A survey of dental services in England providing targeted care for people experiencing social exclusion: mapping and dimensions of access.

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Abstract

Introduction: Poor oral health and barriers to accessing dental services are common among people experiencing social exclusion. This population experience a disproportionate and inequitable burden of oral disease. A small number of dental services have published models of care that target this population, but no national surveys have been conducted.

Aims: This study aims to identify what types of services are providing dental and oral healthcare for people experiencing social exclusion in England and the models of delivery adopted by these services.

Methods: Snowballing sampling strategy was used to identify services that provide targeted services for adults experiencing social exclusion. The study used a survey to collect data about the location, service models, and barriers and enablers of these services.

Results: 74 responses from different services met the inclusion criteria for the study, 71 were included in the mapping exercise, 53 provided free-text comments that contributed to an understanding of barriers and enablers of services.

Discussion: Most services described inflexibilities in service design model and operated to meet the needs of mainstream population.

Conclusion: Limitations of current models of service delivery create frustrations for providers and people experiencing social exclusion. Creative commissioning and organisational flexibility are key to facilitating adaptable services.

In brief summary points

1. Most services providing dental care for people experiencing social exclusion provide care from fixed sites, operate within routine working hours, and allocate fixed appointments.
2. There may be a mismatch between the way these services operate and the needs of people experiencing social exclusion.
3. Numerous challenges exist in delivering appropriate services including confusion around patient payment, language barriers, rigidity of service delivery strategies, inflexibility of commissioning, and lack of resources including appropriately trained staff.

Introduction

Social exclusion describes a state in which a person is unable to fully participate in the economic, political, social, and cultural aspects of mainstream society [1]. Factors that can lead to and perpetuate social exclusion include lack of access to resources, a lack of agency over decisions and life circumstances, and the perception of alienation and inadequacy[2]. As a result, many groups in society are likely to experience some degree of social exclusion and are oftentimes referred to homogenously as "vulnerable groups" [2,3]. In the UK, the concept of *inclusion health* has been developed to describe approaches to address the complex cliff edge of extremely poor health outcomes typically experienced by people who are socially excluded[4]. More recently, an *inclusion oral health* framework has been proposed that made recommendations for actions for service delivery and research [5].

Challenges accessing dental care and maintaining oral hygiene are exacerbated by the socio-political phenomena that perpetuate social exclusion and health inequalities. As a result, these populations experience dire consequences of poor oral health. Research has shown that the oral health of prisoners, refugees, people with substance use disorders, and people experiencing homelessness is worse than that of the general population and may lead to extreme measures to solve oral health problems including removing one's own teeth, attendance at A&E for urgent care, or admission to hospital for dental related problems [6–10].

In England, a variety of dental services are available to provide care for people experiencing social exclusion. General dental practices (National Health Service (NHS), private, or a combination) are the principal care providers for much of the general population. Published literature from England describes examples of targeted dental care services [11–14]. To date, the understanding of what service provision exists across England has been limited to these published reports which are produced by

research-active services and may not reflect the full breadth of services and service models available to people experiencing social exclusion.

Previous studies of socially inclusive services developed the Reflexive Mapping Exercise framework. This body of work by Rodriguez et al. highlighted participative and multi-agency approaches was essential to increasing knowledge about what services were available and addressed the wider complex health needs of those experiencing social exclusion [15].

Against the above background, this article presents a survey-based study that aims to identify what types of services are providing dental and oral healthcare for people experiencing social exclusion in England and the models of delivery adopted by these services. Moreover, the study findings will inform other organisations responsible for mapping services for people experiencing social exclusion in England.

Methods

The structure of this report has been guided by the STROBE reporting guidelines.

Study design, setting, and participants

The study was developed in collaboration with the Office of Chief Dental Officer England, Public Health England (London), academics at King's College Hospital, Queen Mary University of London, and University of Dundee. Relevant dental organisations including the British Association for the Study of Community Dentistry (BASCD), the British Dental Association England Community Dental Services Committee and from the homeless health advocacy group Groundswell were asked to pilot and feedback on the tool. The survey was live between November 2018 and January 2019. Ethical approval was provided by King's College London university, reference number MRA-17/18-8336. All respondents who took part in the study consented to participate in research and to the publication of the data provided for the purposes of the research study.

To conceptualise aspects of health service accessibility the survey design and analysis have been structured using Penchansky and Thomas' modified model of access which includes the following domains: affordability (direct and indirect costs to patient), accessibility (location, proximity to patient), accommodation (organisation, appointments, facilities), availability (supply and demand), awareness (communication and information), and acceptability (consumer perception) [16,17].

Inclusion and exclusion criteria

Any dental setting, independent outreach organisation, or individual that provided targeted dental care for people experiencing social exclusion were eligible for inclusion in this study. Socially

excluded populations considered in this research project included adults experiencing homelessness, people misusing substances, Travellers, vulnerable migrants or asylum seekers, refugees, and sex workers.

Study outcomes

The primary objectives of this survey were to gather information about geographical locations, service types, and services provided. The survey also included free text questions around the challenges encountered and insights gained during the delivery of services for people experiencing social exclusion; these were related to enablers/facilitators and barriers to the provision of socially inclusive dental services.

Data sources, data collection and analysis

The study was distributed using the online platform Qualtrics. The survey comprised multiple choice questions and free-text responses. The study was disseminated using a snowballing method of recruitment. In the first instance, the survey was sent to known services providing dental care for people experiencing social exclusion and forwarded to their contacts. Other methods of recruitment included adverts in popular dental magazines and journals, requests for communication cascades through professional organisations, and a blanket email sent via NHS Business Services Authority's Compass system which encompasses most practising NHS dentists in England.

Each response was reviewed for completion of data entry and duplicate information was addressed. Data were entered into an Excel spreadsheet and analysis performed using statistical software package IBM SPSS v26. Mapping of data was undertaken using Google Maps. There was insufficient quantity and quality of data collected from free-text responses to undertake a meaningful thematic analysis. Therefore, the content of the free text responses was used to illustrate the quantitative findings and to create a reference table of common barriers and facilitators. The free text quotes were codified into barriers and facilitators by two researchers (JD and MP)

Results

A flow diagram of the responding services included in the study is detailed in Figure 1.

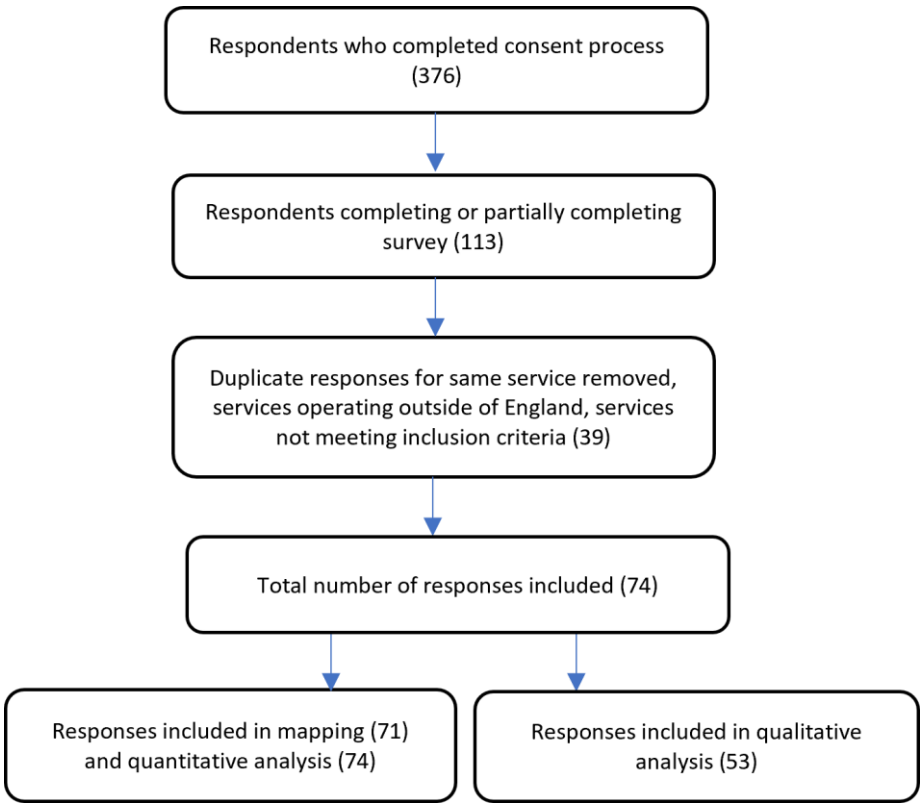

Figure 1: Flowchart of survey respondents

Characteristics of survey respondents

Table 1 presents details of the number of socially inclusive dental services operating in each region of England, the staff operating these services, dental services provided and oral health promotional activities.

Table 1: Characteristics of dental services

Characteristics of survey respondents (n respondents to question)		**N (%)**
UK region (n = 72)	North West	13 (18.1)
	Yorkshire and Humber	12 (16.6)
	South_East	13 (18.1)
	Greater London	6 (8.3)
	South West	6 (8.3)
	West Midlands	7 (9.7)
	East of England	3 (4.2)
	North East	6 (8.3)
	East Midlands	6 (8.3)
Staff (n = 49)	Substantive	40 (81.6)
	Post Graduate training	11 (22.4)
	Volunteers	1 (2.0)
	Undergraduate	3 (6.1)
	Other	6 (12.2)
Dental services provided (n = 50)	OHP	48 (96.0)
	Urgent dental care	35 (70.0)
	Examination	36 (72.0)
	Scale and polish	34 (68.0)
	Radiographs	31 (62.0)
	Restorations	31 (62.0)
	Periodontal therapy	27 (54.0)
	Endodontics	27 (54.0)
	Extractions (non-urgent)	32 (64.0)
	Dentures	34 (68.0)
	Fixed prosthodontics	23 (46.0)
	Other	9 (18)
OHP activities (n = 43)	OH education one to one	32 (74.4)
	Group OH education	20 (46.5)
	OH education for non-dental service staff one to one	17 (39.5)
	Group OH education for non-dental service staff	18 (41.9)
	Signposting	29 (67.4)
	Fluoride varnish application	20 (46.5)
	Toothbrush and toothpaste given	27 (62.8)
	Other	4 (9.3)

Mapping

The respondents who provided a complete postcode were been orientated to a map of England by service type (Figure 3: Map of dental service types and location across England) and by model of service delivery (Figure 2). Few services were reported in the South West and East of England. The service delivery model was predominantly Salaried Primary Dental Care Services or General Dental Services.

Figure 2: Map of models of service and locations across England

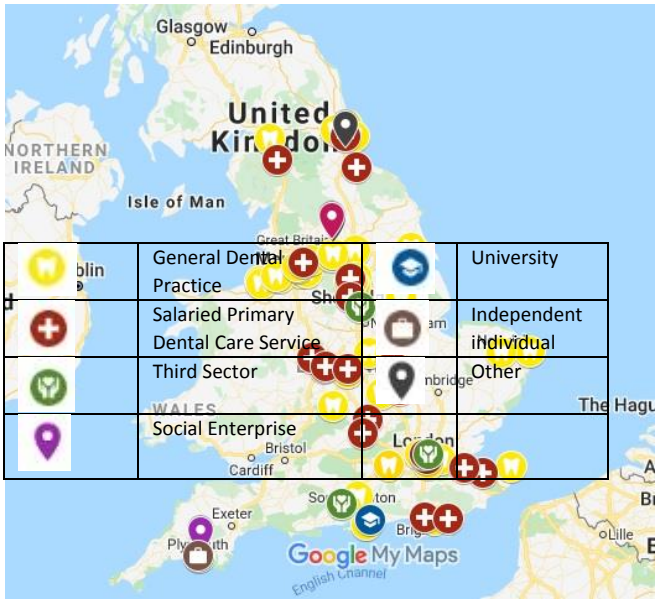

Figure 3: Map of dental service types and location across England

National level evaluation of services using a model of access framework.

The following sections describe the models of delivery offered by the services included in this study. The Penchansky and Thomas theory of access has been used to illustrate how approaches to service delivery relate to domains that promote access to services.

	Fixed Site Dental Services		Mobile Dental Service
	Oral Health Promotion		Other Service Type

Acceptability

Table 2: Acceptability of services to target populations

Acceptability domain		n (%)
Targeted excluded group(s) **(n = 72)**	Homeless	50 (69.4)
	Substance misuse	51 (70.8)
	Refugees	39 (54.2)
	Travellers	37 (51.4)
	Sex workers	18 (25.0)

Table 2 presents details of the adult populations provided with care by the services that responded to this survey. The most common targeted groups were people experiencing homelessness and adults who misuse

substances.

Free-text responses with relevance to service acceptability described social stigma associated with personal circumstances as a potential barrier to dental care access: *"Low self-esteem and lifestyle appears to create barriers for people who feel they will be judged"* [SPDC 20], plus anxiety, lack of trust and *"fear of going to the dentist."* [SPDC 20]. Also: "*In some cases oral health not seen as a priority due to complex needs of target group*." [SPDC 14].

The respondents felt that behaviours that promote equality, respect and individualised care would improve patient experiences. Compassionate and consistent approaches to care were recommended: *"spend more time with the patients to reassure them we are here to help."* [GDP 18]. Positive attitudes are paramount: "*Dental staff need to offer non-judgemental oral health advice"* [SPDC 1].

Availability

Table 3: Availability of services

Availability domain (n respondents to question)		**n (%)**
Frequency of operation (n = 61)	Daily	28 (45.9)
	2 – 3 times per week	4 (6.6)
	Once a week	7 (11.5)
	Once a month	3 (4.9)
	Ad hoc	6 (9.8)
	Other	14 (23.0)

Table 3 presents the frequency of operation of services. Nearly half of the respondents reported that services were available on a daily basis.

The respondents expressed concerns about availability, operating with a lack of personnel, time, and equipment: *"Fixed funding, therefore no ability to respond properly to ever growing demand..."* [SPDC 15]. Providers sometimes felt a lack of support in service delivery and training: "*dental public health [authorities] not supportive of projects that are not on their 'plan'*" [SPDC-11].

Difficulties in promoting take-up included: *"Engaging the charities, service users…"* [University 1]. Conversely "*Making the right contacts*" [SPDC-10], and "*Targeting the right groups and engaging with the right staff"* [SPDC-17] were reported as facilitating access.

Accommodation

Table 4 Accommodation of services

Accommodation domain (n respondents to question)		N (%)
Appointment days (n = 53)	Weekdays 9 – 5	45 (84.9)
	Weekends	8 (15.1)
	Evenings after 5pm	9 (17.0)
	Other	12 (22.6)
Appointment model (n = 49)	Drop in and urgent	4 (8.2)
	Fixed time slots to named individual	22 (44.9)
	Fixed time slots allocated to service	8 (16.3)
	Other	14 (28.6)
Collaborative working (n = 33)	General medical practice	14 (42.4)
	TB screening services	2 (6.1)
	Sexual health and HIV services	2 (6.1)
	Podiatry	4 (12.1)
	Optometry	1 (3.0)
	Needle exchange	4 (12.1)
	Foodbanks	2 (6.1)
	Community eating / social food organisations	7 (21.2)
	Charitable organisations	21 (63.6)
	Other	10 (30.3)

Table 4 describes features of services that enhance accommodation of socially excluded populations including days of operation, appointment models and collaborative working with other services. Most services were available on weekday (9am-5pm) and in fixed time slots with little access to out of hour or walk in services.

Related to accommodation data from free-text responses highlighted that lack of service flexibility made it difficult to support patients with "*chaotic lifestyle and changing living circumstances…*" [SE/Charity 1], and the management of non-attendance for booked appointments: "*Patients can also access care from our fixed sites but only tend to do so when they are a bit more settled …otherwise again the DNA rate is high*." [SPDC 16]. This can impact on completion of care plans: "*Challenging to provide full course of treatment as chaotic social circumstances means that [patients] do not always attend booked appointments"*

A drop-in service was frequently highlighted as a useful access model. However, some cautions were expressed: *"this group of patients find waiting difficult"* [SPDC 17] and *"the drop-in rate can vary markedly"* [SPDC 16]. Comments also specified a need for dental teams to be appropriately trained "*…on how to interact best with substance misusers, people suffering mental health issues etc*" [SPDC 20]. The need for "*supportive management*" [SE/Charity 1] and for commissioners to be on board was highlighted *"Need to…remove the protocols that are strangulating innovation procedures."* [SE/Charity 1]. Using skill mix effectively, taking a multidisciplinary approach and partnership/collaboration with wider stakeholders was recommended.

As barriers for user's engagement the respondents suggested that people may be disempowered due to loss of confidence, choice and control brought about by communication issues, in particular "*language barriers"* [GDP 18, SPDC 10, SPDC 20] compounded by lack of access to an interpreter.

[SPDC 8]. Addressing complex care needs safely was a concern: "*We have to provide full mouth dental care often for extremely damaged dentitions*." [GDP 15]; "*We struggle to gain informed consent from those suffering mental health issues."* [GDP 18]. Competing pressures and "*meeting targets for the top management*" [SE/Charity 1] are another challenge.

Accessibility

Table 5: Accessibility of services

Accessibility domain (n respondents to question)		n (%)
Location (n = 70)	Fixed site	46 (65.7)
	OHP	44 (62.9)
	Mobile	10 (14.3)
	Other	11 (15.7)
Delivery (n = 51)	Outreach OHP	18 (35.3)
	Fixed stand alone	19 (37.3)
	Fixed healthcare	15 (29.4)
	MDS	6 (11.8)
	Clinic hostel	5 (9.8)
	Other	8 (15.7)
Outreach sites attended (n = 26)	Healthcare centres	11 (42.3)
	Hostels	14 (53.8)
	Night shelter	6 (23.1)
	Community centre	9 (34.6)
	Church	2 (7.7)
	Foodbank	2 (7.7)
	Charity	6 (23.1)
	Drop-in centres / social services	14 (53.8)
	Other	10 (38.5)

Table 5 describes domains of accessibility including location, delivery, and outreach activities of the services. Nearly two-thirds of the services were available at a fixed site.

Free-text responses gave further insight about service accessibility. Enablers included "*more clinical outreach*" [SPDC-14]. The premise being that "*first contact at a familiar space"* and care delivered in appropriate venues may make patients feel more "*comfortable*" [SE/Charity-1] and "*confident*" [SPDC-20] with the dental team.

However, comments indicated operational challenges in using non-dental community venues or a mobile environment: *"[difficulties in] providing adequate facilities for our technicians"* [Charity-3]; *"Difficulty finding suitable venues and times within community"* [SPDC-4];]. *"space restrictions"* [University-1]. Also: *"Dental services from a mobile unit are very expensive to deliver"* [SPDC-16].

Affordability

Table 6: Affordability of services

Affordability domains (n respondents to question)		n (%)
Payment (n = 50)	NHS charges	30 (60.0)
	No payment	27 (54.0)
	Private	1 (2.0)
	Other	5 (10.0)
	Choose payment	1 (2.0)
Service funding source(s) (n = 72)	CDS service contract	20 (27.8)
	Charity	4 (5.6)
	NHS GDS contract	25 (34.7)
	NHS PDS agreement	10 (13.9)
	Pilot or prototype contract	6 (8.3)
	Private arrangement	2 (2.8)
	Other	17 (23.6)

Table 6 describes aspects of affordability including means of patient payment and sources of funding for service. Most of the services were available free of charge or requiring patients to pay NHS charges.

Free-text comments illustrated patient confusion around charge exemptions were a potent barrier to accessing care. The need to provide patients with *"more support in understanding their benefits and payment for dental treatment"* [SPDC-17] was highlighted.

Providing services with obligations to meet NHS targets, resulted in a *"financial burden absorbed by practice to provide this service for free"*[GDP-38]. Alternatives to target-based remuneration may be less restrictive: "*Get rid of UDAs! They worsen dental inequality. Practices cannot afford to treat people with high disease or complex needs*" [GDP-25]. The need for *"commissioners of services to acknowledge this in contracts."* [SPDC-11] was emphasised. Other remedies suggested included: *"no NHS charges to be paid by this group but funded by the NHS as exempt"* [GDP-40]. and *"charitable funds being available for patients"* [SPDC-4].

Awareness

Activities to raise awareness of existing services among people experiencing social exclusion, staff and volunteers were suggested to enhance access opportunities: "*the service needs to be well advertised so that the target patients are aware of it*" [GDP 21] and "*reminding patients of appointments and the importance of these appointments*" [SPDC 4]. The importance was stressed of

"*communicating to the right groups of staff and raising the importance of oral health and its relationship to general health and wellbeing*." [SPDC 17].

A summary of the domains and key barriers and facilitators can be found in Table 7. The recommendations were based on the survey responses.

Table 7: Summary of key challenges and recommendations identified across domains of access

Domain	Key challenges identified	Recommendations
Acceptability	Fear of going to the dentist caused by anxiety, social stigma, low self-esteem, fear of being judged	Non-judgmental, compassionate, reassuring and respectful attitudes
	Oral health is not a priority among other competing needs	Sufficient time for a slow approach to building relationships with sometimes challenging patients
	Patient group come with challenges to staff caring for them	Understanding that some patients only want to address acute dental problems not access comprehensive care
		Use of befrienders or peer support
		Standard operating procedures and guidance to support consistent care delivery
		Need very experienced individuals with comprehensive skills
Availability	Lack of resources including personnel, time, training, equipment and inadequate support from public health and clinical colleagues	Targeting the right groups, volunteers, and staff to make contact with and promote take up
	Difficulty engaging with stakeholders, service users (who are not ready to engage), charities	Engaging public health and clinical colleagues early to plan and optimise service provision and use of resources
	Inability to respond to increasing demand for service	
Accommodation	Booked/fixed dental appointment slots led to times where clinic faced non-attendance or random attendance	Flexible protocols and ability to adapt to those with complex and variable care needs
	Non-attendance at appointments prohibited completion of care plans	Drop-in service same times each week
	Lack of flexibility to accommodate diverse care needs	Appropriate opening and appointment times - flexible booking
	Consent, interpretation, and legal issues	Consistent interpreter and block booking patients
	Complex social and dental care needs	Supportive management and NHS commissioners on board who recognise service needs and reflect this in the service contracts.
	Protracted courses of treatment	Relationship building: collaborations and partnerships, skill-mix, multi-disciplinary approach, stakeholder engagement
	Competing pressures including meeting targets and service redesign	Continuous evidence-based accommodation and learning from other services
	Some difficulties with patient group willingness to sit and wait	Training including logistics of mobile unit and improving communication with service users .
Accessibility	Sourcing suitable venues for outreach activity	More outreach activity in settings familiar to the patient group
	Logistical and financial challenges of using mobile dental units	
Affordability	Uncertainty about patient charges and exemptions is a barrier to access - Fines issued	Removing payment requirements for socially excluded populations or create flexible options
	Financial burden of providing free service absorbed by practices	Making-charitable funds available
		Salaried members of staff not required to deliver UDAs
Awareness	None reported.	Plenty of promoting, advertising and communicating services to staff and service users
		Appointment reminders

Discussion

This study provides a unique contribution to the published literature by giving an overview of the geographic distribution and models of service delivery employed across England to provide care for people experiencing social exclusion.

The findings from this study corroborate with published research undertaken with people with lived experience of social exclusion that reported patients often experience socioeconomic and psychosocial barriers to dental service utilisation including confusion around payments, social stigma, and lack of trust [6,18,19].

Most services were General Dental Services which were delivered at a fixed site, operated within usual working day hours, and offered rigid appointment allocation processes. These findings may highlight a mismatch between the current models of service delivery and the needs of the service users which has the potential to exacerbate oral health inequalities. However, other literature has suggested that there are mixed views among people experiencing homelessness about preferences for targeted or mainstream services[20]. Some services offered outreach and mobile options which were believed to improve access but posed several logistical challenges. Our study echoes findings that oral health outreach into other services and trust by association are crucial to successful delivery of homeless dental services [11,12,18,19]. Consistent times of operation, flexibility with appointment scheduling, and options for drop-in access were all described as facilitating access. Rigid approaches to appointment booking may lead to poor utilisation of time and thus diminished cost effectiveness of services.

Operational barriers described by providers included under-resourcing, service inflexibility, lack of appropriately skilled dental workforce, and unmet training needs. The findings from this study suggest that it is imperative to find ways to mitigate service delivery barriers to enable socially excluded groups to access free treatment through the NHS with ease. However, as Freeman and colleagues acknowledge, charity should not be a substitute for taking responsibility to tackle the complex issues associated with social exclusion [5]. Most services were rigidly structured and lacked adaptation to the needs of the patient group. The confluence of these provider, patient, and organisational barriers led to frequent unfinished care plans, frustration, pressured working environment, competing priorities, and challenges in delivering appropriate dental care for patients with complex dental, medical, and mental health needs.

Implications for policy and practice

Consistency, flexibility, transparent costs or no charges, familiarity, adaptation to complex needs, and outreach and collaborations with other medical, social, and charitable organisations are essential considerations for designing services to meet the needs of socially excluded groups. Opportunities to address financial issues may be found in the use of flexible commissioning or other innovative commissioning arrangements. Furthermore, the models of remuneration being trialled as

part of the Dental Contract Reform programme may offer opportunities to reduce health inequalities and address issues of access [21].

Other important considerations for running an appropriate service included well-trained dental teams who have time, patience, and provide care which respects the patient and maintains their dignity. Studies have suggested that encouraging philosophies of social responsibility can begin even at undergraduate level[22]. This study identifies that teams running dental services would benefit from bespoke training both in clinical and non-clinical aspects of providing services for people experiencing social exclusion. In the absence of adequate support and training not only are staff at risk of poorly managing challenging patients or themselves experiencing burn out, but there is also a risk that there will be a lack of workforce competency in the future and a resultant void in appropriately trained dental professionals to deliver inclusive dental services. Ultimately, services would benefit from the understanding that people experiencing social exclusion may only decide to engage when they feel they are ready. In the interim services must be non-judgmental in supporting people experiencing social exclusion to engage when they feel prepared to do so, and cultivate environments that foster trust and maintain an open invitation to engage[18,19].

Strengths

The key strengths of this study that give it a unique place in the literature include mapping of diverse inclusive services from across England including NHS, private and charitable organisations. Prior to its implementation the survey was reviewed by stakeholders in homelessness advocacy organisation Groundswell, Community Dental Services, charitable organisations, and Dental Public Health colleagues who contributed to and enhanced the study design. A broad-based recruitment strategy was used which included dental media, national representative organisations, and all NHS England dental providers/performers based on contact details held on the Compass management system. By using this approach, we were able to capture a diverse range of dental settings including initiatives taking place in General Dental Services.

Limitations

Despite the extensive broad based and snowballing survey dissemination strategy, the research team appreciate that there may have been some groups of dental practitioners who did not receive the dental survey, particularly those working in private dental practice or in charities for whom the survey did not reach the appropriate channels. The research team believe that by targeting known stakeholders, multiple dental media, and influential leaders across the field of dentistry that we had exhausted the opportunities for dissemination within our known national networks. This study only

included views of dental professionals and therefore cannot provide patient perspectives about the appropriateness of service designs. The free text responses to the survey provided novel insights but did not provide sufficiently rich data for a thematic analysis and deeper interrogation of the barriers and facilitators to service delivery. Therefore, further qualitative research in this area is recommended in the following section.

Further research

Recommendations for further research include undertaking qualitative research to establish the most appropriate service delivery models to facilitate inclusion and overcome barriers to accessing care. People with lived experience of social exclusion can provide unique insights and therefore co-design of dental services is recommended. Furthermore, continuing to identify and share examples of promising models of practice, especially those in General Dental Services is encouraged. A final recommendation is to conduct qualitative research with dental professionals delivering inclusive services, and stakeholders including commissioners, clinical directors, and dental professional network leads to identify training needs and funding streams to safeguard the continuation of high-quality inclusive care. Between study conduct and publication of the findings, the Covid-19 pandemic has had implications for the way services are delivered and new challenges related to digital literacy inequalities may have emerged which have not been considered in this article. Further research in this area will be required.

Conclusion

Currently dental service models of delivery may not be sufficiently flexible to meet the needs of people experiencing social exclusion. To create appropriate models, flexible delivery and commissioning strategies are required. Clarity around payment for services is essential to remove barriers to providing care for both dental patients and dental professionals. Staff would benefit from bespoke training to support an environment that is adaptable and non-judgment to the complex needs of these patients when they become ready to engage with services.

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Author contribution statement

JD was lead author and coordinated the survey, data analysis and drawing together of the manuscript. AG, TN, and SK supported development of the survey tool, editing the document. TN and AG contributed to data analysis plan. MP conducted the final qualitative data analysis and write-up, and supported the development of the manuscript. TC produced the introductory section and brought synthesised all comments from co-authors. AR and GA produced the mapping and provided input across the document. VM has provided conceptual insight throughout, supported the development of the study protocol, and provided feedback and edits to the final draft.

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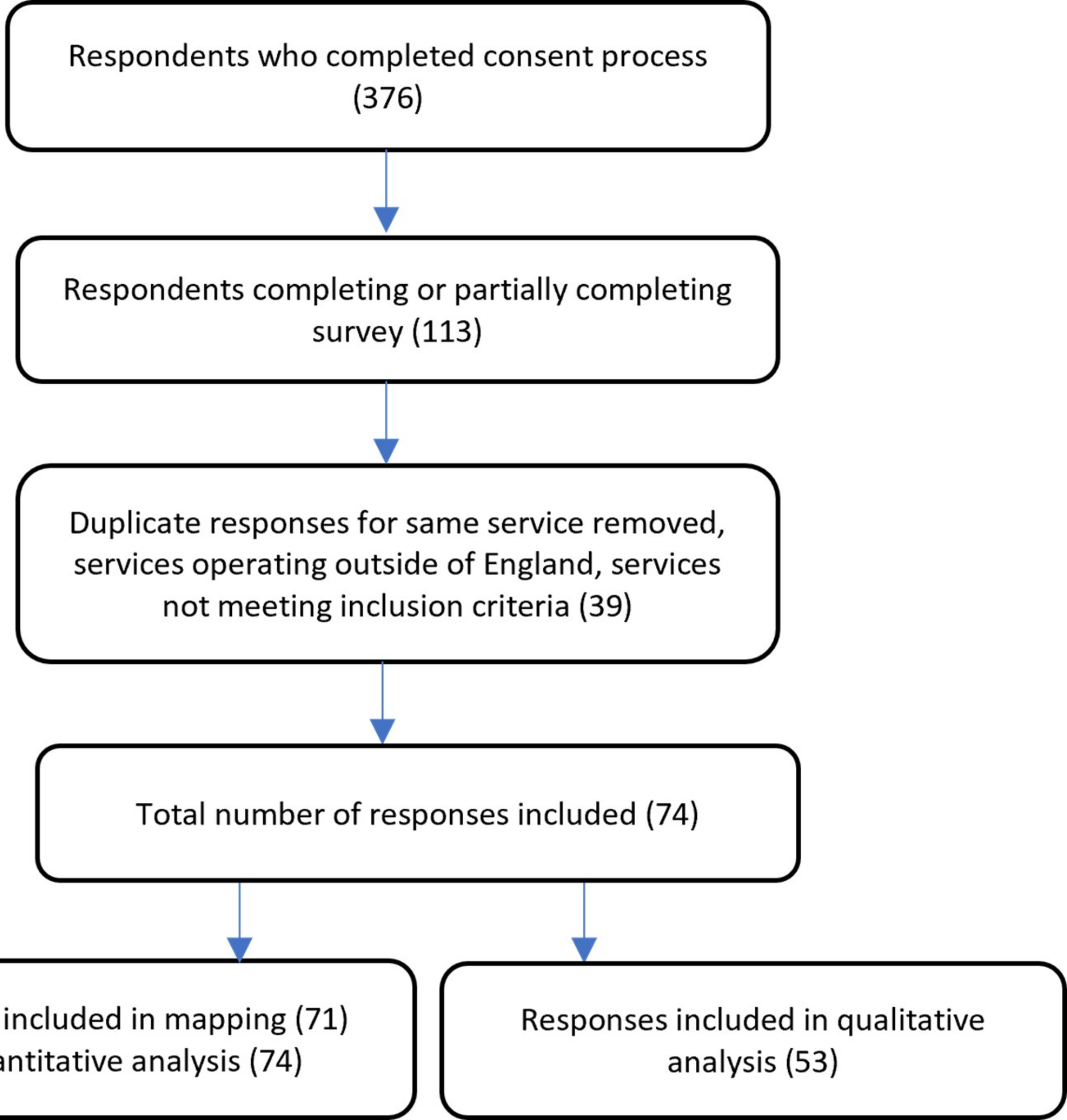
Respondents who completed consent process (376)
Respondents completing or partially completing survey (113)
Duplicate responses for same service removed, services operating outside of England, services not meeting inclusion criteria (39)
Total number of responses included (74)
Responses included in mapping (71) and quantitative analysis (74)
Responses included in qualitative analysis (53)


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