Oral health in the context of mental illness

Exploring perspectives of mental health professionals and persons with mental illness in psychiatric care

Charlotte Johansson

Faculty of Health, Science and Technology

Public Health Science

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Faculty of Health, Science and Technology
Department of Health Sciences
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+46 54 700 10 00

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Abstract

Aim: This thesis aimed to deepen the understanding of oral health in the context of mental illness from the perspectives of persons with mental illness and professionals working in psychiatric, forensic, and municipal care settings in Sweden.

Methods: Two qualitative interview studies were conducted with staff (n=13) and persons with mental illness (n=12). Data were analyzed using qualitative content analysis, and findings integrated using an integrative synthesis.

Main findings: Staff described oral health as an important yet often overlooked aspect of care. Efforts to address it were constrained by organizational barriers, complex administrative procedures, limited time, and insufficient resources. Oral health was often treated as a separate domain. Similarly, persons described oral health as an important but neglected aspect of overall health. Although motivated to maintain it, they faced challenges related to fluctuating mental health, stigma, financial hardship, and difficulties accessing dental care. The synthesis showed that oral health management is shaped by the interplay of individual capacities, relational support, and structural conditions. While supportive relationships and self-management capacities may strengthen daily oral health practices, these are often constrained by fragmented care systems and limited coordination across services.

Conclusions: Oral health management among persons with mental illness is influenced by individual, interpersonal, and structural factors. Improved oral health require coordinated interventions that support self-management while addressing organizational barriers.

Keywords: Continuity of patient care, dental care, mental illness, oral health, patient experience, self-management, qualitative research, vulnerable populations

Sammanfattning

Syfte: Syftet med denna avhandling var att fördjupa förståelsen av oral hälsa i relation med psykisk sjukdom utifrån perspektiven hos personer med psykisk sjukdom och personal verksam inom psykiatrisk, rättspsykiatrisk och kommunal vård och omsorg i Sverige.

Metod: Två kvalitativa intervjustudier genomfördes med personal (n = 13) och personer med psykisk sjukdom (n = 12). Data analyserades med kvalitativ innehållsanalys, och resultaten integrerades genom en integrativ syntes.

Huvudresultat: Personalen beskrev oral hälsa som en viktig men ofta förbisedd del av vården. Arbetet med att uppmärksamma och stödja oral hälsa begränsades av organisatoriska hinder, komplexa administrativa processer, tidsbrist och otillräckliga resurser. Oral hälsa hanterades ofta som ett separat område. Personer med psykisk sjukdom beskrev på liknande sätt oral hälsa som en betydelsefull men försummad del av den allmänna hälsan. Trots en vilja att upprätthålla orala hälsan mötte de utmaningar relaterade till varierande psykiskt mående, stigma, ekonomiska svårigheter och begränsad tillgång till tandvård. Syntesen visade att hantering av oral hälsa formas av samspelet mellan individuella förmågor, relationellt stöd och strukturella förutsättningar. Även om stödjande relationer och förmåga till egenvård kan stärka dagliga orala hälsovanor begränsas dessa ofta av fragmenterade vårdsystem och bristande samordning mellan olika verksamheter.

Slutsatser: Hantering av oral hälsa bland personer med psykisk sjukdom påverkas av individuella, mellanmänskliga och strukturella faktorer. Förbättrad oral hälsa förutsätter samordnade insatser som stärker individens egenvårdsförmåga samtidigt som organisatoriska hinder adresseras.

Nyckelord: Kontinuitet i vård, kvalitativ forskning, oral hälsa, patienterfarenheter, psykisk sjukdom, självhantering, sårbara populationer, tandvård.

Artificiell intelligience statement

Artificial intelligence was used solely for grammar and stylistic refinement. All ideas, analyses, and interpretations are those of the author. All suggestions were reviewed to ensure accuracy and consistency with the author's intent.

Preface

My professional journey began in the early 1990s working as a dental nurse at the I-48 Infectious Diseases Clinic at Huddinge Hospital, during the HIV/AIDS pandemic. Those years taught me the importance of seeing and meeting people with respect and acceptance, especially those in vulnerable situations. This experience shaped my commitment to seeing the person behind the symptoms, a perspective that has guided me ever since.

As a lecturer and licensed dental hygienist, I encourage dental hygienist students to approach every person with curiosity and openness, a person-centered and salutogenic mindset that also guides my research. My research explores oral, mental, and public health in the context of mental illness by examining the perspectives of persons living with mental illness and professionals working in psychiatric or social services in Sweden.

My hope is that this thesis will contribute to increased attention to the needs of persons with mental illness, fostering recognition and supporting continued progress in/across society and health systems.

Key concepts

Collaboration and professional practice

Collaboration refers to relational and organizational processes through which individuals or groups jointly pursue shared goals. Within healthcare, collaboration encompasses both interprofessional teamwork, where different professional groups coordinate their expertise, and collaborative partnerships with persons (or patients/service users) (Gilbert et al., 2010; World Health Professions Alliance, 2025).

Interprofessional practice involves collaboration between professionals from different disciplines who share responsibility for planning, delivering, and evaluating care. Such practices emphasize communication, shared decision-making, and mutual respect (Choi & Pak, 2006; Jessup, 2007).

Multidisciplinary or multiprofessional work refers to the involvement of several professions contributing to care while maintaining distinct professional roles and responsibilities. Collaboration may occur, but is often limited in scope, and decision-making tends to be conducted in parallel rather than through fully integrated processes (Choi & Pak, 2006; Jessup, 2007).

Person-centered care (PCC) highlights the importance of seeing the patient as a person and as a partner, recognizing individual experiences, preferences, abilities, and goals. PCC involves shared decision-making between the patient as a person/partner and the healthcare professional in a relational approach to care (Ekman et al., 2011; Ekman et al., 2024; Lindström et al., 2026).

Health and health-related concepts

Health is understood as a broad and holistic concept encompassing physical, mental, and social dimensions. This view aligns with established international definitions that regard health as more than

the absence of disease (World Health Organization, 1948). A holistic perspective further emphasizes that these dimensions are interconnected and partly overlapping, shaped by the individual's context, functioning, and lived experience. Depending on the model applied, this may also include existential or spiritual aspects (Kujundžić Tiljak, 2017).

Mental health refers to a mental state in which individuals experience a sense of well-being and quality of life, while also being able to cope with everyday stresses, realize their abilities, manage daily demands, use personal resources, and sustain social participation (World Health Organization, 2021, 2022a).

Mental illness denotes clinically significant disturbances in cognition, emotional regulation, or behavior associated with distress or impairment in functioning (World Health Organization, 2021, 2022a).

Oral health encompasses the health of the mouth, teeth, and related structures and contributes to overall health and well-being, including physical, mental, and social functioning (Glick et al., 2017; World Health Organization, 2024a).

Individual capacities and psychosocial processes

Individual and psychosocial factors play a key role in shaping how individuals engage with health information, services, self-care, and self-management.

Empowerment refers to the process through which individuals gain greater control over decisions and actions affecting their health, by strengthening autonomy and participation. It is a key component in improving and maintaining health and well-being (World Health Organization, 1998).

Health literacy refers to individuals' ability to access, understand, appraise, and apply health information to make informed decisions. Limited health literacy is associated with poorer physical and oral

health outcomes, lower adherence to treatment and oral self-care recommendations, and less frequent use of preventive health and dental services (Berkman et al., 2011; Sørensen et al., 2012).

Recovery. Personal recovery within psychiatry refers to an individual and subjective process of living a meaningful and satisfying life despite the presence of mental illness. It emphasizes hope, identity, meaning, and empowerment, and is not necessarily defined by symptom reduction but by the person's own experience of well-being and participation in everyday life (Leamy et al., 2011).

Stigma related to mental illness refers to negative attitudes, beliefs, and social responses associated with mental illness that can affect self-management, help-seeking, engagement with care, and psychosocial well-being, potentially contributing to social exclusion and reduced opportunities to maintain health in everyday life (Corrigan et al., 2014; Rüsch et al., 2005).

Stigma related to oral health refers to negative attitudes and beliefs linked to oral conditions that can affect help-seeking, adherence, and psychosocial well-being, and may lead to avoidance of care and poorer outcomes (Doughty et al., 2025).

Original papers

This thesis is based on the following papers, which will be referred to in the text by their Roman numerals (I-II):

I. Johansson C, Beckman L, Rystedt I, André-Kramer A-C, Lindmark U. (2025). Oral health and oral health needs among patients with serious mental illness: Reflections and experiences of psychiatric staff. BMC Psychology 13, 446. Open access: https://rdcu.be/ejN60

II. Johansson C, Lindmark U, Rystedt I, Beckman L. Experiences of managing oral health as a part of mental health among persons with mental illness: A qualitative interview study *(in manuscript)*.

Author contributions

Below is a summary of the contributions of each author involved in the two original manuscripts included in this thesis. All co-authors reviewed and approved the final versions of the studies.

Charlotte Johansson contributed to Study I and II by conceptualizing and designing the studies, conducting data collection through semi-structured interviews, transcribing and analysing the data, interpreting the findings, synthesizing the results, and drafting the manuscripts.

Study I and II

Ann-Catrin André Kramer contributed by participating in the conceptualizing and design of the studies, contributing to the development of the interview guides, and providing critical input on the analysis, the interpretation of results, and the writing of the manuscripts (Study I). With combined clinical experience and theoretical expertise in oral health, Ann-Catrin contributed knowledge and perspectives to the work.

Ingrid Rystedt contributed by initiating the project idea and contributing to the conceptualizing and design of the studies, contributing to the development of the interview guides, and providing critical input on the analysis, the interpretation of results, and the writing of the manuscripts (Study I and II). With expertise in medicine and public health, Ingrid also contributed important clinical perspectives and theoretical knowledge to the work.

Ulrika Lindmark contributed by participating in the conceptualizing and design of the studies, contributing to the development of the interview guides, and providing critical input on the analysis, the interpretation of results, and the writing of the manuscripts (Study I and II). With combined clinical experience and theoretical expertise in oral health, Ulrika contributed important knowledge and perspectives to the work.

Linda Beckman contributed to the conceptualizing and design of the studies, to the development of the interview guides, and to the analysis, the interpretation of results, and the writing of the manuscripts (Study I and II). With expertise in public health, Linda also contributed important theoretical knowledge and perspectives to the work.

Terminology and Abbreviations

In this study, different terms are used depending on context.

"Professionals" refers to healthcare and related professionals in a general sense, while "staff" is used in study I when referring specifically to study participants within professional roles.

"Persons" is used when referring to study participants as informants with mental illness, in line with a person-centred perspective. When referring to individuals more generally, the term "individuals" is used.

ALLEA	All European Academies
APA	American Psychiatric Association
COREQ	Consolidated Criteria for Reporting Qualitative Research
EIGE	European Institute for Gender Equality
FK	Swedish Social Insurance Agency (Försäkringskassan)
FoHM	Public Health Agency of Sweden (Folkhälsomyndigheten)
GDPR	General Data Protection Regulation
HFS	Health Promoting Healthcare Network (Nätverket Hälsofrämjande hälso- och sjukvård)
HSL	Health and Medical Services Act (Hälso- och sjukvårdslagen)
NBHW	National Board of Health and Welfare
PCC	Person-centered care
PL	Patient Act (Patientlagen)
PRIO	A national action plan for targeted interventions in mental health. (Nationell plan för riktade insatser inom området psykisk ohälsa)
PSL	Patient Safety Act (Patientsäkerhetslagen)
SALAR	The Swedish Association of Local Authorities and Regions
SBU	Swedish Agency for Health Technology Assessment and Assessment of Social Services
SCB	Statistics Sweden (Statistiska centralbyrån)
SOC	Sense of Coherence
SoL	Social Services Act (Socialtjänstlagen)
TLV	The Dental and Pharmaceutical Benefits Agency

	(Tandvårds- och läkemedelsförmånsverket)
TvL	Dental Care Act (Tandvårdslagen)
UNDP	United Nations Development Programme
UNGA	United Nations General Assembly
WHO	World Health Organization
WHPA	World Health Professions Alliance
WMA	World Medical Association

Table of contents

1 INTRODUCTION 1

2 BACKGROUND 3

2.1 CURRENT STATE OF RESEARCH ON THE TWO-WAY RELATIONSHIP AND INTERACTION BETWEEN MENTAL AND ORAL HEALTH 3

2.1.1 The bidirectional relationship between mental and oral health in a systems context 3

2.1.2 Socioeconomic, systemic, and structural barriers 5

2.2 ORGANIZATION OF HEALTHCARE, SOCIAL SERVICES AND DENTAL CARE IN SWEDEN: RESPONSIBILITY, FINANCING, AND COLLABORATIVE CHALLENGES 6

2.2.1 Swedish health and care systems, structures, transitions and collaborative pathways 6

2.2.2 Professionals in mental health, social services and dental care 7

2.3 ORAL AND MENTAL HEALTH: INTERCONNECTED BUT FRAGMENTED CARE 9

2.3.1 From fragmented care to a holistic understanding of health 10

2.4 THEORETICAL FOUNDATIONS AND FRAMEWORKS 11

2.4.1 Health as a human right and a foundation for equity 11

2.4.2 Health promotion and prevention 13

2.4.3 Salutogenesis and Sense of Coherence 14

2.4.4 Ecological systems perspective (Bronfenbrenner) 15

2.4.5 An integrative perspective for mental and oral health 17

2.4.6 Rationale 18

3 AIM OF THE THESIS 20

4 METHODOLOGY AND RESEARCH DESIGN 21

4.1 DESIGN 21

4.2 PARTICIPANT RECRUITMENT 22

4.3 DATA COLLECTION - INTERVIEWS AND QUESTIONNAIRE 24

4.4 DATA ANALYSIS 28

4.5 THE RESEARCHER'S PRE-UNDERSTANDING AND REFLEXIVE AWARENESS 32

5 APPLICATION OF ETHICAL PRINCIPLES AND PROTECTIVE MEASURES 33

5.1 INFORMED CONSENT AND ACCESSIBILITY 33

5.2 INTERVIEW PROCEDURES, PARTICIPANT WELL-BEING, AND ETHICAL CONSIDERATIONS 34

5.3 CONFIDENTIALITY AND DATA SECURITY 35

6 RESULTS 36

6.1 STUDY I 36

6.1.1 Organizational challenges *38*
6.1.2 Opportunities for living healthier lives *38*
6.1.3 Staff roles and attitudes *39*
6.2 STUDY II 40
6.2.1 Self-insight to navigate oral health *42*
6.2.2 Social and societal factors shaping oral health self-management *42*
6.2.3 Healthcare encounters that support or challenge the daily management of mental and oral health *43*
6.3 INTEGRATED SYNTHESIS 43
6.3.1 Synthesized results: Managing oral health in the context of mental illness across personal, relational and structural levels *44*
6.3.2 Organizational and structural conditions shaping oral health management *45*
6.3.3 Personal agency, self-awareness and recovery as part of daily self-care *46*
6.3.4 Social and relational dimensions *47*
6.3.5 Systemic and structural barriers *48*
7 DISCUSSION 50
7.1 A PUBLIC HEALTH INTERPRETATION OF ORAL AND MENTAL HEALTH IN THE CONTEXT OF PSYCHIATRIC SETTINGS 50
7.1.1 Personal agency and daily self-management in context *51*
7.1.2 Social and relational dimensions *53*
7.1.3 Systemic and structural barriers *55*
7.1.4 Toward integrated and equitable support for oral and mental health *58*
7.2 METHODOLOGICAL CONSIDERATIONS 59
7.2.1 Interdisciplinary and collaborative approach *59*
7.2.2 Recruitment, sampling, and time frame *59*
7.2.3 Data collection and interview modes *61*
7.2.4 Reflexivity, pre-understanding and power relations *62*
7.2.5 Social desirability *63*
7.2.6 Analytical approach and trustworthiness *64*
8 CONCLUSIONS 66
8.1 IMPLICATIONS FOR ORGANIZATIONS AND PROFESSIONALS SUPPORTING PERSONS WITH MENTAL ILLNESS 66
8.2 FUTURE RESEARCH 67
9 ACKNOWLEDGEMENT 69
10 REFERENCES 71

1 Introduction

Oral health is a fundamental component of general health and a prerequisite for essential functions such as eating, speaking, and participating in social life (Glick et al., 2016). Poor oral health can cause pain, limit everyday activities, and negatively affect quality of life (Faulks, 2023; Kisely, 2016). Despite this, good oral health is unequally distributed across the population (The National Board of Health and Welfare, 2024), and certain groups experience particular difficulties in maintaining self-care and accessing dental services (Public Health Agency of Sweden (Socialstyrelsen), 2018). Moreover, oral diseases remain a major global public health challenge, affecting approximately 3.5 billion people worldwide (Peres et al., 2019; World Health Organization, 2024b).

Mental illness is one factor that may influence oral health (Bjørkvik et al., 2021). In Sweden, overall mental well-being is generally high; however, symptoms of mental health problems are common and unevenly distributed across the population. A substantial proportion of persons with mental health problems report symptoms such as anxiety or worry (≈40%), sleep disturbances (≈45%), and stress (≈16%) during defined reporting periods, with higher levels observed among younger individuals and women. In addition, nearly one in five individuals report having been diagnosed with depression at some point in life (Public Health Agency of Sweden (Socialstyrelsen), 2025). While mental health problems encompass a broad range of symptoms that do not necessarily meet diagnostic thresholds, psychiatric diagnoses refer to disorders defined by standardized clinical criteria (American Psychiatric Association, 2013). In this thesis, the term *mental illness* is used to denote clinically defined psychiatric conditions, reflecting a study population recruited through clinical settings. The need for care related to mental health is considerable, with more than 500,000 adults in Sweden in contact with healthcare services for mental health problems annually (Public Health Agency of Sweden (Socialstyrelsen), 2026), within a total adult population of approximately 8.3–8.4 million (Statistics Sweden (Statistiska centralbyrån), 2026). Taken together,

these findings reflect a continuum from psychological distress to clinical disorders, where many individuals may experience difficulties in maintaining daily routines and self-care practices, including those related to oral health (Mishu et al., 2022; Wheeler et al., 2026).

Healthcare is organized into separate systems, where psychiatric services and dental care largely operate in parallel with no coordination (Faulks, 2023; Kisely, 2016). This fragmentation may lead to unclear delineation of roles and responsibilities, potentially resulting in insufficient coordination across services (McNeil et al., 2024; National Board of Health and Welfare, 2023b; National board of Health and Welfare, 2025).

Recent qualitative research indicates that the relationship between mental health and oral health reflects a complex interplay of individual limitations and structural barriers (Johansson et al., 2025). In mental illness, symptoms, medication side effects, and reduced energy may hinder self-care, while dental anxiety, stigma, and fragmented care systems may limit both access to and use of dental services (Cai et al., 2025; Laverty et al., 2025; Ngo et al., 2026; Wheeler et al., 2026).

Persons with mental illness often consider oral health important but deprioritize it due to the consequences of mental illness (Cai et al., 2025). Professionals highlight that the responsibility for oral health often falls between psychiatric and dental services (Laverty et al., 2025). Despite growing evidence, knowledge remains limited, particularly regarding barriers to oral health management in different welfare systems, including Nordic settings where dental and psychiatric care are largely organized as separate services (Cai et al., 2025; Laverty et al., 2025; Swedish Agency for Health Technology Assessment and Assessment of Social Services, 2024).

This thesis aims to deepen the understanding of experiences of oral health in the context of mental illness from the perspectives of persons with mental illness and professionals working in psychiatric, forensic, or municipal care settings in Sweden.

2 Background

2.1 Current state of research on the two-way relationship and interaction between mental and oral health

Understanding oral health among individuals with mental health challenges requires consideration of both individual and contextual factors. Research highlights a bidirectional relationship between mental and oral health, as well as the influence of socioeconomic, organizational, and structural conditions. The following sections summarize current knowledge in these areas.

2.1.1 The bidirectional relationship between mental and oral health in a systems context

Epidemiological and quantitative studies show that individuals with mental illness, including depression, schizophrenia, and bipolar disorder, have poorer oral health than the general population, with higher rates of caries, tooth loss, and periodontitis (Bjørkvik et al., 2021; Coelho et al., 2020; Kisely, 2016; Kisely et al., 2015; Kisely et al., 2011; Kuo et al., 2020; Peres et al., 2019). These differences are well established and have been demonstrated across countries and healthcare systems. While the relationship between mental and oral health is often described as bidirectional, some authors have emphasized that it is embedded within broader system-level interactions, including those between different care sectors (Kisely, 2016; Peres et al., 2019; Watt, 2007).

Several factors contribute to this pattern. Mental illness may reduce motivation and ability to maintain daily oral hygiene, while oral disease itself can affect well-being, self-esteem, and social participation (Persson et al., 2010; Šarac et al., 2020; Tomar et al., 2011). Psychotropic medications often cause side effects such as dry mouth (xerostomia), and other conditions such as teeth grinding (bruxism), vomiting, and malnutrition may further worsen oral health (Afroz et al., 2025; Berggren & Holmgren, 2020; Kisely, 2016; Meurman &

Murtomaa, 2024). In addition, risk factors such as smoking, alcohol use, and high sugar intake are more common in this group (Fluharty et al., 2017; Prochaska, 2017). Beyond their impact on oral health, these factors contribute to a broader pattern of health inequalities, including significantly reduced life expectancy (Walker et al., 2015).

Taken together, this body of research provides strong evidence that individuals with mental illness are disproportionately affected by oral disease. However, it mainly describes prevalence and risk factors, and gives limited insight into how these problems are experienced or managed in everyday life.

Qualitative studies have begun to address this gap by exploring lived experiences. Research from European and Scandinavian contexts shows that oral health problems are closely linked to everyday functioning, including difficulties maintaining routines, feelings of shame, and reduced access to care (Berggren & Holmgren, 2020; Laverty et al., 2025; Mishu et al., 2024; Persson et al., 2010; Persson et al., 2009). Participants often describe avoiding dental care due to fear, stigma, and financial strain, as well as difficulties navigating the healthcare system (Cai et al., 2025; Johnson et al., 2024). Despite these recent research contributions, qualitative research remains limited, particularly from the perspectives of persons with mental illness.

In a Swedish context, qualitative evidence remains limited and primarily focuses on individuals with eating disorders, showing that oral health problems, often exacerbated by repeated vomiting, can have significant physical, psychological, and social consequences, often linked to shame, guilt, and stigma (Gidlund et al., 2025; Gidlund et al., 2024). These findings align with broader evidence showing that persons with mental illness often rely on multiple care and support systems while experiencing fragmented and variably functioning services (Östman & Björkman, 2014). Although Swedish research remains limited, similar challenges have been reported across Nordic and European contexts, including persistent stigma, barriers to dental care, and limited coordination between services (Bjørkvik et al., 2021; Couatarmanach et al., 2020; Kuipers et al., 2018; Mishu et al., 2022; Östman & Björkman, 2014).

2.1.2 Socioeconomic, systemic, and structural barriers

Socioeconomic and structural factors contribute to inequalities in oral health and access to dental care and interact reciprocally within mental health and psychiatric care systems. Individuals living in socioeconomically disadvantaged cirumstances are less likely to attend regular dental check-ups and more likely to seek care for acute problems, indirectly reflecting broader social determinants such as education, housing, social support, and health-related behavior (Holmlund et al., 2017; Marmot, 2017; The National Board of Health and Welfare, 2024; World Health Organization, 2008).

Among persons with mental illness, these dental care inequalities are further intensified. Reduced utilization of dental care cannot be explained solely by service availability; it is also shaped by factors such as stigma, dental fear, low health literacy, and difficulties managing appointments (Afroz et al., 2025; Doughty et al., 2023; Kenny et al., 2020; Nutbeam, 2000). In addition, fragmented organization of dental, psychiatric, and somatic services places responsibility for coordination on individuals, which may further limit access to and utilization of care (Swedish Agency for Health Technology Assessment and Assessment of Social Services, 2024).

While both quantitative and qualitative research highlight the importance of social and structural determinants of health, there is limited understanding of how oral health needs are identified, experienced, and managed in everyday practice across organizational boundaries (Doughty et al., 2023; Faulks, 2023; Kisely, 2016; Kisely et al., 2015; Laverty et al., 2025). In particular, little is known about how these needs are addressed within psychiatric, social, and health care settings, and how oral and mental health are integrated in practice.

This indicates a need for research that integrates experiences reported by professionals in psychiatry and social services and perspectives and experiences of persons with mental illness in order to better understand how oral and mental health are managed in relation to system organization, coordination, care planning, and everyday self-care.

2.2 Organization of healthcare, social services and dental care in Sweden: Responsibility, financing, and collaborative challenges

The Swedish health and social care system is decentralized, with responsibilities divided across national, regional, and municipal levels. Regions (n = 21) are responsible for healthcare, including psychiatric and dental care, while municipalities (n = 290) are responsible for social services as well as certain forms of municipal healthcare, such as care in residential settings. Dental care is largely organized at the regional level but operates under a partly separate financing and regulatory framework.

This organizational structure determines how care is delivered and contributes to fragmentation, as services operate across different administrative levels with distinct responsibilities, regulations, and funding systems. Despite formal collaboration mechanisms, coordination between services remains limited, particularly for individuals with complex needs (European Observatory on health Systems and Policies, 2024; Swedish Agency for Health Technology Assessment and Assessment of Social Services, 2024).

2.2.1 Swedish health and care systems, structures, transitions and collaborative pathways

The organization of dental and psychiatric care in Sweden has undergone major structural changes over time, shifting from institution-based care to community-based systems with separate organizational pathways. These historical developments provide important context for understanding current challenges in coordination and access to care (see Box 1) (Eivergård, 2003; Kisely, 2016; Swedish Agency for Health Technology Assessment and Assessment of Social Services, 2024).

Box 1. Historical and organizational development of oral and mental health care

• 1920s-1950s: Psychiatric hospitals in Sweden provided in-house dental services due to long-term institutionalization

• 1960s-1990s: Deinstitutionalization shifted psychiatric care into the community, and dental care was transferred to the general dental system. Similar transitions occurred internationally, influencing organization of and access to oral and general healthcare

• 2000-today: Dental care operates as a separate system with distinct organizational structures, financing models, and subsidy schemes

• Persons with mental illness continue to experience disproportionately poor oral health, associated with factors such as dental anxiety, medication-related side effects, and socioeconomic disadvantage.

• The separation of dental and mental health services has contributed to challenges in coordination and continuity of care, while evidence for effective integrated interventions remains limited.

• As a result, access to dental care may become fragmented, particularly for individuals with complex and long-term care needs.

Based on (Brunt et al., 2020; CareQuest Institute for Oral Health, 2024; Eivergård, 2003; Government Bill 1993/94:218, 1994; Kisely, 2016; Swedish Agency for Health Technology Assessment and Assessment of Social Services, 2024)

2.2.2 Professionals in mental health, social services and dental care

Professionals in mental health, municipal social services, and dental care in Sweden operate within distinct organizational, regulatory, and administrative frameworks, governed by national legislation and professional standards to ensure safe and competent practice (HSL 2017:30; National Board of Health and Welfare, 2023c; SFS 2010:659).

Persons with mental illness often require support from multiple sectors, including regional psychiatric care, municipal social services, and dental care. These services are organized separately across different administrative levels, with regions responsible for healthcare

(including psychiatric and dental care) (European Observatory on health Systems and Policies, 2024; Swedish Social Insurance Agency, 2025) and municipalities responsible for social services as well as certain forms of municipal healthcare (SoL 2001:453). As a result, professionals typically work within their own organizational structures and rarely across sectoral boundaries.
Coordination across services therefore relies largely on referrals, planned contacts, and individual initiatives rather than integrated care processes. This may limit continuity and collaboration, particularly for individuals with complex and interrelated needs (National Board of Health and Welfare, 2023c).

Although Swedish legislation requires collaboration across sectors, implementation varies considerably between regions and municipalities, and the effectiveness of mandated coordination has not been systematically evaluated (Månsson et al., 2025; Swedish Association of Local Authorities and Regions (SALAR), 2023). In practice, social services professionals may help persons with mental illness navigate contacts with primary care, psychiatry, and dental services. Such activities often function as informal coordination mechanisms within otherwise fragmented care pathways (Mishu et al., 2022; Skallevold et al., 2023; Swedish Association of Local Authorities and Regions (SALAR), 2026).

These structural divisions are further reinforced by separate financing systems and the absence of shared reimbursement models. Consequently, even when professionals identify interrelated needs, such as oral health problems in persons with mental illness, access to coordinated care may be delayed or constrained. These financial and organizational conditions pose a key challenge for the delivery of integrated and person-centred care (Kisely, 2016; Swedish Agency for Health Technology Assessment and Assessment of Social Services, 2024).

2.3 Oral and mental health: interconnected but fragmented care

Persons with mental illness are exposed to a complex interplay between mental, physical, and oral health, where symptoms, treatment effects (Laverty et al., 2025), reduced daily functioning, and stigma may compromise self-care and delay help-seeking (Brondani et al., 2017; Doughty et al., 2025; Ngo et al., 2026). Despite this interrelatedness, oral health care remains fragmented across psychiatric, primary, municipal, and dental services, with limited coordination and support for navigating care across these services. This may further hinder access to dental care and negatively affect overall well-being (Cai et al., 2025; Laverty et al., 2025; Slack- Smith et al., 2017; Wheeler et al., 2026).

These barriers to self-care, help-seeking, and coordinated care are not experienced uniformly. Differences related to gender and sex shape both the manifestation of mental illness and patterns of healthcare navigation, with internalizing conditions more common among women and externalizing problems more frequent among men (Smith et al., 2018). At the same time, men are generally less likely to seek care and more likely to delay help-seeking, whereas women tend to engage more frequently with services but may also experience disparities in diagnosis, treatment, and system responsiveness (European Institute for Gender Equality, 2021; Mauvais-Jarvis et al., 2020; Smith et al., 2018).

Research consistently demonstrates a bidirectional relationship between oral and mental health, highlighting the need for approaches that address these dimensions as interconnected (Faulks, 2023; Ferry et al., 2022; Kang et al., 2024; Kenny et al., 2020; Macnamara et al., 2021; Šarac et al., 2020). Self-management is shaped and supported across multiple levels, including by mental health professionals, persons with mental illness experience, and, more indirectly, by family organizations and public authorities through the provision of resources, support structures, and policy frameworks (Bjørkvik et al., 2021; National Board of Health and Welfare, 2023a). However, psychiatry, physical, social and dental care systems are often organized in a fragmented manner, with limited coordination between services

operating as separate “silos”. In Sweden, this fragmentation is reinforced by the distribution of responsibilities across regional healthcare (including dental care) and municipal social services, resulting in parallel structures with different regulations and funding systems (Fjellfeldt, 2022; Matscheck & Piuva, 2022; National Board of Health and Welfare, 2019, 2023b; The Dental and Pharmaceutical Benefits Agency (TLV), 2025). This separation may hinder continuity of care and make it difficult to address needs in an integrated manner. In Sweden, the division of responsibilities across regional and municipal levels, reinforces this fragmentation. As a result, individuals are often required to navigate multiple services and coordinate their care across providers, which can be particularly challenging for persons with mental illness (Bjørkvik et al., 2021; De Hert et al., 2011; Kisely, 2016; National Board of Health and Welfare, 2023b). At the same time, the evidence base on oral health among persons with mental illness remains relatively narrow, with a predominant focus on persons with severe mental illness, psychiatric inpatient settings, and service-engaged populations, while common mental health problems and broader community populations are less well represented (Afroz et al., 2025; Cai et al., 2025; Laverty et al., 2025).

2.3.1 From fragmented care to a holistic understanding of health

Health has long been understood as a holistic and multidimensional construct. The Ottawa Charter for Health Promotion emphasized health as a resource for everyday life rather than merely the absence of disease (World Health Organization, 1986), an understanding later reinforced in subsequent conceptualizations (Huber et al., 2011; Thompson et al., 2018). Health encompasses interconnected physical, mental, social, and, in some models, spiritual dimensions that shape individuals’ functioning and lived experiences (Kujundžić Tiljak, 2017; World Health Organization, 1948). In line with this perspective, individuals may experience health even in the presence of illness.

Despite this long-standing recognition, healthcare systems remain largely organized into separate disciplines, with mental, social, dental,

and somatic services often functioning as weakly connected domains. As a result, individuals with co-occurring conditions may encounter parallel rather than integrated care and support pathways. Psychoeducation represents one such approach, supporting understanding, health literacy, and self-management among persons and their families (Choi et al., 2021; Lukens & McFarlane, 2004; Nasab et al., 2019; Skallevold et al., 2023; Slack- Smith et al., 2017).

This misalignment between a holistic understanding of health and fragmented service structures has important implications. Physical, mental, oral, and social health are closely interconnected, and conditions affecting one domain are likely to influence others, with consequences for functioning and participation (Peres et al., 2019; Sheiham, 2005; Watt, 2007). The intersection of these dimensions in the context of mental illness, with particular implications for oral health, is explored later in this thesis.

2.4 Theoretical foundations and frameworks

The theoretical perspectives and frameworks presented below function as complementary lenses for interpretation. Together, they contribute to understanding the different dimensions of mental and oral health in the context of oral health in mental illness.

2.4.1 Health as a human right and a foundation for equity

The Universal Declaration of Human Rights defines health as encompassing physical, mental, and social dimensions and affirms the right to conditions that support health (United Nations General Assembly, 1948). From a health equity perspective (World Health Organization, 2008), defined as the absence of unfair and avoidable differences in health, care should be based on need rather than equal treatment, meaning that more vulnerable groups may require additional support. Several UN articles are particularly relevant in

practice: Article 1 highlights dignity and equitable access, which implies organizing services to reduce barriers and counteract stigma. Article 22 recognizes economic, social, and cultural rights, including the right to social protection and to conditions that make it possible to obtain preventive and restorative health care, such as financial support, coordinated services, or help navigating administrative systems. Article 25 affirms the right to an adequate standard of living, and Article 27 asserts the right to benefit from scientific progress, underscoring the importance of ensuring access to evidence-based psychiatric and dental care on equitable terms.

These principles are further reflected in the Ottawa Charter for Health Promotion, which defines health promotion as enabling people to gain control over the factors influencing their health and highlights equity, supportive environments, and intersectoral action as central to mental and oral health (World Health Organization, 1986). Agenda 2030 reinforces this through Goal 3 on mental health and universal access to promotive and preventive services, and Goal 10, which recognizes that persons with greater needs may require additional support to achieve equity (United Nations Development Programme (UNDP), 2015).

In Sweden, Public Health Policy Objective 8 states that healthcare and dental care should prioritize those with the greatest health needs, which is particularly relevant for persons with mental illness who face increased oral health risks (HSL 2017:30; Public Health Agency of Sweden, 2025). However, evaluations of the former national mental health initiative, PRIO, indicated that oral health was not prioritized in regional efforts and that measures to improve access to dental care were lacking. Although more recent agreements between the Swedish government and SKR, including the national programme “Its about life” [in Swedish, “Det handlar om livet”], acknowledge the need for strengthened cross-sectoral approaches to mental health (Public Health Agency of Sweden, 2026), the integration of oral health within these efforts remains limited.

Building on this gap, health promotion and prevention targeting oral health among persons with mental illness require practical strategies to translate policy commitments into everyday practice. Such strategies

include reducing administrative barriers to dental care, improving accessible care pathways, and supporting individuals in establishing manageable oral health routines.

2.4.2 Health promotion and prevention

Health promotion aims to strengthen factors that enable individuals to manage their health in daily life through supportive environments, accessible services, and personal and social resources (World Health Organization, 1986). While health promotion focuses on building capacities and enabling conditions, prevention aims to reduce the risk, onset, or progression of disease. Empowerment and health literacy are central components of effective health-promotion efforts (Nutbeam, 2000).

Oral health problems are largely preventable, but they are often not detected until treatment is required or an acute issue arises (Peres et al., 2019). Strengthening oral health literacy, ensuring access to preventive services, and providing support adapted to everyday life are therefore key components of both health-promotive and preventive strategies (Watt, 2005, 2007). In this context, dental care constitutes an important setting for health promotion and public health, offering opportunities for prevention, health education, and early identification of broader health needs (National Board of Health and Welfare, 2019).

However, for persons with mental illness, access to and utilization of dental care often require active support. Oral health needs may therefore benefit from coordinated efforts across dental, psychiatric, and social care services, as such collaboration can contribute to improved health management. Oral health may also need to be explicitly integrated into individual care planning (National Board of Health and Welfare, 2022).

Within coordinated and integrated care for persons with mental illness, self-care and self-management play a central role in translating health-promotive efforts into everyday practices. Supporting

self-management and self-care is therefore a key activity in collaborative and health-promotive care. However, strengthening these capacities is not only about service coordination; rather, it requires integrated frameworks in which providers share information, align goals, and offer consistent guidance to the individual (Lorig & Holman, 2003; World Health Organization, 2016b).

Self-care refers to maintaining physical health through everyday activities, such as hygiene, nutrition, physical activity, and rest, and can be understood as a component of self-management. Self-management, in turn, encompasses the broader processes of handling symptoms, treatments, emotional responses, and the overall impacts of illness on daily life (Audulv et al., 2025; Barlow et al., 2002; Lorig & Holman, 2003). These capacities are particularly important in chronic and severe conditions. However, for many persons with mental illness, fragmented services make it difficult to develop and sustain such routines (Nicaise et al., 2019; Swedish Agency for Health Technology Assessment and Assessment of Social Services, 2024).

To further understand how individuals mobilize resources under challenging life circumstances, the salutogenic perspective provides a complementary theoretical lens, focusing on how persons mobilize and make use of available resources in managing health and illness in everyday life.

2.4.3 Salutogenesis and Sense of Coherence

The Antonovsky´s salutogenic theory (1979; 1996), that is, the theory of the origin of health, describes people's ability to use resources to manage everyday demands, including those related to health. Rather than replacing disease prevention perspectives, salutogenesis complements them by emphazising processes and environments that support health and coping. This perspective is consistent with biopsychosocial models that view health as shaped by both risks and available resources (Bauer et al., 2020), describing salutogenesis as a practical way to strengthen supportive contexts at individual,

relational, and organizational levels (Lindström et al., 2025). Support for persons with mental illness needs to address both oral and mental health. This includes providing appropriate clinical treatment. It also involves supporting individuals in managing their health in everyday life, for example by establishing routines for oral self-care. In addition, barriers to accessing care need to be reduced, and individuals need to be supported to participate actively in decisions and practices related to their own health (Afroz et al., 2025; Johnson et al., 2024).

Within salutogenesis, Sense of Coherence (SOC) is a key mechanism for understanding how people orient themselves along a continuum between health and illness. A strong SOC can support movement toward health, whereas a weak SOC may increase vulnerability to stressors and ill health. SOC consists of comprehensibility (I understand), manageability (I can), and meaningfulness (I want) (Antonovsky, 1987; Lindström & Eriksson, 2005). While the salutogenic perspective helps identify resources and conditions that support health and everyday functioning (Antonovsky, 1987; Lindström & Eriksson, 2005), people's capacities to perceive and use these resources do not develop in isolation. Rather, SOC is shaped through ongoing interactions between the individual and the social, organizational, and structural contexts of everyday life. This provides a natural transition to an ecological perspective.

2.4.4 Ecological systems perspective (Bronfenbrenner)

From Bronfenbrenner's ecological systems perspective (Bronfenbrenner, 1994), a person with mental illness is positioned at the centre of several interconnected system levels that together shape opportunities and constraints for both oral and mental health.

The microsystem consists of the closest and most immediate contexts (Bronfenbrenner, 1994), including relationships with family, friends, supported housing staff, and regular encounters with professionals in psychiatric, medical, and dental care. Within these interactions, person-centered care should be enacted through relationships in which individuals are seen as persons with unique experiences, needs, and

resources (Ekman et al., 2011; Ekman et al., 2024; Lindström et al., 2026). These relationships may provide practical and emotional support, contribute to stable routines, and foster trust; however, the absence of such relational conditions, or experiences of distrust, discontinuity, or inaccessibility, can be equally significant (World Health Organization, 2016b).

The mesosystem refers to the links between these settings (Bronfenbrenner, 1994), such as interprofessional practice and multidisciplinary forms of work between psychiatric services, primary care, dental care, social services, and housing support (World Health Organization, 2016b). These connections shape how responsibilities are managed and how care is coordinated across services (World Health Organization, 2016a). When such linkages are weak or inconsistent, both persons and professionals may encounter fragmented care pathways, uncertainty about roles, and reduced access to preventive support over time (Levesque et al., 2013).

The exosystem comprises organizational and structural conditions that influence the person indirectly (Bronfenbrenner, 1994), including regional healthcare organization, waiting times, resource allocation, and decisions within the social insurance system, as well as other sectoral actors such as schools or housing companies. These conditions shape the practical and financial circumstances that affect whether persons are able to seek, enter, and sustain care (Levesque et al., 2013; Marmot, 2017).

At the macrosystem level (Bronfenbrenner, 1994) are legislation, national guidelines, welfare-state policies, and broader societal norms (World Health Organization, 2008) concerning mental illness and oral health (World Health Organization, 2022b). These frameworks also include normative orientations such as equity and person-centered care (Ekman et al., 2024), which shape expectations of care but may be unevenly reflected in practice. Such norms are not only produced at the societal level but are also reinforced within more immediate system layers, for example through interpersonal interactions that may perpetuate stigma or limit support (Doughty et al., 2023).

The chronosystem draws attention to how changes over time (Bronfenbrenner, 1994; Eriksson et al., 2018), such as shifts in mental health, life transitions, economic circumstances (Marmot, 2017), or changes in service organization (World Health Organization, 2016a), affect both persons with mental illness and the professionals who support them. These temporal conditions influence the stability of routines, access to care, and the possibilities for sustaining preventive efforts (Levesque et al., 2013). The chronosystem thus highlights that health and care are shaped not only by current contexts but also by individuals' life courses and broader societal developments, in interaction with the other ecological system levels (World Health Organization, 2016a, 2024a).

Taken together, these system levels illustrate how social and structural conditions interact around the individual and shape persons, his or her, capacity to maintain oral and mental health. This perspective provides an analytical framework for understanding how factors across system levels may influence health practices and access to care, framing mental and oral health as interconnected rather than isolated domains.

2.4.5 An integrative perspective for mental and oral health

This thesis draws on human rights and equity principles, health promotion and disease prevention, Antonovsky's salutogenic theory, and an ecological systems perspective to understand oral and mental health among persons with mental illness. Human rights and equity perspectives frame health and social participation as fundamental rights (World Health Organization, 1948), while health promotion emphasizes the importance of resources and supportive conditions for health (World Health Organization, 1986).

The salutogenic theory highlights how a person's Sense of Coherence (SOC), that is, the capacity to understand, manage, and find meaning in life situations, supports engagement in health-related practices. The ecological systems perspective situates these processes within

interacting individual, social, and organizational contexts (Bronfenbrenner, 1994).

Together, these perspectives provide a framework for exploring how mental and oral health intersect in everyday life and how individual resources, social relationships, and structural conditions influence health management and access to care.

2.4.6 Rationale

Despite clear evidence linking mental and oral health together, these areas are often addressed separately in practice, including in health-promoting and disease-preventive efforts. Oral, psychiatric physical health, and municipal social services are organized in parallel systems with limited coordination, resulting in fragmented care pathways. Although responsibilities are formally defined, they are distributed across organizational boundaries in ways that may hinder integrated support, for example when oral health in everyday care becomes insufficiently addressed. Professionals' actions can thus be understood as shaped by existing organizational structures and mandates.

In addition to these organizational barriers, persons with mental illness often face greater challenges than the general population in maintaining daily self-care and accessing and utilizing dental services, contributing to increased risks of oral disease and other chronic conditions. While such disparities are well documented, there is limited guidance on how coordinated and person-centered approaches can be developed within complex systems.

Moreover, it remains insufficiently understood how oral health needs are identified, experienced, and managed by different professional groups within health, psychiatric, and social care services, and how mental health needs are addressed within dental care. As a result, oral health is seldom integrated into personal care planning, and needs are often addressed within separate professional and organizational silos

rather than as interconnected concerns. Qualitative research is therefore needed to advance understanding of how oral health is experienced and managed in everyday life, including how persons with mental illness navigate fragmented care systems and how professional practices and organizational conditions shape these experiences.

By integrating the perspectives of persons with mental illness and professionals, this thesis seeks to identify needs and resources that may inform improved support for oral health in this context.

3 Aim of the thesis

The overall aim of this thesis is to deepen the understanding of oral health in the context of mental illness, from the perspectives of persons with mental illness and professionals working in psychiatric, forensic, or municipal care settings in Sweden.

The specific aims of study I and II were:

I. To explore the experiences of psychiatric staff regarding their patients' oral health and in meeting their oral health needs.

II. To explore how persons with mental illness understand, navigate, and manage their oral health as part of their mental and overall health.

4 Methodology and research design

The following section includes a description of the study design, population and setting, data collection and analysis, as well as the researcher's pre-understanding and reflexive awareness, and concludes with ethical considerations.

4.1 Design

Both studies in this thesis use a qualitative design, chosen in response to the exploratory nature of the research questions. A qualitative approach is particularly suitable when the aim is to capture participants' experiences in their own words and to gain insight into how they perceive and manage everyday life situations (Kvale & Brinkmann, 2015; Malterud, 2001). In both studies, data were collected through semi-structured interviews and analysed inductively using qualitative content analysis at a manifest level (Table 1) (Graneheim et al., 2017; Graneheim & Lundman, 2004; Lindgren et al., 2020).

The two studies address similar phenomena from complementary perspectives. Study I focuses on professionals' perspectives and is based on interviews with staff working in psychiatric, forensic, and municipal care settings, whereas Study II explores the perspectives of persons with clinically diagnosed mental illness receiving or having recently received psychiatric care. An overview of the design, data collection, and samples in each study is presented in Table 1.

Table 1. Overview of the studies included in the licentiate thesis

Study	Design and method	Data collection	Sample	Analys
I	Explorative with a qualitative approach	Semi-structured guide, interviews	Number of staff: 13 Settings: - Swedish psychiatric or forensic care settings - Municipal housing support services	Inductive qualitative content analysis, a manifest level
II	Explorative with a qualitative approach	Semi-structured guide, interviews	Number of persons: 12 persons with mental illness, receiving or having recently received psychiatric care	Inductive qualitative content analysis, a manifest level

4.2 Participant recruitment

The participants in these studies were recruited for the two separate qualitative studies. These studies addressed two complementary perspectives, that of psychiatric staff in mental health services (Study I), and that of persons with mental illness (Study II). Recruitment to both studies occurred in parallel.

To gain access to the mental health field and establish contact with both staff and persons with lived experience, the national network PsykosR, organized by SKR, was approached. At the time of recruitment, services within the network had implemented Illness Management and Recovery (IMR), a psychosocial programme focusing on self-management and recovery (Mueser et al., 2002). The two studies included in this thesis were presented during a digital national network meeting with PsykosR held during the COVID-19 pandemic, with the purposes of recruiting staff and also providing information on the recruitment process. Following the presentation by the author (CJ), staff who wished to receive more information made contact, and personal informational sessions were scheduled for specific clinics. Three clinics requested such sessions, which were conducted digitally.

For this research, staff and persons with mental illness were recruited in parallel. Psychiatric staff informed patients about the ongoing study,

both verbally and through posters displayed in waiting areas, which included a QR code linking to an information video. Interested persons were invited to contact the researcher (CJ) directly to express their interest in participation. As network members were located across the country, this recruitment strategy enabled national coverage of the recruitment process.

In addition to the PsykosR network, a regional healthcare strategist in one Swedish region was contacted to support recruitment. The healthcare strategist introduced the study to clinics within the region and distributed posters containing written information about the study, a QR code linking to an informational video, and instructions on how interested individuals (both persons with mental illness and staff) could contact the research team to express interest in participation. While this strategy provided additional support for recruitment, it did not result in greater representation from that region. There is no information available on how many individuals received verbal information about the study. However, three persons with mental illness specifically reported having seen the poster when they contacted the researcher (CJ) to express their willingness to participate.

Study I

Seven women and six men from six different regions in Sweden were included in Study I. A strategic sampling approach was used with the intention of including a variation of professional roles within psychiatric, forensic and social care services. The participants ranged in age from 28 to 68 years and represented the following professions: one physician, five psychiatric nurses, one nurse practitioner, one care aide, one psychologist, one social worker, one occupational therapist, and two municipal housing support aides.

Study II

Twelve persons (nine women, three men) with mental illness and experience of psychiatric care, living in the regions, reported interest and wished to participate in the study. The inclusion criteria were adults (>18 years) with mental illness who currently receive or have

received care at outpatient, inpatient, or forensic psychiatric clinics in Sweden. No person from forensic psychiatric clinics contacted the reseracher (CJ) about participation. It is not possible to determine to what extent all eligible individuals were approached, as the provision of information depended on local routines and staff practices.

The sample predominantly consisted of women and included relatively few younger participants, with most having long-term experience of mental illness and contact with psychiatric services. The nine female participants were evenly distributed across birth cohorts (three born in the 1960s, three in the 1970s, and three in the 1990s), while the three male participants were born in the 1960s, 1970s, and 1980s, respectively. Participants represented a braod range of self-reported psychiatric diagnose, with several reporting comorbidity.

In Study II, participants are referred to as Informant 1, Informant 2, and so forth when presenting interview quotations in order to preserve anonymity.

4.3 Data collection - interviews and questionnaire

Data collection for both studies was conducted in parallel. Between April 2022 and June 2023, individual semi-structured interviews were conducted with staff and persons with mental illness. All participants were offered the choice of interview mode based on their personal preferences and circumstances. Staff chose digital or telephone interviews, while persons with mental illness chose personal interviews at Karlstad University in cases where they live close to and within reasonable travel distance, and some chose telephone interviews due to geographical but also practical circumstances. Semi-structured interviews were chosen to enable the participants to describe their experiences and perspectives in depth while ensuring consistency in the interviews. This approach is widely used in qualitative research to generate rich and detailed data, while allowing flexibility to explore relevant topics across participants. All interviews were conducted by

the researcher, CJ, and, with participants' consent, audio-recorded using a dictaphone.

Two interview guides were developed specifically for the respective studies and aligned with the study aims. They consisted of open-ended questions designed to elicit rich accounts of how oral health is understood and experienced in the context of mental illness. In Study I, the focus was on professionals' own experiences of the oral health and oral health needs of persons with mental illness (patients/service users). In Study II, the focus was on how persons with mental illness understand, navigate, and manage their oral and physical health in everyday life. Topics included general health perceptions, everyday routines, perceived influences of mental health on oral health practices, sources of knowledge about oral care, as well as attitudes towards nutrition and substance use. These aspects were explored in relation to the interconnections between mental, oral, and physical health. Follow-up questions were used to encourage participants to elaborate and provide more detailed descriptions when needed. Interview sessions lasted between 30 and 100 minutes (average 40 minutes in Study I and 61 minutes in Study II) and the recordings were securely stored in accordance with university data protection policies.

Study I

Prior to formal recruitment, two pilot interviews were conducted to refine the interview guide. These pilot sessions were excluded from the final analysis, as the guide was subsequently adjusted to better direct participants toward the relevant topics, given that the initial interviews tended to stray from the focus of the study. Before each interview, participants completed a demographic survey detailing sex, age, highest level of education, and their years of professional experience (Johansson et al., 2025) (Table 2) .

Table 2. Demographics of participants in study I (n=13).

Experi-ences	Education level	Gen-der	Age	Interview format	Duration (min)
1-10 years	College/University	M	28-38	Phone	45
1-10 years	College/University	M	28-38	Phone	34
1-10 years	College/University	M	28-38	Phone	30
1-10 years	College/University	F	43-53	Phone	44
1-10 years	College/University	M	58-68	Digital platform	33
1-10 years	Upper secondary school/High school	M	43-53	Phone	47
11-20 years	College/University	F	28-38	Phone	36
11-20 years	Upper secondary school/High school	F	58-68	Phone	35
11-20 years	College/University	F	58-68	Phone	51
11-20 years	College/University	F	58-68	Digital platform	43
11-20 years	College/University	F	58-68	Digital platform	32
21-40 years	College/University	M	58-68	Digital platform	59
21-40 years	Upper secondary school/High school	F	58-68	Digital platform	33

Study II

Particpants had diverse mental health backgrounds, reflecting a clinically recruited sample of persons with experience of mental illness. This resulted in a broad range of experiences. The analysis, however, did not compare responses across diagnostic categories or symptom severity. While the interview guide did not include questions about whether participants were engaged in outpatient, inpatient, or forensic care at the time of the interview, many voluntarily shared accounts of previous encounters with the mental healthcare system. These accounts included emergency visits, hospital admissions, changes of care providers, transfers between services, and, in some cases, geographic relocation for treatment-related reasons. Prior to the interviews, participants completed a demographic questionnaire that included sex, age, education level and duration of illness (Johansson et al., 2026 (in manuscript) (Table 3).

Table 3. Demographics of the participants in study II (n=12)

Sex	n
Female	9
Male	3
Other	0
Born under the decade	
1960	4
1970	4
1980	1
1990	3
Education level	
Part of upper secondary school/High school	1
Upper secondary school/High school	6
College/University	5
Mental illness duration (years)	
1-5 years	5
6-10 years	3
11-15 years	3
16-20 years	0
21-25 years	1

Pilot testing was not repeated in Study II, as revisions informed by the pilot interviews conducted in Study I led to a refinement of both interview guides, with questions moving from broader health topics to a clearer focus on oral health, aligning them more closely with the respective study aims. Based on this process, additional pilot testing was considered redundant. Moreover, self-reported statements of the participants' psychiatric diagnoses were also included. A broad range of self-reported psychiatric diagnoses were identified, spanning major diagnostic categories such as mood, anxiety and stress-related disorder, psychosis, personality disorder, neurodevelopmental disorders, and disorders related to substance use, including specific conditions such as bipolar disorder, recurrent depressive disorder, generalized anxiety disorder, schizophrenia, autism spectrum disorder, and opioid dependence. These categories and diagnoses are presented to describe the variation of the study population's conditions and experiences.

4.4 Data analysis

The study I and II, as well as the synthesis in current thesis based on the results of both studies, was conducted using qualitative content analysis at manifest level, guided by Graneheim and Lundman (2004) and their further methodological developments (Graneheim et al., 2017; Lindgren et al., 2020). The synthesis was undertaken to integrate findings from both studies and to develop a more comprehensive understanding of how oral health is experienced and managed in the context of mental illness. For both studies, data were initially analysed separately following an inductive approach, in which meaning units were identified, condensed, coded, and organized into categories close to the explicit content of the text. Coding and categorization were conducted iteratively and regularly discussed among the authors to enhance credibility (See Box 2 and 3 for analytical steps for Study I and II). Data saturation was considered to have been reached when no substantially new information or variations emerged in the interviews, and participants' responses showed clear patterns of similarity in relation to the interview guide. This is consistent with qualitative content analysis, where adequacy of the data is reflected in both variation and repetition within the material (Graneheim et al., 2017).

Box 2. Example of analytical process (Study I)

Orginial quotation *(Psychiatric nurse)*
It is challenging to work with mentally ill patients. They may not think about their physical or oral health at all until they get better or medicated. It's a challenge because you want the patient to feel good physically as well. Taking care of basics, like sleep, diet, exercise, hygiene – the whole thing is difficult. The patient may not think it's that important really, but it's the basis of it all, I think.

Meaning units:
- Patients have difficulty maintaining basic daily routines and self-care
- Oral health is not prioritized during periods of mental illness

Condensed meaning units:
- Self-care routines are difficult to maintain
- Oral health is deprioritized

Codes:
- Difficulties in self-care
- Low prioritization of oral health

Subcategory:
- Neglected self-care and structured healthy routines are missing

Category:
- Opportunities for living a healthier life

Box 3. Example of analytical process (Study II)

Original quotation (*Informant 5*):
Then everything falls apart when I feel bad. When I fall apart, I barely care about oral hygiene at all… I notice that my gums have receded and I bleed easily.

Meaning unit:
- When mental health deteriorates, oral hygiene is neglected
- Poor routines lead to oral health problems (bleeding gums, recession)

Condensed meaning units:
- Poor mental health- neglect of oral hygiene
- Leads to worsening oral health

Codes:
- Neglected oral hygiene during mental distress
- Consequenses of disrupted routines

Subcategories
- Difficulties mainatining routines for oral health

Category:
- Self-insight to navigate oral health

For the stepwise integrated synthesis, categories from Study I (staff perspectives) and Study II (perspectives of persons with mental illness) were systematically compared side-by-side to identify areas of convergence, complementarity, and difference. This comparative process involved repeated movement between the two datasets, enabling a deeper understanding of how experiences, needs, and contextual factors related to oral and mental health were described across perspectives.

The categories were then compared, clustered, and reorganized into broader cross-cutting categories that captured shared and complementary aspects of the findings, forming a coherent synthesis linking the results from both studies. The synthesis was conducted primarily at a manifest level and involved an abductive analytical approach, characterized by iterative movement between the empirical findings and relevant theoretical perspectives (Graneheim et al., 2017; Lindgren et al., 2020). The purpose was not to generate new theoretical concepts, but to highlight central aspects of the manifest categories as expressed by both persons with mental illness and staff.

In a final deductive step, the synthesized categories were interpreted using Bronfenbrenner's ecological systems theory as an analytical framework. Categories were mapped onto the individual, interpersonal, or structural level according to their primary manifest content, while acknowledging interconnections between levels.

The synthesis process is outlined in Box 4. In line with the overall aim of the study, the integrated findings were subsequently visualised in a model (Figure 4), illustrating how individual, social, and structural factors interact in shaping the management of oral and mental health in everyday life.

Box 4. Stepwise integrated synthesis using manifest content analysis and abductive approach

Step 1: Separate manifest analysis of each study (See analytical process: Study I and II).

Step 2: Compilation of categories

- Categories from Studies I (staff perspectives) and II (persons with mental illness perspectives) were brought together.
- A manifest focus was maintained to preserve participants' expressed experiences.

Step 3: Cross-study comparison
Categories were systemically compared side-by side to identify:

- Convergence (similarities)
- Complementarity (mutually enriching aspects)
- Differences

This involved repeated movement between the two datasets to deepen understanding.

Step 4: Abstraction into cross-cutting categories

- Related categories were merged and abstracted into broader cross-cutting categories.
- These captured shared and complementary aspects across two studies, forming a coherent integrated synthesis.

Step 5: Abductive integration

- The synthesis remained primarly at a manifest level.
- Interpretation involved an abductive process, with iterative movement between epirical findings and relevant theoretical perspectives.
- The aim was to deepen understanding of relationships between categories rather than to generate latent themes.

Step 6: Theoretical interpretation (deductive element)

- In a final step, the synthezised categories were interpreted using Bronfenbrenner's ecological systems theory.

Findings were mapped onto:

- Individual level
- Interprofessional level
- Structural level

Step 7. Iterative synthesis and visualisation

- The analytical process was iterative throughout all steps.
- The final synthesis was visualised as an ecological model (Figure 4) illustrating how individual, social, and structural factors interact in shaping the management of oral and mental health in everyday life.

4.5 The researcher's pre-understanding and reflexive awareness

My prior professional experience, including many years of work in infectious disease care and general dentistry with persons in vulnerable situations, informed my sensitivity to issues of stigma, power asymmetries, and unmet health needs. This extensive experience contributed to a strong person-centered and equity-oriented perspective, which influenced how I approached participants, formulated interview questions, and interpreted their narratives.

This pre-understanding required continuous reflexive attention. As I conducted both the interviews and the analysis, there was a risk that prior clinical assumptions could shape the interpretation of participants' accounts. Reflexivity was therefore an explicit and recurring focus, beginning with individual reflexive memo-writing, followed by supervisory discussions within the research team, and extending to critical examination of emerging interpretations.

Because data collection for the two studies was conducted in parallel, insights from one group could potentially inform my understanding of the other. To manage this interplay, I adopted a reflexive and systematic approach, in which emerging insights were continuously scrutinized rather than taken for granted. This allowed the interplay to serve as an analytical strength, supporting a more nuanced interpretation across perspectives, while its potential influence was critically examined through ongoing reflection and collaborative analytic discussions.

5 Application of ethical principles and protective measures

Ethical approval for the project was obtained from the Swedish Ethical Review Authority (Dnr 2021-04413). The study was conducted in accordance with the Declaration of Helsinki (World Medical Association, 2022) and and the All European Academies (ALLEA); European Code of Conduct for Research Integrity.

The research process was guided by established principles of research integrity, including reliability, honesty, respect, and accountability as outlined by ALLEA.

The reporting of the qualitative results was reconciled and checked based on the Consolidated Criteria for Reporting of Qualitative Research (COREQ). In Study I, general principles of qualitative research, such as transparency in data collection and analysis, systematic coding procedures, and reflexivity, were followed; however, following a reviewer's request, compliance with the 32-item COREQ checklist was systematically assessed retrospectively. In contrast, Study II adhered to COREQ from the outset (Tong et al., 2007; Graneheim & Lundman, 2017).

5.1 Informed consent and accessibility

Study information was provided verbally, in writing, through posters, and via a short informational video. Participants were informed that participation was voluntary, that consent could be withdrawn at any time without explanation, and that participation in Study II would not affect the ongoing care of persons with mental illness. All participants provided informed consent before the interview began. For interviews conducted via digital platforms or telephone, consent was given verbally and audio-recorded, while participants in face-to-face interviews were invited to a meeting room at Karlstad University, where written informed consent was obtained.

Since Study II involved persons with mental illness, special emphasis was placed on ensuring that the study information was clear and accessible. The recruitment was carried out through professionals in outpatient and inpatient clinics, forensic and municipal care environments, who informed their patients verbally about the study, while posters were used to enhance the presentation of the ongoing study in more ways. Data collection for Studies I and II took place in parallel.

5.2 Interview procedures, participant well-being, and ethical considerations

In both studies, interviews were scheduled at times convenient for participants and conducted with sensitivity to their everyday experiences. While interviews with persons with mental illness experience could involve potentially sensitive aspects of health and life situations, interviews with staff primarily focused on their professional perspectives and practices. For persons with mental illness experience, particular attention was paid to well-being during the interviews. Their reactions were continuously monitored, and the researcher was prepared to pause or terminate the interview if signs of discomfort emerged. Across both studies, participants were encouraged to speak freely and were not interrupted in their narratives. They were acknowledged for their contributions, and, when necessary, the conversation was gently guided back to the interview guide to maintain focus and to avoid placing unnecessary demands on the participants.

From an ethical perspective, the studies were reviewed and approved by the Swedish Ethical Review Authority, which assessed that the anticipated benefits outweighed the potential risks based on the study design and procedures. For Study I, involving psychiatric staff, participation was considered to pose minimal risk. Department heads were informed about and approved the study in line with organizational requirements, and interviews were scheduled to minimize disruption to clinical duties, which was particularly

important given the increased workload in psychiatric services following the COVID-19 pandemic.

5.3 Confidentiality and data security

All data were handled in accordance with the General Data Protection Regulation (GDPR; EU 2018/1725), which requires secure handling of personal data, confidentiality, and protection of participants' privacy. Identifiable information was accessible only to the researcher and stored on a secure, university-approved server in accordance with institutional data protection procedures. Personal data were pseudonymized, and careful analytical attention was paid to maintaining confidentiality throughout the research process. All quotations were pseudonymized for reporting purposes; staff were identified only by their professional role (Study I) and informants by numerical codes (Study II). Findings were presented at group level, and analytical attention ensured that all participants' voices were represented. The two interview guides are available in Appendix 1 (staff) and 2 (persons with mental illness).

6 Results

The results are first presented with figures from both Study I and Study II, accompanied by descriptive text outlining the main categories and subcategories. The subsequent section integrates the main findings from Study I and Study II under shared headings. The purpose of this presentation is to describe, analyse, and deepen the understanding of oral health in the context of mental illness, highlighting how oral health is understood, experienced, and managed in relation to everyday life, health, and care. The results reflect two perspectives: psychiatric staffs' views on, and management of, their patients' oral health (Study I), and descriptions by persons with mental illness of their own oral health and how it is managed in everyday life (Study II). For more detailed information, please refer to the respective articles. The findings from Studies I and II were subsequently synthezised, as described in the thesis.

6.1 Study I

The possibilities and challenges for staff in addressing patients' oral health needs are used as an overarching lens reflecting the study aim and interview focus, rather than as an analytical category derived from the data. The analysis resulted in eight subcategories that were abstracted into three main categories: 1) Organizational challenges, 2) Opportunities for living a healthier life, and 3) Staff roles and attitudes (Figure 2).

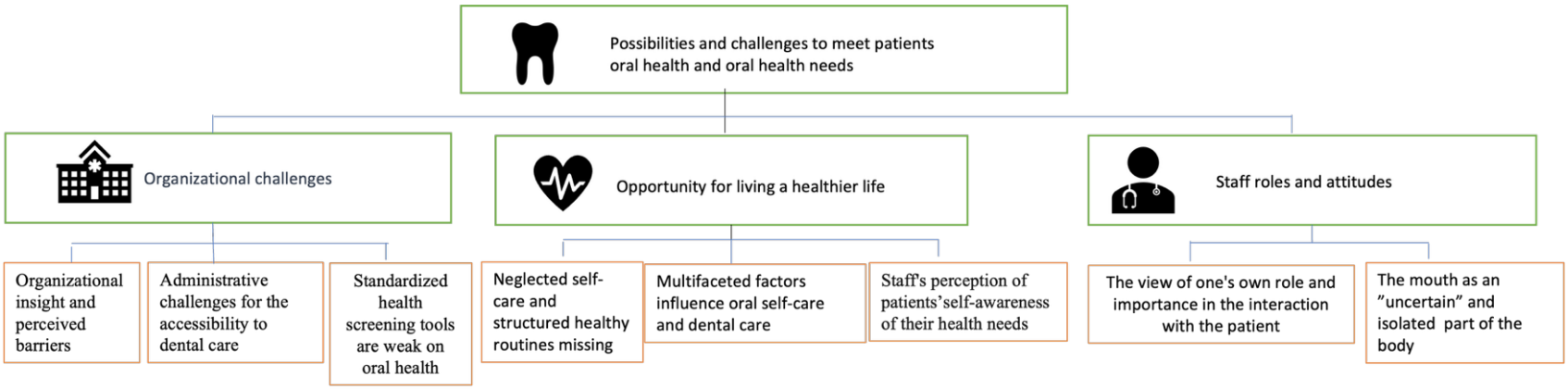

Figure 2. The eight subcategories forming the three categories

6.1.1 Organizational challenges

This category encompasses participants' perspectives on their workplace and the organization of psychiatric care, particularly in relation to both staff roles and patient care. It builds on three interrelated subcategories, presented below. The subcategory *Organizational insights and perceived barriers for patients* highlights challenges within the structure of psychiatric care, particularly in relation to regulations.

> The challenge is time; currently, we screen and refer to other professionals. We are not supposed to have the complete picture, but for psychotic patients we would need a more comprehensive view. Their difficulty lies in seeking help from various services, such as primary care and dental health. I have worked for a long time, and previously everything was available in one place, and the entire situation was taken care of. (Psychiatric nurse)

Administrative challenges for the accessibility to dental care address issues concerning patient access, administrative procedures, and rules governing mandated dental care subsidies. Finally, *Standardized health screening tools often give limited attention to oral health* reflecting shortcomings in current screening practices and higligtning the importance of approaches that capture persons' strengths, challenges and support needs.

6.1.2 Opportunities for living healthier lives

This category reflects participants' perspectives on the needs of their patients to live in a healthier way while managing mental illness. It is organized around three subcategories. Neglected self-care and structured healthy routines are missing illustrates how lifestyle choices, behavior, and everyday habits affect physical health and the ability to maintain oral health practices.

> It is challenging to work with mentally ill patients. They may not think about their physical or oral health at all until they get better or medicated. It's a challenge because you want the patients to feel good physically as well. Taking care of basics, like sleep, diet, exercise,

> hygiene – the whole thing is difficult. The patient may not think it's that important really, but it's the basis of it all, I think. (Psychiatric nurse).

Multifaceted factors influence oral self-care and dental care captures the diverse circumstances, such as socioeconomic status, upbringing, attitudes, and habits, that shape challenges in both general and oral health. Finally, Staff's perception of patients' self-awareness of their health needs emphasize the importance of patients recognizing their mental condition and its effects, as well as the role of fostering motivation for positive change despite ongoing difficulties.

6.1.3 Staff roles and attitudes

This category captures the participants' perspectives on their roles, responsibilities, knowledge, and attitudes as professional caregivers. It is organized around two subcategories. *The view of one's own role and importance in the interaction with the patient* reflects how the participated staff perceive themselves as professionals who promote and motivate healthy changes, including their broader mission and specific responsibilities related to patients' oral health needs.

> It's about strengthening my relationship with the patient so they can trust me. Yes, I believe it's through time and nurturing the relationship, showing interest, and allowing it time to develop. It's about time and showing that I'm willing to listen. (Psychiatric nurse)

The category: The mouth as an "uncertained" and isolated part of the body highlights that oral health is often treated as a separate issue rather than an integral part of overall health in psychiatric care. As a result, healthcare professionals may be uncertain about their role in addressing oral health problems. The theme also describes how they act when patients' oral health needs are identified.

6.2 Study II

The result was organized into three categories with eight subcategories. The three categories were: 1) Self-insight to navigate oral health, 2) Social and societal factors shaping oral health self-management, and 3) Healthcare encounters that support or challenge daily management of mental and oral health (Figure 3).

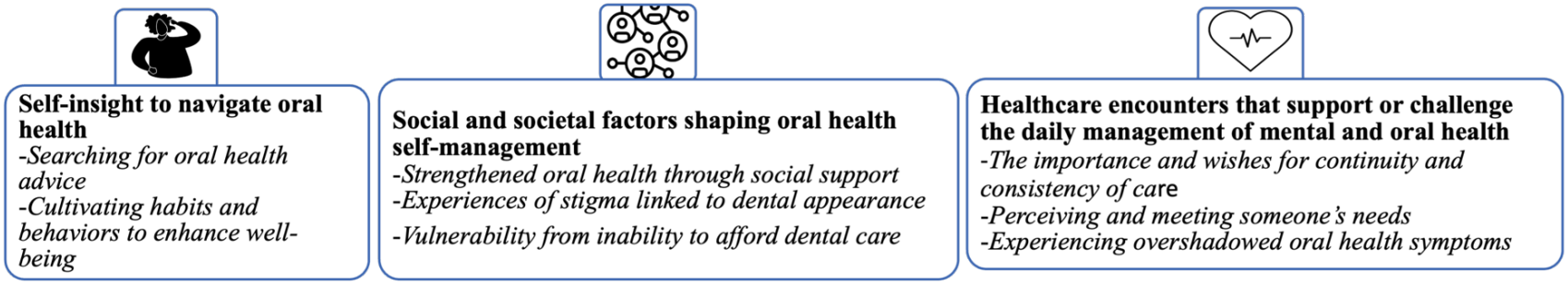

Figure 3. The three categories from the eight subcategories based on the informants' experiences.

6.2.1 Self-insight to navigate oral health

This category, Searching for oral health advice, highlights how informants managed oral health alongside their mental illness by actively seeking guidance or support, particularly during periods of deteriorating mental health. The informants described turning to various sources of advice in order to maintain oral health practices wheeveryday routines became difficult to sustain. The second category, Cultivating habits and behavior to enhance well-being, describes how informants over time developed self-insight into the interaction between their mental and oral health in daily life. Self-insight referred to understanding how fluctuations in mental health affected oral health-related behaviors in everyday life. This included identifying which habits and behavior supported well-being, which did not, and reflecting on why certain routines were challenging to maintain or sometimes failed.

> Then everything falls apart when I feel bad. When I fall apart, I barely care about oral hygiene at all. I brush my teeth quickly. Yes, I do, but very... not thoroughly. Just quickly. But I notice. After a period of feeling very bad, when I have been very unwell, I notice that my gums have receded and I bleed easily. (Informant 5)

6.2.2 Social and societal factors shaping oral health self-management

This category highlights informants' experiences of how social relations and structural factors affect oral health. Strengthened oral health through social support reflects the role of family, friends, and social contacts in shaping attitudes and knowledge about self-care.

> My father has had to be my personal representative and speak on my behalf when I couldn't. We have now received help from the municipality, but it's only now that he has been able to step back and feel confident that others have things under control. (Informant 9)

Experiences of stigma linked to dental appearance captures how discolored teeth can lead to judgment, exclusion, and feelings of

shamewhen not fitting the norm of a bright and healthy smile. Finally, Vulnerability from inability to afford dental care illustrates the financial challenges informants face, particularly those on sick leave, which limit access to necessary dental treatment.

6.2.3 Healthcare encounters that support or challenge the daily management of mental and oral health

This category reflects informants' perspectives on the value of continuity and responsiveness in care. The category The importance and wishes for continuity and consistency in care describes how having the same healthcare provider over time was reported to foster a sense of security, understanding, and improved mental and physical health.

> I see my psychologist every Monday for therapy, and we've been working on my trauma for a year without addressing it [oral health]. Sure, it's not her job to brush my teeth, but neglecting them [the teeth] can be a sign about my well-being. (Informant 10)

The category Perceiving and meeting someone's needs highlights situations where care was experienced as flexible and attentive to personal circumstances. At the same time, the category Experiences overshadowing oral health symptoms illustrates how oral health issues were often prioritized only after more acute psychological needs. Informants generally understood this prioritization, particularly in situations involving severe distress such as suicidality.

6.3 Integrated synthesis

The integrated synthesis illustrates how the categories from both studies interact to illuminate experiences of self-management in relation to oral, mental, and physical health among persons with mental illness. In Figure 4, each box presents selected keywords from Studies I and II to summarize the main content of the respective categories interpreted to Bronfenbrenner's ecological theory

(Bronfenbrenner, 1994). The purpose was not to identify new core theoretical concepts, but to highlight central aspects of the manifest categories reflected in the accounts of persons with mental illness and staff.

This integrative approach clarifies how experiential insights and professional perspectives relate to and inform each other, contributing to a more comprehensive understanding of the challenges and strategies involved in the everyday management of oral health and mental well-being in the context of mental illness.

6.3.1 Synthesized results: Managing oral health in the context of mental illness across personal, relational and structural levels

Studies I and II indicate that managing oral health in the context of mental illness involves processes operating across personal, relational, and structural levels. At the personal level, self-awareness, motivation, and daily routines emerged as important resources for health management. However, these processes were shaped by social relationships, support from professionals, and broader organizational conditions.

At the same time, professionals described their efforts to establish and support these processes, for example by encouraging routines, providing guidance, and adapting support to individual needs. However, staff also highlighted constraints that hindered such support in practice, including limited time, organizational conditions, and challenges in coordinating care across services.

Across both studies, participants identified social and structural influences that shape what is possible to maintain in practice. These included stigma, financial strains, and the low prioritization of oral health within psychiatric services. Taken together, the findings show that everyday management of oral and mental health is shaped by an interaction between individual capacities, available support, and broader organizational prerequisites.

Furthermore, oral health did not emerge as a separate or secondary issue, but rather as closely interconnected with mental health, daily routines, and overall functioning in everyday life.

6.3.2 Organizational and structural conditions shaping oral health management

The findings indicate that the management of oral and mental health in everyday life is influenced not only by individual factors but also by organizational and structural conditions. These include how psychiatric and dental care are organized, the availability of support, and the degree of coordination across services.

The results further illustrate how current service structures, characterized by limited integration between psychiatric, dental, and municipal social services, shape the conditions for care and support. These structures may affect how responsibilities for managing health are distributed between services and persons (Figure 4).

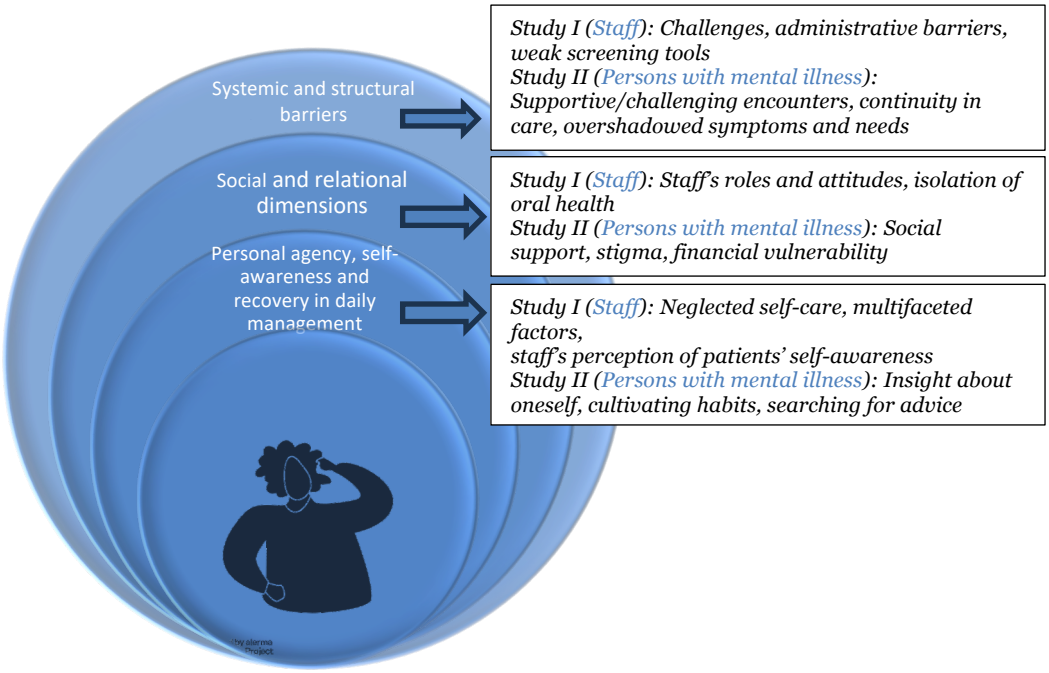

Figure 4. Synthesized findings: Managing oral health in the context of mental illness across persons, relational, and structural levels. Interoreted to Bronfenbrenner's ecological theory (Bronfenbrenner, 1994)

6.3.3 Personal agency, self-awareness and recovery as part of daily self-care

Persons with mental illness described significant challenges in maintaining daily self-care routines, including those related to oral health and overall mental and physical wellbeing. Many expressed a desire to care for their health and sought guidance from staff, family, friends, and digital sources, particularly when their mental health worsened, in order to maintain oral hygiene. Younger informants more specifically reported turning to social media or online searches for advice.

Staff noted that basic daily activities, such as eating regularly, sleeping, being physically active, and carrying out hygiene routines (including oral hygiene), were often deprioritized by patients during periods of psychological strain. Oral health was generally not considered by staff until a certain level of mental stability had been reached or medication had begun to take effect. Both persons with mental illness and staff emphasized that functioning routines were essential for managing daily life; when routines functioned, the persons with mental illness also found it easier to maintain their health.

Informants in Study II described becoming more attentive to their oral health during periods of greater mental stability, illustrating how self-awareness and attention fluctuate with changes in mood and energy. These variations were described by informants as part of attempts to regain or maintain everyday functioning, reflecting aspects commonly associated with personal recovery.

Staff described how they sometimes used twice-daily toothbrushing as a familiar and established routine to help patients remember to take their medication regularly. Persons with mental illness also highlighted the value of simpler, less demanding actions, such as chewing sugar-free gum or using fluoride mouth rinse, when toothbrushing felt overwhelming, as these strategies still contributed to maintaining oral health and provided a sense of achievement.

According to both persons with mental illness and staff, engagement in oral health self-care was shaped by personal economic situation, everyday living conditions, cultural expectations regarding appearance, and their knowledge, attitudes, and habits. Staff also described how they tried to adjust their support to make oral health routines more achievable in daily life, given that many patients found it difficult to recognize the benefits of consistent self-care.

6.3.4 Social and relational dimensions

For persons with mental illness, oral health was influenced by both personal and social factors. The informants' ability to engage in self-management was in part influenced by professional attitudes and practices. Oral health was often treated as distinct from physical and mental health, while mental health was similarly managed separately rather than in an integrated manner. This double separation contributed to increased vulnerability and appeared to limit opportunities for timely and integrated interventions.

The participating staff described a strong sense of commitment to their patients and emphasized the importance of building trustful relationships, although this process was described as time-consuming. They expressed empathy and respect for their patients' situations and encouraged dental visits when needs arose, yet often reported uncertainty about how to provide adequate support beyond referring to dental care. The mouth was frequently perceived by staff as isolated from the rest of the body.

Social support from family, friends, and informal groups, such as online chat forums, was described by informants with mental illness as playing an important role in sustaining oral health practices. At the same time, persons with mental illness reported stigma linked to dental appearance, with unattractive teeth sometimes likened to facial scars, leading to feelings of shame and exclusion. Some informants described experiences of social devaluation, referring to themselves as "second-class citizens." Financial vulnerability added further difficulty,

as costs were frequently cited as barriers to accessing dental care, particularly by informants who were on sick leave.

Taken together, these findings illustrate how social relations, stigma, and economic constraints interact in shaping opportunities for oral and mental health self-management among persons with mental illness. This interplay was reflected in variations in how persons with mental illness described their capacity to manage daily self-care and access dental services.

6.3.5 Systemic and structural barriers

For persons with mental illness, oral health was often overlooked despite its importance for daily life and its links to both mental and physical health. Findings from Studies I and II show that both persons with mental illness and staff described how systemic and organizational barriers and fragmented care systems influenced behavior and opportunities related to oral health. In addition, staff highlighted the absence of screening tools as a factor affecting the identification and management of oral health needs. Staff highlighted challenges linked to structural separation, as psychiatric services and general health services were often organized in different facilities. While some reported that their service had established agreements with specific dental clinics, others expressed uncertainty about where to refer their patients. The participating persons with mental illness described having to take substantial responsibility for arranging care and appointments, which they experienced as challenging given their condition.

Staff noted that although their patients were entitled to subsidized dental care, the administrative process was complex. Because physicians are responsible for completing these applications and psychiatric care is highly time-pressured, dental care applications often receive lower priority in practice. Existing screening tools included oral health questions, but they were primarily used to identify acute problems rather than promote oral health or to support caries or

periodontal preventive work. Staff noted that this reflected a broader challenge in psychiatric care, where limited time and high workload often restrict attention to urgent mental health needs, leaving little room for health promotive or preventive efforts in either domain.

Both staff and persons with mental illness emphasized the value of continuity in care, noting that long-term relationships with the same healthcare provider created a sense of security and understanding for persons with mental illness. In contrast, frequent changes of staff or care contacts meant that the persons with mental illness had to repeatedly share their mental, physical and medical history, which was experienced as burdensome. The persons with mental illness also reported oral health problems associated with mental illness, such as dry mouth, pain, broken teeth, and damaged fillings. At the same time, they described varying experiences of being treated with respect, as well as occasions when their needs were not fully acknowledged in either psychiatric or dental care.

7 Discussion

7.1 A public health interpretation of oral and mental health in the context of psychiatric settings

The synthesized findings from Studies I and II highlight three central areas. First, everyday management of oral and mental health is closely linked to self-awareness, motivation, and the ability to establish and sustain daily routines. Second, the management of oral and mental health is shaped by social and structural conditions, including stigma, financial strain, and access to support. Third, the organization of care systems, where psychiatric, social, and dental services operate separately with limited coordination, influences what persons and professionals can realistically achieve in practice.

These findings align with previous research showing that persons with mental illness experience difficulties maintaining oral health due to fluctuating mental health, reduced motivation, and barriers to accessing and utilizingcare (Kisely, 2016; Kisely et al., 2011). At the same time, they extend existing knowledge by demonstrating how these challenges are experienced and negotiated in everyday life, and how individual efforts are shaped by organizational and system-level barriers.

Taken together, the findings suggest that the ability to maintain oral health is not only a matter of individual behavior, but also a matter of how care systems are organized and how support is structured. Together, the findings can be interpreted as suggesting that the capacity to maintain oral health among persons with mental illness is determined less by individual motivation alone and more by the interaction between individual, social, and organizational factors, a proposition that should preferably be studied in future studies.

To interpret and organize the findings, this discussion draws on ecological (Bronfenbrenner, 1994; Eriksson et al., 2018), salutogenic (Antonovsky, 1996), and human rights perspectives and public health research (United Nations Development Programme (UNDP), 2015;

United Nations General Assembly, 1948; World Health Organization, 1986).

7.1.1 Personal agency and daily self-management in context

Personal agency and self-awareness emerged as central to how persons with mental illness navigated daily life, including routines related to oral health. informants in Study II described being more attentive to oral health during periods of greater mental stability, illustrating how self-awareness shifted with changes in mood, energy, and predictability.

Although recovery was not explicitly foregrounded, a recovery-oriented lens helps contextualize these findings within mental health care. Informants' accounts reflect ongoing efforts to maintain autonomy and meaning in everyday life despite fluctuating symptoms (Leamy et al., 2011). Recovery, in this sense, involves striving for a liveable and manageable daily life rather than symptom remission (Burger et al., 2024; World Health Organization, 2022a).

Variations in mental health clearly shaped informants' ability to maintain oral health routines. From a salutogenic perspective, these shifts can be understood through sense of coherence (SOC), where periods of stability strengthened comprehensibility, manageability, and meaningfulness (Lindström & Eriksson, 2005). The informants described how fatigue, worsening symptoms, and medication effects made even simple actions, such as toothbrushing, difficult to initiate, whereas routines became more manageable during periods of stability. From an empowerment perspective, this reflects how the capacity to manage oral health depends on the ability to gain control over health-related decisions, supported by relational and organizational conditions (Aujoulat et al., 2007; World Health Organization, 1998; Zimmerman, 2000). Consistent with previous research, oral health behavior were highly sensitive to changes in mental health state (Asiri et al., 2024).

At the microsystem level, persons with mental illness engaged with family, peers, digital communities, and healthcare staff. Informants described using digital peer platforms for advice, offering immediacy and shared experience but also raising concerns about reliability (Doughty et al., 2023; Naslund et al., 2016; Popat & Tarrant, 2023). The participating staff in study I described efforts to simplify routines, promote small achievable steps, and integrate oral health practices into everyday structures, reflecting core health promotion principles (Nutbeam, 2000; World Health Organization, 1986). These findings underscore that self-management is relational rather than solely personal, emerging through interactions within social and care contexts. Some informants described experiences of social devaluation, referring to themselves as "second-class citizens." This highlights a tension between individual responsibility for oral health and the social and structural disadvantages associated with mental illness, where stigma and financial vulnerability constrained access to support and dental care despite informants' motivation to engage in oral health practices. While principles of health equity emphasize that care should be provided according to need, informants' accounts suggest that those with the greatest oral health needs may not always receive the additional support required to achieve equitable access (World Health Organization, 2008).

At the mesosystem level, coordination between psychiatric care, dental care, and social services shaped the extent to which agency could be sustained. The participating staff highlighted conditions such as disrupted sleep, irregular meals, financial strain, and fluctuating symptoms, which directly affected oral health behavior (Flavin et al., 2025; Johnson et al., 2024). Limited coordination meant that these challenges often translated into gaps in promotive and preventive care. These patterns reflect persistent equity challenges, where individuals with greater vulnerability required more support to achieve similar outcomes (Public Health Agency of Sweden, 2019; Swedish Agency for Health Technology Assessment and Assessment of Social Services, 2024). Fragmented organizational arrangements left persons with mental illness navigating complex care systems with limited influence (Afroz et al., 2025; Johansson et al., 2025).

Taken together, the findings highlight a tension between personal agency and the conditions required to sustain it. While the persons with mental illness expressed a desire for simple routines, their ability to maintain them varied with mental state and contextual demands. The staff recognized these fluctuations but described limited time, flexibility, and interprofessional collaboration. This aligns with ecological perspectives emphazising that health behavior are shaped by both individual and structural factors (Bauer et al., 2020; Bronfenbrenner, 1994).

Overall, strengthening daily self-management depends on conditions across micro- and mesosystem levels. Accessible and meaningful support is crucial for sustaining routines during fluctuating mental states, while coordinated organizational arrangements are needed to reduce fragmentation and ease the burden on persons. These findings reinforce the importance of integrated, equitable, and person-centered approaches to oral and mental health care (Afroz et al., 2025; Brunt et al., 2020; Johansson et al., 2025; Mishu et al., 2022).

7.1.2 Social and relational dimensions

Study II illustrated how social and relational contexts at the microsystem level shaped how persons with mental illness resolved oral health challenges. Supportive relationships characterized by trust, emotional safety, and continuity strengthened self-agency (Leamy et al., 2011). The persons with mental illness described relational interuptions, particularly the burden of repeatedly explaining one's situation to new providers, as exhausting and reducing their willingness to raise oral health concerns (Avramova, 2022; Mishu et al., 2022; Wright et al., 2021). Participants in both studies, from their respective perspectives, described how fragmented communication between services, separate record systems, and unclear referral pathways shaped their ability to access and maintain oral health care (Ferry et al., 2022; Johansson et al., 2025; Swedish Agency for Health Technology Assessment and Assessment of Social Services, 2024).

Persons with mental illness in Study II described that digital peer networks offered accessible and relatable support, reinforcing a sense of belonging and supporting daily self-management. However, their limited reliability also highlighted the continued need for professional guidance (Naslund et al., 2016; Popat & Tarrant, 2023). These experiences illustrate how different forms of support contribute to self-management in distinct ways. From a salutogenic perspective, supportive micro-level relationships strengthen comprehensibility, manageability, and meaningfulness (SOC) (Lindström & Eriksson, 2005), whereas stigma, mistrust, and financial strain weaken SOC and made oral health engagement more difficult (Alcázar-Hernández et al., 2024; Fratto & Manzon, 2014).

At the mesosystem level, in Study I, the staff expressed to have a strong commitment to relational care, described as "seeing the person behind the diagnosis". Yet oral health was often isolated from psychiatric routines due to a lack of integrated protocols and limited cross-sector communication. Staff described multiple factors that impeded persons' ability to maintain oral health routines, including disrupted sleep and meals, financial strain, fluctuating symptoms, and uncertainty regarding preventive strategies. These factors illustrate how inequities in the ability to maintain oral health routines and access preventive care emerge in practice, particularly when persons with greater vulnerability experience limited coordinated support to individuals with different needs and resources. On the one hand, services had access to established recovery-oriented interventions such as Illness Management and Recovery (IMR) (Mueser et al., 2002), designed to support self-management and everyday health behavior. On the other hand, oral health remained largely peripheral to these efforts, suggesting that existing structures may not yet fully utilize opportunities to integrate oral health promotion into broader recovery and self-management work.

At the exosystem level, this synthesis indicates that fragmented organizational structures and limited cross-sector collaboration constrained continuity and prevented oral health from becoming integrated into psychiatric care. In particular, separate record systems and unclear mandates appear to have reinforced these divisions. These

structural barriers contributed to fragmentation not due to lack of staff effort, but as a consequence of system-level constraints. The findings also point to the importance of organizational health literacy (Brach et al., 2014; Pelizzari et al., 2025), referring to the capacity of organizations to adapt information, communication, and services to individuals with varying needs, abilities, and resources. From this perspective, oral health inequities may be understood not only as a matter of individual capabilities but also as a consequence of how well organizations are able to respond to and accommodate diverse patient needs (Health promoting healthcare network (HFS), 2025).

Taken together, the findings show that relational continuity is both a promotive and an unequally distributed resource. It strengthens self-management when present, but remains inconsistently available. Strengthening daily self-management is therefore linked to enabling factors across micro- and mesosystems, including supportive encounters, clear guidance, and manageable routines. These micro- and mesosystem conditions need to be complemented by exosystem conditions that enable coordination, shared communication, and health-promotive practices within psychiatric settings (Afroz et al., 2025; Jerjes, 2024b). In addition, financing structures and reimbursement systems appear to shape the extent to which such coordination and preventive practices are supported or prioritized. On the one hand, the integration of oral health promotion requires continuity and organizational capacity; on the other hand, workforce shortages and retention challenges may constrain such efforts by undermining the continuity needed for collaborative and preventive care practices (Sjögren, 2024; Wood et al., 2025). Without such structural support, relational work alone cannot compensate for systemic fragmentation or the inequities experienced by persons navigating parallel psychiatric and dental care systems.

7.1.3 Systemic and structural barriers

From the perspective of persons in Study II, oral health concerns were often overshadowed during psychiatric visits, even when oral

symptoms or support needs were present but not perceived as acute. Thisillustrates how micro-level encounters may prioritize acute psychiatric issues over everyday oral health management in routine care contexts. These patterns may be interpreted as reflecting reduced comprehensibility, manageability, and meaningfulness, resembling the dimensions described in the sense of coherence (Lindström & Eriksson, 2005).

At the same time, the observed tendency for oral-health concerns to be overshadowed during psychiatric visits may reflect the practical constraints of clinical encounters. In situations characterized by limited time, competing demands, and expectations to address acute or chronic psychiatric symptoms, prioritizing mental health concerns may represent a clinically reasonable and necessary starting point. Furthermore, organizational and reimbursement structures may reinforce such priorities, as clinical work is often guided by defined mandates and incentivized tasks.

The findings further reveal that oral health often became invisible in practice due to limited relational continuity, constrained time for dialogue, and uncertainty about responsibilities. These patterns reflect, in a concrete way, how the previously described fragmentation in care is experienced at the point of care (Ferry et al., 2022; Kisely, 2016; Mishu et al., 2022). Similarly, participants in Study I described how fragmented communication between sectors, separate record systems, and unclear referral pathways shaped their ability to access and maintain oral health care (Ferry et al., 2022; Johansson et al., 2025; Swedish Agency for Health Technology Assessment and Assessment of Social Services, 2024). The absence of routines for addressing medication-related oral health effects, such as xerostomia, further illustrates how organizational conditions influence everyday care practices (Afroz et al., 2025; Alcázar-Hernández et al., 2024; Fratto & Manzon, 2014).

Taken together, these findings indicate that structural conditions shape everyday encounters in ways that restrict opportunities for health-promotion work and disproportionately affect persons already facing greater vulnerability. These findings are consistent with

previous research highlighting similar structural influences on access to care and health inequalities (Swedish Agency for Health Technology Assessment and Assessment of Social Services, 2024; World Health Organization, 2022a; Wright et al., 2021).

At the mesosystem level, coordination between psychiatric care, dental services, and social care appeared limited, and the findings illustrate the practical consequences of persistent divisions between services. These divisions were reflected in challenges related to access, continuity, and responsibility, standing in contrast to the holistic understanding of health emphasized in research and policy (Johansson et al., 2025). The findings suggest that sustainable coordination requires a multi-directional process in which psychiatric care, dental services, and social care have the time, resources, and organizational conditions needed to align roles, responsibilities, and communication (Free et al., 2025; National board of Health and Welfare, 2018).

When services work together through shared planning, coordinated communication, and joint problem-solving, and when supported by aligned financing and reimbursement structures, they can provide more consistent support that strengthens persons' confidence in managing both physical and mental health. For example, integrated efforts between dental, psychiatric and social services may facilitate early identification of person-related barriers, such as fear or avoidance, reinforce health-promoting behavior, and address medication-related side effects affecting oral health (Kisely, 2016; Lorig & Holman, 2003; Mishu et al., 2022).

Actively involving persons and recognizing lived experience can further foster balanced partnerships between persons and professionals, in which personal resources are acknowledged and strengthened. Such partnerships are central to empowerment and support for self-management. Psychoeducational approaches may constitute one way of supporting such partnerships by strengthening health literacy, increasing understanding of the relationship between oral and mental health, and enhancing individuals' capacity for informed self-management (Choi et al., 2021; Lukens & McFarlane, 2004; Nasab et al., 2019; Skallevold et al., 2023; Slack- Smith et al., 2017). Coherent

care planning, continuity in relationships, and consistent cross-sector collaboration can reduce fragmentation and create more coordinated structures around the person (The Swedish Agency for Health and Care Services Analysis, 2018; World Health Organization, 2016a).

At the exosystem level, the findings indicated that administrative arrangements, separate documentation systems, and the lack of formal mandates for intersectoral coordination constrained professionals' ability to offer integrated and preventive care (HSL 2017:30; SoL 2001:453; TvL 1985:125). As a result, informants described navigating parallel systems with uneven opportunities for support, illustrating how organizational fragmentation was experienced in everyday practice and how it shaped access and utilization of care (Brunt et al., 2020; Šarac et al., 2020; Sheiham, 2005).

The findings suggest that addressing these constraints in the context of oral health among persons with mental illness is closely linked to more coherent organizational conditions, including improved cross-sector awareness, stronger preventive and promotive approaches to oral health, and structures that enable staff to provide sustained support for daily oral health self-management. In this context, the findings highlight the importance of aligning organizational conditions with everyday care practices to reduce fragmentation and support more equitable access to and continuity in oral health care (Ferry et al., 2022; Jerjes, 2024a; Mishu et al., 2022).

7.1.4 Toward integrated and equitable support for oral and mental health

Together, the three synthesized themes: personal agency, self-awareness, and recovery in daily management; social and relational dimensions; and systemic and structural barriers show that oral health management among persons with mental illness is shaped by the interaction between personal capacities, relational environments, and structural conditions across sectors. While moments of stability and supportive relationships can strengthen

agency and health-promoting routines, these resources are often constrained by fragmented care systems, unclear responsibilities, and limited access to support. A salutogenic perspective on the findings highlights that sustaining oral health depends not only on individual motivation but also on conditions that support individuals' sense of comprehensibility, manageability, and meaningfulness in daily life. These findings also point to structural separations in health care, where mental health remains organizationally disconnected from oral health, despite their interrelated nature. Overall, strengthening daily oral health self-management among persons with mental illness requires coordinated approaches that bridge psychiatric and dental care and reduce structural barriers.

7.2 Methodological considerations

7.2.1 Interdisciplinary and collaborative approach

The thesis integrates public health, psychiatry, and oral health, disciplines that have traditionally been studied separately despite their clear interconnections. The interdisciplinary composition of the research team, encompassing expertise in dentistry, medicine, and public health, broadened the analytical perspective and supported a collaborative approach to interpretation. Continuous reflection on how disciplinary backgrounds shaped analytic decisions was undertaken throughout the research process, in line with recommendations for interdisciplinary research (Marg & Theiler, 2023).

7.2.2 Recruitment, sampling, and time frame

Participants in study I and II were recruited nationally through verbal communication, posters, digital invitations, and a QR-linked informational film. A strength of this approach was that participation was voluntary and based on individuals' decision to take part after being invited, which may have facilitated openness in sharing

experiences during the interviews. At the same time, this approach likely resulted in self-selection, which may limit representativeness. In addition, the recruitment process involved staff selecting and inviting participants for study II, which may have introduced further selection bias.

These recruitment processes may also have influenced the composition of the sample. Informants in study II were likely to be persons in more stable phases of mental illness, which limits the diversity of experiences captured. Furthermore, the sample in Study II consisted predominantly of women and included relatively few younger informants, which differs from population-based patterns where mental health problems are typically more commonly reported among younger individuals (Public Health Agency of Sweden, 2024; Public Health Agency of Sweden (Socialstyrelsen), 2025).

As no prior relationship existed between the researcher (CJ) and the participants, the risk of dependency was reduced. However, the absence of an established relationship between the researcher and the participants, together with indirect recruitment through clinical staff, may have discouraged participation among some individuals. Although information about the study was provided, the lack of a pre-existing relational context or trustful connection may have reduced willingness to participate, particularly among persons experiencing psychosocial strain. Qualitative research has shown that trust, familiarity, and relational continuity often facilitate participation, whereas more distant or mediated recruitment rocesses may contribute to reluctance or non-participation (Kvale & Brinkmann, 2015; Patton, 2015). However, such recruitment approaches are common in qualitative research and can yield rich, experience-based narratives (Kvale, 2014; Kvale & Brinkmann, 2015).

The sample reflects a clinically oriented population consisting of persons with ongoing contact with psychiatric services, who may be more likely to have longer-term or more complex conditions. This suggests that the findings primarily capture experiences of persons with more established care needs rather than those in earlier or less intensive phases of mental illness. As mentioned above, the sample in

Study II also included relatively few younger adults, which may reflect both the recruitment approach and the small sample size, rather than broader population patterns. While this may limit transferability to younger adults or individuals with milder conditions, it strengthens the relevance of the findings for understanding the needs of persons requiring more complex and sustained care.

Data collection took approximately one year due to challenges in reaching the target groups, which may partly be explained by the lack of natural contact points within psychiatric services, the part-time structure of the doctoral studies, and the circumstances of the COVID-19 pandemic. The pandemic may have further complicated recruitment processes and access to participants, although its exact impact on participation is difficult to determine. Although the material is now a few years old, no structural changes have occurred that systematically integrate oral health into psychiatric consultations or more broadly within the organization of mental health services. The findings are therefore considered relevant, although their transferability to future, more integrated care models requires further research.

7.2.3 Data collection and interview modes

Semi-structured interviews were used to enable nuanced and in-depth narratives. Interviews were conducted in person, digitally, and by telephone. A strength of using multiple interview modes was increased accessibility and broader participation. However, a limitation was that different modes may have influenced interactional depth. Different interview modes can affect rapport, conversational flow, and access to contextual and non-verbal cues, which in turn may shape the richness and detail of the data (Kvale & Brinkmann, 2015; Opdenakker, 2006). While digital and telephone interviews facilitated broader participation, the reduced opportunity for spontaneous interaction or observation of subtle cues may have limited the depth of some accounts.

7.2.4 Reflexivity, pre-understanding and power relations

The development of the interview guides was informed by the research team's pre-understanding of mental illness, oral health, and everyday health practices, as well as by existing evidence in the field. A strength of the study was the interdisciplinary research team, which contributed with combined clinical and academic expertise across disciplines. Drawing on the team's combined clinical and academic expertise and the research literature, the questions in the interview guides addressed views on health, self-care, diet and beverages, tobacco, alcohol, and drug use. The analysis nevertheless remained grounded in participants' own narratives (Lindgren et al., 2020).

A potential limitation relates to inherent power asymmetries in the interview situation, which may have influenced what participants felt able or willing to disclose (Kvale & Brinkmann, 2015). Although the interviewing researcher had no prior relationship with the informants or their care providers, the researcher role entails a degree of symbolic authority. This may have been particularly relevant in interviews with persons with mental illness, where psychosocial vulnerability, fluctuating energy levels, and varying levels of trust in services may have made power asymmetries more pronounced.

To mitigate this, open and neutral questions were used, and participants' expertise regarding their own experiences was emphasized throughout the interviews. Participation was voluntary and based on individuals' decision to take part after being invited, which may have reduced the sense of obligation but does not eliminate potential power imbalances.

The absence of a pre-existing relational anchor between researcher and participant may also have influenced the depth of disclosure and willingness to share sensitive experiences, particularly among those with limited trust in unfamiliar contexts. As has already been mentioned, qualitative research suggests that trust, familiarity, and relational continuity can facilitate participation and openness, whereas more distant or mediated recruitment processes may contribute to

restraint or non-participation (Kvale & Brinkmann, 2015; Patton, 2015).

For staff interviews, the power dynamics differed. Their clinical expertise and organizational roles may have contributed to confidence in the interview situations, but also influenced how experiences were framed, sometimes aligning with professional norms or organizational expectations. These dynamics may have shaped what was emphasized or downplayed in their accounts.

7.2.5 Social desirability

Studies addressing health, stigma, and vulnerability risk eliciting socially desirable responses, whereby participants may adjust their accounts to present themselves in a more acceptable or expected manner (Kvale & Brinkmann, 2015). Although neutral follow-up questions were used and participants were reassured that there were no "right" answers, it cannot be ruled out that some narratives were shaped by perceived expectations or norms.

Social desirability may be particularly pronounced in interviews concerning lifestyle behavior, self-care, or experiences of vulnerability, where feelings of shame or self-consciousness may influence what is shared (Patton, 2015). Among persons with mental illness, psychosocial vulnerability and prior experiences of care encounters may increase sensitivity to perceived expectations within the interview situation, particularly in relation to the researcher. From the staff's perspective, social desirability may instead have taken the form of aligning responses either with organizational norms and professional ideals or with commonly voiced professional frustrations and challenges.

7.2.6 Analytical approach and trustworthiness

A manifest content analysis (Graneheim et al., 2017) was used to keep the interpretation close to participants' explicit expressions and to minimize the risk of over-interpretation. A strength of the manifest approach is that it ensured transparency and kept the analysis close to participants' explicit accounts. This approach provided a systematic and transparent analytic process, strengthening traceability and clarity (Graneheim & Lundman, 2004). A further strength was the synthesis of Study I and Study II through the integrative theoretical framework of the thesis, encompassing human rights and equity perspectives, health promotion, salutogenesis, and Bronfenbrenner's ecological systems theory. This enabled a more comprehensive understanding of how personal, relational, and structural factors interact to shape oral health management.

While the analyses in Studies I and II were primarily conducted at a manifest level, the integrated synthesis involved a more interpretive analytical process guided by the thesis' theoretical framework. Consequently, the thesis combines descriptive and interpretive elements, allowing the findings to remain closely connected to participants' experiences while also providing a broader understanding of the personal, relational, and structural factors shaping oral health management.

Trustworthiness was supported through a rich dataset, regular analytic discussions within the interdisciplinary research team, and transparent documentation of analytic steps. Credibility was strengthened by the inclusion of multiple perspectives, including both persons with mental illness and health-care professionals. Reflexive dialogue addressed potential influences of pre-understanding and power relations throughout the research process. Transferability was enhanced through detailed contextual descriptions, although the findings remain situated within the Swedish healthcare system, where psychiatric and dental services are organizationally separated.

Member checking is often described as a strategy to enhance credibility (Lincoln et al., 1985). However, in studies involving sensitive topics or

vulnerable informants, revisiting interview material may pose ethical and practical challenges, including emotional strain or the risk of participants modifying their accounts to appear more socially acceptable (Birt et al., 2016; McKim, 2023). Given these considerations, member checking was not conducted, as it was considered unlikely to substantially alter the interpretations. This decision reflects a methodological judgement as well as an effort to avoid placing additional burden on participants.

8 Conclusions

The findings indicate that oral health management among persons with mental illness is shaped by the interplay between personal capacities, relational support, and structural prerequisites. While supportive relationships and efforts by both individuals and professionals can strengthen daily self-management, these are often constrained by fragmented care systems, unclear responsibilities, and limited access to support.

Improving oral health practice therefore depends on more coherent coordination across psychiatric and dental care, as well as conditions that support manageable and meaningful daily health practices. Importantly, the findings indicate that progress may lie less in introducing new interventions and more in creating conditions that make oral health visible, manageable, and integrated in everyday care, contributing to a more coherent understanding of how such support can be strengthened in practice.

8.1 Implications for organizations and professionals supporting persons with mental illness

Organizational level – Healthcare systems and institutions

- Strengthening coordination between psychiatric, general, and dental services to reduce fragmentation.

- Create structures for interprofessional learning to support collaboration across sectors.

- Intergrate oral health support into routine psychiatric care to reduce reliance on fragmented care pathways.

Clinical level – healthcare professionals' practice

- Include oral health in routine assessments to identify unmet needs.
- Support continuity and person-centered care to enable trustful relationships.
- Address stigma and shame related to oral health within care encounters.
- Support persons in navigating dental care systems and available services.

Personal level – persons with mental illness

- Support the maintenance of daily oral health routines.
- Provide timely support during periods of deteriorating mental health.
- Strenghten self-awareness in relation to oral health and daily functions.
- Address stigma and its influence on care-seeking and everyday practices.

8.2 Future research

Future research should examine how oral health support can be systematically incorporated into psychiatric, general, and social services, with particular attention to the organizational and economic conditions that enable coordination in practice, including how responsibilities, incentives, and reimbursement systems shape collaboration.

To ensure relevance and feasibility, participatory and co-design approaches involving persons with mental illness should be prioritized in the development and evaluation of support strategies. Further research is also needed to identify what forms of everyday support strengthen oral health self-management most effectively among persons with mental illness, and how such support can be integrated into psychiatric settings without increasing professionals' workloads.

Longitudinal and mixed-methods studies may be particularly valuable in capturing how needs, routines, and capacities fluctuate over time. In addition, research should explore how digital tools and peer-supported platforms can complement professional care in ways that are safe, meaningful, and adaptable to varying levels of mental health and daily functioning.

Finally, future research should further explore how oral health challenges arise through the interaction of biological, behavioral, and organizational factors, and how support can be tailored to individual needs while remaining feasible within existing care structures.

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– Sonia Ricotti

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Study I

Interview guide for staff working in psychiatric settings

Survey - staff

Introduction

Background questions:

1. When are you born?

1940-1945	□
1946–1950	□
1951-1955	□
1956-1960	□
1961-1965	□
1966-1970	□
1971-1975	□
1976-1980	□
1981-1985	□
1986-1990	□
1991-1995	□
1996-2000	□

2. Are you?

Woman	□
Man	□
Other	□

3. Enter your highest education

Elementary school	□
High school	□
College/University	□

4. What profession(s) do you have? (More options may be relevant)

Psychiatrist	□
Nurse	□
Assistant nurse	□
Nurse practitioner/practical nurse	□
Nurse aides/personal care assistant	□
Personal care worker/Housing supporter	□
Psychologist	□
Counselor	□
Occupational Therapist	□
Other	□

5. For how long have you worked in psychiatry?

1-5 years	□
6-10 years	□
11-15 years	□
16-20 years	□
21-25 years	□
26 - 30 years	□
31-35 years	□
36-40 years	□
41-45 years	□
46-50 years	□

Semi-structured interview guide - staff

First of all, I want to start by thanking you for letting me meet with you.
The purpose of this study is to understand your professional experience as it relates to your the dental and oral health of your patients.
Do you have any questions before we start?
I would like to start by asking you a general question about your work

General information about the work

Can you tell us about a typical day at work?

Can you elaborate on this...?
What/How do you mean...?
You mentioned that....can you tell me more....?

Challenges, support, encourage, manageability

Now, I will ask questions about the patients' teeth, mouth and dental care, habits, lifestyle and potential connections to the patients' general health

How do you view the relationship between patients' general health and oral health?

Can you elaborate on this...?
What/How do you mean...?
You mentioned that....can you tell me more....?

Can you tell us about an event/situation where a patient needed to seek dental care?

Can you elaborate on this...?
What/How do you mean...?
You mentioned that....can you tell me more....?

Can you tell us about any event/situation when you have reflected on the patient's mouth and dental status?

Can you elaborate on this...?
What/How do you mean...?
You mentioned that....can you tell me more....?

Challenges for the patient, support, encourage, manageability

Patients' self-care

What is your overall experience of how your patients take care of their mouth and teeth?

Can you elaborate on this...?
What/How do you mean...?
You mentioned that....can you tell me more....?

Experiences of patients' oral health

What is your experiences of patients' abilities versus challenges for good oral health?

Can you elaborate on this...?
What/How do you mean...?
You mentioned that.... can you tell me more....?

Challenges self-care, support, encourage, manageability

Diet, drinks, drugs, and tobacco use affect oral health in different ways, there are now some questions that focus on that.

Patients' diet and drinking habits

What is your experiences regarding your patients' diet and drinking habits?

Can you elaborate on this...?
What/How do you mean...?
You mentioned that....can you tell me more....?

Challenges diet, support, encourage, manageability

Experiences of tobacco use

What is your experience of the patients' consumption and use of tobacco and drugs?

Can you elaborate on this...?
What/How do you mean...?
You mentioned that.... can you tell me more....?

Can you give examples of what motivated the patient to quit smoking and/or stop using drugs/stimulants?

Can you elaborate on this...?
What/How do you mean...?
You mentioned that.... can you tell me more....?

Challenges, support, encourage, manageability

Other

Is there anything you would like to add in addition to what we have talked about?

Supplementary questions;
Based on the above questions, follow-up questions such as;
Can you elaborate on this...?
What/How do you mean...?
You mentioned that.... can you tell me more....?

Finally; How did you feel answering the questions I asked?

Study II

Interview Guide aimed for persons with mental illness

Survey – individuals

Introduction

Thank you for meeting with me! The purpose of the initial survey questions is to get a background picture of you as a person with a psychiatric diagnosis.

Personal questions

1. In which decade are you born?

1930	□
1940	□
1950	□
1960	□
1970	□
1980	□
1990	□
2000	□

2. What gender do you identify as?

Female	□
Male	□
Other	□
Prefer not to say	□

3. What education and educational level do you have??

Primary school grades 1-9	□
Part of primary school	□
Secondary education	□
Part of secondary education	□
College/University	□

4. How long have you had your psychiatric diagnosis??

Between 1- 5 years	□
Between 6- 10 years	□
Between 11-15 years	□
Between 16-20 years	□
Between 21-25 years	□
Between 26–30 years	□
> 31 år	□

5. What is your diagnosis?

6. On a scale of 1 - 10, how satisfied are you with your teeth? 1 = you are unhappy with your teeth and 10 = I am happy with my teeth

7. On a scale of 1 - 10, how do you value your mental health? 1= my mental health affects me and my life negatively and 10 = I have found strategies and mastered my mental health

8. On a scale of 1 – 10, how much would you say your mental health affects your teeth? 1 = my mental health has a big impact on whether I take care of my teeth and 10 = my mental health doesn't affect how I take care of my teeth at all

Semi-structured interview guide - individuals with mental illness

Introduction

I am grateful for the opportunity to meet you, as mentioned, and I would like to start by asking some general questions about you and your personal experiences with your teeth, mouth, and dental care in relation to your experiences and your overall and general health. Before we start, do you have any thoughts or questions?
I will begin broadly by listening…

General information about the patient

Can you tell me a little about yourself?

Can you elaborate on this…?
What/How do you mean…?
You mentioned that…can you tell me more…?

The patient's general health

Can you tell me what the concept of health means to you in general?

Can you elaborate on this…?
What/How do you mean…?
You mentioned that…can you tell me more…?

(Questions to keep in mind, to steer the conversation if needed… How often do you think about how you feel? What makes you feel good? Is there anything you would like to change about your current health?)

Now to questions that are more detailed for dental care, mouth and teeth, habits, lifestyle, but also your general health and life situation.

Lifestyle and habits

The lifestyle and habits we have affect both our physical and mental health in different ways.

Can you describe one or some of your habits that you feel affect your physical health?

Can you describe one or some of your habits that you feel affect your mental health?

Can you elaborate on this...?
What/How do you mean...?
You mentioned that... can you tell me more...?

Self-care of teeth and mouth

Can you tell us what you do to keep your teeth healthy and whole?
You tell us how to keep your teeth healthy... Where does that knowledge come from?

Experiences with the teeth and mouth

Sometimes the feeling is connected to many things in life, such as problems with the mouth.

If we go back, we start from "your own numbers in the survey questions numbered 6, 7 and 8.

Let's start with your own valuation of your teeth...

Can you elaborate on this...?
What/How do you mean...?
You mentioned that... Can you tell me more...?

... and now your own evaluation of their mental health...

Can you elaborate on this...?
What/How do you mean...?
You mentioned that... Can you tell me more...?

... If we combine the two perspectives and stop at your own valuation?

Can you elaborate on this...?
What/How do you mean...?
You mentioned that.... Can you tell me more...?

(Questions to keep in **mind,** to lead the conversation to if necessary... Can you tell us how you look at your mental health and your mouth and teeth. How do you feel about your teeth? How often do you think about your teeth and your mouth? What do you usually think of when you think about your teeth and your mouth? Is there a tooth or something else in your mouth that bothers you in your mouth now? Can you tell me if you experience any obstacles that exist for you to have a healthy mouth and teeth?)

Experiences of dental care

Can you tell us about any incident when you were at the dental clinic, either at a dentist or dental hygienist?

Supplementary;
What did you do then? Can you tell me further.
How did you experience it?

Have you considered yourself in need of dental care in the past three months but still refrained from seeking care?

Supplementary;
Can you elaborate and tell me more?

What

we eat and drink affects both our physical and mental health in different ways.

What are your thoughts about your eating and drinking habits in relation to your health?

Can you elaborate on this...?
What/How do you mean...?
You mentioned that... Can you tell me more...?

What are your thoughts about your eating and drinking habits in relation to your mouth and teeth?

Can you elaborate on this...?
What/How do you mean...?
You mentioned that... Can you tell me more...?

Experiences of tobacco use

What are your thoughts about tobacco use and drug use in relation to your health and your life situation?

Can you elaborate on this...?
What/How do you mean...?
You mentioned that... Can you tell me more...?

What are your thoughts on tobacco use and drug use in relation to your mouth and teeth?

Can you elaborate on this...?
What/How do you mean...?
You mentioned that... Can you tell me more...?

Other

Is there anything you would like to add based on what we have talked about?

Based on the above questions, follow-up questions such as; Can you elaborate on this...? What/How do you mean...? You mentioned that... Can you tell me more...?

Finally; How has it felt to answer the questions I asked?

Oral health in the context of mental illness

Oral health is an important but often overlooked aspect of health among persons with mental illness. Although many strive to maintain good oral health, everyday challenges, stigma, financial constraints, and difficulties accessing dental care can make this difficult. At the same time, professionals describe limited opportunities to address oral health within psychiatric care due to fragmented systems and organizational barriers.

Based on interviews with persons with mental illness and professionals in psychiatric, forensic, and municipal care, this thesis explores how oral health is understood, managed, and supported in everyday life. The findings show that oral health management is shaped by the interaction of personal resources, social relationships, and structural conditions. By illuminating the interplay between personal, relational, and structural factors, the thesis contributes knowledge that may support more integrated and equitable approaches to oral and mental health.

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