Paper submitted for publication – Journal of Clinical Oral Investigations

Title:

Accessibility to oral health care for people on social assistance: a survey of social service providers from Public Welfare Centres in Flanders

Authors:

F. Verheire 1, L. De Visschere 2, Carla Fernandez 1, Martijn Lambert 2, L. Marks 1 .

Affliation and addresses of the authors:

1 Center of Special Care in dentistry, PaeCoMeDiS, Ghent university , Gent, Belgium

2 Community dentistry and Oral Public Health , PaeCoMeDiS, Ghent University , Gent, Belgium

Abstract:

ObjectivesPeople on social assistance consult less for oral health care, despite a higher treatment need. Although the Belgian healthcare system provides protective measures to reduce the financial barrier to care, no data is available on how the target group experiences access to oral health care. The goals of the present study are 1) to explore the characteristics of the Flemish Public Centres for Social Welfare (PCSW’s) concerning oral health care, 2) to explore possible barriers experienced by both people on social assistance and oral health care providers, and 3) to explore the accessibility of general and oral health care for people on social assistance.

Materials and MethodsThis cross-sectional study was performed by means of a validated questionnaire to be filled out by social service providers, working in a PCSW. All PCSW’s in Flanders were invited to participate in this survey.

ResultsFinancial limitations and not prioritizing oral health are the main burdens to oral health care among people on social assistance. They experience greater financial barriers and poorer access to the dentist than the GP. For the dentist, financial concerns and administrative burdens are the main barriers to treat this subgroup. PCSW’s experience reluctance to treat this subgroup among local dentists.

Conclusions Additional efforts are needed to improve the accessibility of oral health care for people on social assistance. Improvements can be made at the organizational level, in informing and motivating the target group.

Clinical Relevance This is the first study on the accessibility of oral health care for people on social assistance in Belgium.

Keywords: dentistry, access to care, social assistance, poverty

Introduction

The link between socioeconomic status and oral health has been confirmed by various studies in the past [1]. Despite the higher treatment need of low-income subgroups, they are less likely to consult for oral health care [2, 3]. This income-related inequity is even more pronounced in case of preventive oral health care [4]. In Belgium, only 20% of people on social assistance received preventive oral health care in 2010-2011, as opposed to 40% in more fortunate groups [5]. Underprivileged people experience multiple barriers to access oral health care, of which financial limitations are the most important to overcome [6]. Other possible obstacles include fear, transport, having other priorities and language restrictions [7, 8]. People on social assistance can experience lower self-esteem and employability due to their declining dental appearance [9]. Organizations such as the WHO have stressed the importance of tackling this social injustice [10].

*The Belgian healthcare system*

In Belgium the dentist is the only professional providing chairside preventive and curative oral health care. Both are almost exclusively delivered in private practice and less than 5% in public clinics, usually hospital based [11]. Most general practitioners (GP’s) and dentists in Belgium work within the state health insurance scheme (under convention) while some combine this with private work or work entirely in the private sector. Belgian citizens once registered with the health care system are free to choose their health care providers. The patients pay the dentist based on a fee-for-service model.

Health care is financed by a social security system. Health insurance is mandatory and is represented by different ‘sick-funds’. These sick-funds provide a partial reimbursement of the costs for the patient. Restorative care, limited preventive care, minor oral surgery and removable dentures are reimbursed at 75% for adults and 100% for children. There is little to no reimbursement for oral implants, orthodontics and indirect restorations [12, 13].

*Approaches to reduce financial barriers*

The Belgian healthcare system provides some protective measures to reduce the financial barrier to health care. Firstly, low-income people can request a status of increased reimbursement lowering the out-of-pocket fees. Increased reimbursement is automatically assigned to each individual receiving social benefits (living wage).

Another measure is the application of a third-party payment. In this system, the patient does not have to advance the whole dental fee. The insurance agency pays the health care provider directly for his services, instead of the patient. The patient only has to pay the part of the treatment cost which is not reimbursed. The application of this measure is very strictly regulated and can only be used for people with an increased reimbursement, being chronically ill or long-term unemployed. For these subgroups, all Belgian general practitioners apply this measure. Dentists, by contrast, are not obliged to do the same [14].

 *The Public Centre for Social Welfare*

The Public Centres for Social Welfare (PCSW) are Belgian governmental institutions providing social assistance at municipal level. These institutions provide financial support and guidance to people with insufficient resources. In order to be eligible for social assistance, conditions have to be met concerning nationality, residence, age, willingness to work and exhaustion of other social benefits. The administered support varies from psycho-social and medical assistance to employment programs, budget counselling and provision of a living wage. In addition, the PCSW is responsible for assisting specific target groups such as asylum-seekers and undocumented migrants [15, 16].

In 2013 the PCSW’s provided a living wage or an employment to 108 924 Belgian citizens and financial support to 21 525 asylum seekers and undocumented migrants. In addition, the PCSW’s financed the medical care of 14 414 asylum seekers/ undocumented migrants [15].

*Health care and social assistance*

The PCSW can assist low-income people in obtaining medical or oral health care. Social service providers can guide them by informing them about the status of increased reimbursement, third party payments and convention. They can also provide direct financial support through a loan or by taking on (a part of) the costs.

In addition, the PCSW is responsible by law for financing ‘emergency medical care’ for illegal immigrants. This ‘emergency medical care’ includes both preventive and curative care [17]. The PCSW also covers the medical expenses of asylum seekers staying in a Local Reception Initiative [18, 19].

Although the Belgian healthcare system provides various protective measures to reduce the financial barrier to care, there are no data are available on how low-income people experience access to oral health care in Belgium.

The aim of the present study was threefold: (a) to explore the characteristics of the Flemish PCSW’s concerning oral health care (e.g. guidelines, collaborations, dental mindedness), (b) to explore possible barriers and difficulties experienced by both people on social assistance and oral health care providers, and (c) to explore the accessibility of general and oral health care for people on social assistance and possible disparities between the two.

Methods

This cross-sectional study explored the perceived accessibility of oral health care of low-income populations by means of a validated questionnaire to be filled out by social service providers, working in a PCSW.

According to the convention of Helsinki, the Ethical Committee of the Ghent University Hospital approved this study as EC/2015/0008.

*Population*
All (N=306) Public Centres for Social Welfare in Flanders were invited to participate in this survey.

*Questionnaire development*

The content of the questionnaire was based on existing research literature (7, 20) and explorative interviews with employees of two PCSW’s. The questions can be divided into three categories content-wise: characteristics of the PCSW’s, barriers and accessibility of oral health care.

A draft questionnaire was developed and evaluated with regard to face and content validity. The questionnaire was further validated through a pilot study in two PCSW’s, in which two separate social service providers completed the questionnaire at two different points in time. The inter- and intra-assessor reliability was qualitatively examined.

Finally, the questionnaire consisted of 37 questions, of which 8 multiple choice questions in part one. The second section included 22 statements. The social service providers were supposed to indicate to what extent they agreed with these statements on a six-point scale, ranging from ‘strongly disagree’ to ‘strongly agree’. They were forced to choose sides, as there was no neutral middle option. There was also an option ‘no information’ provided. The third section consisted of a VAS-scale with seven questions that could be answered by indicating a percentage on a continuous scale from zero to one hundred percent.

*Data collection*

The questionnaire was sent by post to the secretary of each Flemish PCSW in December 2014, along with an explanatory letter and a stamped addressed envelope. The two PCSW’s that participated in the pilot study were excluded. Since there was a high response rate (62,7%), no reminder had to be sent. No questionnaires were excluded.

*Data analysis*

Data were collected in a database and analyzed using SPSS statistics 22.0.
Descriptive frequencies were calculated for all categorical variables. For all continuous variables the median, mean, standard deviation, minimum and maximum were computed.

The significance level was set at p<0.05. All statements that were originally rated on a six-point scale with the additional option ‘no information’, were recoded into three categories: ‘disagree’, ‘agree’ and ‘no information’. Respondents who selected the option ‘no information’ were excluded from statistical analysis for the respective statement.

Chi-square tests were used to test the relation between different categorical variables. If the conditions of the chi-square test were not met, the Fisher’s exact test was used. The McNemar-test and Cochran’s Q-test were used to compare proportions of paired samples. The Mann-Whitney U test, the Friedman test and Kruskall-Wallis-test were used for statistical analysis based on continuous variables.

Results

*Characteristics of the participating PCSW’s*

For this study 306 Flemish PCSW’s were contacted, of which 192 responded (62,7%) (Figure 1). In each province a response rate higher than 50% was obtained (Table 1). The vast majority of the participating PCSW’s operated in a municipality with less than 25 000 residents (75,5%). Only 5,2% of the PCSW’s had a working area of more than 50 000 residents. A comparison of this data with recent population figures shows a proportionally higher response rate of PCSW’s with a working area of >50 000 residents (>80%) as opposed to PCSW’s with a working area of <25 000 residents (<60%).

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Legend**Fig. 1:** Geographical distribution of the responding PCSW's in Flanders◼ Brussels◼ Participating PCSW’s◼ PCSW’s pilot study  |

|  |  |
| --- | --- |
| Province | Response rate |
| Antwerp | 55,7% |
| West Flanders | 70,6% |
| East Flanders | 57,8% |
| Limburg | 52,3% |
| Flemish Brabant | 61,5% |

**Table 1:** Response rate by province |

The frequency in which PCSW’s have guidelines concerning the support of their clients in need of dental treatment varies depending on the target group (p<0,001). PCSW’s are more likely to have guidelines for asylum seekers (63,0%) and undocumented migrants (58,2%) than for their clients who receive a living wage (36,8%) or budget counselling (36,2%). Only 26,6% has guidelines for all subgroups, while more than 30% has no guidelines at all.

Fifty nine percent of PCSW’s advises their clients to use the on-call service for dental urgencies, but only a minority does so systematically (12,2%). Forty seven percent encourages preventive dental check-ups. When the PCSW’s take on the costs of a dental treatment, the dentist are usually paid within a month (73,9%).

Collaborations are not limited to GP’s and dentists who work under convention (44,7% and 42,6% respectively). Only a minority works exclusively with GP’s (18,8%) and dentists (16,8%) that accept the third-party payment system.

Based on these characteristics the dental mindedness of the PCSW’s was determined (Table 2). This describes the extent to which PCSW’s pay attention to the oral health of their beneficiaries and their cooperation with local dentists. Only 17 PCSW’s satisfy all requirements. Statistical analysis revealed no significant positive effect of a good dental mindedness on the accessibility to oral health care, the communication with local dentists or the reluctance of local dentist to treat people on social assistance.

|  |  |
| --- | --- |
| Conditions dental minded PCSW | Percentage |
| Guidelines for at least 3 subgroups of PCSW-beneficiaries | 36,4 |
| Payment of the dentist within a month | 73,9 |
| Advise the use of the on-call service for dentists in emergencies | 59,3 |
| Encourage preventive dental check-ups | 47,1 |
| Number of satisfied conditions | Dental mindedness PCSW | Percentage |
| ≤ 1 | Negative  | 25,4 |
| 2 | Moderate | 39,3 |
| ≥ 3 | Positive  | 35,3 |

**Table 2:** Dental attitude of the PCSW's

 *Barriers*Social service providers label financial limitations and not prioritizing oral health the most important barriers to oral health care for people on social assistance(Figure 2). Fear, shame and language restrictions are other potential, but less important barriers. Financial barriers for general medical care are also apparent (80,6%), but these barriers are more often reported for the dentist than the GP (p<0,001). The knowledge of PCSW-beneficiaries on existing measures to reduce the financial barrier to oral health care (such as third party-payment) was low (34,9%), but the reported percentages vary greatly depending on the municipality (SD 20,47%).

One fifth of the PCSW’s (19,4%) declared that their clients experience social discrimination in the dental office.

**Fig. 2:** Barriers to dental care experienced by people on social assistance

According to the social service providers, dentists also experience various barriers to treat underprivileged patients, of which financial issues and additional administration are the most important (Figure 3). Many PCSW’s however could not assess these barriers, which is reflected in a frequent choice for the option ‘no information’ (n=55) and a high number of missing values (n=30). As shown in figure 4, the extent to which dentists are reluctant to treat people on social assistance varies depending on the target group (p<0,001), as assessed by the social service providers. Dentists are more reluctant to treat undocumented migrants (mean 34,9%) and asylum seekers (mean 27,6%) compared to people on a living wage (mean 23,8%) or budget counselling (mean 21,6%).

**Fig. 3:** Barriers to treating people on social assistance experienced by dentist

About 15% of the PCSW’s experiences communication issues with the local dentists. The occurrence of discussions between social service providers and local dentists on the necessity of a dental treatment are reported by 27,2% of the PCSW’s. These discussions occur more frequently (46,8%) with the PCSW-beneficiaries.



**Fig. 4:** Dentist's reluctance to treat people on social assistance

*Accessibility to (oral) health care*

As shown in Figure 5, people on social assistance experience more difficulties accessing oral health care as opposed to medical care, both in urgent (p<0,001) and non-urgent situations (p<0,001). Seventy seven percent (77,4%) of the PCSW’s expressed that the GP is more accessible than the dentist. More difficulties are experienced in emergency situations compared to non-urgent situations, and this difference is statistically significant for both medical (p=0,002) and dental (p=0,001) care.

**Fig. 5:** Accessibility to the GP and dentist

*Improving access to oral health care*

The Belgian government provides several social measures to reduce financial barriers to care. In this study it was examined whether the knowledge of people on social assistance on these measures, can really reduce the financial barriers they experience. However, statistical analysis could not confirm this (p=0,471).
As already mentioned, the dental mindedness of social service providers has no significant impact on the accessibility of oral health care, the communication with local dentists or the reluctance of local dentist to treat people on social assistance.

PCSW’s who provide a fast payment to the dentist experience less reluctance from local dentists to treat people on social assistance (p=0,016).

Discussion
The response rate of this study (62,7%) is notably higher than the average response rate of studies that collected data from organizations (35,8%, SD 18,8%), as described by Baruch and Holtom [21]. This could indicate that the social service providers who participated in the present study have a keen interest in the accessibility to oral health care for their beneficiaries.

Previous studies on the accessibility to oral health care were mainly focused on the perception of either the dentist [20, 22, 23] or the deprived target group [8, 9]. This study involved a survey of social service providers, who are in contact with both parties. Consequently a larger target group could be reached, although indirectly. Wallace and Macentee (2011) already included social service providers in their research on the accessibility of dental care through interviews based on open questions, albeit on a smaller scale (n=13) [7].

PCSW’s do not limit their collaborations to health care providers who accept the convention and/or third-party payment. Since people on social assistance have little knowledge of these measures [24], they may not always opt for healthcare providers who meet these requirements. Furthermore, in some provinces more than half of the dentists do not accept the convention [25]. A recent survey of Belgian GP’s also showed limited enthusiasm for and use of third-party payment, due to the deferred payment and administrative burden [26]. The results of the present study are therefore not surprising.

According to this study, financial limitations are the most important barriers to dental care. This is consistent with the findings of Wall, Nasseh and Vujicic (2014) [6]. The Belgian healthcare system however provides various protective measures to reduce this financial barrier [14]. The majority of people on social assistance is unaware of these measures, as reported by social service providers. Informative campaigns could therefore be the first step to reduce financial barriers, but our findings could not prove this hypothesis. This study suggests that oral health care has low priority for people on social assistance, which is also shown by Wallace and Macentee (2011) [7]. While language barriers are not a major problem for all PCSW’s (mean 20,1%), this turn out to be a noteworthy problem in the larger municipalities. In fact, seventy percent of the PCSW’s with a working area of more than 50 000 residents considers this to be a barrier.

Financial limitations and administrative burdens are, according to the present study, the main reasons why dentists are reluctant to treat PCSW beneficiaries. Previous studies confirm these results and additionally cite that dentists are frustrated by the often irregular attendance of people on social assistance [20, 23, 27]. Dentists are therefore often not keen to treat this target group. The present study suggest that on average 21,6% up to 34,9% of dentists are reluctant to treat people on social assistance. This reluctance is similarly found in other western countries. Desprès (2010, France) experienced a 39,1% refusal rate among dentists for treating low-income people with a complementary health insurance [22]. This problem is also encountered in the US. A study by the United States General Accounting Office showed limited dentist participation in the Medicaid program [27]. In 27 of 39 participating states fewer than half of the dentists treated at least one Medicaid patient in 1999.

The present study results revealed that dentists are more reluctant to treat undocumented migrants and asylum-seekers compared to low-income people with a Belgian nationality. This could possibly be explained by the additional effort and time that is required for communication due to language barriers and sociocultural differences. Furthermore, racism could play a role but no conclusive literature is available on this subject. The observed dispersion of the refusal rate was considerable. The percentage of dentists reluctant to treat people on social assistance varies from zero to one hundred percent, depending on the municipality. In certain municipalities the problem is thus substantial.

The influence of social service providers on the attitude of dentists seems to be limited. Dental minded PCSW’s did not experience less reluctance among local dentists nor less communication issues.

Furthermore, this study revealed that people on social assistance experience more difficulties accessing oral health care as opposed to medical care, both in emergencies and non-urgent situations. This is presumably mainly due to the financial barrier which is more apparent for the dentist than for the GP. Dental fees are often unpredictable and can add up quickly without the use of a third-party payment. Moreover, one of the Flemish professional dental organizations recently raised awareness to the growing lack of dental workforce (28). The aging and feminization of the dental profession in Belgium and an increased dental awareness in modern society cause supply-related barriers. This can increase the waiting time for dental appointments. As low-income people tend to consult in emergencies, these waiting times can pose a problem. Fewer problems are encountered concerning the accessibility of GP’s, since no appointment is needed during consulting hours.

While the chosen study design had practical advantages and made it possible to reach a large target group, the setup also created some limitations. Although social service providers are in contact with both people on social assistance and local dentists, they do not always have accurate insight into their perceptions. For certain questions, this is reflected by many missing values and a frequent choice of the option ‘no information’. In addition, all questions answered by a VAS-scale showed a high variety, each with a standard deviation >20%. Finally, some less relevant questions could have been excluded from the questionnaire.

Conclusions

In Flanders, additional efforts are needed to improve the accessibility of oral health care for people on social assistance. For this purpose, they should be informed and motivated. Furthermore, the interaction between the PCSW and the dentist can be made more effective concerning guidelines and collaborations with local health care providers. And, finally, treatment of people on social assistance should be made more appealing to the dentist by reducing the administrative burden and ensuring timely payment. Further investigations (also in Brussels and Wallonia) and insight in the perspective of dental professionals are needed to make policy changes.

References

1. Schwendicke F, Doerfer CE, Schlattmann P, Page LF, Thomson WM, Paris S. Socioeconomic Inequality and Caries: A Systematic Review and Meta-Analysis. J Dent Res. 2015;94(1):10-18.

2. Tchicaya A, Lorentz N. Socioeconomic inequalities in the non-use of dental care in Europe. Int J Equity Health. 2014;13:7.

3. Hjern A, Grindefjord M, Sundberg H, Rosen M. Social inequality in oral health and use of dental care in Sweden. Community Dentist Oral Epidemiol. 2001;29(3):167-74.

4. Grignon M, Hurley J, Wang L, Allin S. Inequity in a market-based health system Evidence from Canada's dental sector. Health Policy. 2010;98(1):81-90.

5. Henin E. Rechthebbenden op het leefloon: vinden zij hun weg in het gezondheidssysteem? CM-Informatie. 2013(253):25-36.

6. Thomas Wall MA, M.B.A.; Kamyar Nasseh, Ph.D, Marko Vujicic, Ph.D. Research brief: Most important barriers to dental care are financial, not supply related. 2014.

7. Wallace BB, Macentee MI. Access to dental care for low-income adults: perceptions of affordability, availability and acceptability. Journal of community health. 2012;37(1):32-9.

8. O'Donnell CA, Higgins M, Chauhan R, Mullen K. "They think we're OK and we know we're not". A qualitative study of asylum seekers' access, knowledge and views to health care in the UK. BMC Health Serv Res. 2007;7:75.

9. Bedos C, Levine A, Brodeur JM. How People on Social Assistance Perceive, Experience, and Improve Oral Health. J Dent Res. 2009;88(7):653-7.

10. Health CoSDo. CSDH final report: closing the gap in a generation: health equity through action on the social determinants of health. Geneva, Switzerland: World Health Organization, 2008.

11. Widstrom E, Eaton KA. Oral healthcare systems in the extended European union. Oral Health Prev Dent. 2004;2(3):155-94.

12. Ridder RD. Belgian health care system. website COOPAMI: INAMI, 2010.

13. Vanobbergen J. The Belgian Oral Health Care System (part of General Health Care System). Community Oral Health p462: Quintessence Publishing Co. Ltd; 2007.

14. Rijksinstituut voor ziekte- en invaliditeitsverzekering. Financiële toegankelijkheid van uw gezondheidszorg. [updated 18/09/2014. Available from: http://www.riziv.fgov.be/nl/themas/kost-terugbetaling/financiele-toegankelijkheid/Paginas/default.aspx#.VOmaVIuG-3M.

15. POD Maatschappelijke Integratie. Statistisch rapport. 2015 Jan. Report No.: 10.

16. Cincinnato S, Nicaise I. Minum Income Schemes: panorama and assessment. A study of National Policies. Belgium. European Commission 2009.

17. Koninklijk besluit betreffende de dringende medische hulp die door de openbare centra voor maatschappelijk welzijn wordt verstrekt aan de vreemdelingen die onwettig in het Rijk verblijven, KB 12.12.1996 (1996).

18. POD Maatschappelijke Integratie. Mediprima: de hervorming van de medische hulp uitgevoerd door de OCMW's. 2013.

19. Druyts E, Evenepoel V, Neuckens D, Somers E, Crauwels F, Vanvinckenroye M. Dringende medische hulp voor mensen zonder wettig verblijf: Handleiding voor OCMW's en zorgverstrekkers. vzw Medimmigrant; 2006.

20. Bedos C, Loignon C, Landry A, Allison PJ, Richard L. How health professionals perceive and experience treating people on social assistance: a qualitative study among dentists in Montreal, Canada. BMC Health Serv Res. 2013;13:9.

21. Baruch Y, Holtom BC. Survey response rate levels and trends in organizational research. Human relations. 2008;61(8):1139-60.

22. Desprès C. La couverture maladie universelle, une légitimité contestée: analyse des attitudes de médecins et dentistes à l'égard de ses bénéficiaires. Pratiques et Organisation des Soins. 2010;41:33-43.

23. Pegon-Machat E, Tubert-Jeannin S, Loignon C, Landry A, Bedos C. Dentists' experience with low-income patients benefiting from a public insurance program. European journal of oral sciences. 2009;117(4):398-406.

24. RIjksinstituut voor ziekte- en invaliditeitsverzekering. Pilootproject Mondzorg voor Personen met Bijzondere Noden. 2011.

25. Adhesion accord dento-mutualiste: tableau arrondissement 2015-2016 [Internet]. 2015 [cited 17/10/2015]. Available from: http://www.inami.fgov.be/nl/professionals/individuelezorgverleners/ tandartsen/Paginas/toetreding-nationaal-akkoord-tandartsen-ziekenfondsen.aspx#.ViJN8v77LDc.

26. De Pape N. Meeste huisartsen tegen uitbreiding derde betaler. Artsenkrant. 2015 13/03/2015:1,6-7.

27. United States General Accounting Office. Factors contributing to low use of dental services by low-income populations. 2000 oct. Report No.: 00-149.

28. Vlaamse Beroepsvereniging voor Tandartsen. Tandartsentekort wordt acuut. 2015 [updated 04/03/2015. Available from: http://www.vbt2punt0.be/verkiezingsthemas/tandartsentekort-wordt-acuut.