and 15.1% for the UK (Office for National Statistics (ONS) 2018). Research on superdiverse neighbourhoods has highlighted how they may be characterised by 'newness' (Phillimore 2015) whereby population churn means a proportion of residents are perpetually new. They are also characterised by 'novelty', in terms of residents engaging in different everyday activities impinging on their health and health-seeking. Furthermore, as they are inherently 'diverse', whereby no ethnic group predominates, diversity itself may become the predominant neighbourhood identity. Handsworth is often regarded as an archetypal superdiverse neighbourhood due to diversity of nationalities, languages, ethnicities, religions and regular migration in and out of the neighbourhood (Pemberton & Phillimore 2018).

Given that the focus of the research project – and upon which this paper is based – explored the implications of the increased demographic complexity of populations for nicotine and tobacco use, Handsworth was deemed to be an appropriate case study area. There has been a recent increase in migrant arrivals with a wider range of ethnicities and/or countries of origin, as well as intra- and inter- group diversity. Hence the intersection of differences that are evident in individuals can produce new stratifications, new forms of 'contact' and different experiences of space and place. This, in turn, may serve to inform an individual's sense of place and subsequent health-related behaviours (Vertovec 2019).

Recruitment and Sampling

There is no specific research methodology associated with superdiversity. However, existing methods, such as maximum variation sampling and community research can be useful to try and recruit participants reflective of the diversity of an area or neighbourhood (Goodson & Grzymala-Kazlowska 2017). Maximum variation sampling is a form of comparison-focused sampling which selects cases to compare, with a view to identifying factors explaining similarities and differences (Patton 2001). The shared aspects that may emerge, despite the many intersecting axes of difference, hold increased authenticity and validity because they do not result from sampling by pre-determined characteristics in a pre-defined informant group (Pemberton & Phillimore 2018).

A table containing columns with different diversity dimensions was used to help recruit participants from multiple backgrounds via the community researcher approach (Goodson & Phillimore 2012), with each prospective interviewee cross-checked with previous respondents to examine levels of similarity or difference. Through our local contacts and networks, we employed seven community researchers in total who were reflective – at least in part – of the diversity of the population in Handsworth and who either lived or worked in the neighbourhood or had intimate knowledge of the area through family and friends.

Arguably, such an approach enabled us to reach a greater diversity of participants than what would otherwise have been the case in terms of individuals engaging with middle class white scholars. However,

there were still several limitations in terms of generating 'maximum variation'. This included the networks of the community researchers only being partially reflective of all those present in the neighbourhood and the 'diversity traits' of our community researchers being limited by age (predominantly middle-aged), ethnicity (e.g. Pakistani, Indian and White British) and employment status (most employed). Furthermore, recruitment became particularly challenging as the recruitment period coincided with strict Covid-19 lockdowns in 2020 and 2021 and meant that most recruitment was done via email, rather than through a more organic in-person approach as originally intended. Despite the challenges there was still significant diversity among our 42 participants and with seven of the nine main ethnic groups in Handsworth captured in our approach (Chinese and Mixed / Multiple Ethnic Group were missing), as well as a diverse range of ages, employment statuses, nationalities and religions (see Table A1, in Appendix). In addition, as gaps in characteristics were identified, a more deliberate purposive approach was used to try and identify new respondents who met our diversity criteria via other recruitment methods, such as community discussion forums on different social media platforms. Refusal rates for interviews were very low. Participants were offered a £15 voucher in recognition of their participation.

Recruitment targeted those who were currently using or had previously used nicotine and tobacco products (26 individuals) as well as those who had never used such products (16 individuals) as we wanted to explore general perceptions to nicotine and tobacco use among different individuals in Handsworth and the importance of individuals' sense of place therein. A favourable ethical opinion on the research was received from the authors' University Research Ethics Committee.

Data Analysis

Due to Covid-19 lockdowns, most interviews were completed online. Whilst this can lead to challenges of building a rapport with interviewees and offer more limited opportunities for researchers to pick up on more embodied cues, on-line interviewing can provide greater flexibility and reduced time commitments for interviewees (Davies et al. 2020).

The interviews were undertaken by Author 3 (HS). All authors lived outside Handsworth and Birmingham, are White British and with middle-class backgrounds. Such characteristics inevitably influenced our interactions with community researchers and participants and meant that there were potential community researchers and participants that we did not reach. As such, the recruitment process, interviews and data analysis were all shaped by our positionalities: it was likely that we were often interpreted as 'outsiders' to those with experiences of living in Handsworth. Nonetheless, HS's outsider status helped her elucidate considerable detail about life in Handsworth, as experiences needed to be explained in detail. In contrast, a more 'insider' experience may have meant some taken-for-granted knowledge was missed (Lucherini 2017).

Initial thematic analysis of the interview transcripts was completed by HS. Following guidelines for thematic analysis set out by Braun and Clarke (2006), HS identified codes and grouped them into themes that were relevant to our research questions, set out in the introduction of the paper. All authors reviewed and commented on this analysis. Secondary analysis by SP and ML was subsequently completed to further refine codes and themes and provide rich and extensive descriptions of everyday life in Handsworth. We identified and interpreted sense of place from participants' social and contextual descriptions of the neighbourhood (de Wit 2013). The purpose of the analysis was not to explore whether any correlations existed between different features of population diversity and nicotine and tobacco use. Rather, the emphasis was on understanding how sense of place was shaping health-related behaviours, such as the consumption of such products (Table 1).

Results and Discussion

Introduction

Erfani's (2022) conceptual framework highlights how the inter-relations between the different sense of place domains – i.e. 'individual-place', 'individual-community' and 'community-place' contribute (or not) to an individual's sense of place. We further developed Erfani's (2022) framework to focus on the inter-relations emerging from the connections between the individual, community and place domains in shaping users and non-users' sense of place and associated health-related behaviours (i.e. their perceptions and use / non-use of nicotine and tobacco products). These are summarised in Table 1.

Individual-Place Relations and NTU

Users and non-users of nicotine and tobacco products reflected on the multiple and intersecting identities associated with the neighbourhood of Handsworth, and how this shaped NTU. First, given that Handsworth has a long history of immigration, and with a significant inflow of new migrants in recent years, such flows were deemed to have contributed to the super diversification of the local population and with diversity being a defining feature of the neighbourhood's identity. In turn, both users and non-users of nicotine and tobacco products argued that this had led to a to a proliferation of different smoking practices and behaviours. One interviewee described how 'It's part of the tradition, the (different) cultures to smoke and vape' (Interviewee 3, aged 25-34, male, Asian British Pakistani, regular user) whilst another stated that 'In Handsworth, other cultures have moved in, like Romanian and Polish people, and I'm sure you can (now) sense different smells when you're walking down to the shops' (Interviewee 10, aged 60+, female, Asian Indian, non-user).

Despite the prevalence of superdiversity, both users and non-users also perceived that health-related behaviours and NTU could be connected more specifically to different ethnic groups in the neighbourhood, and specifically the Black and Asian community. Whilst such claims are difficult to corroborate at the local level due to a lack of data, this point contradicts national evidence which highlights how in general ethnic minorities are *less* likely to use nicotine and tobacco products (Birmingham City Council 2019). Nevertheless, many users and non-users connected NTU to the Black and Asian community. In the words of one respondent: 'I hate to say it, but the Black and Asian population are the ones who are doing the puffing and the smoking' (Interviewee 20, aged 45-59, female, Asian British Pakistani, current regular user).

Hence public health interventions may need to focus on NTU by specific ethnic groups rather than taking a wider 'diversity informed' approach *per se*, given that ethnicity may remain important in shaping use (see Williams & Mikola 2018). Furthermore, this point is also relevant in respect of access to smoking cessation services in Birmingham, as data from 2023/24 indicates that the White population are more likely than any other ethnic group, including the Black and Asian community, to access such services (Birmingham City Council 2024).

Second, some users noted how they used nicotine and tobacco products as a form of personal 'coping strategy' for stress. In addition, a significant number of user and non-user interviewees also argued that NTU was connected to the identity of Handsworth as not only being superdiverse, but also an area subject to high levels of socio-economic deprivation, and with associated challenges of anti-social behaviour, a poor living environment and high levels of crime. In such a way, they corroborated Pearce et al.'s (2012) arguments relating to the existence of smoking 'pathways' and with social, economic, and environmental factors influencing smoking initiation, maintenance, and cessation. Notwithstanding such arguments, an important new insight from our findings related to many interviewees connecting such features and the use of nicotine and tobacco products to personal feelings of being unsafe. As such, the use of nicotine and tobacco products was deemed to exacerbate feelings of being unsafe, rather than just

being an outcome of anti-social-behaviour, disorder and stress. For example, one interviewee identified how 'there's a very big gang culture…the kids who are caught up in it will use whatever nicotine and tobacco products they're encouraged to use' (Interviewee 1, aged 45-59, female, White British, non-user). Another noted how 'it's not safe…you can be on a park bench and instead of having your sandwiches and a cup of tea, you can be sitting there (looking at people) having a spliff or roll-up' (Interviewee 8, aged 45-59, male, Asian British, occasional user).

Sense of place 'domains'	**Sense of place concepts**	**Questions arising for NTU**	**Key findings: Users (current / past) of nicotine and tobacco products**	**Key findings: Non-users of nicotine and tobacco products (never used)**
Individual-place	The functionality of place and an individual's familiarity and involvement in different dimensions of place, which serve to shape sense of place.	To what extent is NTU informed by emotions and feelings (positive/negative) generated from living in place, or by dependence on a place for NTU products?	NTU connected to intersections between neighbourhood superdiversity (but with ethnicity remaining important), high levels of socio-economic deprivation, anti-social behaviour, a poor living environment and feelings of being unsafe. NTU a personal 'coping strategy' but also some reference to the importance of the local environment; public health interventions less recognised due to disaffection with the area. Diversity of nicotine and tobacco products available locally perceived as highlighting local resilience and alternative meanings of place.	As per nicotine and tobacco users. NTU by others perceived as undermining their own feelings of belonging and safety; the development of 'avoidance' strategies (of users) and connected to withdrawal of local services and lack of awareness of public health campaigns. Readily available nicotine and tobacco products 'under the table' perceived as reflective of users not having mental energy or resources to invest in alternative products to quit.
Individual-community	The importance of social relations and trust and interactions with other individuals in shaping sense of place.	To what extent is NTU informed by interactions/relations with others and community 'norms'?	NTU normalised and perceived as an integral element of the Handsworth community. Use of NTU by individuals reflects social norms as others less judgemental.	Handsworth perceived as a permissive and relaxed / less regulated environment for NTU and hence use normalised. Use of NTU deemed anti-social because of lax and permissive social norms.

Community-place	The importance of solidarity and the commonality of community experiences / collective behaviours in a particular place shaping sense of place.	To what extent is NTU shaped by feelings of community or commonalities of experience?	Stigmatisation of Handsworth shaping perceptions of less support available from health providers and few opportunities to co-design / co-deliver local services.	As per nicotine and tobacco users.
			Health-related behaviours and NTU shaped by a collective community need in the face of socio-economic challenges, and normalisation of smoking.	On-going arrival of new populations using nicotine and tobacco products reflects 'dark side' of sense of place (Wohl & Blit Cohen 2024) as new arrivals seen as a threat to established collective bonds and a previously 'clean' neighbourhood.
			NTU perceived as relatively positive in terms of the use of NTU to generate resilience 'in place'.	NTU reflective of the undoing of place-based communities and social solidarity.

Table 1: Dimensions of sense of place and health behaviours of individuals (Authors' own questions and summary of findings, adapted from Erfani 2022).

In contrast to the work of Bell et al. (2010) and Tan (2013), the findings from Handsworth also undermine the positioning of outdoor space as 'policeable' by non-smokers. Rather, the proliferation and ubiquitous nature of smoking practices and different products reflecting the superdiversity of the neighbourhood meant that many non-users highlighted how they actively avoided public places where individuals were using such products: 'If I'm waiting for a bus, I need to move away from the crowd because of the smoke' (Interviewee 12, aged 45-59, female, White Caribbean, non-user).

Brought together, the ongoing challenges of living in Handsworth meant that many users and non-users had become disaffected with living in the area. This was reflected in their lack of awareness and responsiveness to local public health campaigns for reducing NTU in Handsworth, in turn impinging on efforts to reduce nicotine and tobacco use: 'We've had stickers on the bus stops for a long time about not smoking at bus stops … I think that just goes over people's heads. It's like, "well, I'll do what I want"' (Interviewee 12, aged 45-59, female, White Caribbean, non-user).

Non-users also identified issues relating to levels of local service provision. Interviewees noted how after-schools clubs and other services were helpful in protecting 'vulnerable' young people from the worst of substance abuse and negative health-related behaviours. However, it was claimed that such services were disappearing in Handsworth and that this was having a negative effect on the rise of anti-social behavioural norms which were subsequently shaping nicotine and tobacco use.

Finally, both users and non-users also noted the importance of an informal economy of nicotine and tobacco provision, and which was attributed to high levels of socio-economic deprivation in Handsworth. Consequently, users identified how they frequently purchased nicotine and tobacco products from local convenience stores which reflected the superdiversification of the local population, and which provided variegated opportunities to easily source different types of nicotine and tobacco products from different individuals – often at a discounted rate:

> … you have to go into a supermarket to get a pouch [of tobacco], but you're not able to afford it …[but] in Handsworth there's a lot of Romanians, other communities, Spanish people, who are selling the packets at £4 or £5 (Interviewee 3, aged 25-34, male, Asian British Pakistani, regular user).

Some users additionally suggested that the emergence of a local informal economy of nicotine and tobacco provision reflected the resilience of individuals in constructing a positive attachment to place despite high levels of local deprivation. Whilst in many cases the presence of e-cigarette and vape retailers may be seen as an 'environmental bad' (Macdonald et al. 2018), in the context of this research study many interviewees re-interpreted their presence as a form of 'environmental good'. However, this was contested by non-users who argued that those using such products simply did not have the mental energy or resources to break their dependence on such products and hence they felt that the availability and use of NTU should be seen in a less positive light.

In sum, there is a need for place-based public health interventions to take further account of the importance of individuals' emotions and feelings generated from living in a place and how this shapes the perceptions and use of nicotine and tobacco products. From the research it is evident that population diversity can inform the use and availability of different types of products in specific ways (but with ethnicity often perceived as remaining important), as well as how individuals may respond to local interventions based on neighbourhood 'norms' associated with NTU.

Individual-Community Relations and NTU

With reference to individual-community relations and NTU, three key themes emerged. First, the normalisation of the use of nicotine and tobacco products in Handsworth, and which was confirmed by users and non-users. For example, Interviewee 6 (male aged 25-34, British Pakistani, regular user) noted that smoking was 'a normal part of the community. It comes with the stigma and the baggage in terms of high crime rates, unemployment, drugs and smoking'. In a similar vein, interviewee 13 (female, aged 25-34, White British, occasional user) pointed out how the normalisation of smoking meant that it was 'everywhere…from houses to bus stops, to gardens, the high street and in public parks'.

Interviewees also connected the normalisation of NTU to the emergence of place-based infrastructures which reflected the (super)diversity of the local population. Individuals noted how shisha bars and restaurants had established themselves in Handsworth, which, it was claimed, were helping to facilitate interactions between individuals and contributing to where NTU was taking place: 'My friends are like … let's go for a smoke. It's somewhere to chill out and relax. There's a lot of shisha bars in Handsworth and a lot of African restaurants that are doing shisha lounges' (Interviewee 3, aged 25-34, male, Asian British Pakistani, regular user).

In contrast to the individual-place domain where the use / avoidance of public spaces associated with NTU was shaped by the emotions and feelings of respondents, a focus on individual-community relations highlighted how NTU was occurring in private places too, such as the family home. Interviewees argued that this further reflected the normalisation of the use of different nicotine and tobacco products in the neighbourhood: 'I remember growing up, my uncle had one [shisha pipe] placed like it was an ornament in the main living area, so I feel like it was definitely a cultural thing' (Interviewee 13, aged 25-34, female, White British, occasional user). It was also suggested that practices of NTU in public / private spaces were also gendered, reflecting the need for an intersectional approach to understand how NTU may be normalised in areas of superdiversity. As such, women from certain migration backgrounds were argued to be using nicotine and tobacco products – but in private, given community and cultural restrictions:

> The women … they're not expected to smoke. So, they choose other methods of smoking…they use hookah machines. … and they use it in their own house, so people don't see them smoking. They have expectations and community traits where there's an element of shame and an element of guilt (Interviewee 3, aged 25-34, male, Asian British Pakistani, regular user).

The influence of community extended to nicotine and tobacco retailers in Handsworth being perceived as a 'friendly community', and which consolidated normalisation of use of different products – 'the person selling me the products is my friend … so I prefer buying it just from him' (Interviewee 17, aged 18-24, male, Black British, regular user).

Consequently, this highlighted a second key theme according to many interviewees - and especially users of nicotine and tobacco products – that the superdiversification of the community and the social norms of the area meant that NTU practices were not necessarily perceived as something negative. As such, residents were deemed to be less judgemental than elsewhere: 'We have a lot of people hanging around … drinking and smoking … but that's their lifestyle … in Handsworth, it's part of nature' (Interviewee 13, aged 24-34, female, White Caribbean, occasional user).

Such views could be explained by 'social contagion' in terms of the permissibility of smoking in a particular area (Pearce et al. 2012). However, our research highlights how interviewees' descriptions extend beyond social contagion explanations in that social relations and experiences of community also serve to create processes of normalisation.

Nevertheless, some non-users of nicotine and tobacco products viewed the normalisation and permissibility of such behaviours as anti-social and in a less positive light. Such individuals thus identified a third point which linked the use of nicotine and tobacco to a less regulated neighbourhood environment: 'Eastern Europeans … will start smoking anywhere … they will not notice … others bothered by their smoke' (Interviewee 41, aged 35-44, male, Asian British Indian, non-user). Furthermore, some non-users directly connected the toleration of NTU to anti-social behaviour and a toleration of collective actions: '… no one's going to say anything … [so] "come to Handsworth", whereas maybe in other areas, people might say, no, we're not tolerating this [particular behaviour] here' (Interviewee 12, aged 45-59, female, White Caribbean, non-user). Hence non-users perceived a diverse range of individuals in Handsworth being 'comfortable' with the openness of nicotine and tobacco use and something that they felt 'proud about'.

In summary, a focus on individual-community relations highlights how sense of place for individuals can be shaped in both positive and negative ways via social relations and interactions. It can reinforce social, cultural and community norms and subsequently consolidate the use of nicotine and tobacco products. In turn, place-based health interventions must therefore consider the strength of such norms, the extent to which is possible to intervene to shape or re-align such norms over time in the context of public or private spaces, and the subsequent impact on NTU.

Community-Place Relations and NTU

An important point raised by users and non-users of nicotine and tobacco products related to the stigmatisation of Handsworth. In turn, this was shaping a common perception of less support being available from service providers and with fewer opportunities for local residents to co-design or co-deliver local services that addressed local health challenges. This is important as O'Dwyer et al. (2007) and Nickel & von dem Knesebeck (2020) note how place-based interventions need to involve target groups in planning, implementation and evaluation. However, both users and non-users perceived that health service (and other) providers were less willing to involve individuals in such activities.

Furthermore, there were claims of a 'deficit' model of community whereby the ills of Handsworth were placed on the local community. This contrasts with approaches which have sought to improve the economic fortunes of cities and their constituent neighbourhoods by harnessing the 'diversity dividend' (Raco & Kesten 2018):

> If health service providers are not willing to have (effective) community engagement, then nothing can improve. They have consultation, but nothing seems to be done. It just makes them look good. So … eventually … they start blaming it on the community or the people (Interviewee 3, aged 25-34, male, Asian British Pakistani, regular user).

Consequently, the use of nicotine and tobacco products was argued by users and non-users as connected – at least in part – to the lack of meaningful engagement and delivery of local services that reflected the diversity of health-related needs and behaviours associated with the local population. This, in turn, may serve to exacerbate the normalisation and toleration of NTU in Handsworth identified above, as well as a less regulated neighbourhood environment.

Interviewees also argued how health-related behaviours and NTU were being shaped by a combination of collective community need in the face of socio-economic challenges, and the normalisation of smoking. For users, NTU – and associated local provision – was perceived as something relatively positive in terms of the use of NTU to generate resilience 'in place'. Furthermore, such behaviours were connected to the collective experiences of particular groups of people – but particularly those living in Houses of Multiple Occupation (HMOs): 'There're quite a lot of HMOs in Handsworth … (I) guarantee they'd all be smoking … they've got quite a lot of issues with unemployment, mental health, and anxiety and depression. I think smoking substitutes for all that' (Interviewee 6, aged 25-34, male, Asian British Pakistani, current regular user). Hence users identified how such collective behaviours were reflective of attempts to mitigate many of the common challenges and experiences individuals were facing in Handsworth:

> There's a difference depending on how affluent a place is … the lower social classes, they are using these products … they have all that worry about money …that's how they're getting through the day. My sister lives in Selly Oak [more affluent neighbourhood in Birmingham], and when I go there, I just can't believe it, everyone's on their bike, or they're jogging (Interviewee 20, aged 45-54, female, Asian British Pakistani, current regular user).

In contrast, whilst non-users also acknowledged the importance of such contexts and associated challenges and experiences, interviewees argued that the on-going arrival of new populations using nicotine and tobacco products reflected the 'dark side' of sense of place (Wohl & Blit Cohen 2024) given that newly arriving individuals were seen as a threat to established collective bonds and a previously 'clean' neighbourhood. Here were practices of 'defensive othering' (Schwalbe et al. 2000), in terms of non-users identifying newly arriving users of nicotine and tobacco products contributing to the stigmatization of Handsworth. Therefore, NTU was deemed to be reflective of the undoing of place-based communities and social solidarity: 'All you see is cigarette ends on the streets, on Rookery Road (in Handsworth) … I'm not blaming any community, but it looks like they've got Eastern European moving that way more' (Interviewee 11, aged 45-59, female, Asian Indian, non-user).

In summary, perceptions of the changing nature and diversity of local populations in Handsworth can be viewed positively or negatively in shaping community-place relations and on health seeking behaviours. From a place-based public health perspective, the findings also indicate the need to move beyond a focus on individuals and individual health behaviours *per se* when attempting to understand NTU and to appreciate, understand and shape interventions that address the importance of place stigmatization, as well as developing 'concrete' actions that emerge from processes of consultation. The targeting of policies towards particular place-based communities – such as those living in houses of multiple occupancy – and where particular 'cultures' associated with the use of nicotine and tobacco products were deemed to be prevalent – may also be of value, as well as working with other providers to break the links between collective community needs / norms informed by socio-economic deprivation and the normalization of NTU.

Reflections

Through focusing on the perspectives of users and non-users of nicotine and tobacco products the paper has provided new and important insights into the ways in which different domains and dimensions associated with sense of place can shape the health-related behaviours of individuals, including their perceptions and use of different nicotine and tobacco products. Such a focus helps to capture the more subjective and experiential aspects of place which have been largely missing to date in studies focused on the role of place-based strategies in improving health (Williams & Kitchen 2012, McGowan et al. 2021).

In the context of the case study area of Handsworth, the paper highlighted that for some users of nicotine and tobacco products, consumption was deemed to be reflective of the identity and diversity of the neighbourhood, the normalisation of nicotine and tobacco (in contrast to tobacco 'denormalization' strategies; Bell et al. 2010) and the use of such products without being judged by others. Users also pointed towards provision and use of nicotine and tobacco products as emerging from entrepreneurial place-based communities and local infrastructures of provision. Hence it was evident that the intersection of increasing population superdiversity with concentrated socio-economic deprivation and the perceived stigmatisation of Handsworth had – at least for users – led to a tolerance of NTU that may not be as evident elsewhere. This has implications for the effectiveness of place-based health promotion strategies to reduce NTU which may carry less purchase in such contexts.

Contrastingly, for many non-users, the use of nicotine and tobacco products was perceived as an 'environmental bad' (Macdonald et al. 2018) and which emerged from the undoing of place-based communities and social solidarity, the withdrawal of local services and overly permissive social norms and a lack of regulation of NTU in the area. This led to the development of 'avoidance strategies' for some non-users in relation to those using nicotine and tobacco products and arguably compounding the tolerance of NTU.

In summary, the findings from the research reflect the need for place-based health interventions to further accommodate and reflect individual's sense of place to capture the more subjective and experiential aspects of place; how these shape health behaviours; and how such behaviours should be mitigated. It is evident that attempts to reduce the prevalence of smoking amongst a very diverse population need to capture changing perceptions of the local environment and working with others to improve the local environment to foster more positive feelings of 'living in place', addressing place stigmatisation and breaking the dependence on the local availability / use of different nicotine and tobacco products. In such a way, this may help to challenge the normalisation of nicotine and tobacco use and co-constructing local infrastructures of health provision which reduce NTU overall. Such activities will also help in developing an understanding of what types of interventions may or may not be deemed acceptable or appropriate to individuals and the wider community to improve health. In turn, such considerations also need to widen to other types of spaces (public and private) and places with similar and differing levels of diversity as well as those with varying social, cultural and economic characteristics to further consider the implications of sense of place for health-related behaviours and public health interventions therein.

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Conflicts of interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

ORCiD IDs

Simon Pemberton https://orcid.org/0000-0001-9856-5189
Mark Lucherini https://orcid.org/0000-0003-1494-7740
Hannah Smith https://orcid.org/0000-0002-5966-6494

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Table A1: Participants' self-identified socio-demographic characteristics

Part-icipant #	Age range	Gender	Ethnicity	Nationality	Religion	Employment status (FT = full time; PT= part time)	User / former user of nicotine and tobacco products
1	45-59	Female	White British	British	Christian	Employed PT, self-employed PT	No
2	35-44	Female	White European	Polish	Catholic	Employed FT	No
3	25-34	Male	Asian British (Pakistani)	British	Muslim	Employed FT	Yes
4	45-59	Male	Asian British (Pakistani)	British	Muslim	Employed FT	Yes
5	25-34	Female	Asian British (Pakistani)	British	Muslim	Employed FT	Yes
6	25-34	Male	Asian British (Pakistani)	British	Muslim	Employed FT	Yes
7	60+	Female	White European (British Italian)	British	Catholic	Unemployed, not looking for work	No
8	45-59	Male	Asian British (Indian - Punjabi)	British	None	Self-employed	Yes
9	25-34	Male	Asian British (Bangladeshi)	British	None	Employed FT	Yes
10	60+	Female	Asian (Indian)	British	Sikh	Retired	No
11	60+	Female	Asian (Indian)	British	Sikh	Retired - volunteer	No
12	45-59	Female	White Caribbean	British	None	Self-employed PT	No
13	25-34	Female	White Caribbean	British	Christian	Not able to work	Yes
14	60+	Female	White British	British	Christian	Not able to work	Yes
15	60+	Male	White British	British	None	Not able to work	Yes
16	45-59	Female	White British	British	Christian	Retired - volunteer	Yes
17	18-24	Male	Black British	British	Christian	Unemployed, not looking for work	Yes
18	18-24	Male	White British	British	None	Employed PT	No
19	35-44	Female	White European	Polish	Christian	Student	No
20	45-59	Female	Asian British (Pakistani)	British	None	Carer	Yes
21	18-24	Female	Black British Caribbean	British	None	Student	No
22	45-59	Male	White British	British	None	Employed FT	Yes

23	35-44	Male	Asian British (Indian)	British	Sikh	Employed FT	No
24	25-34	Male	Asian British (Pakistani)	British	Muslim	Employed PT	Yes
25	45-59	Female	White British	British	None	Employed PT	Yes
26	18-24	Female	British	British	Muslim	Employed PT	No
27	25-34	Female	Asian British (Pakistani)	British	Muslim	Unemployed, looking for work	Yes
28	25-34	Female	Asian British (Pakistani)	British	Muslim	Employed PT	Yes
29	60+	Male	White Irish (is British but identifies as Irish when asked)	British	Catholic	Self-employed and volunteer	Yes
30	25-34	Female	Asian British (Pakistani)	British	Muslim	Employed PT	Yes
31	45-59	Male	Black British	British	None	Employed FT	Yes
32	18-24	Female	Black African	British (born in Gambia)	Muslim	Employed FT	Yes
33	18-24	Female	Asian British (Pakistani)	British	Muslim	Employed PT and college student	No
34	18-24	Female	Black	British (born in Italy)	Muslim	Student	No
35	18-24	Male	Asian British (Pakistani)	British	Muslim	Employed PT	Yes
36	60+	Male	Asian British (Indian)	British	Hindu	Self-employed	No
37	25-34	Female	Asian British (Pakistani)	British	Muslim	Employed FT	Yes
38	25-34	Male	Asian British (Pakistani)	British	Muslim	Employed PT	Yes
39	45-59	Male	Asian British (Indian)	British	Hindu	Self-employed	No
40	25-34	Male	Asian British (Pakistani)	British	Muslim	Self-employed	Yes
41	35-44	Male	Asian (Indian)	Indian	Sikh	Employed FT	No
42	45-59	Male	Asian British (Indian)	British	Sikh	Employed FT	Yes