

**Socio-Economic Barriers of Oral Healthcare: How does it Relate to
Quality of Life?**

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Abstract

Introduction: Poor oral health can have a significant negative impact on people's quality of life, especially for those facing socio-economic barriers. Although quantitative research has identified differences in oral health outcomes between income groups, little qualitative knowledge exists regarding how these differences are experienced and lived. With an emphasis on identifying the obstacles people encounter and comprehending how these barriers manifest emotionally, socially, and structurally, this study investigates the effect of poor oral health on quality of life.

Methods: The study uses semi-structured interviews based on the Oral Health Impact Profile (OHIP) framework and a literature review as part of a mixed-methods approach. OHIP's seven domains—Functional Limitation, Physical Pain, Psychological Discomfort, Physical Disability, Psychological Disability, Social Disability, and Handicap—were used to analyse the responses of three interviewees who perceived their oral health as poor. To better capture psychological and social elements, a subset of items from OHIP-49 were added to the conventional OHIP-14 questionnaire.

Results: Results show that there are several ways in which oral health impacts quality of life. Significant psychological distress and social disengagement were experienced by all participants, and structural and financial impediments to dental care were common themes. The usefulness of the framework in assessing oral health-related quality of life (OHRQoL) was demonstrated by the correlation between the OHIP scores and the participants' actual experiences. In addition, participants demanded systemic changes to the Netherlands' systematic division of dental and general healthcare.

Conclusion: This study adds to the increasing amount of evidence that supports the idea that dental health should be seen as a crucial aspect of general health. It underlines how urgently policy changes are needed to increase access to dental care, particularly for disadvantaged groups.

Keywords: Oral health, Quality of Life, Oral Health Related Quality of Life, OHIP

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1. Introduction

Oral healthcare is not affordable to everyone in the Netherlands, especially for those who are unable to afford it as part of their health insurance. Adults with a lower income have reported to be less positive about their oral health compared to adults with a higher income. They have also reported that they have gone to the dentist less in the year 2020-2021. In particular people with poor healthcare without additional oral healthcare insurance have reported to have gone to the dentist the least (Centraal Bureau voor de Statistiek, 2022). Therefore, income has been suggested to be a barrier to be able to go to the dentist.

Moreover, a study from the RIVM (2024) suggests that there are “*substantial differences in oral health between different socio-economic groups*”, meaning people within the lower socio-economic group are more likely to rate their oral health as poor. It also mentions the difference between the amount of visits to a dental specialist between the groups, namely 71% among people in the lowest socio-economic group report having less frequent contact with their dentist against 91% in the highest socio-economic group. Moreover, poor oral health also has implications for overall health. Oral health offers clues about and affects overall health, as it can lead to conditions such as cardiovascular diseases, kidney disease and diabetes (Kane, 2017).

This report also mentions that this is the first time that the differences of oral health between socio-economic groups has been studied. However, it only discusses one's (perceived) oral health, but not the impact that this has on quality of life. This sentiment is also supported by Brondani and MacEntee (2013), as they suggest that the conceptualization of oral health has evolved in the past 30 years, but that dental research still refers to it as merely the absence of disease. Moreover, when discussing quality of life related to oral health, more than a dozen models focused mostly on dysfunction and disability. Generally speaking, oral health beyond its clinical implications is not often discussed, whilst the notion that oral health is integral to general health and well-being is widely understood (Baiju, 2017). Therefore, there is incentive to study this further.

1.1 Research Questions & Aim of the Study

The research question of this study is “What is the impact of poor oral health on quality of life?”. To be able to answer this research question two sub questions have been formulated, namely: (1) “What barriers do people with poor oral health face and how do they experience this (in their day-to-day life)?” and (2) “How do the barriers people face relate to their quality of life?”. These questions allow for a clear distinction between, firstly, understanding people’s experience regarding their oral health, and secondly how this relates to overall quality of life. To be able to understand the context in which these sub questions exist, such as the current status and debates regarding this topic in the Netherlands as well as globally, a literature review will allow for this insight so the experience of participants can be placed in the proper context. In addition, to have a proper understanding of one’s perceived oral health, concepts such as Quality of Life (QoL) and instruments to measure one’s oral health are relevant.

1.2 Research Relevance

The importance of oral health in determining general well-being is becoming more widely acknowledged. Nevertheless, there is still little knowledge of how socioeconomic group differences in dental care access impact people's quality of life, especially when looking at it qualitatively, despite numerous indicators of such differences. By investigating the lived experiences of those who face major obstacles to receiving oral health care, this study seeks to close that gap. The results are particularly relevant in the Netherlands, where dental treatment is not covered by basic health insurance. Recent pilot projects and ongoing political debates highlight how urgent it is to address this problem. This study provides theoretical understanding and practical implications for enhancing access and policy by describing the emotional, social, and functional effects of poor oral health.

2. Literature Review: Understanding Oral Health’s relation to Quality of Life

Whilst, as mentioned, some studies suggest that there are indeed differences between the oral health of socio-economic groups, research on the impact of this on the quality of life of those in question

is lacking. Therefore a better understanding of this is vital to be able to address these issues in a constructive manner. Recently, the issue of accessibility of oral health has already been addressed to the Parlement of the Netherlands, urging them to act upon this (“Eindverslag Verkenning Mondzorg – Project Verminderende Mijding Van Mondzorg Om Financiële Redenen,” 2024). Relating to this topic, there is currently a project in its starting phase in Leeuwarden which hopes to address this issue and offer oral healthcare to a select group of people who have poor oral health. This project seeks to collaborate with dentists in the area, amongst others, and to be able to hand the results of this intervention to the municipality and the parliament to give incentive to unfold initiatives such as these.

Moreover, this issue is not only relevant in the Netherlands, but it is a recurring issue globally. The World Health Organization (WHO) Global Oral Health Status Report and Global Strategy on Oral health 2023 to 2030 supports the statement that the economic status of individuals impacts their oral health and that, generally speaking, oral conditions put an economic burden on individuals and society (Jevdjevic, M., & Listl, S., 2025).

An increasing amount of research shows that structural determinants—the socioeconomic and political circumstances that influence people's lives from birth to old age—are the underlying cause of disparities in oral health. These variables, which collectively affect both exposure to oral health hazards and the capacity to manage disease, include income distribution, education, housing, employment, and access to healthcare (Aida et al., 2019). The conceptual framework of the WHO Commission on Social Determinants of Health emphasises how individuals' socioeconomic status is determined by larger societal structures, which in turn affects intermediary determinants such as material living conditions, stress, behaviours, and access to health care. These variables show up as a constant "social gradient" in the context of oral health, whereby worse oral health outcomes are associated with each decline in socioeconomic level.

Importantly, Aida et al. (2019) stress that addressing the underlying structural causes is crucial in order to minimise oral health disparities, as therapeutic interventions alone cannot do so. This entails

addressing the economic institutions, policy frameworks, and power disparities that sustain inequality. Oral health must therefore be viewed as a socially and politically structured phenomenon that necessitates systemic and multisectoral interventions, rather than only a clinical problem.

Similarly, Botelho et al. (2021) also suggests that the economic burden of periodontal disease is significant, meaning by making oral healthcare more accessible, this burden can be avoided. A study by Chandel et al. (2024) mentions the detrimental effects of poor oral health on daily functions for vulnerable populations due to limited dental insurance. Overall, oral health has an impact on both the life of individuals as well as economic impacts for governmental entities. Therefore, addressing this issue may be very beneficial for both and requires further research.

2.1 Quality of Life

Quality of life (QoL) is defined as “an individual's perception of their position in life in the context of culture and value systems in which they live, and in relation to their goals, expectations, standards, and concerns” (“The World Health Organization Quality of Life Assessment (WHOQOL): Position Paper From the World Health Organization,” 1995). Health related quality of life (HRQoL) has been recognized since the WHO expanded the definition of health in 1948. This expansion does not only apply to health solely, but also oral health denotes not merely the absence of disease, but general well-being. In the case of oral health, general well-being presents itself in the form of a person performing functions such as eating, talking and smiling (Baiju, et. al., 2017). According to Al Shamrany (2006), the impact of oral diseases on the quality of life is very obvious. It is mentioned that it is easily comprehensible that there are psychological and social impacts of such diseases on our daily life. Even more so, it suggests that any disease that could interfere with daily life activities may have an adverse effect on the general QoL. Moreover, Gift and Atchison (1995) suggest that an oral health-related quality approach benefits clinical practitioners, researchers and policy-makers and thus offers benefits to several actors when adopting this approach compared to one not viewing these concepts as inherent to each other.

Whilst numerous studies suggest this, oral health is still rarely viewed as inherently connected with quality of life in practice and regrets to exceed the clinical implications of oral diseases (Baiju, 2017).

2.2 Oral Health-Related Quality of Life

Oral health-related quality of life (OHRQoL) is a multidimensional concept that incorporates biopsychosocial factors related to oral health and is based on the World Health Organization definition that regards health as the condition of complete physical, mental and social well-being (Campos et. al., 2021). Similar to HRQoL, OHRQoL is an integral part of general health and well-being and is even recognized by the WHO as an important segment of the Global Oral Health Program (2003) (WHO, 2003). The subjective evaluation of OHRQoL “reflects people’s comfort when eating, sleeping and engaging in social interaction; their self-esteem; and their satisfaction with respect to their oral health” (DHHS, 2000). Locker et. al. (2005) suggests it is the interaction between and among oral health conditions, social and contextual factors.

Sischo and Broder (2011) have created a model for OHRQoL which incorporates positive psychology and consists of 5 dimensions, namely: Oral Health, Function, Treatment Expectations, Environment and Social/Emotional. Another approach to OHRQoL is a four-dimensional structure. This structure suggests that psychosocial wellbeing is an important determinant for patients’ OHRQoL. The four dimensions of this approach are Psychosocial Impact, Oral Function, Orofacial Pain and Orofacial Appearance (Su et. al., 2021). In conclusion, OHRQoL has become the most commonly used variable which functions as a starting point for oral health and its relation to QoL to be measured (Locker & Allen, 2007). Different instruments to assess OHRQoL are offered, which should allow for data to be categorized and related to this variable. The instrument which has been used most widely by researchers and clinicians to measure the impact that oral health problems can have on an individual’s life is the Oral Health Impact Profile (Campos et. al., 2021) and will therefore be a foundational method for this study.

3. Methodology

3.1 Study Design

As stated, this study seeks to answer the research question: “What is the impact of poor oral health on quality of life”, which is supported by the formulation of the sub questions (1) “What barriers do people with poor oral health face and how do they experience this (in their day-to-day life)?” and (2) “How do the barriers people face relate to their quality of life”. As this study is multi-faceted, a mixed-methods approach was used.

3.1.1 Literature Review

It is vital to have a proper understanding of the literature that is already available and, more importantly, what literature is not, as this research seeks to address the underrepresented aspects of the reality of having poor oral health that exceeds the clinical factors involved. Therefore a literature review was performed.

3.1.2 Semi-structured Interviews

The individual experiences of people with poor oral health need to be touched upon to gain a proper understanding of the reality of having poor oral health and what barriers this poses. Moreover, this also allows for gaining an understanding of how this relates to their quality of life. This was done by holding semi-structured interviews with people who have poor oral health. These interviews are based on the Oral Health Impact Profile (OHIP) method. This method is a widely used set of questions used to score one’s oral health related to quality of life (Campos et. al., 2021). The Oral Health Impact Profile (OHIP) questionnaire is based on seven dimensions, namely: (1) Functional Limitation, (2) Physical Pain, (3) Psychological Discomfort, (4) Physical Disability, (5) Psychological Disability, (6) Social Disability and (7) Handicap, which are based on the 1980 WHO International Classification of Impairments, Disabilities and Handicaps (WHO, 1980). OHIP has many different versions, of which two are used across countries. OHIP-14 consists of two questions per dimension, OHIP-49 (the original version)

consists of 7 questions per dimension. Each question is answered on a scale from 1 (never) to 5 (very often), resulting in a total score indicating one's quality of life impacted by one's oral health.

OHIP knows several versions, for this research OHIP-14NL (consisting of 14 questions in Dutch) and part of OHIP-49NL (consisting of 49 questions in Dutch) were used as the basis for the interviews. The reasoning for this is that this research seeks to dive deeper into the psychological- and social aspects of (poor) oral health. Consequently, to be able to gather a deeper understanding of this compared to the physical (pain and functionality) aspects, the questions of OHIP-49 that fall under the dimensions 3-6 were also included in the questionnaire in this study. Dimension 7 within OHIP-49 was not included, as the term 'Handicap' has become outdated and is not used by the WHO anymore (Campos et. al., 2021). By having combined these two versions of OHIP, the results of the interviews offer insight into the oral health of the participants, as completing OHIP-14 offers a score as an indication of the state of one's oral health related quality of life, as well as more focus on the psychological and social dimensions by using the dimensions 3-6 of OHIP-49. The higher one's OHIP score is, the lower one's oral health related quality of life. In this study, OHIP-14 scores ranged from 14-70. Scores between 14-21 typically indicate very low impact, 15-28 indicate mild to moderate impact, 29-42 indicate moderate to high impact and 43-70 reflect a severe impact on Quality of Life.

As the experiences of the participants are at the core of these interviews, the interviews were semi-structured as mentioned, to allow for the space to share their experiences and feelings regarding the questions asked.

3.2 Participants and Recruitment

Participants were people who view their oral health as poor and experience significant issues stemming from this. 3 people have been interviewed to allow for several different experiences, while maintaining feasibility of the study. Participant I is male and experienced a financial barrier concerning taking care of his oral health, the interview concerned former oral health issues and was thus retrospective. Participant II is female and experiences a financial barrier concerning taking care of her

oral health, the interview concerned current oral health. Participant III is male and experienced no financial barrier concerning taking care of his oral health, the interview concerned former oral health issues and was thus retrospective.

As this topic may be sensitive to some, as it may be associated with feelings of shame and isolation, it is highly important that participants have been recruited whilst being conscious of this. Therefore recruitment was done by using the Gatekeepers Recruitment Strategy (GRS). GRS is a strategy where an authoritative figure of a community is approached to recruit participants. This person often has a recognized role and/or is influential within the community.

3.3 Ethical Considerations

As this study touched upon a sensitive topic with potential mental implications for participants, the proper informed and proper processing of data was ensured. A participatory information sheet and consent form was shared with the participants prior to the interview taking place. Moreover, participants reserved the right to withdraw consent at any given point during the research period. In addition, the use of a gatekeeper for both the recruitment of participants as well as its presence during the interviews contributed to the consideration of the potential impact of the project on the participants.

This study falls under the approval of the Medical Ethical Review Board of the University Medical Center Groningen (METcUMCG) (UMCG RR-number 17722). All data collected consist of audio recordings of the interviews, which are transferred to an encrypted folder on the G-drive of the UMCG. The recordings will be deleted off the dictaphone. The interviews are stored pseudonymised. The data will be stored for 15 years on the CTM g-drive in the UMCG-secure environment in accordance with the NFU guideline ‘Kwaliteitsborging Mensgebonden Onderzoek 2020 (translated: Quality Assurance for Research Involving Human Subjects 2020’).

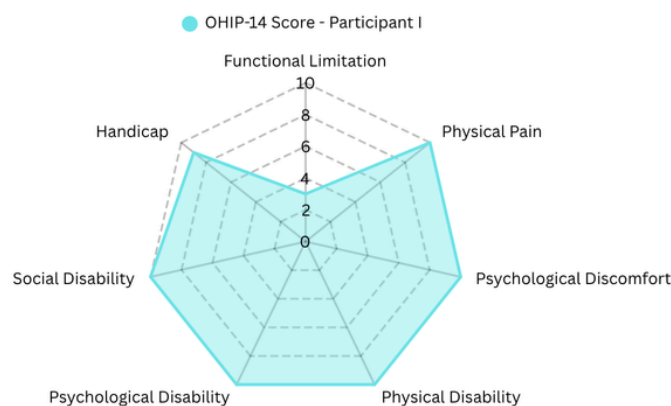
4. Results

The results of this study are presented using the Oral Health Impact Profile (OHIP) framework and its seven domains. Firstly, the OHIP score of each participant will be presented to offer an indication of each participants' QoL in relation to his or her oral health. Consequently, each domain will be discussed separately whilst highlighting the domains; Psychological Discomfort (4.3), Physical Disability (4.4), Psychological Disability (4.5) and Social Disability (4.6) as mentioned in the methodology section.

Participant I (P1) had an OHIP score of 62 out of 70, indicating poor QoL related to his oral health issues. P1 experienced issues within every domain very often, apart from Functional Limitations (see Figure 1). This participant's score indicated that his oral health had a very high impact on his QoL, as the highest score is reflected in five out of seven domains.

Figure 1

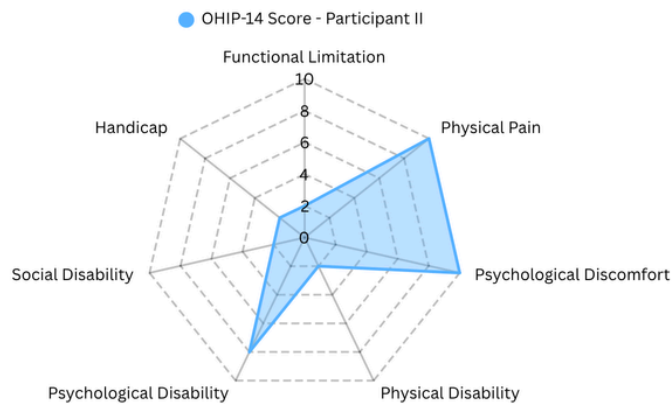
Radar chart of the OHIP-14 score of participant I



Participant II (P2) had an OHIP score of 36 out of 70, indicating moderately poor quality of life related to her oral health issues. P1 experienced issues mostly within the domain of Physical Pain, Psychological Discomfort and Psychological Disability (see Figure 2). This participant's score indicated that her oral health had a considerable impact on her QoL, specifically regarding Physical Pain and Psychological Discomfort as the highest scores are reflected in those domains.

Figure 2

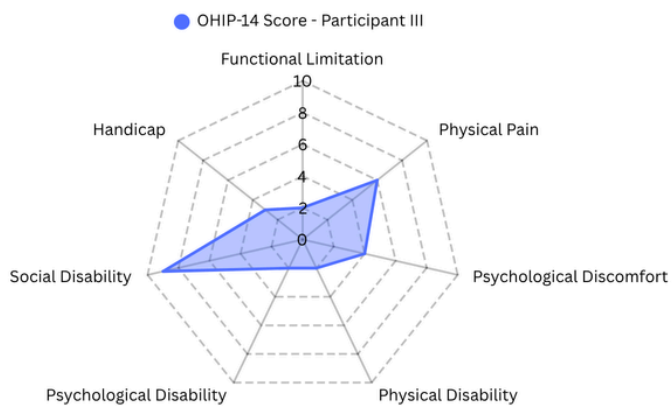
Radar chart of the OHIP-14 score of participant II



Participant III (P3) has an OHIP score of 28 out of 70, indicating mildly poor quality of life related to his oral health issues. The graph underneath shows that P3 experienced issues mostly within the domain of Social Disability and moderately in the domain of Physical Pain and Psychological Discomfort (see Figure 3). This participant's score indicated that his oral health had a moderate impact on his QoL, as issues were not experienced, apart from social barriers and physical pain.

Figure 3

Radar chart of the OHIP-14 score of participant III



As the OHIP-14 score only highlights 14 out of 34 questions asked and does not allow for the participants' experiences to be highlighted, the results of the questions from OHIP-49 will be discussed more in depth, specifically for the sections 3-6.

4.1 Functional Limitation

The domain of Functional Limitation focuses on limitations, such as, being unable to eat or sense of taste changing, or speech impediments (Splade & Spencer, 1994). Participants reported issues such as these minimally. No participant has reported issues regarding speech impediments. This is also reflected in the OHIP scores visible in figure 1-3, as no participant had a higher score than 3 within the domain of Functional Limitation.

4.2 Physical Pain

The domain of Physical Pain contains physical oral health issues, such as dental pain and inflammation (Splade & Spencer, 1994), which have been reported numerous times by each participant. In some cases, this pain could even become chronic, as participant I reported that the pain occurred so often that he was not able to function because of it.

“By the end, the pain was constant.” (P1)

Participants reported that in most cases this pain could become unbearable, leading to sleep loss and reduced concentration. All participants reported having trouble sleeping multiple times because of the pain. Participant I even mentioned he lost count of the number of sleepless nights due to dental pain. Participant III also reported noticing loss of concentration due to dental pain.

“When I had tooth pain, I stayed awake at night.” (P3)

4.3 Psychological Discomfort

The domain of Psychological Discomfort investigates emotional responses directly related to one's oral health problem, such as feelings of shame, fear and embarrassment (Splade & Spencer, 1994).

Participant I and II reported encountering issues within this domain more often compared to participant III. Table 1 presents the most relevant codes and quotes derived from the interviews within this domain.

One theme being reported numerous times was participants' 'shame about appearance', reporting feeling ashamed or humiliated about their dental condition. This manifested itself in the form of being overly aware of one's appearance and feeling the urge to act upon this, leading to added stress.

"I was ashamed to laugh openly." (P1, P2)

Another theme reported was the 'fear of being judged', meaning being scared that others would notice the state of their teeth and being judged for it, leading to wanting to hide one's teeth. This also led to 'avoidance to showing teeth', going as far as finding mannerism to not smile with one's teeth. Participant I shared having found ways to barely show his teeth when smiling, whilst participant II shared her mannerisms to avoid showing her teeth.

"I smiled with my mouth closed or with my hand in front." (P2)

These feelings have led to 'persistent self-consciousness', as mentioned by participant I. Being overly aware of his teeth is something that still remains normal in his behavior now after having been overly conscious of his teeth for an extended period of time. This sentiment was also supported by participant II, as she mentioned almost never not having her teeth, whether this is hiding it or always carrying dental hygiene products, on her mind. Participant III also reported feeling self-conscious about his teeth, as others would notice and judge him, but this impacted him not as much.

"Even now, I'm always a bit aware of it." (P1)

Participant II also mentioned how the consciousness of her teeth affects her body image, as she is very aware of not showing her teeth or her 'bad side' in pictures if possible, due to the perceived aesthetics of her teeth. Participant I also mentioned considering his teeth 'ugly' and 'unappealing', and therefore refraining from smiling openly.

“I try to pose with my good side in photos.” (P2)

Both participants listed numerous ways in which they experience psychological discomfort in relation to their oral health issues (see Table 1).

Table 1

Psychological Discomfort codes and quotes

Code	Definition	Example Quote	Participant(s)
Shame about appearance	Feeling ashamed or humiliated about dental condition	“I was ashamed to laugh openly.”	P1, P2
Fear of being judged	Concern that others would notice or judge one’s teeth	“I hope they don’t see what my teeth look like.”	P2
Avoidance of showing teeth	Conscious effort to conceal teeth during speaking or smiling	“I smiled with my mouth closed or with my hand in front.”	P2
Persistent self-consciousness	Lasting feelings of discomfort, even post-restoration	“Even now, I’m always a bit aware of it.”	P1
Body image anxiety	Negative perception of facial aesthetics linked to teeth	“I try to pose with my good side in photos.”	P2

4.4 Physical Disability

The domain of Physical Disability highlights how oral health issues lead to functional changes in one’s daily routine and diet, for instance by having to avoid certain foods or not being able to carry out day-to-day activities and tasks (Splade & Spencer, 1994). Based on the score, Physical Disability was most frequently reported by participant I, however, participant II also reported some issues regarding this domain, whereas participant III reported similar issues very minimally. Table 2 presents the most relevant codes and quotes derived from the interviews within this domain.

The first theme within this domain is ‘food avoidance’, meaning that certain foods are refused or avoided due to pain or discomfort. Both participant I and II named multiple examples of foods to avoid

altogether. This included mostly hard foods that are harder to eat due to dental pain or inflammation.

Participant I even shared that he had a list of foods that he could not eat, becoming longer over time as his dental issues persisted.

“I avoided crackers and nuts entirely.” (P1, P2)

Consequently ‘altered nutrition’ was mentioned, by having had to substitute or remove foods from his diet long-term. Moreover, participant I also shared he had to interrupt meals if it hurt too much to be able to finish a meal, reporting this had happened numerous times.

“That pizza crust... too risky, too much pain... so I didn’t eat it.” (P1)

Due to oral health issues and pain, participants also reported ‘rest and inactivity due to pain’, meaning they had to lie down and take rest because the pain caused them to not be able to function. This issue was reported by all three participants. They were all able to name an example where they went to bed early or had to stay in bed or at home because of the overwhelming pain. For participant I this entailed not being able to do anything besides laying down because of the pain, leading to ‘limited physical activity’. Participant III shared that his pain reached a point where he had to stay in bed for the entire weekend, as the pain became too overpowering.

“I couldn’t do much... just lay there.” (P3)

Physical Disability presents itself in different forms, from having to change eating behaviours as well as leading to being unable to function properly physically to carry out day-to-day activities. This was experienced by all three participants.

Table 2*Physical Disability codes and quotes*

Code	Definition	Example Quote	Participant(s)
Food avoidance	Refusing certain foods due to pain or discomfort	"I avoided crackers and nuts entirely."	P1, P2
Meal interruption	Needing to stop or alter meals due to dental pain	"I stopped eating when something hurt."	P1
Altered nutrition	Substituting or removing foods from diet long-term	"I liked hard foods, but they were too painful."	P1
Rest and inactivity due to pain	Needing to lie down or rest because of oral issues	"I stayed in bed all weekend due to the pain."	P3
Limited physical capacity	Energy, movement, or participation reduced	"I couldn't do much... just lay there."	P1

4.5 Psychological Disability

The domain of Psychological Disability includes long-term emotional and mental effects, due to oral health issues (Splade & Spencer, 1994). Participant I and II highly experienced this and scored high on this domain, this was reported not as frequent by participant III. Table 3 presents the most relevant codes and quotes derived from the interviews within this domain.

One theme participant II particularly dealt with is 'hypervigilance', meaning excessive worrying and preparation, in this context, concerning oral hygiene. She shared that she is always aware of her oral hygiene and always carries oral hygiene products to avoid 'smelling bad'.

"I carry toothpaste and mouthwash in every bag." (P2)

Similarly, 'sleep disturbance from worry' was reported, meaning insomnia caused by oral pain or anxiety. Participant I shared that small pains or issues with his teeth led to excessive worrying and even leading to sleepless nights. Such anxiety could also revolve around treatment, both the worries on how to

fix current dental issues as well as how to resolve it financially. Participant II shared that a recent chip in her molar led to anxiety and, in turn, sleepless nights as well.

“I’ve been stressing all weekend over how to fix it.” (P2)

Participant I also shared that the stress and lack of perspective even led to ‘depressive symptoms’, presenting itself in sadness, hopelessness or grief related to his oral health. He mentioned his experiences have left a lasting impression and that the psychological impacts he faced still had an impact, similar to Post Traumatic Stress Disorder (PTSD).

“It left a lasting impression, like PTSD.” (P1)

Participant III shared that, even though he did not experience anxious feelings due to his oral health issues, he did notice ‘reduced concentration’ in the form of not being able to focus on tasks due to his dental pain.

“When the pain was there, I couldn’t think of anything else.” (P3)

Whilst the way in which Psychological Disability presents or presented itself amongst the participants, each of them noticed to some extent that there was an impact on their psyche due to their oral health issues.

Table 3*Psychological Disability codes and quotes*

Code	Definition	Example Quote	Participant(s)
Hypervigilance	Excessive worry and preparation around oral hygiene	"I carry toothpaste and mouthwash in every bag."	P2
Anxiety about treatment	Apprehension or dread regarding dental visits or costs	"I've been stressing all weekend over how to fix it."	P2
Sleep disturbance from worry	Insomnia caused by oral pain or anxiety	"Slapeloze nachten, pure spanning van een pijntje."	P1
Reduced concentration	Inability to focus on tasks due to dental pain	"When the pain was there, I couldn't think of anything else."	P3
Depressive symptoms	Sadness, hopelessness, or grief related to oral health	"It left a lasting impression, like PTSD."	P1

4.6 Social Disability

The domain of Social Disability covers the restriction of social participation, due to oral health issues (Splade & Spencer, 1994). This covers going out in public as well as personal relations (both platonic and romantic). Participant I and participant III reported frequently within this domain, whilst participants II reported experiencing this less. Table 4 presents the most relevant codes and quotes derived from the interviews within this domain.

One example mentioned when it comes to Social Disability is 'social withdrawal'. Participant I shared that during the time that his oral health issues were at its worst, he avoided social events because he did not want to be judged. Consequently, this also led to participant I 'altering social behavior', as he was very eager to not show his teeth in social settings, in particular his upper teeth.

"I became skilled at hiding my upper teeth." (P1)

Similar to this awareness of one's teeth in social settings, participant II shared experiencing 'impaired social confidence'. She felt inhibited in interactions due to her oral health and was overly aware of how she looks. Because of this, she was constantly self-conscious and always sought to hide her teeth.

"In company, I'm always aware of how I look." (P2)

Besides social settings such as the ones discussed before, participant I also shared the impact his oral health issues had for his romantic relations. He shared that he did not consider dating to be an option for a very long time and ruled out romantic relationships in general because he did not want anybody to see his mouth. He was too ashamed to pursue romantic relationships.

"I avoided dating completely during that time." (P1)

Oral health issues may also lead to moodiness or irritability, which was reported by participant III. He shared that on several occasions he had a short(er) temper caused by his oral health issues in social contexts. He was more irritable because of his pain and was more likely to take this out on the people close to him, impacting his ability to enjoy social interactions.

"I snapped at people when I was in pain." (P3)

Lastly, participants II and III identified or recognised that their oral health had an impact on their family life. Participant II shared being scared of her grandchildren noticing her teeth and being scared of 'smelling bad', hindering her comfortableness when being with her family. Participant III shared that his irritability led to moderately hindering his stance and noticing himself snapping at people around him.

"My grandson once said 'grandma, you stink' - that stays with you." (P2)

Social Disability due to oral health issues can take shape and form in many different ways, which all three participants shared examples of..

Table 4*Social Disability codes and quotes*

Code	Definition	Example Quote	Participant(s)
Social withdrawal	Avoiding events, gatherings, or social outings	"I didn't want to be judged... I avoided social events."	P1
Impaired social confidence	Feeling inhibited in interactions due to oral health	"In company, I'm always aware of how I look."	P2
Altered social behavior	Adjusting how one speaks, smiles, or interacts	"I became skilled at hiding my upper teeth."	P1
Relationship avoidance	Avoiding intimacy or new connections	"I avoided dating completely during that time."	P1
Moodiness / irritability	Short temper caused by oral pain in social contexts	"I snapped at people when I was in pain."	P3

4.7 Handicap

The domain of Handicap offers insight into how one's overall functioning and well-being is diminished, due to oral health problems (Splade & Spencer, 1994). This covers, for instance, the impact on one's financial situation, ability to work or general life dissatisfaction. All participants reported on this to a moderate extent, but participant I could confidently say that his oral health has impacted his overall satisfaction with life very negatively. Participants II and III shared that they felt burdened by their oral health issues, but were not completely sure whether they would use such strong words.

Participant I and participant III both shared the inability to work from time to time due to their oral health issues, leading to absenteeism and reduced performance. This could be due to overwhelming pain, inflammation, reduced concentration and/or tiredness due to sleepless nights. Participant II shared that, whilst she was always able to work, her constant worries impacted her concentration and comfortableness at work.

“I missed work due to jaw inflammation.” (P3)

Participant II also shared that she has not gone to the dentist in five years. This is both because of the financial burden dental care puts on her, as well as the fear of what she would find out if she were to go to the dentist. She shared that she had to pay €1800 for her front teeth (which she had to pay off in installments), but had no other choice but to go to the dentist as she chipped her molar, leading to stress due to the financial consequences.

“I haven’t been to the dentist in 5 years, it is just too expensive...” (P2)

What all three participants agreed upon, is that the prices of dental care (with or without insurance) are incredibly high and put a financial burden on each of them to some extent. Participant I that even though his teeth have gotten restored, he still pays around €3000 for the maintenance. Participant III shared that he pays a large amount of money monthly for his insurance and still had to pay €6000-€7000 for his tooth bridge and implant, which he wouldn’t have been able to afford without his insurance and financial stability.

“Even with insurance, a bridge and two implants cost €6,000–7,000.” (P3)

All three participants reported that their oral health issues affected their overall functioning and wellbeing to some extent.

4.8 Narrative Themes from Follow-up Questions

Outside of the questions from the OHIP questionnaire, the interview also allowed for some more follow-up questions and anything participants still wanted to share considering the overall topic of their oral health and oral healthcare within the Netherlands. Several themes were identified within this part of the interview.

4.8.1 Hope and Empowerment through Compassionate Care

Participants I and III shared their gratefulness for compassionate care from their dentists in regards to their oral health issues, which helped them overcome their hesitation. Participant I shared that his dentist gave him the hope that it was possible to restore his teeth instead of needing dentures. His

dentist did not only aid him in offering his options, but also took a proactive approach in finding solutions for his oral health issues. His sympathetic dentist helped initiate a successful restoration process.

Participant I shared that without the stance of his dentist, he would not know if he would have been able to find a solution or even have a positive outlook on his issues.

“My dentist really thought along with me... that changed everything.” (P1)

Similarly, participant III shared that due to his dentist and hygienist, his oral situation is now stable. However, he also mentioned the need for continuous care in order to prevent any new issues. He emphasized the value of stable, preventative care and good communication with his dentist.

“Thanks to my dentist and hygienist, my situation is now stable.” (P3)

Both participants stressed the value of compassionate care in navigating their oral health issues, leading to now having resolved most oral health issues and stability.

4.8.2 Dental Care System Critique

All participants criticized the way in which dental care is separated from general health care, particularly in health insurance, in the Netherlands. They mentioned specifically that they found the system unfair, especially as one's oral health has a clear impact on health and quality of life according to them. Participants I and II were specifically vocal about the need for dental care to be part of basic health insurance. Not only because of the financial burden it puts on individuals, leading to often having to neglect one's oral health if their financial situation does not allow them to be able to go to the dentist, but also because they believe it to be as important as general healthcare.

“I find the separation between normal somatic care and dental care completely incomprehensible. Dental care is just as important as somatic care.” (P1)

“I've had to think all weekend about how to deal with a broken molar - not because I don't want to fix it, but because I can't afford it.” (P2)

I think it's essential that dental care is made accessible for all groups. Right now it's not, and that creates a lot of health problems." (P3)

5. Discussion

This study used the OHIP framework to investigate how oral health affects quality of life. Significant effects were seen in most of the OHIP domains, although they were most evident in connection to, Physical Pain, Psychological Discomfort and Social Disability. Participants expressed the emotional, social, and financial strains they faced in addition to the physical restrictions brought on by oral health issues. Formulating and identifying these barriers and understanding how they relate to a person's QoL is vital to be able to understand how oral health in general impacts this as well..

5.1 Identified Barriers

Research has persistently shown that one's socio-economic status strongly influences access to dental care, with cost being a major determinant to whether a person seeks and receives treatment (Aida et al., 2019). As demonstrated in this study, participants encountered several barriers to their oral health care. The intersection of these barriers reveal how they shape the lived experiences of those with poor oral health. These barriers align with and expand on the OHIP framework, particularly in domains related to Handicap, Psychological Discomfort, and Social Disability.

It is clearly revealed that people with poor oral health do not merely experience discomfort because of physical problems, but also encounter significant socio-economic barriers that limit their access to appropriate and timely oral healthcare. These barriers range from financial, psychological, social and structural challenges, making them multi-faceted. As participants shared, their inability to afford treatment, feelings of shame, fear of being judged and frustration with the healthcare system contributed to ongoing suffering and disengagement from care.

5.1.1 Financial Barriers

Financial constraints were reported most frequently and thus are a significant barrier. As participants I and II shared, the financial barrier they faced led them to be unable to afford dental treatment and therefore they neglected their oral health by either postponing or avoiding dental care altogether. Important to note is that the consequence also had severe psychological implications for them. The inability to afford treatment led to excessive stress concerning costs during times where treatment was unavoidable. Examples shared by all participants emphasize the effects of the ongoing discomfort posed by financial burdens, leading to untreated conditions worsening over time and aggravating the emotional and physical toll. These findings are consistent with Aida et. al. (2019), who argue oral health disparities are deeply tied to structural inequalities in health systems, particularly for economically vulnerable groups.

5.1.2 Psychological Barriers

In addition to financial costs, individuals reported significant psychological challenges brought on by oral health issues. They had to deal with shame, fear, and constant self-consciousness on a daily basis. The OHIP domains of Psychological Discomfort and Psychological Disability are closely related to these psychological barriers.

These incidents show that poor oral health can lead to ongoing psychological stress that erodes confidence and self-worth in addition to being a functional or economical problem. Similar findings by McGuire (2002) indicated that social anxiety and emotional disengagement are common among those with obvious dental issues, indicating a strong correlation between psychological wellbeing and oral health.

5.1.3. Social Barriers

A variety of social difficulties brought on by their oral health issues were also mentioned by the participants. These included limiting one's ability to express oneself, avoiding social settings, and

distancing from personal or professional connections out of fear of judgement. Some had a diminished sense of belonging or felt excluded from daily social life as a result of oral health problems.

These obstacles influenced people's perceptions of themselves in public settings in addition to limiting social chances. These social constraints eventually led to feelings of loneliness, diminished self-esteem, and ongoing anxiety. These results correspond with the findings of Cohen et al. (1988), who observed that social disengagement and a lower quality of life are frequently caused by dental appearance and perceived stigma.

5.1.4 Systemic Barriers

Strong criticisms of the Netherlands' systemic division between dental and general healthcare were also expressed by participants. They stated the system was inaccessible, particularly for people with complex needs or a low income.

In addition to delaying care, these structural obstacles also perpetuate inequity. According to Watt et al. (2019), the absence of dental services from universal health coverage exacerbates social injustice by treating oral health as an indicator for greater disparities in access to care. Participants echoed this, who spoke of feeling abandoned by a healthcare system that does not place a high priority on dental health.

5.2 Barrier Impact on Quality of Life

A multifaceted approach is necessary to comprehend how dental health affects quality of life. Quality of life (QoL) is defined by the World Health Organisation (WHO) as “an individual's perception of their position in life in the context of culture and value systems in which they live, and in relation to their goals, expectations, standards, and concerns (WHO, 1995). Accordingly, by adding physical, emotional, and social aspects, oral health-related quality of life (OHRQoL) broadens the conventional clinical understanding of oral health (Campos et al., 2021; Baiju et al., 2017). The results of this study support these viewpoints by demonstrating how obstacles to dental care impact various facets of daily functioning and wellbeing.

5.2.1 Physical & Functional Impact

Participants frequently talked about how pain, infections, and damaged teeth interfered with their ability to eat and sleep. The OHRQoL factor of "oral function" (Su et al., 2021) is consistent with these experiences, emphasising how untreated oral health issues hinder necessary daily activities. In addition to causing discomfort, this physical load had a domino impact on social interaction, mood, and energy levels.

5.2.2 Psychological & Emotional Impact

Significant psychological strain was also caused by barriers to dental health care. In relation to their oral health problems, participants experienced persistent stress, embarrassment, worry, and even trauma. These results support the claims made by Al Shamrany (2006), who highlighted the clear and detrimental psychological effects of dental disorders, and they are consistent with the "psychosocial impact" domain in Su et. al.'s (2021) model. These instances demonstrate the long-term effects of poor dental health on people's emotional stability, mental health, and self-esteem.

5.2.3 Social & Relational Impact

Participants' social life were clearly impacted by poor oral health, as evidenced by their avoidance of smiling and public speaking as well as their withdrawal from interpersonal interactions. These results are consistent with the "social/emotional" domain that Sischo and Broder (2011) developed, which contends that social involvement and interpersonal dynamics are influenced by dental health. The consequent feelings of loneliness and self-consciousness significantly lowered the participants' general QoL by making them feel alienated and undeserving of social interaction.

5.2.4 Structural & Financial Impact

In addition to individual resources, systemic shortcomings in the healthcare system also influenced participants' access to oral health treatment. According to research (Jevdjovic & Listl, 2025;

Botelho et al., 2021), these financial strains have a direct impact on wellbeing by causing stress and sustaining neglectful cycles.

These structural restrictions emphasise that oral health cannot be managed separately from the larger determinants of health, reflecting what Locker et al. (2005) defined as the junction of social and environmental factors with clinical demands.

5.2.5 A Multidimensional View of OHRQoL

Finally, this study supports the notion that oral health plays a significant role in overall health and life satisfaction and thus Quality of Life. According to Gift & Atchison (1995) and Baiju et al. (2017), the effects of oral health go much beyond the clinical context and need to be considered in relation to an individual's everyday life, social role, emotional state, and physical comfort. The usefulness of OHRQoL as a concept is confirmed by this study, which also highlights how vital it is that healthcare systems recognise and address these wider consequences.

Additionally, each participant's OHIP score was a quantifiable representation of their quality of life in relation to dental health. The OHIP scores validated and strengthened the richness of the story data, despite the fact that the main approach of this study was qualitative. The participants' accounts of social disengagement, financial difficulties, and shame were strongly correlated with high scores in dimensions including Psychological Discomfort, Social Disability and Handicap. The OHIP framework's applicability in evaluating the practical effects of oral health problems is further supported by the correspondence between these numerical indicators and lived experiences.

5.3 Limitations

Although this study provides valuable insights into how oral health affects Quality of Life, it is crucial to recognise a number of limitations. First and foremost, the study included just three participants (n=3), making the sample size small. While this restricts the findings' generalisability, qualitative research prioritises depth above breadth. Participants' own narratives and experiences offer deep, complex insights

into the ways in which socioeconomic, psychological, and social factors interact with oral health concerns. Quantitative studies could miss the important context provided by these lived experiences.

Second, participants may have felt less comfortable disclosing specific information due to the delicate nature of the subject, especially when it came to shame, trauma, or socioeconomic difficulty. Some participants might have concealed information or presented their experiences selectively, even though attempts were made to create a safe and comfortable interview atmosphere.

The possibility of researcher bias in the coding and interpretation of the qualitative data is another limitation. Although the OHIP framework and relevant literature served as a guide for thematic analysis, subjective interpretation is an inevitable component of qualitative work. To increase transparency and reliability, participant quotes were used consistently and with reflexivity.

Finally, the study's demographic breadth was constrained. The results may not be as culturally transferable because all participants were adults residing in the Netherlands. Future studies with a bigger and more varied sample size may provide a more comprehensive picture of how dental health affects quality of life in various demographics.

5.4 Implementation & Recommendations

The results of this study present a strong argument for policy change in the Netherlands in addition to providing insight into individual experiences. Many individuals in need now lack access to necessary dental care because of the current oral healthcare system, which mainly excludes dental care from basic health insurance. Participants reported significant barriers to accessing and paying for quality care, underscoring a structural undervaluation of oral health as an essential aspect of overall health.

Modern health definitions, such as the World Health Organization's, which place an emphasis on total physical, mental, and social well-being, are in conflict with the division of dental treatment from somatic healthcare. This study demonstrates that untreated dental issues lead to functional disability, social isolation, and long-term psychological distress—outcomes that ought to be considered

unacceptable in a prosperous welfare state. The 2024 study "Eindverslag Verkenning Mondzorg" and recent pilot projects in cities like Leeuwarden, as well as recent national debates, indicate an increasing awareness of these challenges. However, now awareness needs to be followed by action.

This study backs up the claim that dental treatment ought to be reinstated in the Netherlands' basic health insurance plan. By doing so, the financial and societal expenses associated with untreated oral illnesses would be lessened in addition to the strain on individuals. Timely interventions and preventative care would reduce the need for emergency care, absenteeism, and the psychological effects of neglected oral health issues.

Alongside structural insurance reform, initiatives should focus on raising knowledge of the psychological and social aspects of oral health and lowering stigma. Oral health disparities reflect and perpetuate larger inequalities, which should be acknowledged by national policymakers, localities, and health professionals. Integrating oral care into community health models, supporting low-income individuals, and strengthening interdisciplinary collaboration are all vital subsequent actions.

The participants' statements in the study emphasise an urgent message: dental health is vital, not optional or secondary. In response, policymakers need to implement significant structural changes in addition to providing additional financing for research.

6. Conclusion

This thesis sought to answer the following main research question: "How does poor oral health affect one's quality of life?" According to this study, which was based on qualitative interviews with three people and examined using the Oral Health Impact Profile (OHIP) framework, oral health has a much greater impact than physical comfort. It has an impact on life satisfaction, social engagement, and psychological well-being, underscoring its significance as a crucial, but frequently disregarded, factor of overall health.

The narratives of the participants showed an ongoing pattern of obstacles and outcomes. Chronic discomfort, disturbed sleep and food avoidance were all linked to poor dental health. Participants also reported emotional distress, ongoing shame, and a lowered sense of self-worth in addition to these physical symptoms. Socially, they avoided speaking or smiling, withdrew from connections, and felt less confident. These problems were exacerbated by systemic healthcare constraints and financial hardship, which frequently delayed or prevented necessary care.

According to the World Health Organization's more comprehensive definition of health as a condition of whole physical, mental, and social well-being, this approach has shown how important it is to view oral health from a holistic perspective. Although the Oral Health Impact Profile gave this research a useful framework, the voices of the participants really made the data come to life.

Despite the small sample size ($n=3$), the qualitative data's richness and clarity provided valuable, useful insights. Exploring people's lived lives is the aim of qualitative research rather than statistical generalisation. These accounts shed light on systematic injustices and gaps in healthcare access that could otherwise go unnoticed. The research method confirmed the importance of person-centred, sympathetic inquiry, particularly when dealing with delicate and stigmatised health concerns.

By highlighting the importance of oral health to quality of life, especially for vulnerable groups, this study advances the academic area. In the Netherlands, where oral healthcare is still left out of basic health insurance, it also participates in debates about policy. This study makes a case for both more scholarly research and practical policy action by tying structural critique to personal experience.

To conclude, poor oral health has a substantial negative impact on quality of life on all levels—economic, social, psychological, and physical. To solve this problem, systemic change is needed, not just individual dental treatments. It is imperative that oral health be acknowledged as a public health priority, integrated into national health policy, and made available to everyone. Then and only then can we start to bridge the gap between general well-being and oral condition of our teeth.

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Appendices

Appendix A

Codebook - Transcript II

OHIP Theme	Sub-Code	Definition	Example Quote
1. Functional Limitation	Difficulty eating	Inability to chew or eat hard foods	“Crackers, hard nuts... I just avoided those completely.”
2. Physical Pain	Chronic pain	Ongoing mouth pain	“By the end, the pain was constant.”
	Sleep disruption	Sleep loss due to pain	“I had sleepless nights because of that pain.”
3. Psychological Discomfort	Embarrassment/shame	Feeling ashamed due to appearance	“I had a row of brown stumps... I was ashamed to laugh openly.”
	Fear of judgment	Fear of being seen/judged	“I constantly hid my upper teeth when speaking or smiling.”
4. Physical Disability	Food avoidance	Changing diet due to discomfort	“That pizza crust... too risky, too much pain... so I didn’t eat it.”
	Interrupted meals	Stopping meals due to pain	“If it caused pain, I stopped eating it and added it to the list.”
5. Psychological Disability	Anxiety/stress	Anticipatory stress due to dental issues	“A sharp pain late at night—no dentist open—just stress.”
	Loss of relaxation	Difficulty relaxing due to worry or pain	“The tension from those episodes kept me awake.”
	Depression/sadness	Long-term emotional burden	“It has left a lasting impression—comparable to PTSD.”

6. Social Disability	Social avoidance	Avoiding socializing/relationships	“I ruled out relationships. I didn’t want anyone to see that mouth.”
	Altered interaction	Hiding smile or teeth socially	“I was skilled at hiding my upper teeth in conversation.”
7. Handicap	Life dissatisfaction	Reduced quality of life	“You’re never yourself when you’re constantly self-conscious.”
	Impact on work/life functioning	Not functioning due to oral pain	“The pain was so bad I couldn’t do anything... entire weekends ruined.”
	Financial impact	Economic consequences of oral care	“I’ve spent €3000–€3500 in the last three years to maintain it.”

Summary Quotes	Participant Code	Code(s)	Theme(s)
“I avoided hard food like nuts and crackers.”	P1	Food avoidance	Physical Disability
“I stopped eating meals when they caused pain.”	P1	Interrupted meals	Physical Disability
“I didn’t laugh with my mouth open... felt ashamed.”	P1	Embarrassment/shame	Psychological Discomfort
“I had constant pain and sleepless nights.”	P1	Chronic pain, Sleep disruption	Physical Pain
“I didn’t want to be judged... I avoided social events.”	P1	Social avoidance, Fear of judgment	Social Disability, Psychological Discomfort
“I was so stressed I couldn’t relax or sleep.”	P1	Anxiety/stress, Loss of relaxation	Psychological Disability
“It was like PTSD... I still panic when I feel anything in my teeth.”	P1	Depression/sadness	Psychological Disability

"I couldn't function—just lay there from Friday to Monday."	P1	Not functioning	Handicap
"I had to pay thousands in maintenance even after restoration."	P1	Financial impact	Handicap
"I was too ashamed to pursue relationships."	P1	Social avoidance	Social Disability

Appendix B**Codebook - Transcript II**

OHIP Theme	Sub-Code	Definition	Example Quote
1. Functional Limitation	Taste/speech unaffected	No reported issues	"I didn't have trouble speaking or tasting."
2. Physical Pain	Mouth pain	Significant dental pain	"If you have severe tooth pain, it affects your sleep."
3. Psychological Discomfort	Shame	Feeling self-conscious due to dental appearance	"I smile with my mouth closed or hand in front of it."
	Fear of smell/judgment	Fear of bad breath and others noticing	"I always brush and rinse before meeting people, afraid I smell bad."
4. Physical Disability	Avoided food	Avoidance of certain foods	"I definitely avoided eating certain foods."
5. Psychological Disability	Stress and worry	Mental burden due to dental issues	"Since my front tooth broke I haven't gone back... I've been stressed all weekend."
	Hypervigilance	Constant worry about hygiene	"I carry toothpaste, brush and mouthwash in every bag."
6. Social Disability	Social discomfort	Feeling awkward around others	"In company, I'm always aware of how I look."
	Image control	Modifying behavior to hide dental problems	"I try to always pose on my good side in photos."
7. Handicap	Financial burden	Costs preventing treatment	"My front teeth cost €1800... I paid in installments."
	Avoidance of care	Skipping care due to cost	"I haven't gone to the dentist in 5 years."

Summary Quotes	Participant Code	Code(s)	Theme(s)
“I smile with my mouth closed or with my hand in front.”	P2	Shame	Psychological Discomfort
“Tooth pain affects your sleep.”	P2	Mouth pain, Sleep impact	Physical Pain
“I haven’t been back to the dentist since my front teeth were repaired.”	P2	Avoidance of care	Handicap
“I stressed all weekend over how to fix a broken molar.”	P2	Stress and worry	Psychological Disability
“I have toothpaste and mouthwash in every bag.”	P2	Hypervigilance	Psychological Disability
“I avoided certain foods due to pain.”	P2	Avoided food	Physical Disability
“My grandson told me ‘Grandma, your breath stinks’— which is very painful.”	P2	Fear of smell/judgment	Psychological Discomfort
“I try to smile from my good side in photos.”	P2	Image control	Social Disability
“€1800 for two front teeth... paid in installments.”	P2	Financial burden	Handicap

Appendix C

Codebook - Transcript III

OHIP Theme	Sub-Code	Definition	Example Quote
1. Functional Limitation	Mild aesthetic concern	Concern over tooth color due to repair	“My two front teeth were discolored, and I was aware of it.”
2. Physical Pain	Oral infections / toothache	Strong pain from inflammation or decay	“I’ve had many infections and a lot of toothaches.”
	Sleep disruption	Pain causing sleep loss	“When I had tooth pain, I stayed awake at night.”
3. Psychological Discomfort	Momentary self-consciousness	Discomfort over visible damage	“I was aware people might look at my teeth differently.”
4. Physical Disability	Activity disruption	Pain affecting normal activity	“I stayed in bed for hours on end due to pain.”
5. Psychological Disability	Reduced concentration	Pain impairing mental focus	“With pain, you can’t concentrate on anything else.”
6. Social Disability	Irritability in relationships	Mood changes affecting social behavior	“I’ve snapped at people when I was in pain.”
7. Handicap	Financial strain	Cost of advanced dental treatment	“Even with insurance, a bridge and two implants cost €6,000–7,000.”
	Work impact	Unable to work due to pain	“I had to stay home from work due to jaw pain.”
	Health limitations	Illness or reduced function	“I couldn’t exercise; even my urine color showed infection.”

Quote (English Summary)	Participant Code	Code(s)	Theme(s)
“I’ve had many mouth infections and a lot of toothaches.”	P3	Oral infections / toothache	Physical Pain
“I stayed awake at night due to tooth pain.”	P3	Sleep disruption	Physical Pain
“My two front teeth were discolored, I noticed it.”	P3	Mild aesthetic concern	Functional Limitation
“I stayed in bed all weekend; I couldn’t function.”	P3	Activity disruption	Physical Disability
“I couldn’t concentrate when I had dental pain.”	P3	Reduced concentration	Psychological Disability
“I snapped at people when I was in pain.”	P3	Irritability in relationships	Social Disability
“A bridge and implants cost €6,000–7,000—even with insurance.”	P3	Financial strain	Handicap
“I missed work due to jaw inflammation.”	P3	Work impact	Handicap
“I couldn’t exercise; I was clearly unwell.”	P3	Health limitations	Handicap