Barriers and Enablers to Accessing Dental Services for People Experiencing Homelessness: A Systematic Review

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Abstract

Objectives –The aim of this systematic review was to identify and conceptualise the barriers and enablers to accessing dental services for people experiencing homelessness in the United Kingdom.

Methods – A literature search for studies relevant to homelessness and dental care was conducted. The PRISMA and ENTREQ guidelines were followed. Electronic databases (EMBASE, MEDLINE, DOSS, CINAHL, SOCINDEX, and PsycINFO) and grey literature sources (ETHOS, Kings Fund, NICE Evidence, Open Grey, Google and the Health Foundation) were searched up to 28 August 2018. The critical appraisal was conducted using CASP and an adjusted version of a JBI Critical Appraisal tool. Thematic analysis was used to develop the themes and domains.

Results- Twenty-eight papers were included. Barriers to homeless people accessing dental care stemmed both from the lived experience of homelessness and the healthcare system. Within homelessness, the themes identified included complexity, emotions and knowledge. Regarding the healthcare system, identified themes included staff encounter, accessibility and organisation issues.

Conclusion- Homelessness can actively contribute to both an increased need for dental care and barriers to accessing that care. The arrangement of dental healthcare services can also act as barriers to care. This is the first systematic review to conceptualise the factors associated with access to dental care for people who are homeless. It provides a set of recommendations for overcoming the main barriers for homeless people to accessing dental care. It also offers directions for future research, policy, and commissioning.

Keywords: Homeless Persons, Dental Care, Access

Introduction

Homelessness is a multidimensional and complex concept.[1] Currently, there is no universal consensus on how homelessness should be defined, because of the diversity and heterogeneity among people who experience homelessness.[2] As a result, a number of different definitions are being used.[3,4] The European Typology of Homelessness (ETHOS), adopted in this review, comprises a number of living situations including people sleeping rough (i.e. sleeping on the streets), those living in shelters, in insecure or in inadequate housing.[5] Homelessness therefore has a temporal characteristic.

In the United Kingdom (UK), homelessness has risen significantly over the last ten years and approximately 307,000 people are currently estimated to be homeless (i.e. living in temporary accommodation or sleeping rough).[6] People who experience homelessness encounter a wide range of physical and mental health issues which adversely impact their overall wellbeing.[7-9] Poor dental health is one of the most common physical problems affecting this population and a significant source of health inequalities.[7,8,10,11] In line with international findings, studies in the UK have consistently shown that homeless people's dental health is worse than the general (housed) population and that their treatment needs are high. They have more missing teeth, more untreated decayed teeth and more compromised periodontal health.[3,12-14] They are also more likely to suffer from dental anxiety and have poorer oral health related quality of life.[15] Despite homeless people's high treatment needs,[3,12,15] utilisation of dental services, is low.[4,10,11] In the UK, utilisation of dental care services by people experiencing homelessness is proportionally lower than the utilisation of general medical services, largely due to access issues.[16]

Access is an important indicator of health system performance and is commonly defined as 'access to a service, a provider or an institution'.[17] While some authors conceptualise access in terms of specific dimensions (e.g. "acceptability, affordability, availability, accessibility, accommodation" included in Penchansky and Thomas's model)[18] others have based their

definition on health seeking behaviour (e.g. Health Belief Model).[19,20] Andersen's behavioural model which has been extensively used as a framework to understand the factors influencing the use of healthcare services, incorporates both individual and contextual determinants of healthcare service utilisation.[21-23] In the current review, access is conceptualised within the Penchansky and Thomas's[18], and Andersen's models.[21-23]

Lack of conceptualisation of barriers and enablers to accessing dental care limits our potential to develop appropriate strategies to improve access to the services. Identifying the barriers and enablers pertinent to homeless people's access to dental care can enhance understanding of homelessness and assist in the development of policy and programmes to ensure that the specific needs of this vulnerable group are met. The purpose of this systematic review was therefore to develop a conceptual model of the barriers and enablers to accessing dental care among people experiencing homelessness in the UK.

Methods

The research protocol was set *a priori* and registered with the Prospective Register of Systematic Reviews (PROSPERO) (reg. number: CRD42018084726). The reporting of the review was guided by the PRISMA and ENTREQ guidelines.

Review Question

What are the barriers and enablers to accessing dental care services among people experiencing homelessness in the UK?

Search strategy

The search strategy was developed and conducted by an information specialist (LB). The search terms were developed around three areas, namely homelessness, dental health and the UK. The following electronic databases were searched: EMBASE, MEDLINE, Dentistry and Oral Sciences Source, CINAHL, SOCINDEX and PsycINFO. The searches were conducted on

21/07/2017. Grey literature searches were undertaken using the following online sources: Google, EThOS, Kings Fund, NICE Evidence, Open Grey and the Health Foundation. No date or language limits were applied. An updated search for both electronic and grey literature sources was conducted on 29/08/18.

The search strategies used in Ovid EMBASE are reproduced in Appendix 1 (a&b). These were adapted for use in the other databases according to the syntax requirements of the respective interfaces. The search strategies for the grey literature sources are included in Appendix 2. The references of included studies/reports were checked for eligibility. Contact with an expert in the field was also established in order to ensure that no relevant studies were missed.

Study selection

Search results were collected and duplicates removed in EndNote X7.4 software and transferred to Rayyan systematic review web application[24] for screening. For both the published papers and grey literature, the titles and abstracts of the identified papers/reports were screened for inclusion by two reviewers (MP and AP). The full text of selected papers/reports was reviewed and their inclusion in the review agreed by two independent researchers (MP and AP). In case of disagreement, a consensus was reached through discussion. Studies/reports were included that identified a barrier and/or enablers to accessing dental care among people experiencing homelessness in the UK. The following inclusion criteria were adopted both at title/abstract and full text level:

Population/participants: Individuals in the UK above 16 years old who experience homelessness, or healthcare professionals, staff working with people experiencing homelessness, policy makers and/or commissioners.

Phenomenon of interest: Experience of homelessness

Outcomes: Barriers and enablers, to accessing dental care services, for people experiencing homelessness in the UK.

Type of study: All types of study design (using quantitative, qualitative and mixed methods) except narrative reviews, summaries and abstracts.

Location of study: The review was focused on the UK.

Language: No limitations

Year of publication: No limitations

When a selection decision could not be made at the tile/abstract level, decision was made on full-text screening.

Data Extraction and Quality Appraisal

The data extraction and quality assessment were performed independently by two researchers (MP and AP). A pilot-tested data abstraction form was used to extract details of the individual studies/reports that were included in the review. Data were collected on publication, location, setting, type of homelessness (if applicable), sampling, data collection methods, participant characteristics, sample size-age-gender, barriers and enablers.

Both published papers and grey literature were appraised. The critical appraisal of the included studies/reports was conducted using study design specific evaluation tools [i.e. Critical Appraisal Skills Programme (CASP)-qualitative checklist,[25] and an adjusted version of the Joanna Briggs Institute (JBB) Critical Appraisal tools- Checklist for Analytical Cross Sectional Studies] (MP and EK).[26] Ultimately, studies were given a high (+++), acceptable (++), or low score (-). As there is currently no consensus on the use of critical appraisal in the synthesis of qualitative research,[27] we did not set a priority quality threshold nor did we exclude papers/reports on the basis of quality. Similarly to other systematic reviews[28-30] conceptual relevance took precedence over methodological rigour. Appraisal was conducted to improve transparency in the systematic review process. Sensitivity analysis was conducted in order to investigate whether the inclusion of studies with a lower quality score had an impact on the review findings.[31]

Evidence synthesis

The PDFs of studies that were included in the review were uploaded to NVivo qualitative data analysis software (QSR International Pty Ltd. Version 11, 2015). Thematic analysis, as described by Braun and Clarke[32] was used to develop the themes and domains. This approach enables researchers to provide an in depth analysis of complex data.[32] The categories of barriers and enablers were used to 'direct the gaze' of the researcher in the analytical process. Direct findings from the studies and/or authors' conclusions and interpretations, which were supported by the study findings, were coded. Codes and emergent themes were then discussed with, and interrogated, by a second reviewer (CQ). Agreement was reached by discussion consensus. The three step inductive synthesis procedure included: 1) coding the text; 2) identifying the themes and 3) producing the main domains.

Results

Literature identified

The PRISMA Flow diagram of search results can be seen below (Figure 1).

Please insert Figure 1 here

The search of electronic databases identified 494 potential relevant studies. Two hundred and twenty one papers were identified through other sources. Of the 715, 68 were duplicates and were removed. Following screening, 28 papers/reports met the eligibility criteria and were included in the review. The reasons for excluding papers on full text are provided in Appendix 2. Level of agreement between the reviewers was 97% and 98% at the level of titles/abstracts and full texts, respectively; resolved by discussion.

Study characteristics

The included studies used either quantitative (e.g. questionnaires, audits) or qualitative methodologies (interviews, focus groups) and were conducted in different parts of the UK. The

participants included people experiencing homelessness, healthcare professionals, individuals working in the homelessness sector, other stakeholders, or a combination. When homeless people were included in the study, the participants were commonly males and sleeping rough or living in shelters or centres providing temporary accommodation. The majority of the studies used nonprobability convenience sampling techniques or purposive sampling which were deemed necessary due to the transient nature of homeless people's lives. The characteristics of the 28 included studies are presented in Appendix 3.

The methodological quality of the studies was mixed (N=9 high; N=14 acceptable; N=5 Low). Often, appraisal was hindered by the quality of reporting rather than the conduct of the study. The CASP tool results indicated that all studies clearly defined their research aims and findings. However, information on the choice of the methods used to collect the data as well as details on how the methods were implemented, was limited. Furthermore, it was not always clear whether ethical issues had been taken into account, nor whether the analysis of data was sufficiently rigorous. The application of JBB tool indicated that among the 9 studies that used quantitative methods, in none was it clear whether the outcome was measured in a reliable way. The results of critical appraisal, can be found in Appendix 4. Sensitivity analysis indicated that the inclusion of studies with the lowest scores did not have an impact on the review findings and therefore did not affect the conclusions drawn. Although papers with higher quality scores commonly contributed more to the review findings, all papers/reports informed the review to some extent.

Themes identified

Using thematic analysis, six themes, within two domains were generated: 1) Lived experience of homelessness (Complexity, Feelings/Emotions, Knowledge) and 2) the healthcare system (Staff Encounter, Organisational, Accessibility). Barriers and enablers to accessing dental services are presented within these themes. Although both the lived experience of homelessness and the healthcare system act as barriers to care, the factors identified as having the potential to improve

homeless people's access to dental health care are discussed within the themes of the healthcare system. These can have an impact on some or all of the three themes under the domain of homelessness.

Figure 2 illustrates the relationship between the themes and main domains. Illustrative quotations for each theme are presented in Appendix 5.

Please insert Figure 2 here

Lived experience of homelessness

Complexity

For people who experience homelessness and chaotic lifestyles, current priorities such as securing accommodation and managing their daily living expenses, are more pressing issues to deal with than oral health.[3,4,33,34-37] Mental health issues and psychosocial factors can exacerbate the prevalent dental anxiety/fear and further inhibit dental attendance.[3,15] Furthermore, dependency issues (i.e. drugs, alcohol) lead to self-neglect and further decrease the priority placed upon oral health.[9,11,33,38]

Lack of awareness of dental health status, low perceived need for dental treatment and having poor oral health expectations prevent homeless people from seeking dental care.[35,36,38] However, some authors report that this is not because oral health is not an important issue for homeless people. Rather, oral health becomes low priority in face of other more imminent priorities.[3,36]

When not entitled to free treatment and/or travel, low disposable income, can be a significant barrier for attending dental appointments. [4,12,14,33,35,36,38-42]

Feelings/Emotions

Anxiety due to previous negative experiences with a dentist (during childhood, adolescence or in the most recent past) and dental fear are common reasons given by homeless people to, explain why they do not attempt to attend for dental treatment.[3,14,33,35,36,41,43] The fact that

homeless people visit dentists only in emergency cases, further increases their anxiety, as by delaying treatment they come to associate dentists with pain.[44] A feeling of lack of control contributes to homeless people feeling anxious during dental appointments.[11] Embarrassment in relation to the condition of their teeth and the subsequent impact on self-esteem can itself act as a barrier.[3,4,33]

An individual's unwillingness to change their behaviours, and mistrust/dislike of healthcare services/professionals, also act as barriers to dental attendance for homeless people.[9,33,35,37] Some homeless people also feel discriminated or stigmatised by dental professionals and/or receptionists. Furthermore, there are some reports that homeless people perceive the service they receive/would receive as different (lesser) than that received by the general population.[11]

Knowledge

Lack of knowledge about eligibility, available services and how to arrange a dental visit hinder dental access for people who are homeless. [2-4,11,35-37,41,45,46,47] The issue of how benefit payments schemes affect entitlement and rights to care is a source of confusion among the homeless population, who sometimes may not know which benefit scheme they are on.[11,41]

A key deterrent among non-English speaking homeless people to attending care is the language barrier which in turn leads to mistrust of the services.[35,37]

Healthcare system

Staff Encounter

Dental professionals may fear aggression and have cross infection concerns with regard to their homeless patients.[4] Limited or no training in dealing with socially excluded groups, can affect the confidence of staff in dealing with homeless people.[34]

Compassionate communication which means dental staff being approachable, friendly, supportive, sympathetic, not being easily shocked and having an understanding of the

difficulties that homeless people encounter appear to be important qualities for staff dealing with homeless people and is important in determining the success of any service provided.[33,36,39]

Organisational

The cost of care, along with any additional travelling costs, are inhibitory factors to homeless people attending a dental practice, particularly for those who need more than one course of treatment.[3,11,35,36,41,42] The financial penalties for broken appointments and the resulting outstanding fines also impact on homeless people's ability to access dental care and retain their ongoing relationship with a dental practice.[3,38,39] Having a hostel address or no fixed abode can preclude homeless people from registering with a dentist.[35,38,41,44]

Lack of resources, fragmentation of services and lack of collaborative working seem to affect the implementation and continuity of intervention programmes aiming to improve homeless people's oral health.[36,46]

Support from service managers and commissioners, is important if oral health interventions targeting homeless people are to exist.[46] A holistic ethos, where psychosocial factors are taken into account together with physical ones (including oral health),[15] would prevent homeless people feeling singled out because of their dental health.

Flexibility in working hours so that common schedules can be established between the dental staff and the shelters providing temporary accommodation have been recommended.[46] Training can help improve dental staff's understanding about the difficulties that homeless people face.[44]

A participatory and bottom up approach, which gives the opportunity to homeless people to share their opinions and views and be engaged in the design and decision making process of service development is welcomed and supported by both the healthcare professionals and homeless people themselves.[3,37,39,46]

Consistency in service delivery is also important as it helps to build trusting relationships. It is acknowledged that an oral health intervention is more likely to be successful if it becomes part of a homeless person's recovery journey from homelessness or addiction.[3,46]

Accessibility

Homeless people are sometimes refused ongoing care at dental practices, and some clinics, or dentists are hesitant to accept homeless people for treatment.[11,33-35,41-43,48] Reasons reported for precluding homeless people from 'registering' or attending included lack of a fixed address (i.e. having a hostel address), the practice being full or existence of a waiting list, the practice taking only private patients and patients being on welfare benefits.[10,33,35,41-43] From the healthcare provision side, some reasons for the hesitation to take on people who experience homelessness include the belief that they should be accessing care through dedicated services, that they are likely to have drinking problems, that the practice list is full, and that homeless people have poor compliance or rate of attendance resulting in dental services losing money (i.e. are 'not practice builders').[11,49]

An important barrier for homeless people to accessing primary care includes strict access regulations, appointment slots and brief consultation sessions.[44] Successful dental programmes provide a more flexible service tailored to the homeless people's complex needs (i.e. outreach services).[3,11,36,40,44,50] This approach can reduce fear and stigma on both sides, and can also be used as a first step in getting people to have control over their oral health thereby empowering them to access mainstream services.[11,37,39]

The use of a three-tier dental service is strongly supported by the literature, meaning that there is a need to identify those people who need to access emergency dental services, those who require one-off treatments, and those wishing to access routine dental care and adapt services to their needs.[3] Furthermore, it has been suggested that booking appointment slots for homelessness services rather than for individuals, may promote uptake and attendance.[11]

Providing information on existing dental services, entitlements and eligibility to homeless people, as well as charities and health service providers, has been recommended as a means of promoting uptake of dental services in this population..[33,35,41,44,45] Support for being accepted for care and attending a dental appointment can enhance homeless people's confidence, motivation and empowerment to access the service.[11,33,39]

This review found that the most frequently cited factors operating as barriers for homeless people to accessing dental services included chaotic lifestyles and competing priorities, dental anxiety and refusal or inability to register or lack of provision of ongoing care to homeless people. The most frequently reported enablers were flexibility (accommodating chaotic lifestyles and tailoring services to homeless people's complex needs), staff training, establishing partnerships and a multidisciplinary, collaborative and outreach approach.

Discussion

Both the lived experience of homelessness and the arrangement of dental healthcare services act as barriers to care. If they are to be used by homeless people, services must take into account homeless people's complex needs and tailor themselves to meet them. This review has led to the conceptualisation of barriers for homeless people to accessing dental care and identified potential strategies to overcome them. It provides an evidence based platform for the development of future research, policy and practice. Understanding the barriers experienced by homeless people when in need of dental care is important in promoting access to the services and ultimately addressing their health needs.

In this review, access to dental services for people who are homeless was found to be an interaction between the characteristics of potential users (e.g. complexity) and those of the dental health system (e.g. organisation). This is consistent with existing models of access to healthcare where access is conceptualised as the interface between "the characteristics of population and those of the healthcare resources".[18,51] Furthermore, similarly with existing models that include both individual and contextual determinants of healthcare use, the themes identified in this review appear not to operate independently but rather interact with each other to influence access to care.[18,21-23] For example, availability of services can interact with the cost of transportation to influence access.[17] Our synthesis further suggests that, the lived experience of homelessness appears to attenuate the difficulties related to population characteristics. Thus, the barriers to service use by people who are homeless appear in this review to be conceptually similar, but different in extent and emphasis, to those currently identified for the general population.[52] As the research question relates to equity in accessing services,[53] our model emphasises that improvements to dental access for homeless people should originate from the healthcare system itself as homeless people lack the resources to overcome deficits in knowledge, emotions and complexity.

A review of access of homeless people to dental care in the US identified similar geographical, financial and cultural barriers for the lack of access to dental care.[54] However, that review only focused on the characteristics of the population acting as barriers to care and thus bias towards the structural components of access could have been introduced. A recent systematic review which included studies published in developed countries identified similar population and system level factors affecting homeless people's access to dental care.[55] Lack of inclusion of grey literature appears to explain why some elements captured in our review were not identified in others[55] (i.e. confusion on how benefit eligibility affects right to care and language difficulties acting as barriers to care; support to register and attend services as an enabler). Peer advocates can be an important source of support for people experiencing homelessness to register and attend services. They can also help to enhance overall understanding of the difficulties that homeless people face in accessing dental care.[11] Furthermore, homeless people's views on optimal outcomes of dental care or service use may differ from that of the service providers.[50] Therefore, a participatory approach, where people experiencing homelessness are involved in the design and development of projects/services/policies, is strongly recommended. Such an approach can ensure the acceptability, sustainability and potential effectiveness of intervention programmes or services.[43]

Implications for clinical practice, education and policy

The current review focused on access of homeless people to dental services in the UK. However, it appears that many of the barriers identified are applicable to homeless populations in other countries (e.g. cost, availability, complexity).[54,55] Furthermore, they seem to have cross-healthcare system relevance (e.g. specialist primary healthcare services and mental health services).[9] This may well be explained by the fact that barriers and enablers for people who are homeless are conceptually similar regardless of the country or healthcare setting. Thus, the themes that this review has identified seem to be transferable to other contexts and have the ability to inform broader policy and practice. A multiagency approach appears to be the optimal way forward and may enable a coordinated and better response to improve access of homeless people to a range of healthcare services.

Although both population and system characteristics appear to influence access to dental care, it is clear that modifications need to stem from the system itself. Such changes have the potential to influence barriers associated with the lived experience of homelessness. For example, staff training can enhance the understanding and attitude of staff towards homeless people, and this can reduce feelings of stigmatisation among homeless people. Such training should also be incorporated in undergraduate curriculums. Dental schools provide an ideal setting in educating the future dental workforce to be better equipped to deal with homeless people and other marginalised groups. Expanding the current curriculum to include outreach activities, engagement of students with marginalised groups, and enabling members of the communities to become teachers can enable students to develop skills outside the clinical environment.[56] Such activities can also enhance students' understanding and confidence in engaging with marginalised individuals in their future career.

Policy makers and commissioners should acknowledge the complex and diverse needs of people experiencing homelessness and provide adequate support to make current dental services more accessible and flexible to socially marginalised individuals. At the same time, it is important that efforts target the ability of homeless people to perceive, seek and obtain dental care.

Strengths and weaknesses of the study

Systematic reviews are increasingly being used to draw reliable evidence to inform research and policy.[57] In this study, a comprehensive approach was used to identify all possible articles/reports relevant to the research question and this enabled us to derive a variety of themes and explore how these compare with existing models of access. Furthermore, thematic analysis is a tested method that provides an explicit link between the primary studies and the conclusions drawn and thus adheres to principles that are important in systematic reviews.[31] The inclusion of grey literature reduced the possibility of publication bias and allowed a more balanced view of the existing evidence.[58]

The model developed could be used in a variety of settings to explore avenues for successful implementation of oral health promotion services for people who are homeless. Another strength of this review lies in the fact that both the patients and providers/carers' perspective were explored, and thus bias towards either the individual or structural components of access was limited.

Lack of robust evaluations and poorly described data collection methods, as well as the convenience sampling used within primary studies, will have affected the quality of the review. Furthermore, the systematic review included studies conducted in the UK only. Expanding it to other developed countries would give a wider perspective on the salient issues although they appear to be universal.

Unanswered questions and future research

The review identified a clear gap in evidence about the effectiveness of different dental healthcare service models.. Better understanding of the effectiveness of different models is crucial if the complex health needs of homeless people are to be met. It is also important to identify elements that promote oral hygiene and self-care and relevant behavior changes in this population.

A mapping of services currently providing dental health to homeless people at the government, private and third sector level would be useful for people experiencing homelessness, for researchers and healthcare practitioners alike. Information on availability, eligibility, registration and cost could help minimise existing gaps in knowledge which influence practice.

Evaluation of peer advocacy in promoting dental care and access, as well as uptake of services and positive changes in homeless people's lives is warranted.

Conclusions

Both the lived experience of homelessness and the current arrangements for dental healthcare services act as barriers to care. It is important to consider what support is needed for homeless people to engage with services and access care. Future services should be delivered in a way that recognises homeless people's complex and diverse needs, and should be reconfigured in order to try to meet them.

Robust evaluation of the effectiveness of different models for improving access to dental care for homeless people is warranted, with the ambition of clarifying the exact scope that appropriate dental services for people who are homeless should take. This would enable the needs of people experiencing homeless to be appropriately addressed.

Conflict of interest

The authors declare no conflicts of interest. The funders had no role in the analysis or reporting of data.

Funding

Public Health England funded this work.

Acknowledgements

The authors would like to thank Public Health England (PHE) for funding this work. We are also extremely thankful to Professor Ruth Freeman, expert in homelessness and dental health, for her assistance in locating further studies. Thank you also to both reviewers for their constructive feedback which helped us expand the interpretation of our findings.

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Figure legends

Fig.1, PRISMA Flow Diagram

Fig.2, Model illustrating the relationship between the themes and domains regarding access of people who are homeless to dental care