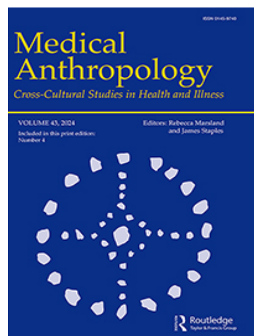

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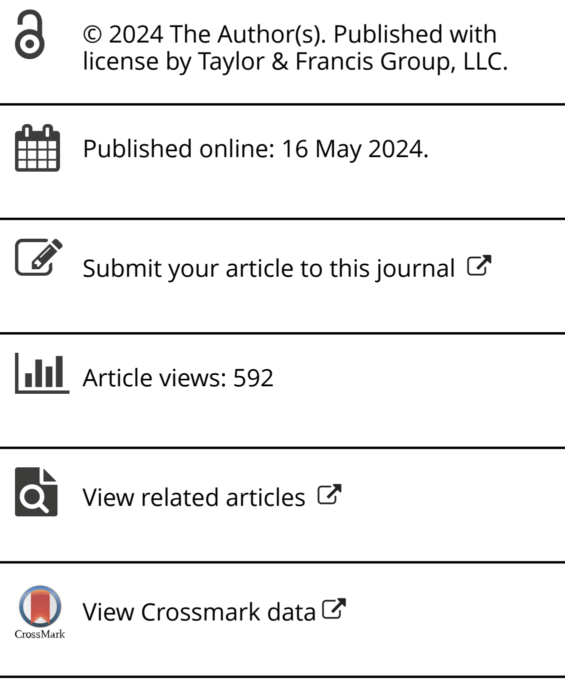

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Medicalization of Old Age: Experiencing Healthism and Overdiagnosis in a Nordic Welfare State

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ABSTRACT
In Denmark, people are expected to take responsibility for their health, not least as their bodies age and they experience signs of physical or mental decline. Drawing on fieldwork among older Danes, I illustrate that an excessive focus on health gives rise to social and structural controversies and disparities, linking ideas of healthy behavior at the individual level with the societal framing of disease and aging. I argue that this emphasis contributes to the unwarranted diagnosis of bodily variations that naturally occur in the aging process, a phenomenon referred to as overdiagnosis, adding to a broader medicalization of old age.

DANSK RESUME
I forlængelse af velfærdsstatens dogme om, at individer skal tage ansvar for egen sundhed, ikke mindst i relation til aldring, diskuterer jeg i denne artikel, hvordan sådanne paradigmer er med til at medikalisere aldring. Med udgangspunkt i to forskellige feltarbejder blandt ældre danskere viser jeg, hvordan samfundets intense fokus på sundhed og sund aldring, ændrer forståelsen af kropsligt og mentalt forfald, så det fra at være en naturlig del af aldringen bliver til symptomer, der skal behandles. Dette, argumenterer jeg for, er også med til at skabe overdiagnostik, hvor mennesker får unødvendige diagnoser, og dette er både medskabende til, og et symptom på, en medikalisering af alderdommen.

KEYWORDS
Aging; Denmark; ethnography; medicalization; overdiagnosis

> "You DO know, that he's not really doing anything to take care of himself, right? He never goes out just to go for a walk or enjoy nature, only to get groceries" Janine looks at me, mimicking a person growing in body size, as she makes her point. She is trying to describe her neighbor Paul, who is an interlocutor in my ethnographic study of aging with multiple chronic diseases in Denmark. Janine, a retired nurse, is a distant acquaintance of my friend's mother-in-law, and has served as my gate-keeper, but can't refrain from also trying to let me know why Paul, in her opinion, is experiencing health challenges. "I'm not saying that it is entirely his own fault," she goes on, "I'm just saying that there's a reason that there is so much focus on healthy aging. You have to take responsibility for your own health."

Janine's prejudiced and uninformed comments on her neighbors' health status echo current neoliberal ideals of "healthy aging." In this healthy aging paradigm, disease and bodily decay related to aging are associated with inactivity and lack of effort to preserve a good health status; a belief partially shaped by media and partly by health campaigns and self-help books aimed at reducing illness and frailty in old age. Related to "healthy aging" is the concept of "successful aging," which encompasses social and psychological factors and emphasizes resilience and

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Media teaser: I argue that treating age-related bodily and cognitive decay like a medical problem risks overdiagnosis, the medicalization of aging, and agism.

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adaptability. The anthropological criticism of successful aging has already been well-established (Lamb 2014, 2017), showing unarticulated yet everywhere-present normative values and assumptions about old age (Holstein and Minkler 2003), and the resulting marginalization of particular groups (Jønsson et al. 2020; Mikkelsen 2016). The concepts of successful and healthy aging flourish within the communities where I conducted fieldwork. I contend that these concepts, along with neoliberal principles, reinforce the idea of healthism and contribute to the unnecessary diagnosis of bodily variations that naturally occur in aging bodies, a phenomenon known as overdiagnosis. This, in turn, contributes to what I argue is a general (over)medicalization of old age.

Set within Denmark, a Nordic welfare state, I delve into how excessive attention to health, or what Crawford terms healthism (1980), creates social and structural controversies connecting notions of healthy behavior at the individual level with the societal framing of disease and aging. To comprehensively understand the risk of overdiagnosis and the extent of medicalizing old age, I engage in a cross-disciplinary conversation by incorporating epidemiological and medical literature into my ethnographic data. I aim to demonstrate how healthism, overdiagnosis, and medicalization manifest in older Danes' everyday life. My objective is to integrate overdiagnosis and medicalization into the field of anthropology and aging. This article is then an initial step in constructing an analytical vocabulary for discussing when and how to address overdiagnosis and the general medicalization of old age.

Methods and setting

In this article, I draw on data from two ethnographic studies: 1) *Aging with Multimorbidity, Illness and Inequity in Everyday Life* (Jønsson 2018). This study consisted of 18 months of ethnographic fieldwork (2015–2016) with three months of follow-up (2018). Here, I focused on the everyday life of living with multimorbidity in rural areas of Denmark, following seven men and seven women between the age of 66–84 years. I would visit the interlocutors in their homes, go with them to see the doctor, and take part in their social lives, e.g. visiting fairs together or participating in dinners with friends and family. I will draw on interviews, informal chats and participant observations relating to diagnoses, diagnostic processes, and health behavior. 2) *Getting older, getting sicker?* (Jønsson ongoing 2023–2025). In this study, I investigate the meanings and practices ascribed by people age 65+ in staying healthy and/or avoiding diseases. I am interviewing 100 randomly selected Danes, recruited through social media and the snowball method (Patton 1990) with no other inclusion criteria than being above the age of 65 and fluent in Danish or English. The interviews focus on how health, disease, and diagnosis are articulated and on perceptions of responsibility, the welfare state, and a good senior life. I have selected 10 people around greater Copenhagen representing different genders, socioeconomic status, and self-reported health status. These key interlocutors are being interviewed in their homes, and I am also doing participant observations in their everyday lives e.g. by taking part in social gatherings, going for walks, and attending activities in retirement clubs or other leisure activities. The 10 key interlocutors thus complement the interview data, providing insights into how these themes manifest in everyday life (Das 2007). Both studies complied with the ethical standards set by the American Anthropological Association (AAA 2024) and followed the GDPR guidelines.

The studies are situated in Denmark, a Nordic welfare state with a population of approximately 5.6 million people. Denmark is recognized for pioneering the concept of public health care insurance in the 1890s, laying the foundation for the Nordic Model (Lassen and Jespersen 2017). This model is characterized by equitable and free social security provision to all citizens, including e.g. unrestricted access to health care services, public pensions, and subsidized home assistance for the elderly (Lassen and Jespersen 2017). Denmark, often regarded as one of the best countries for aging individuals, allocates health care services and home assistance through local municipalities. Nursing homes operate on a sliding-scale co-payment system, ensuring universal access. From the age of 75, older individuals receive biannual checkups by municipal nurses to assess their need for home care or other forms of assistance.

The state not only provides free care but also regulates various aspects of citizens' lives (Valgårda 2013). In the Danish context, characterized by a societal ethos of neoliberal values such as autonomy, self-determination, and individualism, there is a pronounced emphasis on citizens' responsibility for self-care and adherence to treatment protocols (Kristensen et al. 2016:491).

Anthropologists have highlighted the close association between adult personhood in Denmark, and elsewhere, with the ability to independently manage and maintain autonomy (Krøijer and Sjørslev 2011). Hence, the concept of aging within the welfare state revolves around notions of choice, prevention, and independence. However, independence takes on a dual role, supporting individuals' desire to care for themselves while concurrently expecting them to seek alternative resources, such as assistance from a spouse or immediate family, rather than relying solely on government support.

This expectation carries a certain irony, considering that caring for older adults is not traditionally viewed as the family's responsibility in Denmark. In fact, less than three percent of those over the age of 70 live with their children (Stuart and Hansen 2006:31). This dual perspective on independence reflects the complex interplay between societal expectations, individual autonomy, and familial responsibilities in the Danish context of aging within the welfare state.

Aging and healthism in Nordic welfare states

Denmark, like many other countries, is grappling with an increasingly aging population, sparking numerous discussions and research on what is often labeled a "welfare" crisis. This crisis revolves around finding effective ways to address the care needs of the aging population (Hansen and Dahl 2022). Originally, the term "care crisis" referred to the decline of informal family-based care. However, in contemporary Nordic welfare states, the care crisis is more focused on the financial and human capital challenges to the ideal of universalism, wherein public health and social services are designed for all citizens and are free to use (Hansen and Dahl 2022:3).

The understanding that aging comes with care needs is not a recent revelation. In fact, this concept dates back to ancient times, as articulated by Aristotle in his theories on energy and his philosophical ideas concerning the nature of living beings and their development over time (Christensen and Wærness 2021). The ongoing discussions surrounding the care crisis underscore the need for innovative solutions to ensure the well-being of the aging population within the framework of the Danish welfare state. While Aristotle did not specifically discuss aging in the modern sense, his concept of telos (end goal) can be interpreted as suggesting that aging is a natural process involving a gradual decline in energy. According to Aristotle, as we age, our potential might diminish due to physical changes and limitations. Aristotle emphasized the importance of balance and moderation in maintaining a healthy and flourishing life. In this context, one could argue that Aristotle became an early advocate for healthy aging, with his philosophy of energy merging with the idea that individuals have control over their health by focusing on maintaining balance and moderation. In a contemporary context, aging is increasingly associated with health, and the significance of taking responsibility for one's mental and physical health is emphasized. Yet, as noted, the notion of healthy and successful aging is also often criticized for not accepting the human aspects of mortality and decline, and instead viewing situations of dependence and increasing morbidity as "failure" (Lamb 2014, 2017). As early as the 1980s, American economist Robert Crawford described how health had been elevated to a form of meta-value and had become an end goal in itself. This trend, referred to as "healthism" by Crawford, represents an ideology that prioritizes a lifestyle where health and exercise are valued above all else. It relies on the individual's motivation to achieve optimal health, while being unhealthy is often perceived as a sign of moral failing or lack of self-control. Practicing healthism involves, among other things, the ability to abstain from simple, lazy, or unhealthy personal habits (Crawford 1980:368).

In the opening quote, Paul's neighbor Janine is expressing values aligned with healthism, but this isn't the sole manner in which healthism is connected to aging in the lives of my interlocutors. On several occasions, during the customary afternoon coffee sessions that invariably include cookies, I've

observed my interlocutors offering justifications for serving these sweets. For instance, Emmy, an 82-year-old woman, has mentioned:

> I shouldn't be eating this I know, but you should take some, you're young, you can eat all the cookies you want. (Emmy, informal chat)

Emmy references her body weight, playfully clapping her tummy as she speaks, indicating her awareness of being overweight. This theme frequently arises in our conversations, with Emmy explaining multiple times that aging brings about a slower metabolism. Despite the twinkle in her eye and the cookies she humorously refers to as ones she "sneaks" to eat, Emmy reflects a moral perception of how an (aging) body should appear. There's an undercurrent of self-consciousness, suggesting that she should feel ashamed for indulging in sweets, especially now that she should be even more mindful of her weight.

On another occasion, Ludvig, a widowed 73-year-old man, served me Danish pastry from the local bakery and promptly apologized, saying, "My wife used to nag me all the time about eating healthier. I guess us men aren't just that good at taking care of ourselves." This statement reflects Ludvig's acknowledgment of societal expectations and stereotypes related to men's habits and health, especially in the context of aging and dietary choices.

Indeed, healthism extends beyond everyday life choices and permeates various aspects of my interlocutors' lives, including their proactive approach to health. For instance, Karin, a 73-year-old retired schoolteacher, had a friend who, being a retired nurse, had recently been diagnosed with osteoporosis. Influenced by her friend, Karin decided to undergo a check for osteoporosis as well. She shared this with me with a serious expression, emphasizing that while many of her friends were less engaged in their health, she, on the other hand, aimed to "stay fit as long as possible." Karin's proactive stance reflects the broader cultural influence of healthism, emphasizing the active pursuit of health and well-being as a personal responsibility.

From a medical standpoint, osteoporosis is not directly associated with physical fitness but is a diagnosis related to bone density and the risk of fractures (Compston et al. 2017). Despite this, Karen believed it was crucial to understand if she should take any precautions. Karen and other interlocutors independently take vitamin supplements without a prescription from a medical professional. Karen proudly shares these self-initiated supplements during consultations with healthcare professionals, to ensure that they do not interfere with her prescription drugs. She has never heard anything but praise for this kind of engagement in her health.

Each of my interlocutors consistently attends their annual consultations for chronic conditions, and they generally express a high level of trust and seldom question decisions made by medical professionals. Their implicit expectations are that if they behave responsibly, by adhering to prevention initiatives, treatments, and health advice, there will be a positive outcome. This holds significance both on an existential level and for the process of aligning one's personal and societal morality. The connection between morality and identity is profound, as our understanding of what is morally right is intricately linked to our perception of ourselves as individuals (Taylor 1992). The pursuit of being "as healthy as possible" extends beyond individual concerns and permeates a network of social interactions. Morally correct behavior in health-related matters leads to recognition and respect, as exemplified by Karen and her friend, who take pride in sharing medical experiences and inspire each other to pursue additional tests. The sense of moral responsibility is further illuminated in my interaction with Judy, a 78-year-old woman residing in the affluent suburbs of Copenhagen. The following quote is extracted from a recorded interview in her home, where she reflects on her approach to aging: "The older you get, the more important it gets to take care of yourself, both physically and mentally."

Judy then shares that she would never describe herself as old. In fact, she whispers to me with a glimpse in her eye, she feels like she's still in her early 40s like me. We both laugh, but the conversation shifts to the acknowledgment that, despite not feeling old, her body is starting to "answer back," as she phrases it; her back is increasingly hurting, and lately she's been having trouble sleeping and going for her weekly workout, she can feel how she is less strong and flexible. Judy replied to my

call for participants in various groups on Facebook, because she felt deeply offended by the way people, according to her, think and talk about people her age. Old, she states, is not something you are until you are at least 90, "not like in my mother's days, back then you were old when you were 60, but now things have changed, and 70 is the new 50." Despite her dislike of the current discourse of aging presenting older people as fragile, vulnerable, and dependent, I will argue that she unconsciously reproduces notions of ageism in her distancing from the "old" category. Rather, by emphasizing the need to take care of yourself, she places what is from a medical point of view regarded as normal decay of an aging body (Haase et al. 2022) as something unwanted and perhaps even preventable and enforces the idea that bodily decay can be prevented.

This goes along the line of what Dumit argues (2012), that in the past, health was associated with not having to take medication, not having to attend numerous consultations at the hospital or with the general practitioner, and not having to worry about one's body. However, today health has become the complete opposite. Health is now based on facts derived from clinical trials designed by the pharmaceutical industry to increase medication intake rather than decrease it. Health is no longer solely a matter of an individual's sense of well-being. Staying healthy now means investing significant amounts of time, energy, and money into various preventive treatments, including pharmacological prevention (Dumit 2012). This not only includes disease prevention but also the prevention of risk factors. Risk can be interpreted as (future) illness and can, therefore, be treated (medically) (Dumit 2012:114). Classic examples are risk factors for cardiovascular diseases, such as high blood pressure, high cholesterol, obesity, fatty diet, lack of exercise, etc. Knowledge of a risk can create unnecessary worry and anxiety but the uncertainty lies primarily in the fact that risk cannot always be sensed bodily (Reventlow and Bang 2006). Some conditions defined as risky, such as being overweight or obese, can be observed. However, most of the time, the risk cannot be felt as a symptom; it must be measured and assessed. This means that to optimize health, a series of tests and examinations must be conducted so that not only diseases but also risks of diseases can be exposed, and preventive treatment can be initiated.

Overdiagnosis and the quest for health

Aligned with the logic of healthism, the emphasis is placed on the individual's capacity to instigate change, framing health as a matter of personal responsibility (Bauman 1992, 1999). Consequently, it is not surprising that many individuals readily adhere to recommendations from health authorities, particularly since the health care system, through its informational materials, employs strategies to influence individuals, for instance by encouraging participation in screenings (Rahbek et al. 2021). Among my interlocutors, responsible health behavior is regarded as a personal value, and does not contradict the culturally praised independence and freedom. While walking his dog, Eric, a man in his late 70s who used to be engaged in local politics, described how it is him and not the state who bears responsibility because health according to him is an individual choice

> It's nothing like communism, we have freedom, and I make my own choices. I have always done that. I can choose to be healthy or I can choose to be unhealthy.

While this inclination might seem positive, the pursuit of health can sometimes lead to unintended consequences. Individuals may undergo tests and treatments for diagnoses that they will never benefit from knowing that they had, as these conditions were never destined to cause harm or even exhibit symptoms. Let me give an example

> Leif and I had known each other for some weeks; we were introduced when I joined the local brass band as part of my fieldwork. Playing the same instrument, we had been discussing how his tremors had increasingly made it difficult for him to play the fast notes, and I was eager to learn how growing older and getting diseases were experienced in such everyday perspectives. Leif, by then 73, was living with his dog in a small, neatly decorated brick house with a well-kept garden. The garden was his pride since his ex-girlfriend had established the garden back in the day, and when she left for the next-door neighbor, Leif had decided to show how well he did without

> her by nurturing the garden into a cornucopia of lavish flowers. A retired sailor, Leif had seen most of the world and had also had his share of alcohol, as he put it. As we were drinking coffee, I asked him about his disease. When he was 38, he was diagnosed with diabetes type 1, and became sober in the hospital, never to touch a drink again, and learned to live with and manage diabetes. In the past decade, however, his health had become worse; he had had three strokes, was struggling with tremors, and had recently been diagnosed with arthritis. We joked a little about the dog who was also old and might have had arthritis when he suddenly became very emotional: "there's also something else," he said, looking at his hands, "I never told nobody because I did not want to scare them off, but I have cancer." It turned out, that he had been diagnosed with prostate cancer 15 years ago following a routine test. He had never had any symptoms and had been in a so-called surveillance program at his general practitioner's clinic since the diagnosis. As he started crying and I tried to comfort him, he shared how the cancer was casting a shadow on everything he did, always afraid that it had started to grow and spread. In the following years, he participated in my fieldwork, we performed concerts with the band and went for walks with the dog, and after my fieldwork, we kept in contact occasionally sending a text or a holiday card, until he passed away in the early days of February 2019. He had had yet another stroke, and this time he did not survive it. The cancer, however, never grew. He never had any symptoms, but unlike the strokes, he feared the cancer, always luring in the back of his mind.

When a diagnosis harms rather than benefits, the term overdiagnosis comes into play. Despite a rising recognition in the medical literature that overdiagnosis is a problem, there is a lack of consensus on what overdiagnosis is and is not (Carter et al. 2015; Rogers and Mintzker 2016; Welch et al. 2011). Here, I define overdiagnosis as when individuals are unnecessarily labeled patients. This patient labeling can occur in two ways. First, overdetection is when one or more deviations are identified in an individual that will never cause them problems. For example, cancer cells were found in Leif's prostate and then he was diagnosed with prostate cancer, but these cellular changes never resulted in symptoms or death. Second, overdefinition is when common life events are overmedicalized, disease definitions are expanded, and/or treatment thresholds are lowered (Brodersen et al. 2018). For instance, a person is diagnosed with hypertension (high blood pressure) when their blood pressure is higher than 140/90 mmHg (US guidelines), but they may never experience symptoms or suffer consequences from this blood pressure. The topic of overdiagnosis can be provocative outside the realms of medical research, as one might question why it isn't unconditionally beneficial for someone like Leif to be monitored for cancer. However, from medical and epidemiological studies, we know that up to 67% of prostate cancers are overdiagnosed (Loeb et al. 2014) meaning that these "cancers" will never develop into a disease that will harm nor lead to the death of the "patient." This may seem relatively innocuous, but a diagnosis generally has detrimental effects on individuals, involving treatments, medication, and examinations, which can lead to heightened levels of stress, anxiety, and depressive symptoms. This is a necessity when diagnosis benefits the individual, for instance when treatment saves lives. Overdiagnosis has the same negative effect, only here, diagnosis and treatments are unnecessary because they will never benefit the individual. Overdiagnosis also poses a problem not only for individuals being harmed physically and mentally but also for the health care system. Ideally, health care resources are allocated in such a way that they will truly benefit the patients. In the case of prostate cancer, this would, at least in theory, allow resources to be directed toward helping those men with prostate cancer that will cause symptoms, spread, and ultimately lead to their death (Jønsson and Brodersen 2022). Last, the tests and treatments that are associated with overdiagnosis waste scarce resources and potentially exacerbate the climate crisis through unnecessary CO_2 emissions, pollution, and waste (Barratt and McGain 2021; Barratt et al. 2022).

The epistemological challenge of overdiagnosis lies in the fact that individuals who are overdiagnosed can only be identified retrospectively. Measurements of overdiagnosis are conducted on a population basis and cannot be extrapolated to individual cases. This presents an ethical dilemma, as there is an obligation to treat all patients, even if they may later be determined to have been overdiagnosed. Consequently, patients are unlikely to self-identify as overdiagnosed. This may explain why overdiagnosis has yet to receive significant attention in anthropology (Armstrong and Swinglehurst 2018; Jønsson 2023). Rather, the closely related term "medicalization" is predominantly used, which I shall return to later. Overdiagnosis in the form of overdefinition is particularly relevant in relation to aging because it may lead to an unnecessary medicalization of later life, with extensive

use and waste of health care services and reduced life quality. I argue, that we need social science research on overdiagnosis, but that instead of guessing whether a person is overdiagnosed or not, we need ethnographic studies that explore drivers to overdiagnosis through dynamics of healthism and medicalization.

Overdiagnosing old age? The case of sarcopeneia

Besides making older people unnecessarily into patients, we are also increasingly overdiagnosing older age in terms of defining natural experiences and conditions related to aging as diseases. The most current example is the diagnosis sarcopenia, which is causing heated discussions in the medical sciences. In 1989, the term "sarcopenia" was introduced to describe the natural process of skeletal muscle loss that occurs with aging. In 2016, sarcopenia officially became a diagnosable condition with the assignment of an international classification of diseases clinical modification code (ICD-10-CM) M62.84 (Haase et al. 2022). In ICD-11, Sarcopenia is described as a medical condition characterized by the gradual loss of muscle mass, strength, and function.

There are two types of sarcopenia; primary, or age-related, which is what I discuss here, and secondary, when one or more other causes are evident (Santilli et al. 2014). Primary sarcopenia mainly affects older individuals and is associated with the aging process. The development of sarcopenia involves a decrease in both the number and size of muscle fibers, leading to muscle thinning (muscle atrophy). With age, certain changes occur in the body that contribute to the development of sarcopenia. For example, the body produces fewer proteins required for muscle growth, causing the muscle cells to shrink in size. Furthermore, alterations in hormone levels, such as testosterone and insulin-like growth factor (IGF-1), affect the functioning of muscle fibers and contribute to the onset of sarcopenia. Sarcopenia can have a significant impact on one's quality of life, impairing the ability to perform daily activities and leading to a loss of independence, often requiring long-term care. Estimates suggest that primary sarcopenia affects approximately 5–13% of individuals aged 60 and older, with the rates increasing to between 11 and 50% among those aged 80 and older (Haase et al. 2022).

But it is still debated whether sarcopenia is a disease. The current diagnostic cutoff points, including adjustments for sex and region, are arbitrary and lack validation. Moreover, there is uncertainty regarding which indicators of muscle quality are most predictive of important clinical outcomes, as well as the most effective methods for measuring response to interventions. Researchers in the field of sarcopenia have acknowledged the significant challenge of recruiting participants who meet the criteria for primary sarcopenia. This highlights a lack of clarity in the diagnostic process, which may hinder the acquisition of robust and high-quality evidence (Haase et al. 2022). It can thus be argued that sarcopenia is in reality a medicalization of one of the unavoidable and natural phenomena related to aging: loss of muscle mass. Or as Alfred, an 84-year-old interlocutor puts it, as we sit and watch tv in his living room, and I ask if he finds that his illnesses affect his life:

> Why would I complain about being old? I can assure you, with all of my defects, I'm just happy to be alive. Growing old is a privilege. (Alfred in Jønsson 2018:50)

Looking at the diagnosis through this perspective, I argue that this development bears similarities to that of successful and/or healthy aging. Older adults unable or unwilling to engage in the successful aging paradigm are easily portrayed and perceived as irresponsible and burdensome (Lassen and Jespersen 2017). In the case of sarcopenia, this is not only profoundly ageist, it also displays human conditions such as frailty or bodily decay as unwanted. As Swift and Chasteen (2021) note, articulating older persons as fragile and dependent creates ageism. This is not meant as an objection to diagnosing and treating diseases in the older population, rather, I follow medical anthropologist Sharon Kaufman, when she argues that the increased moral incentive to use medical technologies risks overtreating older people. Kaufman and colleagues have shown how pacemakers in people older than 80 years appears to extend longevity but in reality, it prolongs the process of death, as heart failure then takes years to

develop and be treated, which may be counter to a patient's wish of a sudden death from a heart attack (Kaufman et al. 2011). So, while research on the underrepresentation of older people in medical trials (Robinson et al. 2012) and the underdiagnosis of diseases in older people for instance in less affluent communities (Jønsson et al. 2020) are equally important, in this article, I focus on the need to look at overdiagnosis and what I in the following will argue is an over-medicalization of aging.

Over-medicalizing older age

The concept of medicalization emerged in sociology in the late 1960s, and was used to analyze the increasing medical influence on defining and categorizing human experiences (Conrad 1975, 2007; Conrad and Schneider 1992). Interestingly, medicalization can sometimes have positive outcomes, such as destigmatization, as seen in the case of bedwetting. Previously considered a result of poor upbringing or moral flaws, the discovery that bedwetting is linked to a specific hormone deficiency led to a medicalization process where affected children can now receive appropriate medical treatment. In contrast, overdiagnosis is exclusively harmful, as it leads to *unnecessary* labeling and medical intervention (Jønsson and Brodersen 2022:26–27). Yet, medicalization as a concept has also been used critically to scrutinize unjust power relations in society. In its own terms, medicalization refers to how biomedicine is used as an explanatory model for human deviations and conditions, and as an analytical concept it has been used to highlight how, in many circumstances, medicalization is barely being questioned, while enforcing individualization of problems thus minimizing the influence of social and political dimensions (Conrad and Bergey 2015). Following this, seminal studies have pointed to medicalization as a mechanism of social control in which logics of biomedicine are used to govern citizens (e.g. Foucault 2003 [1965]; Zola 1972), and in anthropology the field of medicalization has gained attention as a form of biomedical power (e.g. Kleinman 2012; Lock 2001). Anthropological studies have also found how medicalization may shift the attention from political and economic powers (Petryna 2004; Scheper-Hughes 1992) and place responsibility on individuals (e.g. Jønsson and Spalletta 2023; Jønsson et al. 2020). Relatedly, the anthropology of pharmaceuticals has critically attended to the power of drug companies (Dumit 2012), and the formation of "pharmaceutical citizenship" (Ecks 2005), the consequences of market-driven medicine (Biehl 2004; Petryna et al. 2006) and uncertainties and inequities related to medical testing (Meinert et al. 2009; Timmermans and Buchbinder 2010), all of which could be linked to overdiagnosis (Jønsson and Brodersen 2022).

In 1989, Estes and Binney delineated what they term the "biomedicalization of aging," illustrating how aging is framed as a medical issue increasingly perceived through the prism of biomedicine. This perspective makes clinical observations and medical interventions thus seem a logical approach to address aging (Estes and Binney 1989; Kaufman et al. 2004). Since then, a growing body of literature has examined various facets and instances of the medicalization of aging, highlighting that as aging is associated with both physical and cognitive decline, it is progressively subjected to society's biomedical scrutiny. Scholars have demonstrated that the concept of frailty is socially constructed (Kaufman 1994) and have grappled with the difficulty of distinguishing between frailty and typical aging (Pickard 2014, 2018). As Pickard notes: "the models problematize diverse aspects of the older body in a way that simultaneously emphasizes personal responsibility and strengthens the case for expert involvement" (Pickard 2014:559). Furthermore, attention has been directed toward how e.g. Alzheimer's disease contributes to an increasing medicalization of natural functional decline. For instance, McLean has shown how the biomedicalization of dementia "through its disease lens, has subjected the actions of the person with dementia to surveillance and judgment" (McLean 2024:44). Inspired by this work, I argue that it is imperative to focus on the social and cultural context in which aging becomes institutionalized and medicalized when discussing overdiagnosis in relation to aging. This can be attributed mainly to the epistemic power of biomedicine (Conrad and Bergey 2015), under which diagnoses such as sarcopenia can be given unnecessarily, and do more harm than good to a person. All humans, without any regard to age, gender, race etc. have the right to optimal treatment and thus the

ability to live their best possible lives. The difficulties lie within the lack of a universal distinction between what is necessary and what is unnecessary. To some older adults, getting diagnosed and treated for a cancer in late life is meaningful, while others would rather be without a potentially harsh treatment and live a shorter life. There is no clear-cut answer, and it must remain an individual choice, but if a person's prognosis is not changed by a diagnosis and treatment or they will never experience any symptoms or die from that disease, it is overdiagnosis (Brodersen et al. 2018). Likewise, I define "natural" aging to be when a person experiences functional decline but does not perceive it to be a problem, such as Alfred expressed. When the health care system's medicalization of decline is unwanted, we risk disparaging or pitying older adults living with chronic conditions despite their own perception of having good life quality (Jønsson et al. 2020).

During an interview, a 66-year-old woman was furiously narrating how her mother, because she was now in a nursing home, was excluded from the public health service. The daughter recounted that her mother had a default general practitioner, like all Danish citizens, but offers such as screening were no longer in play. In particular, the daughter wanted her mother to be screened for cervical cancer, because the mother's mother and her sister both died from cervical cancer. The daughter was even more frustrated because she found that insisting on medical examinations and screenings of her mother was aligned with the dogma of taking responsibility for one's health, or in this case, for an old parent who was unable to do so herself. This is an example of how the notion of being proactive contradicts medical logic, because from a medical point of view, screening a person for cancer in their 90s generally leads to overdiagnosis. The person, due to their high age, will have too many competing risks of dying (like a heart attack, stroke, infectious diseases etc.), and if a cancer is found in screening, it will lead to treatment, that in itself can be harmful, and will likely not result in a longer life (Welch et al. 2011; Vickers et al. 2023). We all have to die from something, and detecting slow-growing cancers in late life will only cause unnecessary harmful treatment (Welch et al. 2011). This medical argument, however, may seem provocative to some ears. But there's more to the story. Being screened for cervical cancer includes having a speculum inserted into the vagina to widen it. Then, a brush is inserted into the vagina to collect cells from the cervix. This can be an unpleasant experience, and can also be humiliating, in particular, if cognitive challenges hinder a woman's understanding of what is going on. This was the case with the mother, but the daughter then felt the need to protect her mother, as she was less capable, being largely confused and disoriented by dementia. It leaves one question: what do the older people in my studies want themselves?

Just as in Leif's case, when he was diagnosed with prostate cancer without ever experiencing any symptoms, he felt that the diagnosis was necessary, and he felt saved. But one may argue that the diagnosis haunted him even though he never required treatment. Many of the other interlocutors did not want to be made into patients:

> Sitting in her kitchen, sipping coffee and taking notes I discussed with Paula, 72, how she perceives her own health status: "I'm not sick, I mean, yes, I can feel my body is getting older, but I'm not sick. If they had never taken the scan [dexter scan for osteoporosis] I'd never ended up on medication, that makes me even more sick." [medication for osteoporosis may cause high cholesterol]
>
> Alex: "Then, if they hadn't scanned you, what do you think would have happened?"
>
> Paula: "I would have lived happily ever after"

There is a risk of overdiagnosis in osteoporosis (Welch et al. 2011). More importantly, the wish to not become a patient, although perhaps it may be inevitable, is present among most of my interlocutors in my study. Yet, examinations, screenings, and preventive health checks are popular as they are not only regarded the most effective means to stay healthy but also as the morally right thing to do.

What may be argued as a fair allocation of resources and anti-ageism health initiatives may eventually turn out to be overdiagnosing, justifying medical treatment (that most often leads to side-effects). When disease nomenclature is widened to include even smaller symptoms, e.g. osteopenia, a risk factor for developing osteoporosis, or when even smaller or slow growing biological deviances

are detected, we accidentally harm patients with iatrogenic care. A study investigating men aged 65 or older diagnosed with asymptomatic aortic aneurysm, shows that the diagnosis (of being at risk, not being ill) is accompanied by worry, feelings of anxiety, and existential thoughts of fragility (Hansson et al. 2012).

But over-medicalization of old age needs to be framed in the cultural and social context in which it plays out. In the Nordic welfare democracies, healthism dominates people's perception of health and the neoliberal dogma of taking responsibility for one's health affects the individual. Although Leif has not developed any symptoms, he does not critically reflect on whether he should have gotten the PSA test. On the contrary, he and others state, that if you are offered a health check, test, or treatment you are morally obliged to accept, thereby expressing an implicit understanding of what is the right thing to do. This points to the importance of discussing overdiagnosis in anthropology on an institutional, societal, and structural level.

Towards an anthropology of overdiagnosis

The existence and prevalence of overdiagnosis are well-documented in the medical literature (Jønsson and Brodersen 2022:16). However, social sciences research faces a challenge in that it is not feasible to define, on an individual level, who is overdiagnosed. Therefore, investigating overdiagnosis from an anthropological perspective entails examining the process by which non-medical issues are perceived as conditions requiring biomedical intervention and avoidance, such as the natural decline of bodily functions in aging. It also involves the diagnosis of bodily deviations that were never destined to cause problems, such as risk factors or slow-growing diseases. This process is intricately linked to societal, institutional, and cultural power structures. As Kleinman aptly pointed out in 1980 illness is normative (Kleinman 1980:178), and without illness, there is no significance attached to the disorder. In simpler terms, a diagnosis without illness, symptoms, impaired function, compromised well-being, or a direct role in causing death does not constitute a disease.

In the context of aging, I have endeavored to illustrate that what I describe as overmedicalization poses a risk of individuals being overdiagnosed. Moreover, on a broader scale, the over-medicalization of old age transforms naturally occurring profound human experiences into something deemed problematic. As Whyte reminds us, the solution often defines the problem, and when medical solutions are presented for such experiences, they become subjects of scrutiny (Whyte 1997). Building on this perspective, scholars have criticized the paradigm of healthy or successful aging for its pronounced ageism, as well as the increasing medicalized focus on old age. In this article, I have highlighted how the concept of healthism contributes to the unnecessary overdiagnosis of bodily variations that naturally occur in aging bodies, leading to an undesirable medicalization of old age. Drawing on data from previous and ongoing fieldwork, as well as insights from epidemiological and medical literature, I have demonstrated how healthism, overdiagnosis, and medicalization manifest in everyday life settings.

The perilous consequences of the medicalization of old age are closely tied to the existing scarcity of care resources in many societies. By perpetuating the medicalization of the aging process, we risk generating patients who will demand unnecessary examinations, treatments, and care, potentially precipitating a crisis where future care needs may surpass available resources. It is crucial to note that a considerable number of older adults already contend with legitimate chronic diseases that are not overdiagnosed and necessitate appropriate care.

This trajectory of medicalizing old age has the potential to exacerbate health inequalities, allocating resources disproportionately to those who need them the least and diverting them away from those who need them the most. This phenomenon aligns with Julian Tudor Hart's concept, articulated in 1971 as "The Inverse Care Law," (Hart 1971) wherein the distribution of health care resources becomes skewed. Not only does this imbalance manifest in the allocation of health care resources,

but it can also result in harm to a larger segment of the population while benefiting fewer individuals, a dynamic referred to as "The Inverse Benefit Law" (Brody and Light 2011).

My primary argument asserts that while the medicalization of old age is a recurring global phenomenon, we require anthropological insights and rich ethnographic knowledge to comprehend its impact on people's daily lives, self-perception, and the communal response to older individuals. Consequently, it becomes essential to scrutinize overdiagnosis as a phenomenon deeply rooted in the escalating trends of healthism and heightened attention to health and diagnosis.

This entails a sustained critical examination of established medical entities and, notably, the diagnostic processes that contribute to the medicalization of profound human experiences. The evolution of medical anthropology, however, introduces the risk identified by Browner as "medicalized medical anthropology" (Browner 1999:137). As anthropologists, we are not limited to what we are told by interlocutors (Browner 1999:138). We can grasp a more comprehensive, holistic understanding, exploring what it truly means to be an older adult managing various chronic conditions. A similar approach has been suggested by Sarah Lamb in her scrutiny of successful aging, in which she introduces the concept of "meaningful decline" assisted by rich ethnographic accounts of what it means to grow old in the US and India (Lamb 2014:49–50). Following this, it has been suggested that ethnography holds the key to understanding overdiagnosis outside the realms of biomedicine (Armstrong and Swinglehurst 2018). While individuals may express gratitude for diagnoses and treatments, these aspects can manifest as everyday concerns imposed by a medical system. For an interlocutor, overdiagnosis may not resonate in their life perception, yet as anthropologists, we possess the capability to assess its broader impact on life experiences and community dynamics, engaging in discussions within the frameworks of established concepts like ageism, healthism, and medicalization.

In light of these considerations, I hope that this article has contributed to a shared analytical vocabulary to articulate and explore how we can comprehend the intricate relationship between old age, natural bodily decline, and diseases requiring medical attention. In common with Lamb's concept of "meaningful decline," I call for an approach that scrutinizes how phenomena such as overdiagnosis or the underlying dynamics of medicalization, successful aging, and healthism may be experienced. Unraveling the meaning systems associated with aging and the increasing reliance on medical interventions aimed at improving (biomedical) health is crucial for mitigating the drivers and dynamics of overdiagnosis and medicalization. This, in turn, may contribute to advancing the critical discourse on successful aging.

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Parts of this article have been translated and checked for language using CHATgpt.

As per Danish research regulations, ethical review only applies to research projects in the field of health sciences.

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Alexandra Brandt Ryborg Jønsson is a social anthropologist (BSc, MSc, PhD) working with health inequities within welfare states, with a specific focus on aging and marginalized citizens. Looking at how diagnostics translate into human everyday life she has written on overdiagnosis, ageism, subjective health inequity, and the adverse effects of eHealth initiatives. Jønsson has won several research and communication prizes and hopes that her research will have a positive impact on her interlocutors, their community, and contribute to improved social and environmental sustainability

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