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Tooth shame - An ethnographic study of the choreographies of tooth shame in Danish elderly care☆

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ABSTRACT

This study suggests the term *tooth shame* and explores it as a phenomenon encompassing deep entanglements between emotional experiences, social interactions, and care work practices. Drawing on shame research concerning the body, health, and class, juxtaposed with odontological research on the social implications of oral health issues, it investigates how tooth shame appears in Danish elderly care. In Denmark, oral health is notably impaired among older people depending on professional care, with significant repercussions for general health and social life. The study stems from the Lifelong Oral Health project, which identifies barriers to oral health and examines the potential to improve it in Danish elderly care. It is based on ethnographic fieldwork in nursing homes, home care units, and a rehabilitation center in two Danish municipalities. As self-derogative statements and self-limiting behaviors regarding oral health issues stood out as a general finding in interviews with older people, the focus on tooth shame emerged from this fieldwork. The study contributes to recent shame discussions with a social-material understanding of tooth shame, emphasizing that it is more than an individual feature. It is a collectively distributed phenomenon that expands among people and situations, and that interferes with vital caring practices. The study suggests that tooth shame appears through the performance of *tooth shame choreographies*, highlighting its implications in a socio-material setting. First, it demonstrates that tooth shame can make older people adapt to oral health issues, for example, by avoiding social interactions, dental care, and oral treatments. Second, it identifies tooth shame as a collectively distributed and expanding phenomenon, as it draws, for example, care workers into sensitive shame situations. Third, it explores how tooth shame interferes with daily dental care practices, professional considerations, and ethical dilemmas within elderly care systems.

☆ We confirm that this work has not been published elsewhere, nor is it currently under consideration for publication elsewhere. We declare that we have contributed to this article as stated in "author contributions" listed below and that we have seen and approved the final version. We have no conflicts of interest to disclose.

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Ethnographic vignette: #Steen, resident of a nursing home

Steen has dentures, and he cleans them himself. That is the first thing he tells me when we sit at his small table filled with crossword magazines. He is warm and smiles discreetly. He's been looking forward to having a visitor. Ever since he heard about the teeth project at the nursing home, he's been thinking about how sloppy it has been of him to not take proper care of his teeth. He has never been in the habit of brushing them, and his finances have not allowed him to visit the dentist, especially after losing his job at age 50. Eight years ago, he pulled himself together and asked his wealthy brother for a loan so he could see a dentist. His teeth had become so bad that it hurt to chew, and he noticed that other people looked at him in a certain way. He began keeping to himself because meeting others while having such ugly teeth was embarrassing. It was also embarrassing to ask for a loan. "*It is not like the car engine breaking down because that can happen to anyone*", Steen says. That is why it took many years before he finally asked his brother for the money. Before he could get to the dentist, he was hospitalized with a severe and life-threatening nerve infection in his back. He underwent surgery and recovered but has had back pain and a hunched back ever since. That is why he now lives at a nursing home. The doctor told him that the infection probably came from his teeth, so all his teeth were extracted. He is sad that his bad teeth have led to such severe consequences. He has a guilty conscience that he did not "*get his act together sooner*." After the operation, his brother lent him the money for dentures. Although they occasionally bother Steen, he has become happy with them. Now he can enjoy his meals again, and he has also "*started to smile at others*," he says with his warm, discreet smile.

1. Introduction

When teeth decay, break, or fall out, much more than the teeth themselves are at stake. Troubled teeth can have far-reaching consequences for people's self-worth (Kaur et al., 2017; Rousseau et al., 2014), social interactions (Koyama et al., 2021), and societal encounters, for example, with healthcare systems (Gragoll et al., 2021; Willumsen et al., 2022). Taking inspiration from shame research concerning the body, health, and class, alongside odontological research exploring teeth's ability to induce social isolation and self-limiting behaviors, this study suggests *tooth shame* as a specific kind of body, health, and class shame that prompts a wide array of shame experiences.

Steen never uses the word shame. He does not describe himself as ashamed of his teeth or the disease they caused him. Instead, he says, "*I have been so sloppy,*" "*I was stupid,*" and "*I should have pulled myself together.*" When Steen talks about his teeth, he never sticks to them. He merely talks about himself and his perceived shortcomings. When asked specifically what happened with the teeth, he does not recall it. Instead, his regrets and deep self-recrimination take over his words. He talks about his nerve disease, dentures, and the loan from his brother as proof of his personal fallings. Steen's dental narrative implies social relations, healthcare encounters, self-worth, aesthetics, and economic implications, all converging to exert severe consequences on his life. In this article, we suggest that the essence of what is at stake for Steen is tooth shame. We take a broad perspective on shame, as we do not consider tooth shame a single emotion but a variety of emotional experiences creating negative self-awareness in relation to others (Pattison, 2000) broadly covering self-recrimination, inadequacy, worthlessness, and experiences of being degraded and rejected (Dolezal and Lyons, 2017).

Tooth shame, in our definition, refers to shame experiences related to teeth and oral health issues. Notably, tooth shame emerges from oral health outcomes such as absent, fractured, or darkened teeth, dentures, oral malodors, and difficulties in dental function, such as eating and self-expression. Similarly, tooth shame emerges from dental behaviors encompassing both care and neglect, as well as eating, drinking, and smoking habits. Socioeconomic status and economic issues in allocating or prioritizing resources to address dental needs over a life course also form part of tooth shame.

Oral health is often profoundly impaired when older persons become care-dependent (Hoeksema et al., 2017). This implies a paradox: as oral health in the broad Danish population is very good and has been improving during the last three decades, people keep more of their own teeth longer (Petersen et al., 2021). This results in more frequently occurring oral diseases in the remaining teeth among older persons, especially when somatic or cognitive illness stand in the way of their daily dental care (Hoeksema et al., 2017). The number of older persons in vulnerable situations who live with pain, discomfort, and eating difficulties has increased (Lindmark et al., 2021), resulting in a higher risk of weight loss, infection, poor general health, and increased mortality (Klotz et al., 2018).

The teeth are construed not merely as functional entities but as vital components of the body and the self, with substantial influence over health, social dynamics, relationships, and societal interactions. Here, we depict teeth and oral health issues as potential catalysts for profound shame processes, exerting a lasting impact on well-being, social life, and the human experience. We argue that tooth shame is both an individual experience and a collectively distributed phenomenon, drawing a diverse set of human and non-human actors together in awkward and sensitive shame situations. We demonstrate that tooth shame can become decisive for entire social interactions, including healthcare encounters. Further, we state that tooth shame bears the potential to interfere with everyday care practices and determine how dental care is practiced within care institutions, often with damaging effects on dental care, oral treatments, and (oral) health.

2. State of the art

Odontological research demonstrates that teeth strongly relate to well-being, self-worth, and social life (Allen, 2003), including in late life (Rouxel et al., 2017). Although tooth shame is absent as a discrete subject in odontological research, shame does appear as an underlying theme in the more extensive research area of Oral Health-related Quality of Life (QHRQoL) (Allen, 2003), especially in studies on dental anxiety (Buchanan and Coulson, 2007). It appears both explicitly (Buchanan and Coulson, 2007; Willumsen et al., 2022) and implicitly, for example, by using words such as embarrassment (Allen, 2003) or self-esteem (Kaur et al., 2017). Yet, to understand the everyday manifestations of tooth shame and its consequences for self-worth, social life, and (oral) health, we find that the profound and complex character of tooth shame needs to be understood independently. Odontological research tends to focus on broad concepts, such as quality of life or well-being, which can blur some of the more specific characteristics of tooth shame. When zooming in on psycho-social phenomena, odontological research primarily focus on dental anxiety. This is relevant when patients experience anxiety about dental treatments in terms of pain, instruments, and claustrophobia (Alenezi and Aldokhayel, 2022), but since anxiety is a well-known shame response (Dolezal, 2022; Nathanson, 1994), the focus risks obscuring underlying tooth shame. This applies especially when people do not fear treatments as such but feel anxious about exposing their teeth, for example, to dentists, more broadly described as shame anxiety (Dolezal, 2022). Further, odontological research most often investigates the psychological and social implications of oral

health issues through questionnaires and standardized interview formats, and not through fieldwork. Hereby, the socially distributed and interfering character of tooth shame remains unilluminated. To better understand the collective and interfering nature of tooth shame and to foster addressing it in health care and bodywork, this study, therefore, investigates tooth shame through in-depth cultural analysis.

Positioned centrally in the face and at the intimate divide between the inner and outer body, teeth serve as a focal point in our interactions with the world. With that in mind, teeth are understudied in the social sciences and medical humanities (Doughty et al., 2023; Listl and Chalkley, 2014; Warren et al., 2020). Within sociological aging studies, older persons' relationships with their teeth and mouth have been investigated, for example, through 'mouth talks' in qualitative interviews focusing on narratives of maintaining, losing, and replacing teeth in old age (Warren et al., 2020). The study demonstrates the mouth's relatedness to self-image among older people. For example, natural teeth and being financially able to consult a dentist regularly are linked to a sense of self and identity. Another study demonstrated that dentures and missing teeth can be experienced as stigmatizing markers of old age and that losing teeth can cause othering of the mouth (Rousseau et al., 2014). This aligns with our interviews with older people, as their self-image and subjectivity often appeared blurred and vulnerable because of dental issues. However, we take a different approach in our exploration of tooth shame, as we are interested not only in the emotional or identity-related experiences of oral health issues but also in how these experiences form social life, care practices, and oral health outcomes.

Other social science studies focus on oral health-related stigma linking dental status to social attractiveness and access to services (Doughty et al., 2023; Horton and Barker, 2010; Raskin, 2017). We find inspiration in this literature, as it is well-documented that shame is inextricably linked to stigma and the normative boundaries that determine what is shameful in a society (Tyler, 2020). Shame is often described as an internalized stigma among marginalized groups (Dolezal and Lyons, 2017). Yet, in this article, we concentrate on exploring shame, as we draw on Luna Dolezal's distinction between stigma and shame, emphasizing that stigma is a designated label attached to a person, whereas shame is an emotional experience of living with stigma (Dolezal, 2022). According to Dolezal, the understanding of the mechanisms through which stigma relates to health, including how it '*shows up in lived lives*', remains unknown. Therefore, she concludes, "*one must begin to investigate its emotional, personal, and affective dimensions. For this reason, it is worth investigating shame*" (Dolezal, 2022). As shame furthermore drives decision-making and behaviors, including in healthcare contexts (Dolezal, 2022), it is a well-suited lens to investigate how it forms part of dental care practices. Thus, we contribute to the literature on oral health-related stigma by zooming in on tooth shame as an emotional and shared experience that often accompanies living with such stigma.

Further, we take inspiration from research on body shame. According to the psychologist Paul Gilbert (1951), body shame is shame experiences related to the appearance or function of one's psychical body, which can "*be triggered by self-consciousness elicited, when one is aware that others can see (part of) the self; that is, one becomes conscious of oneself as an object in the mind of the other and the feelings one has generated in the mind of the other.*" (Gilbert, 2002, p. 18). This relational shame dynamic can involve various sensuous modalities such as vision, smell, or touch (Gilbert, 2002, p. 3), which we recognize in our empirical material concerning teeth. We also recognize that self-consciousness concerning others can stem directly from one's teeth. We thus consider tooth shame a distinct kind of body shame. In addition, we draw on research on illness-related shame (Dolezal, 2022; Finerman and Bennett, 1995; Stage, 2022), which falls into two categories: research on the shame of being ill and research on shame provoked by healthcare encounters (Stage, 2022). The former demonstrates that patients often perceive their illness as a personal shortcoming (Dolezal and Lyons, 2017), which can be magnified by an increasing focus on personal responsibility in health, making disease an indicator of individual character (Stage, 2022) and reflecting a neoliberal approach to health (Wutich and Brewis, 2019). As our analysis will show, this is very much at stake regarding tooth shame. The latter focuses on shame as a powerful force in clinical settings and as a treatment barrier (Davidoff, 2002; Saraiya and Lopez-Castro, 2016), potentially causing or worsening illness (Dolezal and Lyons, 2017). This is also a significant finding in our material, which we will elaborate on later.

Finally, we take inspiration from research on class-related shame (Felski, 2000; Munt, 2007). This literature demonstrates that lower-class groups are inextricably linked to narratives of moral decline, which is a crucial source of shame (Felski, 2000, p. 33; Munt, 2007). Class shame is often related to a struggle to keep up appearances on a low income (Felski, 2000, p. 35.), which implies aesthetics such as clothes (Munt, 2007, p. 118–119) and, as we will suggest, the appearance of the teeth. In Denmark, oral treatments are remarkably isolated from the general health care system and the welfare state. Children and adolescents under 21 receive free public dental treatments, whereas citizens over 21 are subject to a substantial user fee of around 80 %. This contributes to the high inequality in oral health in Denmark (Shen and Listl, 2018). Yet, while we do find class-related tooth shame in our material, some class aspects are blurred in the specific empirical setting of Danish elderly care, which forms part of the welfare system and encompasses all citizens.

With this article, we aim to contribute to shame research in two ways. First, with an exploration of how teeth and oral health issues can function as vehicles of severe shame processes. We draw on Luna Dolezal's reflections on shame's deep connection to our core identity and social worth. Opposite to *acute shame* - a common human experience of losing face witnessed by others - *chronic shame* can make people organize their entire existence around avoiding situations that could expose what causes shame (Dolezal, 2022). It is exactly this severity that we suggest can arise from oral health issues, which we explore in this article. Second, we aim to contribute to shame research with ethnographic knowledge of how shame can expand in social settings, including how it can interfere with healthcare practices. We thus explore how tooth shame contributes to the shaping of everyday life, collective practices, and dental care practices, and, moreover, how these practices determine oral health outcomes. Our aim is, therefore, to contribute to shame research with a socio-material, empirical situated, and collective distributive understanding of tooth shame.

3. Methods

This study is part of the large collaborative research project Lifelong Oral Health. The project is based at the University of Copenhagen at the Copenhagen Centre for Health Research in the Humanities (CoRe) and at the research group Community Dentistry at the Department of Odontology. The project further consists of two Danish municipalities, with significant demographic differences, being one of the most and one of the least wealthy municipalities in the metropolitan area, and five of their elderly care units encompassing two nursing homes, a rehabilitation center, and two outgoing home care units. The ethnographic material consists of 23 in-depth semi-structured interviews with older persons (18 female, 5 male) and 8 with relatives (3 female, 5 male), primarily grown-up children and spouses of older people, who were not well enough to participate themselves. All informants were carefully invited and prepared for the interview by care workers and local managers. The interviews included a life story perspective to establish trusting relationships with the informants and to identify life phases and living conditions risking oral health in late life. The interviews were conducted in Danish by the first author, who has a background in comparative literature and ethnology. Moreover, 14 focus group interviews were held with care workers, dental care workers, and managers, focusing on themes such as everyday dental care, access to

dentists, and collaboration between different professions and sectors. These interviews were conducted, recorded, organized and managed by the research team. Lastly, 35 days of participant observations were carried out at the five care units by the first author, including observations of dental care situations, meals, and other situations in which dental issues entail their own routines, considerations, and social confrontations. The ethnographic material was conducted between October 2021 and May 2022 and later transcribed. Selected quotes and field notes have been translated into English for this article. The article is based on an inductive thematic content analysis using coding of the material (Braun and Clarke, 2006), and it primarily draws on themes concerning emotions, caring relations, avoiding behaviors, and dental care routines. The first author conducted a first analysis of the material in Danish, and later, it was analyzed and discussed with the entire research team.

It is against shame's nature to present itself explicitly, for example, in interviews. Shame itself is taboo and an iterated emotion that is often avoided or kept secret by the ashamed person (Dolezal, 2022). Therefore, the observations were important parts of the data collection, since body language, gaze, and tone of voice often contrast with the spoken word, when people experience shame (Dolezal and Gibson, 2022). Paralinguistic, nonverbal, and embodied cues of shame are thus part of the forthcoming analysis. In determining the presence of shame in the material, we draw on Gilbert's distinction between shame and guilt (Gilbert, 2017). Where guilt initiates actions that can alleviate what causes guilt, shame is about self-judgment leading to paralysis. It is a significant finding in our material that oral health issues cause self-judgment and paralysis, which we, therefore, determine as tooth shame.

4. Ethics

Due to the informants' vulnerable situations and need for care, ethics was a keen focus from the beginning of the project. All informants provided either written or oral consent before the interviews. They were informed that they could say no and pause during the interviews, often several times when touching upon emotional topics. The informants were recruited by care workers, who knew them well, and, in some cases, relatives were asked about their participation. On one occasion, a relative was present during the interview at the informant's request. All informants and institutions were anonymized under pseudonyms, and the material was stored on encrypted drives, according to current GDPR rules, to protect both older persons and care workers. Furthermore, we worked on building trusting relations with the informants, for example, by meeting them in daily activities before interviewing them. After the interviews, informal follow-up conversations were held to ensure that they were all right. On a few occasions, care workers were asked to keep an extra eye on informants, who became emotional during the interviews. Despite this awareness, the interviews demanded a lot from the informants. Most of them became tired after the interview, and two became annoyed by the questions about their teeth. However, the majority were happy with their interview experiences, and the interviews caused no further challenges for informants or staff. Some expressed relief and said it had been nice to finally talk about their dental problems. Some took action: had care workers or relatives arrange dentist appointments or enroll them in public dental schemes. Some bought electric toothbrushes, and some told the care workers that they had dentures, which can be hard to tell. Many of the informants became aware of the dental care schemes in the municipalities because of the interviews, and they were all happy to contribute to spreading knowledge on teeth and oral health in care work.

5. An analytical framework: Tooth shame and its choreographies

This article draws on existing shame research demonstrating that shame drives behaviors and affects social relations. Using different terms for the same dynamic, shame research uniformly agrees that shame can lead to various compensatory responses, behaviors, patterns (Dolezal and Gibson, 2022), scripts (Pattison, 2000), or strategies (Sanderson, 2015), all with the purpose of bypassing the pain of shame. The psychiatrist Donald Nathanson conceptualizes *the compass of shame* as four common responsive scripts to shame: withdrawal, avoidance, attacking oneself, and attacking others (Nathanson, 1994). During the fieldwork, we experienced examples of all four corners of Nathanson's compass. Steen withdrew from others for several years because of his eroding teeth. Elisabeth, a former dental technician, avoided her obviously painful oral disease by insisting that her teeth were perfectly fine. Birthe, who was living in a nursing home apartment, attacked herself by constantly putting herself down because of the large amount of dentist bills she had gotten throughout her life and kept in a large ring binder. Further, Susanne, who stayed in a specialized alcohol dementia department, attacked others by blaming family members, former dentists, and care workers for her decayed teeth.

Yet, we also found that tooth shame functions in ways that are not fully understood within Nathanson's compass. Although research demonstrates that shame is relational and exists only by the gaze of the other (Davidoff, 2002; Pattison, 2000), in-depth knowledge of how this relationality functions is slightly under-illuminated. In this study, we contribute to shame research through an ethnographic investigation of the collective character of shame in a socio-material setting. We suggest *tooth shame choreographies* to help clarify tooth shame's collective distribution, human and non-human actors, and interference in a situated setting. In our analysis, we use choreographies as a metaphor to depict how tooth shame is enacted in an empirical setting and highlight how tooth shame is performed through *adaptive, collective,* and *interfering* choreographies. These are different yet overlapping ways in which tooth shame manifests itself in everyday life. They are different, since they imply individual, collective, and practice-based implications of tooth shame, respectively. However, they are not delimited, as they constantly intertwine and interfere with each other. We depict them as a multitude of rings in the water, constantly expanding and inferring. As water rings, they hold concurrency, reciprocity, and the potential to amplify each other. They co-exist through their mutual dependence and exchange of shame. Thus, we primarily use the choreography term to explore the water rings' relatedness and the potentially severe consequences far beyond their center.

At first, the idea of the choreography metaphor occurred to us because of the great amount of bodily and facial work the informants performed, intentionally or unintentionally, to hide their troubled teeth, thereby adapting to tooth shame. These include smiling with the mouth closed, putting the hand in front of the mouth, and other kinds of bodily and facial movements, as well as more discursive ways of adapting to tooth shame, such as daily dental habits, encompassing both care and neglect, and different ways of talking or not talking about teeth. We understand *adaptive tooth shame choreographies* as performative coping mechanisms or behavioral patterns decisive for an individual's self-worth, daily dental care habits, and propensity to seek help and treatment. Second, and by extension, we use the choreography metaphor because of its ability to be performed collectively. During the fieldwork, it became clear that the older persons with dental issues, as well as their loved ones and the professionals around them, including the ethnographer, performed choreographies to adapt to tooth shame. Regardless of whether tooth shame is experienced on behalf of oneself or others, everyone can perform tooth shame choreographies, and everyone can take part in *collective tooth shame choreographies*. Here, we explore the relationality and mutual adjustments of tooth shame as a collective distribution, not just of tooth shame but also of its choreographies, which eventually form entire communities. Third, we argue that tooth shame, because of its collective distributive character, can interfere and entangle with everyday practices within healthcare systems. In the field, we experienced tooth shame becoming part of the socio-material

everyday life in the care institutions. Thus, the *interfering tooth shame choreographies* cover how tooth shame contributes to the shaping of socio-material and temporal processes, including care practices, as they become part of the routines and workflows in care institutions, for example, how dental care is done or not done. Hereby, we seek to understand how tooth shame can shape and disturb care work, encounters, and treatments.

6. Adaptive tooth shame choreographies

"*Oh, my teeth are fine. They are not hurting or anything. Shouldn't we talk about something else?*" This is what Elisabeth, the former dental technician, kept saying when asked about her teeth. Throughout the interview, she held her hand to her cheek while making sounds suggesting an ache in her teeth, especially when drinking water. Tooth shame was not a specific study focus from the beginning of the project but emerged during the fieldwork, partly because of the mismatch between the informants' words when talking about their teeth and their behaviors. One of the most widespread findings of the fieldwork was that the informants tended to adapt to their dental issues. Elisabeth and many of the informants often disregarded their dental issues and suddenly changed the subject of the conversation. It confused us at first, but as the ethnographer became a known face in the care units, the informants began to open up. Noticeably, they began talking about themselves in self-derogative ways because of their teeth. For example, Gurli, who was bedridden during her interview, thought she deserved her pain and eating difficulties because of her "*untidiness"* regarding toothbrushing and soda drinking. In an irritated voice, she said, "*Those teeth have never been taken care of. Never! I know, I know. I am a sinner.* (…) *I have been careless. I wasn't good enough. It's totally self-inflicted. There's no point in regretting it but losing all your teeth at 40 hasn't been a blessing*." Thus, avoidance and self-criticism stood out as general tendencies in our data.

During the fieldwork, tooth shame revealed itself implicitly as restrained facial and bodily movements. Bending the neck when talking to others, not opening the mouth too much, covering the teeth with the upper lip when laughing, avoiding cameras, putting the hand in front of the mouth, and other kinds of literal movements were held up to hide the teeth. These movements inspired us to use the choreography metaphor, which is defined in contemporary dance theory as an arrangement of movements in time and space, often originating from improvisation (Klien, 2007). Different notions of choreographies are used to understand how various spheres of social life and societal encounters are performed by humans as a dance of agency (Pickering, 2010) and as social choreographies (Aronsson, 1998). Here, we understand facial and bodily movements as choreographies intentionally or unintentionally performed to adapt to tooth shame, significantly shaping the lives of the informants. Some of the most characteristic adaptive choreographies we came across involved smiles, whether missing, suppressed, or hidden. When Steen's teeth "*got bad,"* he began restraining his facial gestures to avoid attracting the attention of others, and it all began with his smile.

> Steen: *A few teeth fell out, and I looked a little weird without them. My siblings said I looked terrible.* (…)
>
> Interviewer: *What did you do, then?*
>
> Steen: (Sigh deeply) *I stopped smiling.* (Long pause) *Well, you get nailed in how you interact with others because you don't want to smile. Or if you talk, you try not to open your mouth too much and stuff like that.*
>
> Interviewer: *So, it limited the way you interacted with others?*
>
> Steen: *Yes, it did.*
>
> Interviewer: *Over many years?*
>
> Steen: *Yeah, it was probably about six or seven years.*

Further, Henriette, who was interviewed at a rehabilitation center during recovery after a stroke, mentioned the smile when describing how her teeth were destroyed by medicine earlier in life: "*Of course, it kept me from smiling. I put my hand in front when I met people like this*," she said while covering her mouth with the hand and over-exaggerated a smile. As such, adaptive tooth shame choreographies can be literal bodily choreographies performed to hide teeth, deeply restraining the immediate expressions of joy and relief. Regarding the thoughts behind hiding their teeth, the informants all mentioned other people's gazes. "*You don't like that other people can see such a black space in your mouth. Of course, you know that other people notice it,*" Henriette said. "*My god, what a row of teeth, others must think,"* Gurli, the woman who described herself as a sinner, exclaimed, almost summarizing how the adaptive choreographies function. "*I put a dampener on myself because I don't have very nice teeth."* Thus, adaptive choreographies act as a means of activating and maintaining social withdrawal and isolation.

Sometimes, adaptive choreographies are more implicit and discursive. For instance, we identified ongoing ambivalence and inconsistency when the informants talked about their teeth. In every interview, we asked how the teeth were doing, and the immediate response from nearly every informant was that they were doing fine, even when it was obvious that this was not the case. Asking more in-depth questions about the teeth's functions, aesthetics, and the emotions related to them, stories about pain, eating difficulties, and embarrassment came up. *"I'm not sad about it, a little irritated. That's all. I'm annoyed with myself for not taking care of those teeth. I often think that I was stupid. Actually, I feel very bad,"* Steen said. In the same breath, he felt *not sad, a little irritated, stupid,* and *very bad.* Thus, the conversations on dental problems were often slippery and intangible because tooth shame-related statements were wrapped up in words, minimizing, and neglecting them.

This ambivalence was often simultaneous with simply adapting to dental issues. For Janet, who was bedridden with a broken thighbone, her fractured teeth had cut up her tongue, but she said that it was okay because she avoided moving the tongue near the teeth. Throughout the interview, her tongue movements - an adapting choreography within her mouth - made her words unclear, making it difficult to understand her. Further, Elisabeth, the former dental technician, performed adaptive choreographies that had a major impact on her eating habits and nutrition: "*I just chew with the other side of my mouth. I quickly find my way around it. There's hardly anything wrong with those teeth*," she said, describing how her teeth made it difficult for her to eat and that she had lost weight since they began causing her pain. Instead of viewing the dental issues as problems, Janet and Elisabeth conformed and lived with discomfort. They performed adaptive choreographies to handle their dental issues and their associated inclinations, emotions, and social issues, complicating their health and well-being.

Further, adaptive choreographies often become decisive for the propensity to seek dental care and oral treatments. Elisabeth described her response to her care workers' offer to assist her with tooth brushing: "*No, I don't want them to stand and watch me brush my teeth.* (…) *I'd rather do it myself. No way. It's too transgressive*." Susanne narrated escaping the nursing home during the public dentist visits: "*I leave and wait at the bus stop until they are gone*." Similarly, all other informants rejected professional daily dental care. The adaptive tooth shame choreographies thereby show the general findings of shame research; that tooth shame can also be a treatment barrier, making people conceal symptoms and diagnoses from healthcare professionals (Saraiya and Lopez-Castro, 2016).

According to shame research, common shame responses include depression, apathy, anger, aggression, and narcissism (Nathanson, 1994; Pattison, 2000). Existing research states that shame is often displaced by other states and emotional experiences, describing this dynamic as *bypassed shame* (Dolezal, 2022; Nathanson, 1994). In the interviews, we experienced all kinds of adaptive choreographies in the form of bypassed tooth shame. Elisabeth and Gurli were increasingly irritated by the questions and the interviewer. Quite suddenly, Elisabeth said with a snipe tone, "*This is not nice to talk about. Now we talk about*

something else!" With irritation in her voice, Gurli stated that it was rude to ask questions because of the interviewer's white and intact teeth. "*Who do you think you are, coming here with your nice smile*?" she asked. However, she became friendly again when the interviewer told her about her own porcelain crowns and root canal-treated front teeth. Although polite, Susanne was loud and passive-aggressive during the interview. While letting out big laughs, she proclaimed that she "*doesn't give a shit about others and their opinion about my teeth! Especially not the carers here*." With a fierce sense of humor, she said, "*If they come near my mouth, I'll bite off their fingers."* Thus, tooth shame covers a chaotic and container-like variety of adapting choreographies bypassing the tooth shame itself, making it difficult for others to spot and understand.

As water rings, the various adaptive choreographies - whether bodily, discursive, or bypassing - keep expanding. They never stand alone. They are never just about smiling or just about receiving dental care. They spread and mix themselves up with various corners of life: mimicry, body language, eating habits, everyday habits, self-worth, and care and treatment seeking. Thus, adaptive choreographies have the potential to strengthen tooth shame and make people withdraw from multitude of rings in the water, moving in and between people in a plural. It does not necessarily spread from people with dental issues to their surroundings. It can also manifest itself the other way around. Therefore, a person can feel okay with the teeth's appearance until they experience other people's gazes, which can cause shame for everyone involved. Thus, we understand collective tooth shame choreographies as implying more than one person. Everyone can take part in them. Sometimes different peoples' tooth shame choreographies synchronize, sometimes they diverge, and sometimes they break down - but mostly, they give each other shape. As water rings, collective choreographies keep expanding and harm people as they co-exist through their mutual dependence and exchange of shame. To exemplify the collective distribution of tooth shame, the following fieldnote depicts a situation in which the ethnographer felt the shared potential of tooth shame. Deeply aware of her informants' vulnerable situations and need for care, the ethnographer experienced feeling nervous and self-aware several times. She became doubtful of her role as an interviewer when she sensed the informants' bent necks and down-casted eyes. In particular, the interview with Birthe made her feel shameful.

Fieldnote: #Birthe, resident of a nursing home

My interview with Birthe bothers me. I am not sure whether I left her feeling even more shameful and anxious. When I visited Birthe in her nursing home, she had put out a large ring binder with dentist bills over the last 40 years. She opened the conversation by saying that the ring binder was "*my guilty consciousness*" and that she had "*asked for those bills myself*." Our interview started calmly, but when I asked about dentist bills, her eyes suddenly flickered, and her hands started shaking. She reached out for a glass of lemonade and said:

Birthe: *Now that I'm talking to you, my mouth dries.*

Interviewer: *It's all right, Birthe. Why don't we take a break?*

Birthe: *I just need to drink.*

Interviewer: *Of course. Please do so. Do you need a break?*

Birthe: *No, but I get nervous when* (long pause).

Interviewer: *It's going very well.*

Birthe: *But I feel guilty about them* (her teeth). *That I haven't done more about them. And I don't feel like getting help looking after them.*

Interviewer: *You'd rather do it yourself?*

Birthe: *Yes, but I would like to be better at it. (…) I must pull myself together to do it.*

I did not manage to calm Birthe during the interview. Soon after, I wrapped up the interview. She felt better after the recorder had been switched off, and we continued talking about her books and beautiful green plants. She showed me pictures of her grandchildren, but she also kept apologizing for not handling the interview better. Even though I tried to reassure her and told the carers to pay extra attention to her, her last words to me, "*Goodbye and sorry dear,*" stuck with me as a feeling of guilt and professional inadequacy.

social relations, daily dental care, and oral treatments, aspects that could potentially mitigate tooth shame.

7. Collective tooth shame choreographies

Tooth shame does not stick with those living with dental issues. Instead, we found that it spreads and affects other people, sometimes defining entire social interactions and collectives. As with any other kind of shame, tooth shame is not a purely individual emotion; it acts and exists in and between various people and situations. Existing shame research underlines shame's relational character by stating that it can transfer from person to person, that it is contagious (Dolezal and Gibson, 2022), or that it functions as a two-way street (Theisen-Womersley, 2021). However, drawing on this research, we suggest an even broader and more chaotic understanding of tooth shame. The fieldwork revealed that tooth shame does not transfer from one person to another in linear movement. It distributes and moves in various ways, just like a

Here, tooth shame concerning the amount of money spent on dentist bills expands into uncertain and shameful experiences about the handling of the interview situation for both informant and ethnographer. It distributes and draws both persons into a sensitive shame situation, including many aspects other than teeth and oral health issues.

Such shame situations were commonly described in our interviews with relatives, who are part and parcel of the collective tooth shame choreographies. Søren son of Ditte, who lived at a nursing home suffering from an undiagnosed cognitive impairment, said that although his mother had had severe dental problems for decades, he never "*had the courage*" to open the conversation. "*Now, it's too late*," he blamed himself. Similarly, Allan, son of Ingeborg, who suffered from Alzheimer's disease, reflected on his mother's periodontal disease: "*It made her really sad and quiet. She became so introverted and reserved*." On the one hand, Allan never opened the conversation, because he would not make her uncomfortable. On the other hand, he blamed himself for not confronting her to help her with her dental issues. Most of all, he said, "*I*

feel guilty about having to roll down the car window when we go on trips together because of the smell from her mouth." Both Søren and Allan performed choreographies to navigate the tense atmosphere of tooth shame, by not opening the conversation, by blaming themselves, and by rolling down the car window. The tooth shame expands and affects their considerations about their mothers' autonomy and how to take the best care of them. As such, the shared tooth shame and its collective choreographies become part of their dilemmas and doubts about how to be loving sons in each of their vulnerable situations. Again, the water rings keep expanding, not simply as they strike other people and their emotional states. It melts itself into their social activities, personal considerations, and ethical dilemmas. Thus, the collective choreographies magnify the environment of tooth shame, making it even more tense and difficult to navigate.

This also rings true for the carers. Most care workers who participated in the focus group interviews perceived dental care work as intimidating, including observing older persons brushing their teeth, performing tooth brushing, and confronting them with their dental issues. In particular, close eye contact, the sense of each other's breath, and the fact that the care work happens inside the mouth are often mentioned as intimidating. A caregiver admittedly described the intimidation that prevented the doing of dental care: "*It's super unnatural to walk through someone's door and ask them if you should brush their teeth. I'm not proud of it, but I rarely do toothbrushing.*" A nurse indicated that the intimidation affected the entire unit's approach to dental care work: *"It is so intimidating to watch a citizen brushing teeth. We certainly have a fear of touching about it in our unit."* Often deeply aware of the unequal power relations, carers can feel nervous and guilty about exposing older persons' dental problems, since they know it often causes them shame. "*It compromises my professional pride, but I don't want to expose them,*" a home carer said. In all the care units involved in the Lifelong Oral Health project, we met carers who experienced tooth shame in two ways: Partly, they were confronted with the older persons' tooth shame, and they attempted to navigate the sensitive situations it brings. Partly, they were confronted with their own shameful experiences of not performing dental care work sufficiently. They perform tooth shame choreographies to avoid or handle tooth shame, whether on behalf of older persons or themselves. Again, tooth shame expands as water rings, drawing the carers into awkward shame situations and affecting their emotions, considerations, and professional identity.

8. Interfering tooth shame choreographies

When the collective tooth shame choreographies imply the carers, it also implies the care work. We found that the water rings do not simply expand among people; they also interfere with the care work and sociomaterial practices in the care settings. In this final analysis, we will explore tooth shame's interference with dental care practices and everyday life at the care units. Particularly, we will investigate how the interfering tooth shame choreographies can become decisive for older persons' access to dental care and oral treatments, and crucial for their (oral) health.

The fieldwork revealed that tooth shame became part of the routinized doings of the everyday (Pink, 2012) in the care units. Dental care practices comprise the active doings regarding teeth and oral health in everyday life. These practices consist of meaning, competence, materials, inner logic, and outer relations (Bønnelycke et al., 2019; Shove et al., 2012). Here, we use the choreography metaphor to understand the interfering character of tooth shame regarding these practices. We understand interfering tooth shame choreographies as performed processes involving a complex set of human and non-human actors constantly attempting to manage tooth shame, often in disputed and conflicting choreographies involving ethical and professional considerations.

Contrary to our interviews with older persons, shame was a recurring word in the focus group interviews with care professionals. A carer said, "*I think a lot of them are ashamed. They say they manage* (toothbrushing) *themselves because they don't want you to go into their mouths. They say, 'I'm done' when they are clearly not. I actually just tried it this morning.*" Although the carers often acknowledged tooth shame, they called for knowledge and competencies to address the dilemmas it brings. For instance, if they demonstrate trust in the older person, they risk leaving the teeth without the needed care - and if they take care of the teeth, they risk showing distrust in the older person. The carers are left in a double bind that makes them unable to escape shame. Either they are ashamed of not doing dental care sufficiently, or of exposing the older persons' dental issues, including their tooth shame. These dilemmas raise some navigational issues, forming the way they do, or don't do, dental care work.

The most frequent interfering tooth shame choreography we witnessed was not performing dental care work at all. This means that oral hygiene is not maintained, oral diseases are not discovered, and oral treatments are not initiated. Often, this significant choreography is entangled with some of the key values in Danish elderly care, such as dignity and self-determination. After visiting Kjeld, who was living with hemiplegia after a stroke and struggling to keep the electric toothbrush in his mouth during the morning care we attended, his home carer told us, "*I'd rather let people help themselves. I don't just want to do it* (toothbrushing). *It would be a pity for them. They should be allowed to brush their teeth themselves. It's also a matter of dignity.*" Even though the home carer knew that Kjeld's oral hygiene was troubled, the daily dental care was not done due to a consideration for his dignity. Often, the carers explain they value dignity partly because they do not want to jeopardize their relationship with the older persons since it could hinder other important care tasks. Dental care also often collides with the right to self-determination. The manager of a home care unit reflected on the high number of older persons rejecting assisted daily dental care: "*We find that they are not only ashamed of their teeth but also of being unable to afford to see the dentist. It is a massive problem among our citizens, but it's difficult when we're in people's homes. We don't have as many options because of the right to self-determination.*" As mentioned, avoiding assisted dental care is a common adaptive tooth shame choreography among the older persons. Due to the right of self-determination, this adaption is often unchallenged by the carers. Thus, the potential addressing of tooth shame often clashes with some of the values in the care system, raising complex ethical questions. Yet, we also found that the values sometimes act as convenient excuses for care workers to avoid dental care because of its intimidating implications for themselves.

Tooth shame also interfered with everyday practices in the units in other ways. For instance, when the carers avoid dental care to protect the older persons' dignity or right of self-determination, it often raises conflicts with the dental professionals, troubling the collaboration. A dental hygienist said, "*When we see that the citizens have not had their teeth brushed for a long time, I feel sorry for them.* (…) *They inhale the oral bacteria and get pneumonia. Most of them are so weak that they die from it*". Often, this makes dental professionals blame the care workers, stating, "*they don't give a damn*". On the other hand, the carers often accuse the dental professionals of not acknowledging the older persons' boundaries and the importance of other care tasks, for instance, by saying that they "*forget that life isn't all about teeth*". Thus, the professional handling of tooth shame also tends to interfere with workplace environments and raise collaborative conflicts.

Moreover, we found that in cases where care workers do perform dental care work, tooth shame interferes with their approach. When one of the carers experienced that the dental care was being rejected, she for instance performed choreographies to address the tooth shame carefully while holding on to dental care as a daily routine: "*When they say no, we usually put out the toothbrush with toothpaste on it as a reminder.*" The carer explained that she did so because dental care is important, but she feels that putting out the toothbrush as a reminder appears more careful than opening conversations about toothbrushing and dental issues. Other carers performed interfering choreographies when they doubted the older persons' claim of having brushed their teeth. A carer described the

precarious situations that could occur when they asked whether a person had brushed their teeth: "*We have, for instance, a very self-critical woman. If we come in and ask, 'did you brush your teeth today?' we can really cross some personal boundaries. She'll probably say, 'Yes, of course I have'. But we know that she is not in control of it.*" When asked what they did in these situations, the carer answered, *"We check if the toothbrush is wet. You must step carefully. We won't make them feel like children. We must show them trust if they say they've done it themselves. Even if we know they didn't do it."* We consider these interfering choreographies as socio-material manifestations of avoiding the exposure of the older persons' dental issues while addressing them carefully. Often, these choreographies were the result of professional doubts and uncertainty, as the carers did not know what else to do.

The interfering tooth shame choreographies become like a joint dance - often an intimate Pas des Deux - between older persons and care workers, whose choreographies initiate and intertwine with each other's and with caring practices. Thus, tooth shame and its many related choreographies jeopardize vital preventive daily dental care and important oral treatments. On this basis, tooth shame reveals itself not only as a severe consequence of oral health issues but also as a determinant causing even more oral health issues and shame. The ripple effect of the tooth shame choreographies becomes self-sustaining and draws everyone involved into a downward vortex. In the end, tooth shame ends up risking both self-worth, social life, caring relations, oral health, general health, and potentially life itself.

9. Conclusion

The study identified tooth shame as a subtype of body, health, and class shame encompassing deep entanglements between emotional experiences, social life, care practices, and (oral) health outcomes. By suggesting the term tooth shame and exploring it through cultural analysis and ethnography, the study has demonstrated teeth and oral health issues as specific parts of human biology that have the potential to activate distinct and profound shame processes. In the context of the Danish elderly care system, this activating potential has been shown to be specifically intrusive, as the dental caregiving touch and gaze penetrate the threshold of the inside of the mouth. By further identifying tooth shame choreographies, the study has demonstrated tooth shame's far-reaching implications. First, it analyzes how it can make individuals adapt to oral health issues and avoid vital dental care and treatments. Second, it illuminates how it expands and draws other people, including carers, into its tense, sensitive, and dilemma-fueled shame situations. Third, it interferes with healthcare encounters and care practices. Thus, the study contributes to recent shame discussions with an understanding of tooth shame as a distributive socio-material phenomenon, moving like a multitude of rings in the water and interfering with various objects and healthcare situations. Through its potential harm to self-worth, social life, and (oral) health, tooth shame has thus been identified as both a consequence and a determinant of oral health with profound implications for human beings.

Care workers often fall short when dealing with tooth shame, as elderly care systems are usually not equipped to address it either organizationally or in terms of care workers' competencies. Our findings, therefore, call for praxis-based translational research on tooth shame and the development of implementable methods to address it in praxis, including the ethical and professional navigating issues it brings for the carers. This could take inspiration from Luna Dolezal and her colleagues' work on *shame sensitivity* (Dolezal and Gibson, 2022) as a competence to acknowledge and address shame among practitioners. Finally, the study calls for further research on whether and how tooth shame relates to sociopolitical ideals of white teeth and intersects with social categories as class, gender, sex, and ethnicity. This could include care workers, as we found indications that they also experience tooth shame on their own behalf. Some care workers mentioned that their oral health issues act as barriers to providing dental care to older persons, yet we do not have enough material to state that they experience tooth shame. In Denmark, care work is among the lowest-paid professions associated with low prestige, women-, and migrant work. Thus, an exploration of tooth shame among care workers could potentially reveal an even more chaotic cacophony of tooth shame choreographies in elderly care settings, while also clarifying tooth shame's possible intersection with class, gender, sex, and ethnicity. Such future knowledge would enable the punctuation of the powerful, damaging, and wide-ranging phenomenon that tooth shame has been shown to be.

CRediT authorship contribution statement

Louise Folker: Writing – review & editing, Writing – original draft, Resources, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Astrid Pernille Jespersen:** Writing – review & editing, Validation, Supervision, Methodology, Funding acquisition, Data curation, Conceptualization. **Esben Boeskov Øzhayat:** Writing – review & editing, Supervision, Resources, Methodology, Funding acquisition, Data curation, Conceptualization.

Ethical approval

This study was approved by the Danish Data Protection Agency (514-0599/21-3000) in May 2021 and the local Research Ethics Committee at the Faculty of Health and Medical Sciences (504-0241/21-5000) on March 30th' 2021. The study was conducted in accordance with the American Anthropological Association Statement on Ethics (https://americananthro.org/about/policies/statement-on-ethics/).

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Data availability

The data that has been used is confidential.

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