Advancing toward inclusivity in dentistry; A focused ethnography

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This thesis is dedicated to Reera Esmaelion, to the memory of her shining eyes

To Parisa Eghbalian, to the memory of her warm smile

And to **Hamed Esmaeilion**, in honour of the shine and warmth obliterated from him, and in tribute to his noble anger, as well as his wise words and decisive actions in the pursuit of justice.

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English Abstract

Background: Dental professionals seem inadequately prepared to serve the 6.2 million Canadians who experience disability, especially wheelchair users. Some dental clinics, though, have modified their delivery models, improved their physical environments, and adopted welcoming attitudes toward them. Such accessible clinics are scarce and given their remarkable success in providing oral healthcare for persons with disabilities, we consider them as "champion" clinics.

These champion clinics are important in our society because they provide a safe place for people with disabilities to receive quality dental care. They are also important for researchers, dental educators, and dental professionals because they can serve as models to make other clinics inclusive. It is thus essential to better understand how these clinics function, and how their human and physical environments have been organized to serve people with disabilities. This research aims to describe the characteristics of champion clinics and understand how their human and non-human (physical) environments contribute to their accessibility.

Methodology: We conducted a focused ethnography to understand the culture of one informationrich champion clinic in Montreal. We organized semi-structured interviews with dental team members and patients. We also conducted observations focused on patients' pathways within the clinic, including their interaction with the clinic's non-human (physical) and human environment. Data collection was guided by a conceptual framework known as the "model of competence," which emphasizes the interaction of a person with the human and non-human environments of a caring facility. We then performed a thematic analysis with a combination of inductive and deductive coding. In this process, we were assisted by MAXDA software. **Findings:** Our analysis shows that the members of the dental team used person-centred approaches, which allowed them to overcome the physical and financial limitations of people with disabilities. More importantly, some deficiencies in the non-human environment were covered by the personnel's attitudes and humanistic approaches. The clinic had a low-stress work environment shaped by three components: a practical non-human environment, team members' humanistic and empathetic attitudes, and the dentist's non-business mindset. Consequently, this low-stress work environment provided sufficient time and space for the dental team to pay attention to each patient's needs and hold person-centred approaches.

Conclusion: Several factors shape clinicians' willingness to become inclusive: their level of empathy, social accountability, and their non-business mindset. By having the mentioned characteristics, dentists may overcome the financial and physical challenges of inclusivity using person-centred approaches. So, we suggest that dental schools emphasize on person-centred care in their curricula, and try to promote empathy, social accountability, and inclusion. Moreover, we suggest their admission committees modify their policies to admit students with higher levels of empathy and social accountability. In the end, we suggest healthcare systems to change the remuneration system and pay dentists more for providing service to people with disabilities. A more fundamental change would be taking dentistry to the public sector, and foster inclusive human and non-human environments.

French Abstract

Contexte : Les professionnels dentaires semblent mal préparés pour servir les 6,2 millions de Canadiens en situation de handicap, en particulier les utilisateurs de fauteuils roulants. Certes, certaines cliniques dentaires ont modifié leurs modèles de prestation, amélioré leur environnement physique et adopté des attitudes accueillantes à leur égard. Mais de telles cliniques « championnes » sont rares.

Ces cliniques championnes sont importantes à plus d'un titre. D'abord parce qu'elles offrent un endroit sécuritaire où les personnes handicapées reçoivent des soins dentaires de qualité, mais aussi car elles peuvent servir de modèles pour rendre d'autres cliniques inclusives. Il est donc essentiel de mieux comprendre le fonctionnement de ces cliniques, et comment leur environnement humain et physique a été organisé pour servir les personnes handicapées.

Cette recherche, par conséquent, vise à décrire les caractéristiques de cliniques championnes et à comprendre comment leurs environnements humain et non-humain contribuent à leur accessibilité.

Méthodologie : Nous avons mené une ethnographie ciblée pour comprendre la culture d'une clinique championne riche en informations à Montréal. Nous avons organisé des entretiens semistructurés avec les membres de l'équipe dentaire et les patients, et mené des observations axées sur les parcours de patients au sein de la clinique. La collecte de données a été guidée par un cadre conceptuel connu sous le nom de « modèle de compétence », qui met l'accent sur l'interaction d'une personne avec les environnements humain et non-humain d'un établissement de soins ou d'un logement. Nous avons ensuite effectué une analyse thématique avec une combinaison de codage inductif et déductif. Dans ce processus, nous avons été assistés par le logiciel MAXDA. **Résultats :** Notre analyse montre que les membres de l'équipe dentaire ont utilisé des approches centrées sur la personne, ce qui leur a permis de surmonter les limitations physiques et financières des personnes handicapées. Plus important encore, certaines lacunes de l'environnement non-humain étaient compensées par les attitudes et les approches humanistes du personnel soignant et non soignant. La clinique avait un environnement de travail à faible stress façonné par trois éléments : un environnement non humain pratique, les attitudes humanistes et empathiques des membres de l'équipe et l'état d'esprit non commercial du dentiste. Par conséquent, cet environnement de travail peu stressant fournissait suffisamment de temps et d'espace à l'équipe dentaire pour prêter attention à chaque patient et adopter des approches centrées sur la personne.

Conclusion : Plusieurs facteurs façonnent la volonté des cliniciens de devenir inclusifs : leur niveau d'empathie, leur conscience des responsabilités sociales et leur état d'esprit non commercial. Ces caractéristiques aident les dentistes à surmonter les défis financiers et physiques de l'inclusivité en utilisant des approches centrées sur la personne. Nous suggérons donc que les écoles dentaires mettent l'accent sur les soins centrés sur la personne dans leurs programmes et essaient d'accroître l'empathie, et la conscience sociale des futurs dentistes. De plus, nous suggérons à leurs comités d'accepter des étudiants ayant des niveaux d'empathie et de conscience sociale élevés. En fin de compte, nous suggérons aux systèmes de santé de modifier le système de rémunération des soins buccodentaires et de payer davantage les dentistes pour la prestation de services aux personnes handicapées. Un changement plus fondamental serait de faire entrer la dentisterie dans le secteur public et d'y préparer des environnements humains et non humains inclusifs.

Chapter 1: Introduction

According to the WHO, over one billion people experience disabilities in the world. (1) In Canada, approximately one out of ten persons have some degree of physical limitations, making this type of disability one of the most prevalent ones. (2) Physical disabilities put people at risk of various diseases and health conditions, which is partially due to their reduced ability to improve their health and prevent disease. For example, they have fewer opportunities for doing physical activities, resulting in a higher risk of cardiac diseases. (3) Concerning oral health, the status of people with disabilities is generally poorer than the overall population, since they are less likely to perform preventive oral hygiene measures, or simply because oral health may not be a priority for their caregivers due to the complexity of daily life. (4)

For decades, disability rights activists have argued that the mentioned 'complexity of daily life' was not a natural, inevitable outcome of having an impairment, but the result of the unpreparedness of our societies to respond to people's needs. They have advocated for a change in the mindset of policymakers to increase the accessibility of several environments, improve their inclusivity, and consequently allow people's active and healthy life. Improving the accessibility of healthcare services and facilities has been among the requested changes. (5) Although advances have happened in this sector, the current situation in healthcare is far from ideal. Barriers to access have resulted in remarkably higher rates of unmet healthcare needs among people with disabilities in developing and developed countries. (1)

The situation with respect to oral healthcare facilities is not much different. While access to oral healthcare is already relatively low for the general population, several barriers have caused additional challenges for people with physical disabilities. These barriers include affordability and

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the lack of willingness and preparedness of dental practitioners to welcome people with physical limitations. The availability and physical accessibility of oral health services are also essential for people with physical disabilities, especially for those using assistive devices such as walkers and wheelchairs. (6)

In Canada, a country with more than 250,000 people using assistive devices, some healthcare facilities may be accessible. (7) Such clinics are scarce, though, and because of their success in providing oral healthcare for persons with disabilities, many professionals consider them as "champions". Obviously, these champion clinics are important in our society because they provide a safe place for people with disabilities to receive quality dental care. They are also crucial for researchers, dental educators, and dental professionals because they can serve as models to make other clinics inclusive. Yet very little is known regarding how these clinics function, how they have developed their human and non-human environments, and what the knowledge, attitudes, and skills of their personnel are.

It is thus essential to identify these champion clinics, study the way they function and learn from the healthcare workers there. Then, by presenting them as models of inclusivity to current and future dentists, we hope that people with disabilities will have increased access to quality oral healthcare services.

Chapter 2: Literature Review

2.1. Disability

2.1.1. Key terms and definitions

According to the Merriam-Webster Dictionary, disability is defined as "A physical, mental, cognitive, or developmental condition that impairs, interferes with, or limits a person's ability to engage in certain tasks or actions or participate in typical daily activities and interactions." (8) Although this brief definition adequately addresses the limitations as consequences of disability, it fails to mention the underlying causes of the mentioned limitations. In other words, this definition implies that in individuals with a disability, it is the impairment that causes limitations and deprives people of routine activities and interactions. For decades, people with disabilities and activists have criticized this way of definition and campaigned to change this simplistic view. To explain their efforts, and present the details of the mentioned improvements, first, I must clarify some terms regarding disability.

2.1.2. Medical and social models of disability

For years, the medical model had been the dominant way of defining, understanding, and studying disability. Based on this model, it was generally accepted that people with different levels and types of impairments were unable to do certain tasks because of their impairments. The main flaw of the medical model is its reductionist vision, as it does not consider the environment as a contributing factor to disability. This lack of attention to the environment resulted in placing the source of the issue within the individual, and, consequently, searching for the solution merely within the individual's characteristics. This disregard is one of the main reasons why another model has introduced in the mid-1970s; the social model. (9)

According to the WHO, disability is defined by the interactions between persons' physical or mental health conditions and the human and environmental factors surrounding them. (1) As can be understood from the WHO's definition, this paradigm defines disability by emphasizing the environment surrounding individuals with health conditions, as well as the health condition itself. (10)

2.1.3. Development of the social model; A brief history

Before 1960, there was no worldwide disability rights movement. Globally, few separated groups of medical specialists and organizations for disabled persons were active for years. Their main domain of activity was providing services for their members and increasing public awareness of their specific needs. In other words, advocating for the rights of people with disabilities, or initiating a social change regarding them were not among their goals. (5)

Starting from the early1960s, several groups of people with different disabilities started activities that resulted in the birth of the "Disability Rights Movement." In the US, for instance, the concept of "independent living" was supported by some of these groups. Inspired by the black and women's rights movements, disability rights activists in the US advocated for people with disabilities to have more control over their lives. They wanted society to do more. In the UK, activists with disabilities expressed that separating people with disabilities from the community and trying to provide them services in social confinements were not fair. The mentioned international activists and groups acted separately and were not aware of the presence of each other until 1981. However, they all shared one core belief that disability happens when the obstacles in society do not allow people with impairments to perform their roles and activities in the society.

In 1981, these separate groups came together and worked with the United Nations to produce the World Program of Action concerning Disabled Persons, which was accepted by the United Nations General Assembly in 1983. According to this program, governments agreed to provide equal and inclusive environments where people with disabilities could live actively. (5)

The principal idea of the social model of disability is that the disability does not come from the impairment, but from the barriers in society. (11) All versions of the social model share this core notion of the distinction between impairment and disability. Impairment is defined as a characteristic of the body or mind, such as feeling depressed, being partially deaf or lacking an arm. In comparison, disability is the loss or restriction of one's capacity to participate in communal life on an equal level with the rest of society. Therefore, unlike impairment, disability is rooted in the environment in which people with impairments live. (12)

2.2. WHO's Classification of disabilities

Evolutions happened in the early 1980s, when the WHO published the ICIDH (International Classification of Impairments, Disabilities and Handicaps), a classificatory tool inspired by the social model of disability. However, activists were not satisfied because they considered that the model did not fully address the impacts of the environment on the lives of people with disabilities. This was partially because ICIDH was not clear about the role of the environment in defining disability, and used vague and sometimes paradoxical language to describe it (9): "Disadvantage occurs as a result of being unable to conform to the norms of his [or her] universe. Handicap is thus a social phenomenon, representing the social and environmental consequences for the individual stemming from the presence of impairments and disabilities." (13)

Therefore, ICIDH was mainly used by practitioners who focused on the individual and considered the environment unchangeable. (9) In 2001, as a response to the deficiencies in the previous classification, WHO issued the ICF, International Classification of Functioning, Disability and Health, as a framework to categorize different types of disabilities. Various professionals accepted this model as a standard classification system. One focus of the ICF is how environmental factors shape the real-life experience of people with disabilities, and how people's potential abilities are different from their real performances. (9)

The benefit of this model for the person is that all their surrounding context is recognized and addressed. According to this model, any improvement in the life quality in people with disabilities entails some levels of change in their surrounding environments. (14)

2.3. Demography of people with disabilities

2.3.1. The world

Currently, around 15% of the world population, more than one billion people, have some form of disability. More importantly, considering the temporary nature of some impairments, almost 21% of all human beings experience some levels of physical or mental disability throughout their lives. This proportion is rising because of ageing populations and the increased prevalence of non-communicable diseases. Globally, around 4% of adults aged 15 and older have significant functional impairments, necessitating healthcare services. (1)

According to the ICF, disabilities are classified into subcategories, and mobility/physical disabilities are among these subcategories. Some people with such disabilities have functional limitations and require assistive devices to perform their daily activities. Among the assistive devices, the wheelchair is one of the most widely used devices for facilitating the mobility of

individuals with disabilities. It is estimated that 1 % of the world's population requires a wheelchair. (15)

2.3.2. Canada

In Canada, one out of five individuals experiences one or more disabilities. Age is a remarkable contributing factor, since almost half of Canadian citizens over 75 years have disabilities, compared to 13% for people between 15 and 24. Gender is another contributing factor, and women experience disabilities more than men. (16) Mobility disabilities are among Canada's most prevalent types of disability, as in 2017, 2.7 million Canadians aged 15 and older had a mobility disability. Regarding the number of wheelchair users, it is estimated that 288,800 people over 15 were using wheeled mobility devices in 2012, around 1% of the Canadian population. More than two-thirds of these devices were manual wheelchairs. (17, 18)

In Quebec, among people aged 15 and more, 16.1% were living with a disability in 2017, (19) which constitutes the lowest rate among all Canadian provinces. Similar to the other provinces, the percentage of women with disabilities is higher than men. (20) Regarding assistive devices in this province, around 8% of people with motor disabilities use wheelchairs. (21)

2.4. Socioeconomic status of people with disabilities

2.4.1. Education

Historically, many people with disabilities have been deprived of regular education. The government offered separate special schools for them, but these schools did not serve the purpose of inclusivity because they were usually located in urban areas and kept children with disabilities apart from their family members and communities. In addition, only a small proportion of the population in need could use the service, and the rest could not receive formal education. Overall,

children with disabilities show lower rates in both beginning education and staying in school. According to WHO, this education gap is one of the reasons why there is a gap in the job market between people with and without disabilities. (22)

2.4.2. Employment

Article 27 of the United Nations Convention on the Rights of Persons with Disabilities (CRPD) "recognizes the right of persons with disabilities to work, on an equal basis with others; this includes the opportunity to gain a living by work freely chosen or accepted in a labour market and work environment that is open, inclusive and accessible to persons with disabilities" (22)

Despite this statement, and although people with disabilities can perform almost all jobs, it is documented that they have remarkably higher unemployment rates. The literature also shows a direct negative relationship between the severity of the disability and employment rates. In Canada, for instance, the employment rate for people with mild disabilities is 68%, but only 26% for people with severe disabilities, compared to 80% among people without disabilities. (23)

As previously mentioned, the education gap is in part responsible for people with disability unemployment. Another reason is the physical environments in some workplaces, which cause access problems for people with disabilities and, therefore, hinder them from having jobs. Since schooling and occupation are important social determinants of health, the education and employment gaps negatively impact the health of people with disabilities. They also cause another negative outcome of disability; poverty. (24, 25)

2.4.3. Poverty

Throughout the world, people with disabilities face more poverty than the general population. The global dispersal of people with disabilities shows another aspect of this financial gap, where 80%

of persons with disabilities live in low- or middle-income countries. (1) Even within high-income countries, people with disabilities experience more poverty than those without disabilities. In Canada, for instance, almost a quarter of people with disabilities are low-income, compared to only 9% percent of people without disabilities. (26)

In Quebec, people with disabilities have lower education and employment rates, as well as higher poverty rates. Regarding education, people with disabilities are more likely to leave secondary school without a diploma and less likely to have a college or university degree. Regarding employment, only half of the people with disabilities aged between 15 and 64 are employed, while the proportion for those without disabilities is two-thirds. Consequently, in 2016 in Quebec, one-third of the disabled population had a yearly income of under 15,000\$, compared to 22% among people without disabilities. (19)

2.5. Health status of people with disabilities

2.5.1. Definition of health

The WHO defines health as "a state of physical, mental, and social well-being and not merely the absence of disease or infirmity." It is evident that good health is necessary for human beings to participate in crucial activities such as education and employment. (22)

2.5.2. Health profile

Generally, people with disability have poorer health than the overall population. (27) That is in part because they are more susceptible to specific health problems due to their impairments. One or more of the following situations may be the cause of this higher vulnerability:

- Compared to people without disabilities, people with disabilities have fewer opportunities to maintain their health and prevent disease. For instance, people with mobility disabilities have fewer chances to do aerobic exercises which results in higher cardiovascular diseases.
- Individuals with mobility disabilities that happened at younger ages have a higher risk of developing chronic diseases such as coronary disease or diabetes.
- A particular health condition in a person with disabilities may need more complicated and longer treatment compared to the same condition in a person without disabilities. This treatment process sometimes requires personal assistance, which makes the process more expensive. (3)

In sum, people with disabilities need healthcare services for three main reasons: for dealing with their impairments, with the health conditions induced by the impairment, and finally, for the same reasons that all human beings need healthcare services: staying healthy, and being an active part of the communities. (22)

2.5.3. Oral health profile

Generally, people with disabilities have worse oral health status than those without disabilities, regardless of age. (28) Research has indicated differences in the oral health profile of people with different types of disabilities. In South Korea, for instance, a study showed a remarkably higher DMFT index in people with disabilities compared to the general population. Among people with disabilities, the DMFT was the highest for people with multiple disabilities, followed by people with mental disabilities and people with physical disabilities. (4)

As mentioned about the general health status, the oral health status of people with disabilities is affected by several conditions related to their impairments, conditions that make the prevention and the treatment of oral disease more complicated. Here I will discuss the former problem, the prevention of oral health diseases, by mentioning some examples:

- Many learning disabilities cause inherent risks to oral health. For instance, people with Down's syndrome tend more to breathe from their mouths, which results in an excessively dry mouth, causing trouble with oral hygiene. (29)
- Many caregivers face challenges with feeding people with multiple disabilities. This causes a tendency to provide them with high-energy food supplements, mostly full of sugar, that increase the risk of tooth caries. Moreover, the medications prescribed for people with severe disabilities are usually in syrup form which is cariogenic. (29)
- For people with severe disabilities and their caregivers, oral hygiene may not be a high priority due to the complexity of the other services they need. (29)

Regardless of the mentioned inherent higher risk of general and oral health diseases due to impairments, serious barriers hinder access to healthcare that make the treatment of diseases more complicated in people with disabilities. In the following section, I will discuss the situation regarding access to healthcare for people with disabilities.

2.6. Access to healthcare

2.6.1. Access to medical care services

All around the world, people with disabilities face challenges regarding their access to healthcare. In the US, for example, among the so-called vulnerable populations, people with disabilities use the healthcare system the most. Despite this high proportion of the received services, they report remarkable access problems caused by a set of physical, social and communication barriers. (3) Access to healthcare is defined as the opportunity and ease of using appropriate health services based on the consumers' needs. (30) Health researchers have various interpretations of the concept of access. To respond to the diversity of definitions, Levesque et al. (30) introduced a framework including different healthcare access dimensions.

In their model, they consider access to oral healthcare as a process resulting from an interaction between supply and demand. On the supply side, they proposed five dimensions of accessibility: Approachability, acceptability, availability and accommodation, affordability, and appropriateness. On the demand side, they mention five people's abilities that mirror the dimensions of accessibility: Abilities to perceive, seek, reach, pay for, and engage in healthcare services (30)

Based on this framework, it is understood that access to healthcare could be restricted if there is a deficiency on the supply or the demand side. In the case of people with physical disabilities and wheelchair users, factors such as lack of an accessible entrance in the nearby clinics, or the scarcity of accessible public transportation may threaten the accessibility of healthcare. (30)

The mentioned access problem causes unmet healthcare needs. Generally, needs are called unmet when a specific health issue is not addressed, the care is not adequate, or the service is assessed as unsuitable by the recipient. While unmet healthcare needs are an increasing concern worldwide, they are remarkably higher in people with disabilities in both high and low-income countries. Unmet healthcare needs impact people's general health, independence, and quality of life. (31) In Canada, people with disabilities experience two to three times higher unmet medical needs compared to the general population. (32)

2.6.2. Access to oral health services:

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Globally, access to oral healthcare for the general population is often low. (33) This low access to oral healthcare could be explained by two significant barriers: In many countries, the number of oral healthcare facilities is low, and the distribution of dentists is not equal. Moreover, dental care is expensive, with an average of 20% out-of-pocket expenditure. This has made dental care a universal problem, regardless of the economic situation of countries. (33)

Compared to the general population, people with disabilities, have even lower access to oral healthcare. As a result, dental care is among the most prevalent unmet health care needs of people with disabilities (34, 35). The scientific literature has mentioned several barriers to people with disabilities' access to oral healthcare. In the following sections, I will discuss three important ones: Availability and accommodation; affordability and ability to pay; and appropriateness.

2.6.2.1 Availability and accommodation:

The lack of dental clinics or their non-accessible physical characteristics is one of the critical barriers to access to oral healthcare for people with physical disabilities. Locations difficult to reach, improper and inaccessible transportation means, and a lack of accessible parking lots are examples of this type of barrier. There are also serious physical barriers within dental care facilities. Dental clinics on higher floors of buildings without elevators or facilities with narrow doors and corridors cause severe difficulties for wheelchair users to enter and circulate. Lack of suitable toilet facilities and lack of handrails are among other characteristics hindering physical access. (36, 37) As a response to such difficulties, and aiming to increase the physical accessibility of buildings, regulations have been issued worldwide. In 2011, the International Standards Organization (ISO), an independent non-governmental organization, issued a standard (ISO 21542:2011) to provide necessities and recommendations for the accessibility of buildings, building construction and the built environment. This standard included regulations regarding

entering, circulating and leaving a building, as well as the characteristics of emergency exit for people with disabilities. (38)

In 2021, this global standard was improved by ISO 21542:2021, which, among its modifications, introduced a concept called "exceptional considerations for existing buildings." This modification allowed existing buildings to have an "acceptable but restricted level of accessibility" if meeting the complete requirements was extremely difficult. (39)

In addition to the mentioned global standard, several countries have their own regulations regarding physical accessibility. In the United States, for instance, the Departments of Justice and Transportation have issued ADA standards (Americans with Disabilities Act), which offer detailed minimums and mandate new constructions, and changes in the current spaces to be made based on it. (40) ADA mentions clear orders for numerous parts of a facility. For the parking area, for instance, the minimum number of accessible parking lots has been mentioned. The same applies to the characteristics of entrance doors, corridors, elevators and even placements of the signs in buildings. The final goal of these instructions is to create a barrier-free physical environment that all people with disabilities can access. (40)

Several countries have taken measures to overcome the physical barriers. The Canadian government, for instance, plans to make this country barrier-free by 2040. To achieve this goal, after several consultations with Canadian communities and citizens during a comprehensive study, the Canadian Government introduced a bill called C-81, as "An act to ensure a barrier-free Canada." The objectives of this bill are to identify, remove, and prevent barriers under federal jurisdiction in the priority areas. For the participants of the mentioned study, the two most important areas to improve the quality of life in people with disabilities were employment and the built environments. Regarding the built environments, Canadian citizens believed that the current

building regulations are only meant to meet minimum requirements, and even these minimums are not always met. (41)

Similar to the Americans with Disabilities Act (ADA), the Accessible Canada Act (ACA) applies to buildings and new spaces and businesses, organizations and individuals offering goods and services, hiring Canadians and providing accommodations, and using facilities and running businesses. Later, the *Accessible Canada Act* received Royal Assent on June 21, 2019, and came into force on July 11, 2019. According to this law, "most organizations" must obey the regulations, including the government, banks, and parliamentary entities. (41)

Among Canadian provinces, in 1987, Quebec was one of the pioneers in setting rules for the inclusion of people with disabilities. In 1987, the National Assembly of Quebec issued an act, and later in 2004, revised it to become the "Act to Secure Handicapped Persons in the Exercise of their Rights with a View to Achieving Social, School and Workplace Integration." The act also established "Office des personnes handicapées du Québec" (OPHQ), whose mission is to support people with disabilities in their interactions with organizations that are subject to the act, including the government. Despite its central role in helping people with disabilities, OPHQ does not have sanctioning powers. Therefore, it is up to the citizens to report any possible violations of the mentioned regulations (42). There are two primary deficiencies in Quebec's regulations regarding accessibility: First, it does not note the private sector, and second, it lacks deadlines, objectives and fines for non-compliance. (43)

2.6.2.2. Affordability, and ability to pay

Globally, public funds for providing dental services for different groups of marginalized people, including people with disabilities, are insufficient or unavailable. Even in countries with such public funding, affordability is among the barriers to oral healthcare for people with disabilities. (36) As discussed in previous sections, higher poverty and lower employment rates among people with disabilities have made them even less able to pay for oral healthcare costs.

In Canada, the Ministry of Community and Social Services of the Ontario provincial government runs the Ontario Disability Support Program, which helps people with disabilities with the costs of their healthcare services. Individuals with dental needs due to a disability, prescribed medication, or medical treatment can benefit from the Dental Special Care Plan. This plan covers 'basic dental care', which includes some diagnostic and operative oral healthcare services. (44)

Several studies have reported that oral healthcare services cause financial difficulties for people with disabilities. In Quebec, a public dental insurance cover dental examinations and some basic treatments, but the treatment options are limited. Therefore, people with disabilities may need to choose less expensive treatment options, cancel their check-ups or even borrow money to pay the cost of their dental healthcare needs. On the other hand, many Quebecer dentists believed that this public insurance does not respect the costs of the treatments, and therefore tried to withdraw from it. (36, 37, 45, 46)

2.6.2.3. Appropriateness

According to Levesque's model of access, appropriateness relates to the "technical and interpersonal quality and adequacy" of healthcare services. Appropriateness is a significant barrier to oral healthcare services for people with disabilities. Many patients and caregivers have reported dentists' lack of knowledge and experience to serve people with different types of disabilities (37, 45, 47). People with physical or a combination of physical and mental disabilities need special

consideration due to their movement and/or cognitive limitations while undergoing dental procedures. The unpreparedness of dentists to address these limitations results in their failure to provide quality care (47). Studies show that this lack of knowledge could be a reason for dentists' unwillingness to provide services for people with disabilities. (47)

Appropriateness also relates to the interpersonal quality of healthcare workers. People with disabilities report discrimination and stigmatization while receiving healthcare. Unfavourable experiences such as feeling disrespect or neglect, are barriers that not only deprive people with disabilities of quality oral healthcare but also cause distrust of the healthcare system in them. (24)

2.7. Dentists' education regarding people with disabilities

Globally, many dental professionals believe that dental schools' education is inadequate for preparing dentists to serve people with disabilities. (48, 49) In a study conducted in the US, for instance, most final year students and graduates of dental schools believed they lacked the skills to serve these patients. Another study shows that almost 70 percent of dental schools in the US provided less than five hours of education on dental care for people with mental limitations. (50) Consequently, some dentists consider informal education (e.g., observation, trial and error and experience) as sources of their knowledge and skills. (51)

There have been attempts to change this educational trend in dental faculties. In 2004, for instance, the US Commission on Dental Accreditation set new standards for dental education to improve dental professionals' preparedness to provide care for "people with special needs," defined as "those patients whose medical, physical, psychological, or social situations make it necessary to modify normal dental routines in order to provide dental treatment for that individual. These

individuals include, but are not limited to, people with developmental disabilities, complex medical problems, and significant physical limitations." (49)

In Canada, the Commission on Dental Accreditation (CDAC) is responsible for issuing accreditations to all dental programs. Regarding dental undergraduate programs, it stated that "experiences in the management of medically compromised patients and patients with disabilities ... should also be provided." Since CDAC uses "must" for the obligatory requirements in its terminology, this statement means that the mentioned experiences are highly recommended but not obligatory for Canadian dental schools. (52)

Some researchers believe that despite the mentioned recommendations, there is a low level of interest in most Canadian and American dental schools regarding disability-related education. For instance, a study on 22 dental schools in Canada and the US showed that although all schools had plans to train students to serve people with disabilities, this education was only based on "occasional lectures" in almost half of them. This study also showed an inconsistency between dental schools regarding "special needs" education, resulting in different duration, curriculum details and educational approaches in these dental schools; as an example, the duration of clinical education regarding special needs dentistry ranged between 2 and 200 hours. (53) Overall, authors conclude that the duration and quality of special care dentistry education has to be improved in many North American dental schools. (48)

Chapter 3: Aims and objectives

Aims: This research aims to better understand the characteristics of inclusive dental clinics, accessible to people with limited mobility. Our goal is to help current and future dentists establish accessible clinics. Ultimately, we would like to contribute to reducing barriers to oral healthcare and improving the quality of life of people with disabilities.

Objectives: To describe the characteristics of inclusive and accessible clinics and understand how their human and non-human environments have made them inclusive and accessible for people with mobility disabilities.

Chapter 4: Methodology

In this chapter, I will first present our conceptual framework, then describe our methodology, focused ethnography, explain our methods to collect and analyze data, and finish with ethical considerations.

4.1. Conceptual framework

Various conceptual frameworks are used to explain oral healthcare access of underprivileged groups. However, no framework seems to outline the challenges faced by people with mobility disabilities, such as those who use wheelchairs. We used Dr. Jacqueline Rousseau's "Model of Competence: A Conceptual Framework for Understanding the Person-Environment Interaction for Persons with Motor Disabilities." Developed in the field of readaptation, it emphasizes people's interaction with their human and non-human environments.

This model was published in 1997 after Rousseau et al. noticed three main weaknesses in the existing models related to home adaptation. First, no model was specific for persons with mobility disabilities and living at home. Second, some models highlighted the interaction between the person and their environment but without identifying details of this interaction. Third, the models did not include any assessment tool specific to home adaptation. To respond to these weaknesses, Rousseau et al. introduced their own model, aiming to provide a comprehensive explanation of the complex and multidimensional interaction between persons with physical disabilities and their home environment.

The "Model of Competence" describes six concepts and their interaction: (1) the person, (2) the environment, (3) the activity, (4) the role, (5) the competence, and (6) the handicap situation (Figure 1). More specifically, it defines the relation between the person and their environment by

determining the person's "activities" and "roles" and then assessing the level of the person's ability to accomplish those roles and activities.

Even though it could be argued that persons are parts of their environment, the authors considered the persons isolated from their surrounding environment in order to better understand how they interact with it and are able to conduct their activities. In our research, persons are people with mobility disabilities who receive oral healthcare services at the clinic.

Furthermore, this model defines a set of hierarchical environments that are named microsystem, mesosystem, ecosystem, and macrosystem. In our research, we focused on the microsystem, defined as "the complexity of relations between a person and the immediate environment such as home, school, workplace." In other words, we studied the clinic – as the microsystem – and the interactions of people with disabilities with the human and non-human clinical environments.

In the original model, the human environment is represented by the individuals who share a home or a caring facility with the person, and the non-human environment consists of the natural or built objects surrounding the person, such as buildings, trees, or household appliances. In our study, we considered the clinic's dental team members as the human environment and the clinic's spaces, walls, seats, desks, and other surrounding objects as the non-human environment.

Besides, roles correspond to the person's interaction with their human environment. In our research, we expected people with disabilities to have the role of "patients in a dental clinic.", with expected functions such as communicating with dental team members or paying for the services. Rousseau et al. define activities as the person's interactions with the non-human environment. In a home facility, for instance, activities could be 'transferring to a bathtub' or 'performing oral

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hygiene. In our research, 'entering the clinic,' 'circulating,' and 'transferring to the dental chair' are examples of activities for a patient using moving aids. (54)

Although the model is developed originally for the home environment, it could be adapted to evaluate the interaction of person-environment in any other facilities. Based on the model, the interaction between a person and their environment would vary from "competence" to "handicap." Competence is achieved when a person is able to perform their expected roles and activities. A "handicap situation," on the opposite, is having difficulties or being unable to perform activities or roles.



Figure 1. Model of Competence, adapted from Rousseau et al. (54)

4.2. Qualitative design

We chose a focused ethnography methodology because we needed to gain an in-depth understanding of the clinic's environment and the experiences of its team members and patients. Ethnography, which originates from classic anthropology, seemed appropriate because its goal is to "make the unfamiliar familiar" concerning cultures. (55) In traditional ethnography, researchers aim to comprehend all facets of a community's life, whereas, in focused ethnography, they have a narrower scope and focus on specific beliefs and practices. In health studies, for instance, researchers could focus on patients' or healthcare workers' beliefs about illness or healthcare. (56)

Researchers in focused ethnography usually have a deeper understanding of the subject before starting the study and depend less on long-term fieldwork. In our research, I relied on my almost one decade of experience practicing as a dentist, eight years of which as a clinic founder, owner, manager, and dentist. This background and my knowledge and experiences in the mentioned positions helped me better understand the setting and actors in dental clinics. (57)

Focused ethnography relies on different methods, such as participant observation, interviews, document review, visual methods (photography, films and videos), that provide rich information. Observation, for instance, generates data that could be overlooked during interviews: (57) it helps researchers understand the taken-for-granted accounts of their participants, which are usually difficult to be expressed during interviews. (55) As we will explain later, we chose two main methods: a) interviews with a clinic's team members and service receivers and b) observation of a clinic. Other data sources, such as official documents and design, were not available.

4.3. Sampling strategy

Our strategy was purposeful sampling, which means, as Patton explains, "selecting informationrich cases for study in depth." Our population of interest was dental clinics inclusive and accessible to people with limited mobility, which we named "champion clinics." We started our search for such accessible dental clinics by visiting the website of the ODQ (*Ordre des dentistes du Québec*), trying to find a list of accessible dental clinics in the province of Quebec. Even though we could not find such a list on the ODQ's website, we were able to identify a dental clinic that was well recognized in professional circles for being inclusive and serving a wide range of people with disabilities, especially wheelchair users. We contacted the dentist owner of this clinic and presented him with our research, including our goal, our methodology, but also the ethical principles guiding us. After taking time to reflect, the dentist agreed to participate.

4.4. Data collection

As mentioned before, we collected data through one-on-one interviews and non-participant observations. It needs to be noted that the data collection was split in two phases because of the COVID-19 pandemic. The first phase was conducted in 2019, when a member of our research team, Dr. Nora Makansi, conducted semi-structured interviews with dental team members and patients. The second round was conducted in March 2022, after almost all COVID-19 restrictions were lifted. It included observations that I conducted in the dental clinic, consisted of unstructured interviews with the dentist-owner and the dental team.

It also needs to be noted that: a) Dr Nora Makansi, who conducted data collection in the first phase, had taken a less important role in the project since she had been promoted to a new academic position; b) most of the dental team members of the clinic had been renewed during the pandemic. They did so due to personal reasons such as moving to a new neighbourhood or to a new city.

In the following paragraphs, I will call the dental team of the first round Team A; it comprised the dentist-owner, the secretary-assistant, and two dental hygienists. I will call the team in the second round, Team B, which includes a dental hygienist, a dental assistant, and a secretary, led by the same dentist-owner of Team A (Table 1). It is noteworthy that in both waves of data collection, all the team members of the time participated.

Regarding our patient participants, since we accessed the clinic, the receptionist started looking at the scheduled appointments for the upcoming days and indicated the wheelchair users and we returned at the time of their appointment. She sometimes informed them (or their caregivers) ahead of time when calling to confirm the appointment. Regarding the definition of mobility disabilities, we used the Canadian survey on disability, which states "Individuals with a mobility disability are those who experience limitations in their daily activities, such as moving around, even when using an aid that provides minimal support" (58)

	Round 1 – official interviews; Team A	Round 2 - observations and unofficial interviews; Team B
Dental team	Dentist/owner Secretary/assistant A Dental hygienist A1	Dentist/owner Secretary B Assistant B
	Dental hygienist A2	Hygienist B
Service receivers	4 patients	-
Total	8	4

Table 1: The participants

4.4.1. Semi-structured interviews

Dr. Nora Makansi conducted the semi-structured interviews from October 2018 to February 2019. Regarding the setting of the interviews, she searched for an environment where participants could freely express their ideas. She thus interviewed dental team A members in an empty treatment room of the clinic, but proceeded differently with the patients since meeting them in the clinic was not always possible: she interviewed two patients at the clinic's reception desk because no other room was available at the time. She interviewed the two other patients in a silent room of the longterm nursing facility they were living in. All the interviews were conducted in English.
Before starting the interviews, we designed different semi-structured interview guides for team members and patients. They were based on the conceptual framework mentioned in the previous chapter. All interviews started with open questions, following an inductive approach, and then funnelling the conversation into more precise questions responding to our objectives. The interview guides presented themes and questions that were illustrated by examples.

For instance, in the interview guide of the clinic's team members, under the theme of "describing the clinic and its clientele", there were some suggested questions: "Could you please describe the clinic, and especially the people working here, and their roles?", and "Please describe the type of people who come to this clinic?". As mentioned, these were examples of questions that the interviewer was free to adapt according to the dynamic of each interview.

The same applied to the guide to interview patients. Some of the themes related to the patients were as follows: circumstances leading to their wheelchair use, their quality of life using the wheelchair, their dental problems, and describing the positive and negative aspects of their dental encounters at the clinic. For instance, regarding the theme of quality of life, the suggested question was "Could you please generally describe your life with this condition/disease?"

Before each interview, Dr. Makansi asked permission to audio-record the discussion, explaining the necessity of recording the interviews for analyzing reasons, and assured them of the privacy of the recordings. After covering all themes of the interview guide, she read aloud a checklist to review it with the participant to ensure that all aspects of the interview guide were covered. Finally, after asking the participants' permission to contact them in case of further questions, she thanked them for their time and valuable information and ended the interview. Each interview took around 45-60 minutes.

4.4.2. Observation and unstructured interviews:

In March 2022, during the second round of data collection, I performed non-participant observations at the clinic for a two-week period, each day between 7 to 8 hours. I conducted the observation based on our conceptual framework, observing both the non-human and the human environments of the clinic. With respect to the human environment, I observed the relationship between the patients and the dental team members, as well as the internal relationship between the dental team members. Although my focus was on people with mobility disabilities, I also paid attention to the clinic's general clientele, assuming that the team members' attitudes were generally the same towards all patients. Observing these attitudes helped me with generating richer data regarding the dental team members' attitudes and behaviors.

Regarding the non-human (physical) environment, I observed the clinic's physical characteristics, influencing the transfer and maneuvering of patients using various types of mobility aids (wheelchairs, walkers, canes, etc.). I observed the patient's interactions with each part of the non-human environment of the clinic, and how this environment influenced their experience of receiving oral healthcare in this dental clinic.

Before starting my observation, I tried to build trust with the members. To do so, on the first day, I offered a box of cookies to the secretary. I introduced myself to the dental team members and informed them about my background as a dentist; I also explained my role as a researcher and as an observer in their workplace. I clearly stated that I had no intention to judge their functions or behaviours and simply desired to learn from them and the way they practiced. It appeared that my attempts to build trust were successful since, during the following weeks, all team members were willing to share their feelings, experiences, and ideas with me. They were helpful and fully

cooperated with me in introducing me to the patients and explaining my presence. Being accepted by the team members reduced my stress level and facilitated my data collection.

During my observations, I stood in different spaces in the clinic in order to cover the patients' interaction with all parts of the human and non-human environment. Every day, I asked the secretary about the clinic's schedule, and before a person with disabilities arrived, I stayed outside the clinic to observe their pathway even before their arrival. Then, I followed them while entering, circulating, waiting, communicating, and moving to the clinical rooms. When the dental treatment started, I observed the conversations and treatment procedures.

On some occasions, I stayed in one room and observed the different events that happened in that specific setting. For instance, by staying in the waiting room, I was able to listen to the secretary's phone conversations, see the arrival of new patients, the way they were welcomed by the staff, their circulation into and out of the clinic's rooms, and their interactions with the dental team members at the end of their encounters. Another example was staying in the sterilizing room, which allowed me to understand the different tasks that each team member performed there.

Observation also included unstructured interviews with team members, which aimed to complete the information gathered during the semi-structured interviews in the first round of data collection. Another goal was to clarify what I had observed during my presence in the clinic. One of my frequently asked questions was "I saw you did this in this way [explaining the event I observed], what was the reason for it?" or more straightforward ones, such as "Why did you do that?" By asking these questions, I obtained information about the team members' approaches that appeared to be done in an unconscious way. During the observation process, I took field notes and jotted down the explicit content of my observations, especially after my conversations with the team members. Sometimes these conversations were very short since the staff had to do a task for their patient. However, on some other occasions, particularly during lunchtime, we had time for deeper conversations that allowed us to discuss new domains such as the low-stress work environment of the clinic. I also had time to have two more extended conversations with the dentist in his room, each taking around 30 minutes. Each day and after leaving the clinic, I typed my notes in a word file. In the end, I wrote 25 pages of detailed notes.

4.5. Data analysis

Data analysis was an ongoing process, which we executed during several steps of this research. To do so, first, Dr. Makansi transcribed the recorded semi-structured interviews from the first round of data collection. I started to analyze those interviews with two goals: First, to familiarize myself with the data and identify the aspects of the research question that had been discussed with the participants. My second goal was to define my domain of focus in the second round of data collection. I accomplished these goals by performing an inductive thematic analysis influenced by Braun and Clarke: "Thematic analysis is a method for identifying, analyzing and reporting patterns (themes) within data. It minimally organizes and describes your data set in (rich) detail" (59) To do so, I imported the transcribed interviews to version 20.4.2 of the MAXQDA software, and then started the coding process. I followed Braun and Clarke's proposed six steps for doing the thematic content analysis: (59)

1. Familiarizing myself with the data; during which I read and re-read the transcribed interviews, and noted initial ideas,

- 2. Generating initial codes; during which I tried to code for as many potential themes as possible, coded extracts of data inclusively, and did not avoid coding some parts repeatedly,
- 3. Searching for themes; At this step, I generated initial themes and listed each code under the relevant theme,
- 4. Reviewing themes: After devising a set of candidate themes, I reviewed and refined the themes to reach a coherent pattern. At this stage, I generated a thematic map of the analysis,
- 5. Defining and naming themes; during which I identified the essence of each theme and mentioning what domains of the data are covered by them,
- 6. Producing the report: Although the fundamental objective at this step is to "tell the complicated story of the data in a way which convinces the reader of the merit and validity of the analysis," (59) my initial goal of analyzing the existing interviews was not to present a full report, since I planned to have another round of data collection.

During analyzing the interviews, I had debriefing meetings with my supervisor, aiming to validate the analysis process. By doing this and based on my supervisor's feedback, we were able to identify aspects that required deeper exploration in the following round of data collection. Later and during the second round of the data collection, at the end of each day, I refined my fieldnotes to write a detailed report of what I had observed and the participants' points of view. After finishing the observation process, I held the same analyzing approach for coding and extracting themes from my observation reports. This time, my goal in step six was to tell the story.

4.6. Ethical considerations

We obtained ethical approval for this study from the McGill research ethics board (REB). Later, to begin the second round of data collection, we requested an amendment to it, which allowed us to do the observations.

Before conducting each semi-structured interview, we asked the participants to sign a consent form which explained a description of our research project and mentioned the potential benefits and risks of participating in it. The participants were also reassured that answering all the questions was not obligatory and that they could abandon participating in the research at any time. In addition, we asked permission to record the conversations.

Regarding the observations, before entering the workrooms during the dental encounters, I asked the patients and caregivers to sign a consent form. Still, regarding my observations in the waiting room or other public places of the clinic, such a process was not required, as it is stated in the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans – TCPS 2 (2018):

"REB review is not required for research involving the observation of people in public places where: a. it does not involve any intervention staged by the researcher or direct interaction with the individuals or groups; b. individuals or groups targeted for observation have no reasonable expectation of privacy, and c. any dissemination of research results does not allow identification of specific individuals." (60)

All data is kept in password-protected folders on the research team's computers at McGill University's Faculty of Dental Medicine and Oral Health Sciences, Division of Oral Health & Society. All data will be deleted seven years after the results are released, in compliance with McGill norms.

Chapter 5: Findings

5.1. The participants

The participants included seven team members of the dental clinic and four people using their services. It is important to remind that we conducted two rounds of data collection: in the first round, before the COVID-19 pandemic in 2019, another member of our research team, Dr. Nora Makansi, interviewed the four members of the dental team (Team A), four patients with disabilities; in the second round, in 2022, I observed the clinic and interviewed the dentist-owner and the three other members of the clinic. This latter team (Team B), which was new and had replaced the former staff, comprised, in addition to the dentist, one secretary/assistant, one assistant and one dental hygienists. Henceforward, I will name them after their position in the clinic and mention their team with an A or B. In the case of the hygienists, a number (1 or 2) will be added to differentiate between the two hygienists of team A.

	Gender	Work experience in this clinic (years)
Dentist-owner	Man	18
Assistant/Secretary A	Woman	8
Dental hygienist A.1	Woman	8
Dental hygienist A.2	Woman	3
Assistant B	Woman	<1
Secretary B	Woman	<1
Dental hygienist B	Woman	<1

Table 2: Dental team member participants

Even though the dental team's detailed daily tasks will be presented in the following sections, I will summarize their main tasks below.

- A. The dentist: Welcoming patients, Doing the examinations, diagnosis, developing treatment plans, performing treatments, and leading and supervising other members.
- B. The hygienist(s): Welcoming patients, taking and developing radiographs, consulting with the dentist about the patients' health, performing preventive procedures such as cleaning and fluoride therapy, and helping patients have better oral hygiene by informing them about preventive measures.
- C. The assistant: Welcoming patients, preparing them for examinations or treatments, cleaning and sterilizing the instruments and equipment, helping the dentist in performing four hand-dentistry, assisting the hygienist in filling patients' files by recording details related to their oral health.
- D. The secretary: Welcoming patients, scheduling, and confirming appointments, answering phone calls, performing payments, and maintaining the clinic's environment organized.
- E. The assistant secretary of team A had the combined tasks of an assistant and a secretary.

In addition, we interviewed four patients. All the patients had mobility disabilities and were using assistive devices, and had the experience of receiving care in this clinic

	Age	Gender
Patient 1	81	Woman
Patient 2	N/A	Man
Patient 3	60	Woman
Patient 4	92	Woman

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5.2. A brief background of the dentist and the clinic

Before describing the characteristics and approaches to building the clinic's accessibility, I will provide a brief biography of its dentist-founder. This brief history would help us better understand some origins of the dentist's willingness to create an accessible dental clinic.

5.2.1 The dentist's background and early career

Reporting being born in a lower-middle-class family, the dentist believed in the fundamental influence of his family's socioeconomic situation in the course of his life and his accomplishments. Without denying his own merits, he expressed his feelings of being privileged in terms of professional and personal achievements. The dentist believed that this "being lucky", should be compensated by helping other people, and giving back to society:

I try to make this implicit into my children that they should know; they have to give back. I feel lucky. I grew up in a very modest lower-middle-class family, and I feel very lucky for what I have achieved, and I think it's only right that we give back to help others, and that's probably the motivation what keeps me going. (The dentist)

He mentioned having felt his responsibility towards society from an early age. For instance, it was among the reasons why, as a teenager, he decided to work for people with disabilities. A few years before starting his dental school, he started working at a center for intellectually disabled adults. Later, this position allowed him to pay the costs of his dental education. Overall, he worked in this center for nine years, six years of which as a volunteer, and accomplished a wide range of tasks, including feeding, dressing and educating people with disabilities. He believed this experience helped him become comfortable with people with any type of disability.

Furthermore, his years during which he shared the daily life of people with disabilities comforted his belief of equality for all human beings, and equal rights in particular. Decades later, as a dentist,

he aimed at providing the same quality of care to all patients, regardless of their condition and physical limitations:

You know, we don't see their handicap, like I'm saying, we see the patient. (The dentist)

After obtaining his bachelor's degree, he envisioned a career involving teaching and research. He thus considered doing a PhD, but after consulting with a researcher friend and learning about some financial challenges associated to research positions, he decided to start a dental program. By doing so, he hoped to secure his income, allowing him in parallel to pursue his interests in research and teaching activities. After finishing his dental school, he completed a one-year multidisciplinary residency at a Children's Hospital, an optional education program that he believed would help him serve older adults because of similarities between these two domains:

The leap from pediatrics to geriatrics is not a big leap... it's still the same tell, show, and do and you still gotta worry about fears and anxieties of patients and there's more complex medical problems as we age cause all the cascade problems [medicine] they're taking so there's a bigger evaluation of a geriatric patient than a pediatric patient but they all have the similar problems. (The dentist)

Eventually, as a fresh graduate dentist, he was eager to provide accessible oral healthcare services. In his first work experience, however, he felt he did not have sufficient freedom to do so since it was a shared clinic that was not adapted for inclusivity, and his colleague's unwillingness to provide accessible care. Therefore, shortly after that, he decided to establish his own dental clinic, which is where we decided to do our research.

It is noteworthy that although achieving financial security was among the reasons he chose dentistry as a career, he did not consider it as an important source of happiness, which he rather associated with family life. In other words, despite holding a financially successful clinic, gaining money was not among the factors motivating him to establish it.

I drive a Honda. Yes, it's not a BMW or Audi or Cadillac. All those big things. I'm happy. You have your own life expectations. And as long as your kids are happy, your wife is happy, you know, then you're "happy wife is a happy life. (The dentist)

Finally, the dentist became able to do research and teaching activities. At the time of our interviews, he had experience in teaching basic sciences and being a teaching staff at dentistry faculties. To share his knowledge and clinical skills, he also wrote book chapters and published several scientific articles in the dental field.

5.2.2. Establishment of the clinic

5.2.2.1. Establishing the Non-human (physical) environment

After deciding to create an accessible clinic, the dentist had to design, and build its non-human (physical) and human environments in a way that served this goal. Regarding the physical environment, he relied on his work experiences as a caregiver to people with disabilities and his years of experience as a dentist. The very first step was choosing a building in which the ground floor was available. Based on his experiences as a dentist working in non-accessible workplaces, he thought that the most important physical characteristic of an accessible clinic was to be located on the ground floor, and the second one was to have sufficient space, so people with assistive aids could enter the building and circulate freely. According to him, the location was an essential factor worth fighting for:

Well, what happened was that the landlord initially wanted me to go upstairs. And I said no, I'd like to have a storefront for multiple reasons. One advertisement, obviously they see your office. But the whole reported reason was to get easy access for patients in wheelchairs and walkers etc. And in this case here we also I like this spot 'cause I have a handicapped parking spot right in front. So, people can just literally wheel in if needed. You know, so that's why I fought to get this spot. (The dentist)

Choosing a spacious place with an accessible parking lot in the front guided him to the next step: designing the place and specifying spaces for each room based on their assumed functions. At this stage, his goal was to serve people using wheelchairs by overcoming the challenges of transferring them to the dental chair. As mentioned before, the dentist's main intention at that time was to create a barrier-free pathway for people using assistive devices, so they would be able to enter the clinic and circulate.

I thought what are the basic requirements needed to work with patients in wheelchairs, stretchers, etc.? And that's why I decided to design the office to allow for the patients to have, you know to be treated either in their chair or in the dental chair, whatever it may be. (The dentist)

Consequently, he designed and built larger operating rooms, wider corridors for "the patients' side," a large washroom with a bar, and indeed, a level entrance for the clinic. According to him, although there were written codes and architectural regulations about healthcare facilities, following them was not mandatory. So, he designed the clinic based on what he believed was practical and relied on his own experiences and knowledge:

There is a building code by the government that says doors should be this amount and so on. But people, not everybody follows it, you know, and older buildings definitely do not have that. Availability, a typical older dental building, say on Sherbrooke St. If they're in a small, old home that got converted into a dental office Yeah, they often have steps, yeah, and patients can't do the steps. So, I wanted to have a ground-floor storefront. Those steps just roll on in, you know. (The dentist)

5.2.2.2 Establishing the human environment

The dentist intended to recruit team members who were in accord with his willingness to accept people with disabilities and ready to provide them with high-quality healthcare service. According to him, during the recruitment process of the first team, he did not use a written protocol or an assessment tool for evaluating the candidates' personalities. This approach was repeated in some steps of the hiring process of later members. For instance, in the following years, to hire a hygienist for team A, the dentist first posted an advertisement in a local newspaper. In the next step, to choose one among the candidates, he relied on his own judgement of characters.

Their personality first, number one. You know, if their personality [convinces] me that they're a good soul, that's the first step, and then, actually, if they can handle working my schedule and handle my patients, then they'll stay. If they, if they're not willing to treat a special needs patient, cause they're gonna get them, the hygienist will get them uh // we get them here and they're not willing to get slobbered on and yelled at and bitten and all that then they can go elsewhere. (The dentist)

Eventually, the clinic's team members appeared to have attitudes that made them willing and capable of working in an accessible healthcare facility: Some expressed their empathetic and humanistic beliefs and their willingness to help people in need. Others believed they treated their patients as if they were own family members. The assistant of Team B, for instance, believed in "being nice to people" in her work, and she even considered it as her "only religion".

Cause I think if it was my mother, that was sitting there, I would be so happy to know that they took such good care of my mother. So that's special for me. (Hygienist A.2)

There was one nice man, and an older man. And he came to me, He sat on the chair, and he goes like, "I have to tell you I'm very embarrassed to be here. My teeth are in bad shape, but I never had money." And I said, "don't worry," I said, "we'll work with what you have." And when he came back six months later, he said to me, "you know, I can't believe you said that. I was so embarrassed, and you said, 'we'll work with what you have.' That was the nicest thing you could have said to me." So, you know, they can't afford it, they have problems. So, you are just there. They are persons; they are individuals that you are trying to help them. (Hygienist A.2)

5.3. What has made this clinic accessible?

Because the clinic's human and non-human environments have made it inclusive and accessible for people with disabilities, I will describe their characteristics in the next paragraphs. Since these two environments are associated and interconnected, I will present them together, first by introducing two core aspects of the clinic; its low-stress and friendly atmosphere, then by detailing the staff's inclusive approaches and behaviors.

5.3.1. A low-stress and friendly work environment

In this section, I will first describe this low-stress environment, then present the factors contributing to such an environment, and finally explore its benefits and outcomes for the dentist, the staff, and the patients.

5.3.1.1. Manifestations of a low-stress work environment

During my observations, I noticed and was surprised by the calm and low-stress environment of the clinic. As an example, while sitting in the waiting room, it was common to hear laughter from the reception area and operating rooms. Pleasant conversations between staff and patients, but also between dental team members seemed to occur often and appeared as a sign of cordial relationships in the clinic. As the secretary of Team B stated, "almost 90%" of the clientele had had files and records there, some from 15 years ago. This familiarity between patients and staff played a major role in creating the mentioned cordial relationship. For instance, upon patients' arrival, the staff used to greet them by saying: "Hello, Mr./Ms. [name]; Are you ready for today's [type of treatment or procedure]?" Thus, the patients did not need to introduce themselves and explain why they were consulting. According to the team members, this warm welcome appeared to be friendly to the patients and made them feel at home.

Another aspect of the workplace's friendly environment was the mutual respect among the staff members. The words, jokes and sentences used by the staff members reflected a low level of hierarchy between them. In addition, during the treatment sessions, when the dentist needed an instrument or dental material, he always followed a please, thank you etiquette, helping the staff feel pleased.

In addition to my observations, dental team members also supported the idea of the presence of a low-stress work environment in the clinic. One of the participants – hygienist B – mentioned a

"stress-free" environment as one of the clinic's advantages and a reason to continue working there. When asked to describe her feelings, she mentioned the availability of other members, especially the dentist, when she needed them. She mentioned that even if the dentist was busy working for another patient, he would come and see her patient if she asked for help.

Patients also expressed their comfort and ease in the clinic, believing in the tranquillity and calmness of its atmosphere. One participant, for instance, mentioned having a good mood after reaching the clinic, despite all the challenges he used to have with transferring from his care facility to the clinic. As if the clinic was a shelter for him, after all the inconvenience he had experienced.

I go by wheelchair, in the medic car, and then we transport to the clinic; however, sometimes, because of the route they take with the train tracks and all, the chair is bouncing a lot. They have to tighten it properly. Then I get to Dr. (the dentist's name), and I am fine from there ... it's welcoming, and that's a big factor too. To provide an air of comfort rather than tension. (Patient 2)

5.3.1.2. Elements shaping the low-stress environment

The low-stress environment is shaped, maintained, and supported by a combination of three factors: 1. A practical physical environment, 2. The dentist's characteristics, and 3. The other team members' ways of doing their daily tasks. In this section, I will describe these elements in detail, and provide examples to clarify the role of each factor in building a low-stress environment.

5.3.1.2.1. A Practical non-human (physical) environment

• Being located on the ground floor

As mentioned, the clinic was located on the ground floor, and there was an accessible parking lot in front of it. There was also another parking lot in front of the clinic which made it possible for the accompanying persons to park temporarily, dismount the person with disability and then move to a further place to park their car. There was no elevator or staircase, and people using different mobility aids (wheelchairs, walkers, etc.) could enter the waiting room directly from the clinic's outer space. This location and the availability of the accessible parking lot helped people with disabilities and their accompanying people feel less stressed about the transportation side of receiving oral healthcare services.

• Large waiting room with glass walls

This clinic had a large waiting room, with one wall covered by glass facing the street. This bright, spacious waiting room helped the patients, particularly people with disabilities, feel more freedom and less stress since they could circulate in the clinic and sit in their wheelchairs in the waiting room, without feeling they disturbed others. In addition, seeing the street from inside the clinic reduced their stress regarding their adapted transportation timing. As one of the patients explained:

Because the wheelchair will take a deeper space... you know, if it's a narrow waiting room, first it will affect the ability to maneuver the chair, but also people to maneuver around it.

Everything is bright and spacious, so there's no fear of not having the room to maneuver or move around. That also provides one factor that is unique to my circumstance, that when I am waiting after my care because it's a glass wall, I can see the handicap bus approaching. So, I'm waiting inside, I'm comfortable, and when I see it, I can ask them to help me at that moment... rather than just waiting in that sense and wondering when is it gonna come, in case they miss it. (Patient 2)

I observed this comfort in the waiting room: Wheelchair users could sit on their chairs while waiting for their appointment, and they could maneuver freely, without being stopped by obstacles or intervening in the routine tasks of the clinic. I never observed the staff requesting them to leave the office after their treatment had finished.

• Large patients' washroom with a wide entry door

Next to the clinic's entrance door was the patients' washroom. It had a wide entry door, a spacious room, and a grab bar fixed on the wall, helping wheelchair users or people with limited mobility hold their balance while sitting on the toilet. Although designed and built to be accessible, the patients' washroom had limitations: The mirror was not adjustable, so wheelchair users could not see their faces while washing their hands.

Numerous operating rooms

The clinic had four spacious operating rooms for its two practitioners. These rooms were similar in shape, size, decoration, and equipment, and comprised a dental chair in the center. Their large size in addition to the long hoes of the dental chairs allowed patients to remain in their wheelchairs during clinical procedures, while the dentist and his assistant were able to perform their usual fourhanded dentistry. This facility reduced the stress of being transferred to the dental chair for people with disabilities.

The availability of numerous operating rooms also allowed the assistant to prevent stress in between the appointments. When needed, after the dentist finished a patient's treatment, the assistant invited the next patient to another operating room, which was cleaned and prepared by her beforehand. After doing this, she could take care of sterilizing and preparing the first room, avoiding delays in the clinic's schedule. In the absence of numerous work rooms, timing limitations would have caused stress to the patients by delays, and to the assistant, by forcing her to rush to prepare the room.

• Availability of radiographic equipment

All four working rooms were equipped with digital radiography equipment fixed to the wall, ready to take periapical and bitewing radiographs. A digital panoramic radiography equipment was also

available inside the clinic, allowing the practitioners to take radiographs necessary for diagnosis and treatment. A separate computer connected to the digital reading equipment allowed the staff to use radiographs quickly and efficiently, as monitors allowed them to view the radiograph during the treatments. The presence of such digital equipment decreased the stress of the practitioners, by reassuring them that the diagnosis tools were available and favored a low-stress environment for patients by eliminating the need for extra transfers to other radiography centers outside the clinic.

5.3.1.2.2. Dentist's characteristics: non-business mindset, caring about people's feelings and having a sense of humour:

Some of the dentist's characteristics were the second element shaping the low-stress environment. His non-business mindset, for instance, was behind the clinic's special timing policy, resulting in a lower stress level in the workplace. Based on this policy, the receptionist considered extended and buffer times for the clinic's appointments. In other words, he asked the secretary to consider one hour for a task that usually would take 20 to 50 minutes. By doing so, he made sure that he could finish the treatment on time, without being worried about the next scheduled patient waiting. As he mentioned clearly: "My personal stress levels matter to me"

My observations confirmed the presence of such a policy of avoiding stress on many occasions, particularly observing the dentist sitting in his room for 15 to 20 minutes between appointments. He plainly stated that he preferred sitting relaxed in his room to working stressfully. This is what the dentist explained as the reason for such a time management policy:

I don't want to rush my care for the patient, so I'd rather not do the treatment. I'd rather lose the so-called financial gain by not working than rush it and make myself stressed as well as the patient stressed. (The Dentist) Another dentist's attitude that contributed to a low-stress environment was his ability and willingness to do other members' tasks when required. I frequently observed him answering the reception phone, setting appointment times on the computer, preparing the tray for an examination, and even doing menial tasks such as receiving packages from the postal worker. This helped the staff feel less stressed by reassuring them that being unavailable for a short period would not stop the clinic from functioning properly.

In addition, the dentist cared about the feelings of people sitting in the waiting room. He mentioned that he sometimes needed to let people seated in the waiting room know about the possible yelling sounds coming from the operation rooms. These yelling sounds were normal for some patients with a combination of mental and mobility disabilities. By predicting people's possible fears and trying to prevent them before they happen, the dentist helped maintain a low-stress environment.

[The person's name] is in the chair; I will tell my patients in the other rooms I have a special needs patient; you may hear a lot of yelling., He's not being tortured, not to worry. So, they don't, because patients in the other dental chair hear yelling and screaming, they get nervous. So, I often will warn the so-called normal, healthy patients that we have special needs patients and there may be some noise. (The dentist)

Another aspect of the dentist's personality, which was essential in creating a low-stress atmosphere, was his sense of humour which helped him ease the stress among the staff members and the patients. Having a sense of humour was not only admired and encouraged indirectly by the dentist but also was officially recommended by him: A piece of paper attached to the kitchen cabinets, presenting an article with the title of "Why having a sense of humour increases productivity at workplaces." This was the one and only 'written behavioural code' available in the clinic. This sense of humour was also felt and admired by the patients. As one participant explained what she liked the most about the office:

5.3.1.2.3. The staff's attitudes and approaches in doing their daily tasks:

The third and last element creating the low-stress environment was the way that the staff did their daily tasks. In the following section, I will explain their approaches, and how these approaches contribute to building a low-stress environment, by being respectful to the patients and keeping the clinic's workflow organized.

Being respectful to the patients

Based on my observations, the staff tried to build and maintain respectful and informative conversations with patients. The secretary, for instance, did her part as the clinic's gatekeeper, by providing phone conversations and greeting the patients. During phone calls, the secretary appeared responsive and helpful, even with less straightforward questions such as "Who does the cleaning better, your dentist or your hygienist?" or "how much exactly should I pay for my teeth?" Another aspect of the mentioned respect was the staff's ability to speak French and English. By being bilingual, the staff could communicate with all patients, regardless of their language abilities. This created a respectful work environment in which most patients were welcomed and receive health information in their preferred language. Considering Montreal is one of Canada's most bilingual cities (61), it appeared to play an important role in patients' experience in the clinic.

Another manifestation of the respectful environment was visible upon the patient's arrival. Arriving patients, regardless of having disabilities, had to ring the bell in order for the secretary to open the door and greet them. Although this greeting approach was implemented because of COVID-19, it appeared that it made people feel at home, compared to the traditional setting where patients (or accompanying people) go to the reception desk and register.

The secretary was considerate of the feelings of the waiting patients. After each patient's arrival, if the practitioner was not immediately available, she reassured them that their arrival had been noticed, and that someone would take care of them shortly. This helped the patients feel relaxed and that waiting for their time was the only thing they needed to do. One patient explained his positive experience regarding sitting in the waiting room:

I'd certainly say, an ongoing awareness that the patient is there, in the waiting room...that ...the patient isn't wondering if they'd been, not necessarily forgotten.... (Patient 2)

Other team members participated in creating and maintaining respect. The assistant, for instance, used to go to the waiting room, greet the patient and ask them, saying, "Dr. [name] is waiting for you." After following the patient to the working room, she initiated small talk and conversations with the patient, an approach that appeared to decrease people's anxiety.

They showed the same attitude in paying attention to details important to patients. On one occasion, for example, after receiving the patient's file from the secretary, the hygienist went to the assistant and asked her about the correct pronunciation of her name. It was a strong signal of the staff's mindset: The people coming there were considered "persons with feelings," and it appeared that the staff did not want to hurt those feelings.

Providing an organized environment

Each day, this clinic accepted numerous patients and provided them with a variety of treatments. This workflow required keeping the clinic's work environment well organized, which was mainly the secretary's responsibility. She did this by a series of measures: using a dental clinic management computer software, paying attention to the details of the schedule on the patient and practitioner's side, and performing reminder calls to the patients. Other dental team members also contributed in maintaining the mentioned organized environment. In the following sections, I will explain how the staff contributed in creating and maintaining such an environment.

As previously stated, the secretary used dental management software to manage the clinic's schedule. To use this software more efficiently, she paid attention to the details of the practitioner's daily tasks, such as their time out of the office... By doing so, she was able to avoid changes in the schedule. Moreover, by making routine reminder calls, she could make sure that patients confirm their presence at the clinic.

A remarkable sign of her success in keeping the clinic's schedule organized was the number of people sitting in the waiting room, which was usually whether one person or no one, even though the dentist and the hygienist were busy almost all day. In other words, the patients usually arrived on time and were visited by their practitioner at the planned time.

In conclusion, the secretary's disciplined personality, and her decades of experience in different positions and being in touch with different groups of people helped the clinic be organized. In addition to her kind and respectful attitude, this discipline provided the patients with a low-stress and friendly environment. In addition, the assistant and the dental hygienist participated in creating and maintaining a low-stress work environment by being pleasant and helpful to the patients, and by keeping the operation rooms organized.

5.3.1.3. Results, and benefits of a low-stress work environment

A. For the patients

I observed the staff having enough time, which made their patients able to ask questions regarding their treatment process and to express their fears, anxieties, and expectations to the staff. For instance, on one occasion, I observed a woman who appeared to have high anxiety levels. This anxiety made her cry, and she appeared not to be ready to undergo dental treatments. Before jumping to the treatment, the dentist had a conversation with her for around 20 minutes which made her ready for the treatment.

The assistant described another occasion when a person with disabilities appeared unwilling to be treated. Instead of refusing her, or insisting on doing the treatment against her will, the staff asked her caregivers to take her to the waiting room and allow her to stay there for a while. This 20-minute rest in the waiting room helped her become willing to do the treatment. This shows the importance of the availability of sufficient time for the treatments, which allowed the staff to welcome people with different levels of disabilities, considering more time they usually need, due to the complexity of their physical, mental, and medical limitations.

Another benefit of the clinic's low-stress environment was allowing the people to go there as families, even with their children. The staff members were ready to welcome children as the patient's companions. On one occasion, a woman had an appointment and came with her four-year-old daughter. While the mother was undergoing treatment in the workroom, her daughter sat at the reception desk, next to the secretary, and watched a cartoon on her mother's phone. This could allow people not to lose their appointments even if no one could take care of their children at home.

B. For the staff (including the dentist)

It is noteworthy that the human environment (the staff) of the clinic shaped this low-stress environment, and at the same time, benefited from it. It helped the staff work under less pressure, have sufficient time to learn and grow, and focus on the quality of treatment instead of its duration. subsequently, this low-stress environment helped the staff experience high levels of job satisfaction.

As mentioned, I observed no signs of working under pressure among the staff., This was in part because they had sufficient time to finish each of their daily tasks with the desired quality. In addition, this low-pressure work allowed the staff have time to socialize with each other and the patients, which helped them enjoy their daily work hours.

This low-stress work environment also helped the staff have time to watch, learn and grow in their career. In other words, they could expand their knowledge, especially regarding serving people with disabilities. Participants mentioned that they learned techniques and approaches from the dentist, which helped them serve people with mobility disabilities. For instance, they stated that he taught them how to transfer wheelchair users from their wheelchair to the dental chair. Team members also learned technical points about wheelchairs directly from the people using them and also from the caregivers. It is noteworthy that none of the team members mentioned official education as their source of knowledge of serving people with disabilities.

Another benefit of this low-stress work environment for the staff was the practitioners' flexibility with the number of treatment sessions required. In other words, their aim was to perform the treatment with the highest possible quality, and not finish it in a specific amount of time. This flexibility increased the quality of their treatments since it allowed the practitioner to spend more time performing a dental procedure. As I mentioned before, this situation was rooted in the nonbusiness mindset of the dentist, as explained below:

The biggest struggle you have if you have Mr. Smith has, let's say, four or five restorations on one side to do. Sometimes it's too hard for you, the operator, to do four or five restorations, so you break it up. You do two restorations, and you come back again to do two more. You know, it's also probably hard for Mr. Smith as well to be in the chair for a long period of time. But it's definitely hard on your back to do dental gymnastics as I call it, to treat these patients. So, you don't want to overtax your back. You wanna treat them appropriately. (The dentist)

Based on the mentioned non-business mindset, the dentist suggested dental hygienist have the same flexibility for the cleaning appointments. This flexibility allowed the practitioners to focus on the quality of care, and care less about the business aspect of dentistry. Considering the quality of care as the priority, in addition to the mentioned benefits of the low-stress environment for the staff, helped them achieve job satisfaction, as one of them explained:

it's always fun... Some people come in, and they are so nervous, so I could just sit and talk to them the whole hour. And I like to put them at ease, so I have a great time when I work. (Hygienist A.2)

Finally, as mentioned at the beginning of this section, the most remarkable role of such a lowstress and friendly work environment was allowing the staff members to hold their inclusive approaches, welcome people with disabilities, and overcome the challenges of providing service to them. In the next section, I will describe these approaches.

5.3.2. The staff's inclusive approaches: person-centred care

So far, I have described one element creating the clinic's inclusivity, which was the low-stress and friendly work environment. As mentioned at the beginning of the previous section, this work environment enables the staff to hold inclusive behaviours and approaches and provide oral healthcare for people with disabilities. These approaches are the second contributing factor to the clinic's inclusivity. In this section, I will describe these approaches, by presenting all of them under one general term: Person-centered care. In other words, by following some aspects of person-centredness, the clinic's staff became able to overcome the physical and financial challenges of serving people with disabilities.

Inspired by the person-centred approach in medical healthcare, researchers have studied the same approach in dentistry. Bedos et. al, for instance, introduced the Montreal-Toulouse model, which invites clinicians to conduct three types of actions -- understanding, decision-making, and intervention – at three different levels – individual, community and social. In this model, the dentist and the patient have equal power, and the dentist tries to provide treatments with a humanistic and holistic view. (62)

A. Understanding

During my observations, I noticed that the dentist's conversations with the patients never started with "What is the problem with your teeth?", or other similar questions aiming to go directly and quickly to the "chief complaint." In other words, the dentist's goal during the examination session was not to find the damage in people's teeth and then to plan to repair it. Instead, he encouraged the persons to talk about their illness and actively listened to their narratives. By doing so, he tried to understand them as whole persons, and not 'patients.' This also helped him comprehend the roots of their dental disease. For instance, one patient explained how she always felt her mouth dry, and the dentist offered him solutions to ameliorate this condition, then suggested she do fillings on the decayed teeth caused by the dry mouth.

Other team members mentioned holding the same approach, providing patients sufficient time, and encouraging them to talk, to share their experiences, especially in the first appointment. The staff could use this information in their next steps of the dental encounter, to help the person decide about their treatment plan. For instance, the person's ability to brush their teeth regularly could change the dentist's idea about suggesting a dental material to a person with a decayed tooth. According to the staff, the patients appreciated having such opportunity, and used it to share some information regarding their general health:

I try to make them comfortable, they talk a little bit about what happens to them like the other patient was telling me that she had a stroke two years ago in the hospital and then at the beginning, she couldn't speak but um now she was recovering, she was doing physio, so they talk a lot about their therapies" (Hygienist A.1)

Understanding people with disabilities helped the staff overcome challenges caused by the limitations in the clinic's physical environment. As mentioned in previous sections, despite being designed and built to serve the accessibility goal, the clinic's non-human environment was not built according to the official accessibility standards, which aim to allow wheelchair users to maneuver independently in all rooms. The entrance door did not allow wheelchair users to enter the clinic autonomously, since it was not automatic. As a practical solution, the staff (the secretary or the assistant) were always ready to go to the door and open it for a wheelchair user, and drive the wheelchair in, if no one accompanied the person.

The reception desk caused another limitation for people using wheelchairs, since its height was 42", and was not suitable for a seated person. This caused limitations in their communication with the staff, since the desk's height blocked their eye contact. Moreover, the card swipe machine used for payments was not wireless, which limited wheelchair users' ability to make their payments independently. According to the participants, to receive the payments, the secretary was ready to stand up and turn around the desk to reach the person and hand them the payment machine. In addition, I observed the secretary holding the same approach and trying to face the person when someone appeared not to hear her voice well.

Although the staff could overcome some limitations of the non-human environment, not all deficiencies could be solved by such approaches. For instance, in the washroom, patients' there

was a mirror fixed 40" from the ground; which was not useful for people with disabilities. No human approach could solve such an issue without changing the mirror or fixing it at a lower height. However, wheelchair user participants of our study mentioned no problems with using the washroom, especially considering its large space.

The first two examples, the entrance door, and the reception desk show how the staff's personcenteredness and their understanding of the needs of people with disabilities was an integral element in the clinic's accessibility, despite the limitations caused by its non-human environment. This accessibility improved satisfaction in their patients with disabilities, as one of the participants, an older adult using a wheelchair described:

You know, accessibility is more than just the physical space, it's a sense of presence, and that goes to the people and not the building. If the people are accessible, then the building will somehow be accessible (Patient 2)

It appeared that for the dental team members, the key to understanding people's needs, expectations and anxieties was communication and asking each patient about these subjects. Having decades of experience with people with disabilities, helped the dentist be aware of the patients' possible fears and anxieties He used them to ask the patients better questions, and not to force them to accept his own ideas. As the dentist explained:

I kind of assess the patient, and sometimes I talk to the caregivers, and they say, you know *Mr. Smith is really comfortable in his chair; if they're that's an intellectually disabled patient, I will leave Mr. Smith in his chair. If a non-intellectually just physically disabled patient, I will ask them. How would you rather be treated? Want me to lift you, bring you in the chair or? And sometimes they have fears of being dropped, so they rather are treated in their wheelchair. (The dentist)*

Another staff member, the assistant-secretary of Team A stated examples of how she used her sense of humour to comfort their wheelchair user patients. She mentioned how she predicted the possible problems regarding wheelchairs' maneuver, and how she used her sense of humour to help the a person overcome his anxieties:

I tell them: "don't worry about the paint on the walls, it's ok if you scratch it!" If I'm pushing them and I'm bumping into the wall, I say, "I'm sorry! I'm a bad driver! (The assistant-secretary Team A)

B. Decision-making

The decision-making in the person-centered approach is a shared process, meaning that the practitioner and the person receiving care have equal powers. (62) Although not mentioning his approach precisely by the term "shared decision-making," the dentist appeared to believe in having equal power, and acted accordingly during dental encounters. For instance, if there were more than one treatment plan option, he would explain the advantages and disadvantages of each option and inform the patient about the costs of each plan, and availability of insurance coverage. I noticed no effort from the dentist's side to force the patients accept treatments more expensive treatment options.

This shared decision-making approach was not limited to the treatment options and continued after finishing the dental procedure, when the dentist used to follow the patient out of the workroom. He used to continue having conversations at the reception desk. By providing post operative instructions about the performed treatment, he then discussed the details of their following appointment with the patients. He appeared to be open to listening to their ideas and even disagreements. When asked about his intentions of holding this approach (going to the reception desk with the patient), he mentioned that he did it unconsciously, but then added that by doing so, he tried to "bring the patient to the table and make them the priority". Regarding the financial challenges of serving people with disabilities, it is noteworthy that some patients of this clinic, especially people with mobility disabilities, were on social assistance. This affected the type and number of services they could receive annually. For instance, composite restorations or root canals were not covered by their insurance, which limited the dentist's options regarding their treatment plan. It also reduced the financial benefits of the clinic, by decreasing the dentist's possible income per hour. The dentist overcame this financial challenge by changing his mentality about clinic's profitability. He did that by comparing providing less expensive treatments to being idle due to unexpected cancellations.

Well, mentally, you could think that you have a cancellation almost in your schedule, so if you have a cancellation, you're getting paid nothing. So yes, unfortunately, the government does not pay well under RAMQ. And the vast majority of special needs patients are paying under RAMQ. So, you don't get paid a lot. I just saw that special needs patient. I did two extractions, and I got paid \$149. OK? It doesn't include all the research I did on his condition, 'cause he has a certain type of muscular dystrophy. So, I wanted to make sure that anything I do dentally would not create problems, so I went to look at my literature review. So, you just you take it as in your mind that you're doing a service, and you can even picture if you had a cancellation, you get paid zero dollars. So here you're getting paid something. (The dentist)

He also tried to overcome the financial limitations of treating people with disabilities by offering

promotions and payment plans to some people, especially the ones in need. Such modifications

were rooted in his non-business mindset, as two of the dental team members explain:

He is so good. Exactly. He always tells them, you know what I mean, like don't worry, like we will do whatever is essential, get you out of pain, that's the most important thing. We will get you out of pain, and you will make a payment plan whatever. And I think, actually, with Dr. [dentist's name], money is the last of his concerns, believe it or not. (Hygienist A2)

He offers some special prices as well to the patients that are elderly after a certain age because of uh the financial resources. (Hygienist A.1)

C. Intervention

In dental encounters, person-centred care is defined as regulating the treatment based on each patient's values and expectations. I observed the dentist during dental procedures, and he appeared mindful of each patient's characteristics and abilities. For instance, regarding patients with different levels of disability, he regulated his communication style, and the treatment's pace and technics based on each patient's limitations and abilities.

He also appeared to consider the importance of preventive measures in his patients. To implement such measures in certain patients, he needed the cooperation of their caregivers. These patients had a combination of physical and mental disabilities, and were unable to do their daily routines independently, Therefore, he also paid attention to the caregivers' ability and willingness to perform daily hygiene measures such as brushing and flossing.

In one case, the patient was an older woman in a wheelchair unable to brush her teeth. For years, the caregiver cooperated with the dentist in maintaining the patient's oral health, by following the dentist's instructions about how and when to brush her teeth, and by bringing her to the clinic for regular recalls. The dentist and the caregiver were both satisfied with the results of such cooperation: No periodontal disease existed in the woman's oral cavity. However, in another case, a caregiver was in charge of a patient's oral health maintenance, and the dentist believed that she did not care about the patient's oral health. For this patient, he performed a deep cleaning, since he believed this treatment would be the only oral care that the patient would receive.

During the dental appointments, he took different communication measures for different patients. For instance, when the patient had a mobility disability, without mental limitations, his word choice and was the same as people without disabilities. However, for a patient with both physical and mental limitations who was unable to talk, he tried to focus on finishing the task more quickly, using very few words to the patient: "there will be lots of water, [patient's name]," "Put your hands

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down, [patients name]," or "I will finish it soon." In the interviews with the staff, some of them expressed holding the same approach, regulating their way of treatment based on the patient's needs and capacity:

I want them to be as comfortable as possible, so I try to be considerate with the position that I put the patient on, the work I do. I try to do the work faster sometimes if they are not able to handle too much or it's too stressful for them. So, I will say consider the needs of the patient [is my strength]. (Hygienist A.1)

Dental team members had approaches to handling the physical limitations of their patients. Although there was a mobile hoist in the office, usually, the dentist treated patients having a combination of mental and physical disabilities in their wheelchairs. This approach, which was possible because of the sufficient room size and long hoses of the dental chair, decreased the patient's discomfort and anxiety by eliminating the need for a transfer. It also helped the dentist to focus on the treatment process instead of the transfer process. However, the team members mentioned some timing and physical challenges associated with treating patients in wheelchairs:

It's easier for them to stay in their chairs, but it's easier for us to work on them in the dental chair, so if we know we're going to transport them, I book a little bit longer time, so we have [sufficient time]. (Assistant-secretary Team A)

The positions I work at as well, my back, my hand, if they, if I can't move them from the wheelchair and the chair reclines a little bit (Hygienist A.1)

Some dental team members mentioned that people with disabilities have different levels of disabilities, different personalities and therefore, a wide range of expectations about how much help and attention they needed. It appeared that the staff respected this wide range of expectations and avoided a "one size fits all" approach. In other words, the staff changed their level of physical and emotional assistance based on the expectations of each person. As members of the staff explained:

... Some of the older ones who don't get out much so they love when we're talking to them and putting them first and giving them all the attention yeah so (Assistant-Secretary Team A)

Well, this, the man that was here in the summertime, we've, he's been here since I've been here, so I know his personality. I just say, "oh can I help you with this?" And he's, "no, no, no, don't worry, I got it. I got it." Whereas the other ones, if I say, "Oh, can I hang your jacket up for you?" "Oh yes, thank you so much, dear" so (laughs) (Assistant-secretary Team A)

They manage to do, they just go very slowly. You just gotta be careful when you put the chair down, and I try to always ask them how much I can recline the chair. (Hygienist A.1)

I respect them. I have another patient who's bilateral amputation, who wheels his chair in here. I never help him transport to the dental chair. He comes over, locks his wheelchair in position, pulls his body up and that's fine. He has his free will and is able to do things. I'm not interfering, you know, and I just unlock his wheelchair and bring it out of the room for space-wise and then I bring it back in when he's ready, when we're finished with him, he transports himself back into the chair. (The dentist)

Although the clinic offered a wide range of oral health services, certain treatments were not provided. Therefore, patients needed a referral system, offering them treatments such as root canal therapies, implant surgeries, and orthodontics. As mentioned before, many dentists, including some specialists, are not willing or able to serve people with mobility disabilities. Thus, they needed an efficient referral system even more than the general clientele of the clinic. To develop such an efficient referral system, and to guarantee access to more complicated oral health care, the dentist had a professional network of accessible specialists, willing and able to provide care to people with mobility disabilities.

In addition, he paid attention to the details of each referral process and helped patients and their companions understand the number of treatment sessions, possible costs, and probable prognosis of their necessary treatment. Moreover, to facilitate the referral process for the patients and their

families, he called the specialist before their appointment and explained the patients' characteristics and their dental situation.

I've sent our special needs [patients] to specialists, and I've explained to them that Mr. Smith is wheelchair-bound. Should be working well. I explained to them ahead of time, so they know OK, and they've all accepted them without any problems. If I have to send this patient out to a specialist, likely [root] canal or something like that. No, they understood, and they accept them as well. (The dentist)

Chapter 6: Discussion

6.1. Summary of objectives

This study aimed to describe the characteristics of an inclusive dental clinic in Montreal. Considering this clinic as a model of inclusivity for current and future dental clinics, we also sought to understand how its human and non-human environments made it an accessible place for elderly people and people with disabilities.

6.2. Summary of the findings

Our study revealed the roots of the dentist's willingness to establish an accessible and inclusive dental clinic, the way its human and non-human environments contributed to this inclusivity, and team members' approaches to serve people with disabilities and provide quality oral healthcare.

By way of explanation, the dentist's empathetic worldview, grounded in his teenage years of volunteering for people with disabilities, supported his feeling of social accountability and his willingness to establish an accessible dental clinic. His first years of professional practice in other clinics, combined with his personal experiences with people with disabilities enabled him to design the non-human and human environments of his clinic. He allocated large physical spaces to each room of the clinic and recruited people with humanistic attitudes. The physical environment of the clinic was almost ready for serving people with mobility disabilities, but caused limitations for some of them.

Findings also demonstrated that the dentist's non-business mindset and his sense of humour in combination with the mentioned human and non-human environments, had providedallowed a low-stress and friendly clinical environment, with benefits to two groups of people: the staff (including him), who had enough time to pay attention to the patients, and enjoy their job. The

low-stress environment also benefited the patients, who felt welcomed and somewhat at home in the clinic.

Finally, we argue that this low-stress environment constituted an infrastructure for the staff to welcome people with disabilities and older adults and be person-centred. Team members tried to understand their patients' needs, give them power in the decision-making process, and propose interventions based on each patient's needs. Importantly, this person-centred approach allowed the staff to overcome patients' physical limitations and be flexible in terms of transfer options. The staff also showed flexibility in overcoming their patients' financial limitations and covering some insufficiencies in the clinic's physical environment.

6.3. Limitations

Conducted in a dental clinic located in Montreal, Quebec, Canada, our study has produced knowledge that cannot be generalized to other geographical, social and cultural environments. Our findings, though, may be transferrable to other contexts, and we invite the readers to examine what aspects of our findings may apply to their own context.

Our data was provided by semi-structured interviews conducted with 11 people, including staff members and people with disabilities who received care at the clinic. Although some people may consider this number as low, this sample size is common in qualitative studies. As Sandelowski explains: "An adequate sample size in qualitative research is one that permits - by virtue of not being too large - the deep, case-oriented analysis that is a hallmark of all qualitative inquiry, and that results in - by virtue of not being too small-a new and richly textured understanding of experience." Furthermore, our study's data was enriched by non-participant observation that lasted
two weeks, during which I observed the clinic's human and non-human environments as well as patients' dental care pathways.

6.4. Strengths

We adopted a focused ethnography approach. As Rashid et al. (57) explain, ethnography is a valuable approach for "observing, inquiring, and understanding peoples' experiences, interpretations, their interactions, and relationships surrounding a topic in a real-life context." (57) Focused ethnography, by its narrower scope, allowed us to better understand the clinic's subculture regarding how they serve people with disabilities.

Moreover, my background as a dentist, clinic founder and owner helped me better immerse myself in the research field to conduct information-rich observations and better understand the dentist participant's processes of establishing his dental clinic, recruiting his staff, and managing his practice in terms of organization and financial constraints. In addition, my ten years of experience working as a dentist in several dental offices helped me pay attention to the relationships between team members while I was observing dental encounters. I was also familiar with and sensitive to the challenges regarding providing oral healthcare to marginalized people.

My observations might have been affected by the Hawthorne effect, which happens when participants tend to modify their behavior while they are observed by the researcher. However, I think I was able to reduce this effect by embedding myself within the clinic's environment, and by building a strong rapport with all the dental team members. (63)

6.5. Reflexivity

As Denzin and Lincoln explain, reflexivity is defined as the process in which "researchers are obliged to delineate clearly the interactions that have occurred among themselves, their methodologies, and the settings and actors studied." (64) Since our study was a focused ethnography and considering my familiarity with the culture being studied, it is important to acknowledge the influence of ideologies, values and beliefs that shape my worldview, in a transparent manner. (65)

In 2011, I graduated as a dentist in Iran. After two years of service in public clinics, I established my dental clinic in a small town and started my private career there. During the following eight years in my clinic, I welcomed people from different socioeconomic backgrounds, a remarkable proportion of whom was from vulnerable communities, mostly because of poverty. Without sufficient undergraduate education in social dentistry, I tried hard to use my best knowledge to improve their oral health status and, more importantly, not allow their financial problems to exclude them from receiving care at my clinic.

My efforts were not fruitful, since poverty hindered many in my small community from receiving oral healthcare services. As a dentist, feeling this inequality and trying to make a fundamental change in people's quality of life, I decided to participate in a graduate program in dental public health. I started my studies at McGill in 2020 and noticed that for some people, especially those with disabilities, access to oral healthcare was maybe a more complicated issue. Realizing that affordability and ability to pay were only one aspect of the barriers to oral healthcare, I became interested in understanding other barriers encountered by people with disabilities.

Regarding my feelings toward the participants, I should mention that I admire the dentist-owner of the clinic in which I conducted my research. This admiration is partly because I believe we have many experiences, characteristics, and beliefs in common: a) We both intended to be inclusive; whereas he tried to serve people with disabilities, I used to help poor people receive oral healthcare. b) We shared some fundamental ideas about happiness, job satisfaction, and financial gains. c) I

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also admired his sense of humour, which I have always felt necessary to make a healthcare center less stressful for both team members and patients.

6.6. Contributions and future

This study is important as it shows how a private dental clinic was developed to serve people with physical and mental disabilities, particularly elderly people and wheelchair users. We intend to present this clinic as a model of accessibility and show that despite various challenges, inclusion in oral healthcare is feasible and thus far from being a utopian, unrealistic dream.

6.7. Interpretations

In the following sections, I will first present my interpretations regarding the roots of the dentist's willingness to be inclusive, and the way the clinic served in terms of serving people with mobility disabilities. Then, I will show how my findings compare with previous studies and, finally, will suggest ways to improve access to oral healthcare for people with disabilities.

I postulate that the dentist's humanistic worldview and beliefs about dentists' social accountability are the main reasons for his willingness to establish an inclusive dental clinic. In addition, his nonbusiness mindset helped him and his team members to overcome the challenges of serving people with disabilities, particularly financial challenges. In other words, the way he defined concepts like 'happiness,' 'job satisfaction, 'social responsibilities, and 'profit' dictated the process by which his clinic served people. I also argue that regulations regarding buildings' accessibility and his education in dental school had a minor impact on the way he became inclusive.

6.8. Validating findings

The dentist's empathetic mindset toward people with disabilities was shaped years before dental school. While a teenager, his empathy and his social accountability motivated him to volunteer in a health center for people with disabilities. This experience even increased his empathy and shaped his understanding of living with disabilities. According to him, years later, and after graduating from dental school, this was a reason why he created an accessible clinic. His worldview also ruled the establishment process, in which he designed the physical environment and shaped the human environment by recruiting team members aligned with his views.

The dentist mentioned no official regulations or mandatory academic dental education as factors helping him with the inclusive aspects of the establishment process. He neither stated any official education regarding setting policies helping him run the clinic in an inclusive and accessible way. Moreover, clinic staff members stated that their official training regarding caring for people with disabilities and older adults was insufficient. Finally, our findings showed how the low-stress environment helped team members hold person-centered and inclusive approaches.

6.9. Literature

In the next paragraphs, I will show how my interpretations on the origins of the dentist's empathy and social awareness, and the inefficiency of official regulations regarding the physical environment, align with the scientific literature.

6.9.1. Sources of empathy and social awareness in dentists

A study by Waldrop et al. (66) suggests that exposure to the daily life of people with complicated medical conditions or disabilities could result in increased empathy in dental students. This is in line with our interpretation that the dentist's empathy toward people with disabilities increased before entering dental school, through his volunteer work for people with disabilities.

With respect to dental students' social accountability, studies suggest that academic education is not effective in fostering such accountability. A study from New Zealand, for instance, shows that dental education failed to train dentists who consider it is their obligation to reduce oral health inequalities. According to this study, even after receiving information about their social duties, dental students did not believe they should serve disadvantaged populations, such as people with disabilities. (67)

The way social aspects of dentistry, and subjects like empathy and social responsibilities are taught in Canadian schools attracted academicians' attention several decades ago. Paynter, in 1965 believed that the "technical excellence" of Canadian graduates had been achieved by sacrificing more important materials: "A very small part of the curriculum time is spent in formal discussion of standards of moral, ethical and professional behavior and responsibility — not more than a small fraction of one percent of the time in any one year. These things are not really learned from a lecture or textbook in any case. Much of a student's basic sense of responsibility should be ingrained in him before he ever enters the university..." (68)

Paynter believed that the sole purpose of the dental profession was to serve the public. He also criticized "the sadly neglected sociology" in Canada's dental curriculum. Based on what we read from his report from 1965, it should not come as a surprise the graduates of Canadian dental schools of that time had not developed empathy nor a sense of social responsibility, and consequently were not ready to serve people with disabilities after graduation.

6.9.2. Effectiveness of building accessibility regulations

Several studies have discussed the effectiveness of the regulations regarding the accessibility of healthcare facilities. Despite being a pioneer in enacting legislation promoting the inclusion of

people with disabilities, Quebec is far from being barrier-free in the oral health sector. People with disabilities living in Quebec have indeed reported physical barriers at several stages of their dental encounters. (6, 37, 45) They complain about the lack of information about physically accessible dental clinics and report difficulties in entering and circulating in these facilities, even in those presented as accessible by their owners. (45)

This is despite legislation regarding improving the physical accessibility of buildings, including healthcare centers. The mentioned studies show that at least in some South and North American countries, including Canada, the physical regulations are ineffective in creating barrier-free physical environments in healthcare facilities.

This situation is not universal. France, for instance, implemented strict rules regarding the physical accessibility of healthcare facilities. In 2005, French policymakers enacted legislation according to which "each individual with disabilities is entitled to accommodation to secure equal access to all programs and services. By virtue of this obligation, an individual with disabilities is guaranteed both access to the fundamental rights belonging to all citizens and the ability to fully exercise citizenship". An obstacle-free environment is obligatory for public and private facilities. So, entries, reception areas, and waiting rooms must be accessible for people using different moving aids. Any violations of this rule could end in a complaint from the citizens. (69)

6.10. Suggestions

6.10.1. Modifying admission policies in dental schools

Admission policies of dental schools have changed to admit students with higher levels of empathy and non-cognitive skills. The efficacy of such reforms is questionable, though, for a series of reasons. The validity of admission tests has been debated and relying on them might exclude potential socially accountable candidates. Moreover, some test results are not trustable because questions from previous tests are available to candidates, enabling them to receive high scores by being ready to answer those questions. (70)

According to a report by Allison et al. (70) in 2014, despite evidence supporting the importance of non-cognitive skills, Canadian dental schools were still mainly focused on academic records and cognitive skills as the basis of their admission criteria. However, almost all the Canadian dental schools use interviews to assess non-cognitive characteristics of the candidates, including "professionalism, communication, conscientiousness, integrity, judgment and analysis, management of people, self-control, sensitivity to others, tact and diplomacy, ethical attitudes, organizational skills, community service, management of stress, empathy, and willingness for lifelong learning." (70)

6.10.2. Improving dental curricula

To improve inclusivity among dentists, it is essential to improve the quality of dental education in terms of empathy, social accountability, and person-centred care. In the following sections, I will discuss how such improvements in dental education could improve the accessibility of future dental clinics. But before, it is essential to consider some concerns regarding the effectiveness of such improvements, in terms of the adequacy of curriculum time, and financial matters.

First, dental curricula, which last only four years in Canada, are overcrowded to the point it is difficult to add disciplines, such as geriatrics and dental care for people with particular needs. (71) Second, regarding the financial aspects of dental practice, it is noteworthy that general dentists graduate with the highest amount of debt among healthcare students. (72) Their concerns to

reimburse massive debts may impede their willingness to serve people such as those with disabilities who, according to them, may require time and efforts. (72)

Despite the mentioned challenges, researchers suggest several approaches to reform or improve the dental curriculum. Inspired by narrative medicine, some researchers have defined "narrative dentistry" as a tool to raise dental students' awareness of human beings. They suggest that "It would enrich the clinical clerkship of dentists by bringing the often-missing humanities to the dental academic and scientific environment." (73) Several methods are used in this approach: Reading literary texts, film viewing and discussion, reading patient narratives and writing reflections on them. What all the mentioned methods have in common is providing an atmosphere in which dental students could become aware of their potential patients' daily life challenges. (73)

Comparing the curricula of Canadian and British dental schools in 1965, Paynter believed that a sense of social responsibility was an integral part of the education in British dental schools. He believed such a sense was developed due to their different system of dental school clinics: ". [The British school clinics] function as out-patient departments of hospitals, with treatment supplied largely by dental school students. The dentist's responsibility to the patient is ingrained into the British dental student from the beginning under this environment." (68)

Indeed, such an educational system increases dental students' exposure to all social groups. As presented before, this exposure would increase their empathy and social accountability levels. We suggest adding the mentioned exposure to the standard curriculum of dental schools. Narrative dentistry, as mentioned, could be an excellent example of raising the awareness of future dentists regarding the human aspects of their careers. Currently, some Canadian dental programs use other approaches to increase exposure: aiming to increase the emotional links between future dentists and people with disabilities, lectures were presented by people with disabilities to the dental

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students. In addition, Gatherings are provided for dental students and people with disabilities out of the clinic setting to initiate personal interactions. (18, 66, 73)

6.10.3. Introducing changes in the oral healthcare system

As mentioned in previous sections, we believe that dental curricula should foster empathetic worldviews and non-business mindsets. We also discussed some challenges regarding the effectiveness of improving dental curricula in terms of the mentioned worldviews and mindsets. Another important challenge is to reach and train already-graduated dentists.

One possible approach would be to introduce changes in the payment system, and provide financial incentives to make dental clinics more inclusive. A more fundamental change would be to make oral healthcare part of the public healthcare system. Unlike the private sector, where serving people with disabilities is more of a personal decision from the health care providers, the public sector could foster inclusivity and even make it mandatory. In addition, governments could provide continuous education for dental practitioners, to ensure they are prepared enough to serve vulnerable populations, such as people with disabilities.

Chapter 7: Conclusion

This study was designed to describe the characteristics of champion clinics and understand how their human and non-human environments made them inclusive and accessible. Although some researchers have studied access to oral healthcare for people with disabilities, there is a dearth of research about how accessible clinics function and what pathways have led to their establishment. I tried to address this crucial gap by studying a 'champion' clinics in Montreal, Canada.

My study revealed that the 'champion' dentist's humanistic and empathetic worldview was the foundation of the design, the establishment, and the administration of his clinic's human and non-human environments. I also discovered that his worldview and his approaches were rooted in his personal experience and background rather than in his academic training and in professional regulations. Furthermore, I highlighted the importance of his low-stress and friendly work environment, which fostered his dental team members' ability to hold inclusive approaches toward people with disabilities, practice person-centred care, and even overcome some limitations related to the non-human aspects of his clinic.

Our study suggests that we may need better dental curricula and stricter regulations regarding healthcare facilities to develop accessible oral health services for people with disabilities. We thus recommend dental schools to pay particular attention to social aspects of oral healthcare and emphasize on person-centredness in their curriculum. We also call for stricter laws and regulations to improve the non-human aspects of oral healthcare facilities, and ways to enforce them. Finally, we invite dentists to reflect about their social contract with the population, and their obligation to serve all members of the society, with a particular attention to disadvantaged groups.

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Appendix

GUIDE D'ENTREVUE AVEC LES PROFESSIONNELS DENTAIRES

Winning pathways toward accessibility: the case of dental services for people using wheelchairs

Nom du professionnel participant: Identification de la clinique :

Numéro de l'entrevue:

Nom de l'interviewer:

Date de la rencontre:

NOTES GÉNÉRALES et RAPPELS

- Avant de commencer la discussion, ne pas oublier d'installer le magnétophone/enregistreuse ainsi que le magnétophone de secours: faire un test d'enregistrement et impliquer la personne pour détendre l'atmosphère.
- Commencer par des questions « ouvertes », selon une approche inductive (cf. les exemples de questions), puis poursuivre par des questions plus précises qui se focalisent sur les thèmes et sous-thèmes à l'étude (processus de *funneling*).
- Les questions sont écrites à titre d'exemples. Elles pourront être formulée de manière différente pour s'adapter au style et à la dynamique de la conversation (flexibilité)
- Si le participant aborde spontanément les thèmes de discussion dans un ordre différent que celui prévu, ne pas essayer de respecter l'ordre ; l'important est de favoriser sa spontanéité tout en s'assurant que l'on aborde tous les thèmes.
- Faire régulièrement des synthèses sur ce qu'a dit le participant afin de s'assurer que l'on a bien compris et que le participant n'a rien oublié.
- Faire régulièrement des synthèses en impliquant le participant (*wrapping*).
- À la fin de la discussion, demander au participant la permission de lui parler à nouveau en cas où nous aurions besoin d'éclaircir certains points de la discussion.
- Remercier le participant pour sa participation et lui demander comment il a trouvé l'expérience.
- Ne pas oublier de compléter le rapport d'entrevue une fois que la rencontre est terminée (le rapport est placé à la fin de ce document – possibilité de le compléter par ordinateur)

SECTION 1 – Aspects biographiques du professionnel participant

Cette section a pour but de décrire:

- 1) Son parcours professionnel et son rôle dans la clinique.
- 2) Le profil de la clientèle.

THÈMES	QUESTIONS À POSER	Points que l'intervieweuse
		devra identifier
Introduction de la personne	 Inviter le professionnel à se présenter. Exemple de question initiale : « Avant d'entrer dans le vif du sujet, pourriez-vous vous présenter et décrire votre parcours personnel et professionnel? » Exemples de questions de suivi: « Quel programme de formation professionnelle avez-vous suivi ? » « Comment avez-vous été amené à travailler dans cette clinique ? (Depuis quand ? Quel est votre emploi du temps dans cette clinique ?) » « Avez-vous travaillé (ou travaillez-vous actuellement) dans d'autres cliniques dentaires ? Si oui, pourriez-vous brièvement me parler de ces autres cliniques ?» Demander au participant de décrire son rôle et son statut dans la clinique : Exemple de question : « Pourriez-vous me décrire votre rôle au sein de cette clinique? » Exemples de questions de suivi: « Quelles sont vos principales responsabilités au sein de la clinique ? » 	 Formation professionnelle Expériences antérieures de travail Circonstances ayant amené le professionnel à travailler dans la clinique championne. Rôle, statut, et responsabilités dans la clinique
Description de la clinique et de la clientèle	 Inviter le participant à décrire l'historique de la clinique (sauf si déjà fait en détail par un autre professionnel dans une entrevue précédente / question à supprimer ou moduler) Exemple de question: « Pourriez-vous me brosser un rapide historique de cette clinique ?» Exemples de questions de suivi: « quand et par qui a-t-elle été crée ?) Inviter le participant à décrire la clinique (s'applique surtout au propriétaire de la clinique). Exemple de question: « Pouvez-vous me décrire la clinique, et notamment les personnes qui travaillent ici, leur rôle?» Demander au participant de décrire la clientèle de la clinique 	 Description générale de la clinique Profil général de la clientèle Profil et nombre de patients en fauteuil roulant Nota Bene: éviter les <i>overlaping</i> avec les entrevues déjà faites avec d'autres

Exemple de question: « Pouvez-vous me décrire le type de patients qui consultent ici?»	professionnels dans cette
Demander au participant des précisions sur les patients en	clinique
situation de handicap	
Exemple de question: « Quels sont les types de patients en situation de handicap que vous recevez ici?»	
Exemple de question de suivi: « Quels sont les différents types de patients en fauteuil roulant que vous recevez ici »? (types de condition, etc.)	
Exemple de question de suivi: « Y en a -t-il que vous ne recevez pas ? (si oui, comment l'expliquez-vous ?)	
Exemple de question de suivi: « Pourriez-vous estimer le nombre de ces patients dans la clinique? (à quelle fréquence les recevez-vous ?)	

SECTION 2 – Expérience avec les personnes en fauteuil roulant

Cette section a pour but de se focaliser sur :

- 1) les expériences avec les personnes en fauteuil roulant.
- 2) Les défis rencontrés
- 3) Les manières de les surmonter (ou non)

THÈMES	QUESTIONS À POSER	Points que
		essayer d'identifier
Expériences	 Inviter le participant à décrire ses expériences avec les personnes en fauteuil roulant Exemple de question initiale : «Pourriez-vous partager avec moi vos expériences avec les patients en fauteuil roulant ? Comment cela se passe-t-il en général ?» Exemple de question de suivi : « Pourriez-vous partager vos expériences positives (satisfactions) avec les patients en fauteuil roulant ? » (identifier la nature et fréquence des expériences positives, et demander au participant de les illustrer par des cas concrets) 	 Expériences positives avec les personnes en fauteuil roulant (qu'est-ce qui marche bien ?) Identifier la nature et fréquence de ces expériences, voir dans quelle mesure elles évoluent dans le temps (époques), identifier avec quels types de patients en fauteuil roulant elles s'appliquent, identifier les conséquences sur la clinique.
Défis et solutions	 Inviter le participant à décrire les défis avec les personnes en fauteuil roulant Exemple de question initiale : «Quels types de défis rencontrez vous dans la clinique (et vous même) avec les patients en fauteuil roulant ?» Exemple de question de suivi : « Y a-t-il des défis différents selon la condition (santé, type de fauteuil roulant âge etc.) des patients en fauteuil roulant?» 	 Décrire les défis avec les personnes en fauteuil roulant (<i>overlap</i> avec la sous section précédente) Identifier des moyens de surmonter ces défis

Exemple de question de suivi : « Comment faites-vous pour surmonter ces défis ? Quelles sont les approches qui fonctionnent bien ? » (demander pour chacun des défis)
 Exemple de question de suivi : « Dans quelle mesure êtes-vous satisfait de votre manière de surmonter ces défis ? (poser cette question pour chacun des défis) « Y- a-til des approches qui fonctionnent moins bien ? Lesquelles ? »
 Inviter le participant à décrire des possibilités de faire différemment avec les différents types de défis
 Exemple de question : « Y aurait-il des manières de faire différemment pour surmonter ces défis ? (et mieux ?) Pourriez-vous élaborer sur ce sujet ? » (poser cette question pour chacun des défis)

SECTION 3 – Description de l'environnement humain et non-humain de la clinique

L'objectif est d'avoir la perspective du professionnel sur l'environnement humain et non-humain de la clinique. Il s'agit, pour ces 2 environnements, d'identifier les points forts, les points faibles, et les manières d'améliorer la qualité de l'environnement de la clinique et son accessibilité pour les personnes en fauteuil roulant.

THÈMES	QUESTIONS À POSER	Points à identifier
Caractéristiques humaines de la clinique	 Inviter le participant à décrire ses points forts/habiletés avec les personnes en fauteuil roulant Question initiale : « Pourriez-vous me décrire vos points forts, vos compétences, en tant que professionnel, pour répondre aux besoins spécifiques des personnes en fauteuil roulant? » Question de suivi: « Comment avez-vous acquis (ou développé) ces compétences ? » Questions de suivi: « Quelle est l'efficacité de vos compétences ? » Question initiale : « Pourriez-vous me décrire vos points être améliorées ? » Inviter le participant à mentionner ses points faibles (habiletés) avec les personnes en fauteuil roulant Question initiale : « Pourriez-vous me décrire vos points faibles, en termes de compétences et d'habiletés, pour répondre aux besoins spécifiques des personnes en fauteuil roulant? » Questions de suivi: « Dans quelle mesure vos compétences pourraient-elles être améliorées ? » Inviter le participant à décrire les points forts (et éventuellement) les points faibles (habiletés) des autres professionnels de la clinique avec les personnes en fauteuil roulant » (attention, agir avec tact pour ne pas avoir une démarche blâmant les autres professionnels de la clinique, pour répondre aux besoins spécifiques, des autres professionnels de cette clinique, pour répondre aux besoins spécifiques des personnes en fauteuil roulant? » Question initiale : « Pourriez-vous me décrire les points forts, en termes de compétences, des autres professionnels de la clinique avec les personnes en fauteuil roulant? » Question initiale : « Pourriez-vous me décrire les points forts, en termes de compétences, des autres porfessionnels de cette clinique, pour répondre aux besoins spécifiques des personnes en fauteuil roulant? » Question de suivi: « Comment les autres professionnels ont-ils acquis (ou développé) ces compétences ? » Question de suivi: « Pourriez-vous me décrire les points forts, en termes de compétences, des a	 Décrire les points forts du professionnel (compétences et habiletés avec les personnes en fauteuil roulant) Identifier les points forts des autres professionnels de la clinique Nuancer les questions en fonction des différents types de personnes en fauteuil roulant (type de condition, type de fauteuil roulant)

	Question de suivi: « Dans quelle mesure pourrait-on, selon vous améliorer les compétences de l'équipe?»	
Caractéristiques non-humaines de la clinique	 Inviter le participant à décrire l'espace physique de la clinique relativement aux personnes en fauteuil roulant. Question initiale : «Pourriez-vous décrire dans quelle mesure l'espace (la pièce) où vous travaillez le plus est adaptée aux personnes en fauteuil roulant ?» Questions de suivi concernant les volumes physiques, le mobilier, les objets, et les équipements Questions de suivi concernant les volumes physiques, le mobilier, les objets, et les équipements Questions de suivi concernant les volumes physiques, le mobilier, les objets, et les équipements Questions de suivi concernant les différents espaces de la clinique sont adaptés aux personnes en fauteuil roulant ?» Questions de suivi concernant les différents espaces de la clinique (entrée, couloirs, salle d'attente, salle de bain, salle de RX, salle de soins, etc.), le mobilier, les objets, et l'équipement de chacune des pièces. Inviter le participant à décrire les défis et les améliorations possibles concernant l'environnement non-humain de la clinique. Question initiale : «Quels sont les principaux défis que vous rencontrez pour que la clinique soit accessible aux personnes en fauteuil roulant?» Questions de suivi concernant a) la pièce dans laquelle le professionnel travaille le plus) dans les autres pièces. Pour chacune, aborder les volumes physiques, le mobilier, les objets, et les équipements Question de suivi: « dans quelle mesure surmontez vous ces défis?» « comment pourriez-vous faire pour les surmonter et rendre la clinique plus accessible ? » 	 Description de l'environnement non-humain : forces et améliorations possibles Nuancer les questions en fonction des différents types de personnes en fauteuil roulant (type de condition, type de fauteuil roulant)
Questions finales	 Question complémentaire: « Pourriez-vous me dire comment votre clinique se compare à d'autres en ce qui a trait à l'accessibilité des personnes en fauteuil roulant ?» Question complémentaire: « Pourriez-vous imaginer une clinique dentaire idéale ? Comment serait-elle ? » (aspects humain et non-humain) Comment pourrait-on développer une telle clinique ? Question pour finir : « Avez-vous des choses à rajouter sur le sujet qui nous intéresse ? Y a-t-il quelque chose qui vous parait important et que l'on n'aurait pas abordé ? » 	• Wrap up

SECTION 4 – Court questionnaire

Exemple de transition avec la section précédente : "Avant que l'on se sépare, j'aimerais vous poser quelques questions plus personnelles..." :

- Âge :
- Sexe :
- Langue maternelle :
- Statut et rôle dans la clinique :
- Formation professionnelle :
- École professionnelle :
- Année de graduation :
- Depuis quand travaille dans la clinique dentaire championne:

GUIDE D'ENTREVUE AVEC LES PERSONNES EN FAUTEUIL ROULANT

Winning pathways toward accessibility: the case of dental services for people using wheelchairs

Nom du participant: Nom de l'interviewer: Numéro de l'entrevue:

Date de la rencontre:

NOTES GÉNÉRALES et RAPPELS

- Avant de commencer la discussion, ne pas oublier d'installer le magnétophone/enregistreuse ainsi que le magnétophone de secours: faire un test d'enregistrement et impliquer la personne pour détendre l'atmosphère.
- Commencer par des questions « ouvertes », selon une approche inductive (cf. les exemples de questions), puis poursuivre par des questions plus précises qui se focalisent sur les thèmes et sousthèmes à l'étude (processus de *funneling*).
- Les questions sont écrites à titre d'exemples. Elles pourront être formulée de manière différente pour s'adapter au style et à la dynamique de la conversation (flexibilité)
- Si le participant aborde spontanément les thèmes de discussion dans un ordre différent que celui prévu, ne pas essayer de respecter l'ordre ; l'important est de favoriser sa spontanéité tout en s'assurant que l'on aborde tous les thèmes.
- Faire régulièrement des synthèses sur ce qu'a dit le participant afin de s'assurer que l'on a bien compris et que le participant n'a rien oublié.
- Faire une large synthèse à la fin en impliquant le participant (*wrapping*).
- À la fin de la discussion, demander au participant la permission de le recontacter en cas où nous aurions besoin d'éclaircir certains points de la discussion.
- Remercier le participant pour sa participation et lui demander comment il a trouvé l'expérience.
- Ne pas oublier de compléter le rapport d'entrevue une fois que la rencontre est terminée (le rapport est placé à la fin de ce document – possibilité de le compléter par ordinateur)

SECTION 1 – Aspects biographiques et contextuels du participant

Cette brève section a pour but de mieux « cerner » la personne concernant:

- 1) Sa situation familiale, sociale et professionnelle.
- 2) Les conditions / circonstances ayant conduit à l'utilisation d'un fauteuil roulant.
- 3) Sa vie en fauteuil roulant.

THÈMES	QUESTIONS À POSER	Points que l'intervieweuse
		devra essayer d'identifier
Introduction de la personne	 Inviter le participant à se présenter. Exemple de question initiale : « Avant que nous parlions de santé buccodentaire, pourriez-vous d'abord vous présenter et me parler un peu de vous? » Inviter la personne à parler de sa situation familiale et professionnelle. Exemples de question: « Pourriez-vous décrire votre situation familiale ?» « Dans quel quartier habitez-vous ? » Exemple de question: «Pourriez-vous me parler de votre occupation principale? Exemple de question: « Avez-vous une assurance dentaire ? (Si oui : quels sont les traitements couverts ?) » 	 Situation familiale Lieu de vie Type d'emploi Assurance dentaire
Circonstances	 Inviter le participant à décrire son utilisation d'un fauteuil roulant. Exemple de question: « <i>Pourriez-vous me dire</i> 	 Nature de l'utilisation du fauteuil roulant (utilisation permanente,
l'utilisation d'un fauteuil roulant	 depuis quand vous utilisez un fauteuil roulant? » Inviter le participant à décrire les circonstances ayant conduit à l'utilisation du fauteuil. Exemple de question: « Quelles sont les raisons pour lesquelles vous utilisez un fauteuil roulant?» (attention, avoir du tact pour cette question qu'il faudra ajuster en fonction de la personne) 	 partielle) Type de fauteuil roulant (électrique, manuel) Raisons (ou condition médicale) ayant conduit à l'utilisation du fauteuil

Vivre avec un	 Inviter le participant à décrire sa vie avec sa condition et l'utilisation du fauteuil : Exemple de question <i>a Bourries vous me parler de</i> 	 La vie en fauteuil roulant
fauteuil roulant	 Exemple de question: « Pourriez-vous me parler de votre vie en général avec cette [condition – maladie]? » Inviter le participant à parler de sa santé générale, notamment reliés à sa condition : Exemple de question: « Pourriez-vous me parler de votre santé en général ? » 	 L'état de santé générale de la personne Faire transition avec la section suivante (avec le thème de la santé) – la transition devrait se faire naturellement

SECTION 2 – La santé dentaire du participant

Cette section a pour but d'aborder la question de la santé buccodentaire.

1) sa santé et les problèmes buccodentaires.

2) la gestion de sa santé buccodentaire

THÈMES	QUESTIONS À POSER	Points que l'intervieweuse devra essayer d'identifier
Sa santé buccodentaire (et ses problèmes dentaires)	 Avec le participant, aborder le thème de la santé buccodentaire : Question initiale : «J'aimerais maintenant que vous me parliez de votre santé buccodentaire. Comment la décririez-vous ?» Question de suivi : «Considérant votre condition [médicale-physique], quelle est la place que prend la santé buccodentaire dans votre vie ? » Question éventuelle de suivi : «Pourriez-vous me décrire les problèmes dentaires que vous rencontrez? » 	 Comment le participant perçoit sa santé buccodentaire Identifier les problèmes dentaires que le participant rencontre
La gestion de sa santé dentaire	 Demander au participant de décrire ses <u>stratégies préventives</u> pour sa santé buccodentaire. Exemple de question: « Que faites vous pour avoir des dents en santé?» Inviter le participant à décrire ses <u>stratégies de consultation</u> dentaire Question initiale : « <i>De manière générale, dans quelles circonstances consultez-vous pour vos dents?</i> » Question de suivi : « <i>Pourriez-vous me dire comment cela se passe en général quand vous voulez consulter pour vos dents ?</i> » Question de suivi : « <i>Depuis combien de temps consultez-vous la clinique où nous nous sommes rencontrés ?</i> » (« <i>Comment l'avez-vous identifiée ?</i> » « <i>Comment cela se passe-t-il dans cette clinique là en général ?</i>) 	 Stratégies pour la santé buccodentaire Décrire les relations avec les professionnels dentaires en général (fera la transition avec section suivante)

SECTION 3 – Retour sur la dernière visite (celle que nous avons observée dans la clinique)

Cette <u>section est importante</u>: il s'agit de faire un retour sur la consultation que nous avons observée. Les questions que nous poserons doivent être adaptées/ajustées à nos observations (et donc personnalisées).

L'objectif est d'avoir la perspective du patient sur sa visite et sur ses interactions avec l'environnement humain et non-humain de la clinique. Il s'agit, pour ces 2 environnements, d'identifier les points forts, et éventuellement d'identifier les points faibles et les manières d'améliorer la qualité de l'environnement de la clinique et son accessibilité.

THÈMES	QUESTIONS À POSER	Points à identifier
Initiation de la visite	 Inviter le participant à décrire sa dernière visite (plus précisément celle que l'on a observée) Question initiale : « J'aimerais maintenant revenir sur votre visite de la clinique dentaire. Pourriez-vous m'expliquer les circonstances de cette visite ? » (« Qu'est-ce qui a motivé votre visite? ») Question de suivi: « Pourriez vous m'expliquer comment s'est pris le rendez-vous ? Question de suivi: « Dans la prise du RV, dans quelle mesure avez-vous (ou la clinique) pris en compte les questions du transport ? (choix d'une date, d'une heure, et d'une durée) Question de suivi: « Pourriez-vous m'expliquer comment s'est déroulé le transport ce jour là ? » 	 Motivations et contexte du RV Prise du RV (date, horaire, durée de la plage horaire – cf. liens avec le transport adapté)
Description générale de la visite (approche narrative inductive)	 Inviter le participant à décrire la visite. Les questions suivantes servent de jalon. Elles doivent être suivies de questions supplémentaires pour approfondir. Question initiale : «Pourriez-vous, de manière chronologique et en détail, me décrire la manière dont vous avez vécu cette visite, en commençant par le moment où vous êtes arrivé à la porte d'entrée de la clinique ? » (cette question peut amener une narration assez longue. Peut nécessiter des questions de suivi pour obtenir des 	Description de la visite (toutes les étapes de la visite)

	éclaircissements à la fin de la narration, ou pendant la	
	narration)	
Description des aspects positifs et négatifs	 Inviter le participant à décrire les aspects positifs dans la clinique Question initiale : « Pourriez-vous me dire ce que vous avez apprécié pendant cette visite? » (Aspect humain : « Pourriez-vous me dire ce que vous avez apprécié avec [toutes] les personnes qui travaillent à la clinique? ». Aspect non-humain : « Pourriez-vous me dire ce que vous avez apprécié en ce qui concerne l'espace physique [les locaux, le mobilier, les objets, les équipements] pendant cette visite? ») Question de suivi: « De manière générale, pourriez-vous me décrire les points forts de cette clinique? (aspects humains et non-humains, même si la personne les a observés dans une visite précédente dans la même clinique)» Ajouter ici des questions directement liées à l'observation Inviter le participant à décrire les aspects négatifs dans la clinique Question initiale : « Pourriez-vous me dire ce que vous avez moins apprécié pendant cette visite? » (Aspect humain : « Pourriez-vous me dire ce que vous avez moins apprécié pendant cette visite? » (Aspect humain : « Pourriez-vous me dire ce que vous avez moins apprécié pendant cette visite? » (Aspect humain : « Pourriez-vous me dire ce que vous avez moins apprécié pendant cette visite? » (Aspect humain : « Pourriez-vous me dire ce que vous avez moins apprécié ne ce qui concerne l'espace physique [les locaux, le mobilier, les objets, les équipements] pendant cette visite? ») Question de suivi: « De manière générale, pourriez-vous me décrire les points « faibles de cette clinique ? 	 Aspects positifs (aspects humain et non-humain de l'environnement clinique) Aspects négatifs Ajouter éventuellement des questions reliées directement à l'observation

Améliorations possibles	 Inviter le participant à proposer des améliorations Question initiale : « Pourriez-vous m'expliquer comment la clinique pourrait être améliorée (pour répondre à vos besoins – dimensions humaine et non-humaine) ?» (explorer tous les points « faibles » mentionnées par la personne et ajouter des points tirés de notre observation) Question complémentaire: « Pourriez-vous me dire comment cette clinique se compare à d'autres que vous avez consultées ?» Question complémentaire: « Pourriez-vous imaginer une clinique dentaire idéale ? Comment serait-elle ? » (aspects humain et non-humain) Question pour finir : « Avez-vous des choses à rajouter sur le sujet qui nous intéresse ? Y a-t-il quelque chose qui vous parait important et que l'on n'aurait pas abordé ?» 	 Identifier amélioration (aspects humain et non-humain de l'environnement clinique)

SECTION 4 – Court questionnaire socio-démographique

Exemple de transition avec la section précédente : "Avant que l'on se sépare, j'aimerais vous poser quelques questions plus personnelles..." :

- Âge:
- Sexe :
- Situation familiale :
- Langue maternelle :
- Situation professionnelle :
- Assurance dentaire (entourer réponse) : Oui Non
- Si oui, type d'assurance (entourer) : Privée Publique
- Depuis quand consulte la clinique dentaire observée :
- Type de fauteuil roulant utilisé :
- Date de début d'utilisation de fauteuil roulant :
- Conditions ayant conduit à l'utilisation du fauteuil :