

Title

Prevention of Disease and the Absent Body: A Phenomenological Approach to Periodontitis

Shortened Title (Running Head):

Prevention of Disease and the Absent Body

Abstract

A large part of contemporary phenomenology of medicine has been devoted to accounts of health and illness, arguing that they contribute to the improvement of healthcare. Less focus has been paid to the issue of prevention of disease and the associated difficulty of adhering to health-promoting behaviours, which is arguably of equal importance. This article offers a phenomenological account of this disease prevention, focusing on how we – as embodied beings – engage with health-promoting behaviours. It specifically considers how we engage with oral hygiene regimes to prevent periodontitis and why we are not good at it. The article suggests that the poor adherence to health-promoting behaviours can be explained with reference to the concept of the absent body, as prevention of disease is generally concerned with pre-symptomatic illness experience. The final section contains a discussion of some strategies for the improvement of disease prevention based on this viewpoint.

Keywords: prevention, illness, absent body, periodontitis, phenomenology

1. Introduction

As the adage goes: prevention is better than cure. Prevention of disease is a crucial part of medicine and its associated specialties and forms a considerable part of both medicine and medical education. The primary goal of good public health is to uphold the health of a population; not only is preventing disease more effective at this than curing, but it is generally preferable for society at large.ⁱ However, despite being so fundamental to our health, adherence to health-promoting behaviours is very difficult to achieve reliably – several disciplines have been employed to understand why we are not good at health-promoting behaviours, most notably in the psychology of behavioural change (Renz et al. 2007; Gao et al. 2014).

The present article aims to use a phenomenological lens to investigate this difficulty. It offers a look at how we, as embodied beings, engage with health-promoting behaviours – specifically how we engage with oral hygiene regimes to prevent the development of periodontitis – and why we are not good at it.ⁱⁱ The article posits that the answer to the latter question lies within the *nature* of embodiment. More concretely, we will

argue that we are poor at adhering to health-promoting behaviour regimes, because prevention of disease is generally pre-symptomatic and as such is located in the realm of the absent body.

The concept of the absent, invisible or transparent body refers to the idea that in physical, mental and social harmony, the body – though absolutely crucial to our perception and experience – is rarely the *object* of it. As Drew Leder (1990, 1) has pointed out: “[w]hile in one sense the body is the most abiding and inescapable presence in our lives, it is also essentially characterised by absence. That is, one’s own body is rarely the thematic object of experience.” For example, when engaged in the activity of listening to beautiful saxophone riff, our attention is not directed to our ears and acoustic apparatus despite them being essential to our experience. In ordinary circumstances, instead of directing one’s attention to the body, one directs it to projects in the world, made available by the body.

There are, however, instances when the body emerges as an *explicit object* of one’s experience. In the phenomenology of medicine and embodiment, illness is a well-studied example of this, see (Carel 2012; Toombs 1990; Leder 1990; Svenaeus 2009; Goldenberg 2010; Kirkengen and Ulvestad 2007; Grinfelde 2018) to mention a very few. In illness, rather than being that which enables one to carry out one’s projects in the world and itself remaining in the background, the body appears as a material object, disrupting its tacit involvement in the world. Leder (1990, 86–90) has described this opaque bodily state as a *dys-appearance*, emphasizing the fact that, in illness, the body appears as an object to awareness and disappears as a taken for granted possibility for action, which characterises desirable states of existence, such as health.

Though the *dys-appearance* of one’s body in illness is described as something bad (Leder 1990, 87), not all modes of bodily visibility or bodily thematisation are considered to be negative. Leder (1990, 91) himself has pointed out that there are a variety of situations in which we experience our body as an object, without it being a negative experience, such as in self-monitoring, cultivating sensitivity or satisfying curiosity. Ingerslev (2013, 170–171, 177) has also pointed out that objectification of one’s body is involved in pathological as well as non-pathological cases, such as in the instrumental uses of one’s body (in acquiring new skills) and in experiencing being looked at in a social encounter among others. Thinkers such as Zeiler (2010, 15–22) and Toombs (1990, 132, 137) have outlined examples of this positive appearance, or ‘eu-appearance’. This is the idea that the body becomes visible in scenarios where it is the object of experience in a positive way, for example, during sexual intercourse, physical achievement or desired pregnancies – however, medical philosophy has engaged little with the concept of eu-appearance.

Both aspects of embodiment, namely, the experience of one’s body as an object (present body) and the experience of one’s body as a possibility for action in the world (absent body) are important for this article. While the concept of the absent or invisible body will allow us to explain why we are poor in adhering to health-promoting behaviours, the concept of the present or visible body will be useful in offering some suggestions for improving health-promoting behaviours. ⁱⁱⁱ

We begin this article by outlining the phenomenology of embodiment, defining our terms and moving on to engage with the absent body. We go on to discuss how a loss of this absence comes about and how this rupture might happen when people become aware of the risk or presence of a disease – e.g. during screening or diagnosis. As an extended example of the ideas presented, the article goes on to outline periodontitis – an oral disease that is eminently preventable but extremely common. Why are we so bad at preventing this disease? When we engage in health-promoting behaviours, we do so when we are not already ill with the disease we are preventing. As bodies recede into absence when in harmony, prevention will always have to be an afterthought – or an *accessory* – to the healthy individual. Notions of bodily visibility are explored and it is suggested that bodily absence – specifically in this article, absence of the mouth – is a plausible explanation for why we tend to be poor at adhering to oral hygiene regimes.

Adherence to preventative regimes, or health-promoting regimes, is difficult – both for the patients and practitioners. From dentists to physiotherapists to smoking cessation practitioners, the difficulty of achieving and maintaining good preventative practices amongst patients is shared. Though not our primary aim, in the final section of the article we give brief proposals for strategies for disease prevention based on our phenomenological viewpoint, through educational messages, novel technologies and medical interventions. It looks at the benefits of incorporating health-promoting behaviours into the habitual body and considers how it might be possible to harness bodily absence and presence in the context of carrying out these positive behaviours.

2. Phenomenology and Embodiment

Phenomenology is a philosophical approach that reveals the structure of our lived, embodied experience by way of first-person descriptive analysis. For the last half of the twentieth century, a significant cohort of thinkers have considered how we might use a phenomenological lens to look at illness and, by extension, medicine, forming a heterogeneous field of the phenomenology of medicine (Zaner 1981; Toombs 1990; 1987; Svenaeus 2009; 2019; Leder 1990; 2016; Carel 2016; 2013; Aho and Aho 2009; Slatman 2014; Malmqvist 2014). Although one cannot talk about a uniform approach within this field, these thinkers share a conviction that a phenomenological interpretation of illness is primarily an interpretation of bodily or embodied experience (Carel 2016; Toombs 1995; Leder 1990). Thus, the phenomenology of the body is inseparably linked to the phenomenology of illness and, as we will go on to show in this article, to the phenomenological account of disease prevention and health-promoting behaviours.

Starting from the works of Edmund Husserl (1952) and further developed in the works of Maurice Merleau-Ponty (1963; 2012), Jean-Paul Sartre (1943), Michel Henry (1965; 2015) and other thinkers, the themes of embodiment and the relationship between self, body and the world have occupied an important place in phenomenology.^{iv} Although these thinkers have emphasized different (though not necessarily mutually

exclusive) aspects of embodiment, as phenomenologists, all of them have started their analysis of the body with reference to direct, lived experience of the body. Thus theories they have formed about the body are based on experience of the lived body and not on already pre-existing metaphysical speculations about the nature of the body.

In analyzing the experience of one's body, Husserl (1952) introduced the well-known distinction between *Leib* (lived body) and *Körper* (object body). The former refers to the experience of the body-as-it-is-lived-through, as something *through* which we experience. The latter concerns the experience of our body as a physical, material, flesh-and-blood object, something we can experience for itself. According to Husserl (1952, 152–153, 159–160, 168–169), we experience our bodies both as sources of sensations, meaning and understanding (*Leib*) and as material objects located among other objects in the world (*Körper*). Most of the time these two dimensions of the body coexist – to use Husserl's example, I can experience my hand at the same time as touching subject, which feels, and touched object, which is felt (1952, 152). However, it is possible to experience the body (or its part) as an object, with the help of abstraction (Husserl 1952, 167–68). For example, when I am looking in a mirror and observing the image of my body; when I am waking up in the morning with a numb arm; when I am focusing on my body and its characteristics through the internalized gaze of an unfriendly other or, indeed, when I am ill (Leder 1990, 58). Traditionally, medicine has been concerned with *Körper* – considering biological, pathological and physiological elements of study as primary. The phenomenology of illness is more concerned with *Leib* and more recent medical education and practice has been making an attempt to incorporate this idea.

2a. *The Absent Body*

In ordinary circumstances, we don't experience our bodies as objects. We are instead directed to projects in the world *through* our bodies. The aforementioned example of listening to a saxophone riff applies here – we attend to the melodies and the music, not our acoustic apparatus. The lived body is thus an ecstatic body – that *from which* I perceive and act (Leder 1990, 58). Both Husserl (1952, 165–66) and Merleau-Ponty (2012, 84) have pointed out that the body opens up a world to us, itself remaining in the background. Merleau-Ponty described this aspect of embodiment with reference to a motor or original intentionality. He writes: "Consciousness is originarily not an 'I think that', but rather an 'I can'" (2012, 84). Through our lived body (through seeing, running, grasping, etc.) we are directed towards certain projects in the world. If these intentional actions are incorporated into one's habitual body, one does not need to 'think', in order to perform them (Merleau-Ponty 2012).

For example, in my habitual and quotidian life, I do not have to think about the way I am walking or how I form my mouth when I am speaking. I instead focus on possibilities in the world towards which I am directed: thinking about my destination, looking at my mobile phone or thinking about the content of my speech. This

perspectival nature of embodiment presupposes the absence, transparency or invisibility of the body. This is why Leder (1990, 26) says that when we are in a healthy and harmonious state of being we experience our body as absent. The concept of the body receding into absence, or invisibility (Dolezal 2010), has been explored by many phenomenological thinkers since, with specific interest in how the body becomes visible in times of disharmony, especially in the experience of illness (Zaner 1981; Leder 1990; Toombs 1990; Carel 2016).

2b. *The Present Body*

If we focus on the body, whether deliberately or not, the harmonious unity between the body and the world becomes disrupted, leading to the thematisation of the body as an object and to the rupture between the body and the world, expressed through the experience of the “I cannot”. To continue with our previous example: if the music we are listening to suddenly becomes very loud, we feel a stabbing pain in our ears and are forced to shift our attention from the character and constitution of the music to our painful body, which has now become present.

The body appears as an object of our experience also in non-pathological cases, indeed we may revel in our present body. These include cases of learning a new skill, consensual sexual encounters, philosophical reflection and the internalized gaze of the other, to name a few. Despite this, the pathological cases have been of more interest to the phenomenological literature. Experience of one’s body as an object becomes especially manifest within the medical setting in both experiencing illness and encountering medical professionals. Carel points out that in illness the objectness or materiality of the body comes to the fore; she writes:

The body as object takes precedence in the clinical context, and its foreignness is accentuated by the inaccessibility of some medical facts to the patient other than via a third-person report. In illness one’s body becomes an object in ways it would not otherwise have (2016, 221).

Such phenomenologists as Leder (1990, 92–99), Toombs (1990, 70) and Svenaeus (2009, 59–61) have indicated two sources of bodily objectification: the body itself and the internalized gaze of the other. In illness or medical encounters, my body appears as an object to me either because I perceive it through the internalized gaze of the judgmental other or because the body itself (sensations and emotions, unwanted physiological reactions or physical damages) demands my attention.^v

Leder (1990, 83–84; 96) described the objectification of one’s body brought on by the body itself as *dys-appearance* and the objectification which is brought on by the internalized gaze of the other as *social dys-appearance*.^{vi} Generally, the concept of *dys-appearance* signifies the fact that in some situations, including illness, the body appears as an explicit material object, rupturing the transparency of the lived body and its

harmonious unity with the self and the world (Leder 1990, 84). In pain, disability, illness, medical encounters and other instances, the body becomes present to one's awareness as an obstacle and limitation – it *dys-appears*. In the context of *intersubjective* encounters where the appearance and comportment of one's body are subject to the gaze of the other, the concepts of bodily visibility and invisibility are used (Dolezal 2010; 2016).

Examples of bodily *dys-appearance* can be found scattered abundantly throughout the phenomenological literature. A medical example encompassing both forms of *dys-appearances* can be found in the processes of screening and diagnosis (Svenaesus 2009, 63; Hofmann and Svenaesus 2018). In screening, we experience a rupture of bodily transparency even if we are not experiencing illness but instead become aware of our body as being *deemed* to have a pathology: "some part of the body or one's bodily functioning is brought into awareness and regarded (and judged) by the self or others" (Dolezal 2015, 569). In essence, regardless of whether or not we are experiencing physical symptoms, the act of attending a clinical setting where we are informed of the presence of a disease, pathology, risk factor or even genetic trait, can lead to a rupture of the transparency that bodily harmony affords us. This is important to realise because it is at this point when we begin to attend to ourselves as material, embedded in both the social and material world (and as such, vulnerable to it).

Quite often, this vulnerability can be associated with shame – *social dys-appearance* is closely connected to this affect (Dolezal 2016). Dolezal highlights that the intensity of shame is linked to one's "blameworthiness" in disease aetiology (2015, 572). It is less common with the experience of stochastic or genetic diseases when compared to those diseases that one might be personally responsible for – and in the case of some diseases – entirely responsible for.^{vii} Though shame is generally considered to be a negative affect – indeed, we almost always want to avoid it – Dolezal (2016) outlines how it can be considered to be extremely beneficial.^{viii} We see how shame, leading to a rupture of bodily invisibility and forcing bodily objectification, can act as an impetus for action and learning, shaping ourselves throughout life. In discussing skill acquisition, she notes: "[m]otivation to master the skill arises from wanting to avoid these negative feelings and to incur social approval" (2016, 42). This approval might also come from a respected healthcare practitioner.

As was noted, the concept of the *dys-appearance* of the body in disharmony has been of particular importance for phenomenologists of medicine in describing experience of illness and medical encounters. When we discuss *prevention* of diseases, however, we are rarely concerned with the body in disharmony. Why is this? Putting aside those examples of when we are ill and are engaged in behaviours to prevent the *worsening or recurrence* of our illness, the realm of prevention is concerned with those who are experiencing an asymptomatic life and, thus, absent bodies. This is irrespective of the presence of disease, for "everyday experience and not medical science has the final word in defining health and illness" (Svenaesus 2019, 464) and in health, the body largely remains absent.^{ix} Thus, one can experience one's body as absent not only when one is healthy, but also when a disease is present with no symptoms – termed pre-symptomatic. In

other words, experience of the absent body is compatible with the presence of disease, but it precludes the presence of illness. In conclusion, the poor adherence to health-promoting behaviours can be explained with reference to the fact that prevention of disease is generally pre-symptomatic and as such is located in the realm of the absent body.

This might seem like a trivial insight: we do not pay attention to our bodies when we are healthy. On one hand, it is. The task of phenomenology is precisely to make visible and explicit that which is the closest to us, namely, everyday experience. Phenomenology aspires to describe the experiential structures of everyday life, which largely remain invisible or unnoticed. On the other hand, this is not all that phenomenology does. It can offer us a theoretical framework for understanding the reason for certain behaviours. Through concepts such as absent body, present body, *dys-appearance*, *social dys-appearance* and *eu-appearance*, phenomenology provides the theoretical tools for understanding *why* we are bad at these health-promoting behaviours. By making explicit the structure of our embodied being-in-the-world, phenomenology offers an explanation of poor disease prevention that lies in the nature of our embodiment.

This is a unique answer to the question, because it shifts the focus from personal, cognitive factors (such as motivation, preferences, values and so forth) and external factors (economical and political, amongst others) to a deeper level of the universal nature of the embodied experience. Without diminishing the clear, practical importance of studying the former, the phenomenological approach adds to the discussion by exploring the latter. The insights we can gather from phenomenology can be used not only to inform novel strategies of disease prevention, but also to point out which of the already existing strategies could be the most effective.

Though this article posits that bodily absence or invisibility contribute to poor adherence to health-promoting behaviours, it does not imply that we should aim to do away with bodily absence entirely. That is to say, we do not claim that we should strive for a complete bodily presence, such that we always attend to our body for health-promotion purposes. Of course, a healthy life is not one where we are concerned with prevention in every waking second, however, precisely when the body must be the object of concern such that we engage with prevention, it is in a state of invisibility. The following section aims to contextualise the above with reference to one of the many ubiquitous diseases that are considered to be preventable: periodontitis.

3. Periodontitis

Periodontitis is a multifactorial, irreversible disease characterised by chronic inflammation of the gums (gingivae), leading to loss of bony support of the teeth. This, in turn, leads to movement, mobility and, eventually, loss of teeth (British Society of Periodontology 2016). It is part of a group of diseases called periodontal diseases. Gingivitis, the most common and reversible form of periodontal disease, is ubiquitous – it is present in nearly all adults across the world (Jin et al. 2016).^x Severe periodontitis, the most advanced form of periodontal disease, is the sixth most prevalent health condition globally – affecting just under three-quarters of a billion people (Peres et al. 2019; Kassebaum et al. 2014).

The mainstay for treatment and prevention of this condition is the same: reduction of plaque by way of high quality oral hygiene regimes.^{xi} Instead of prescribing drugs, the dentist will educate; instead of embarking on surgery, the dentist will motivate. There is no medication or surgery that will reverse or arrest periodontitis; its management is an ongoing preventative process.^{xii} Other conditions exist where health-promoting behaviours are extremely effective for prevention: type 2 diabetes (Goldberg 2006), smoking-related diseases, sexually-transmitted diseases and various cardiovascular diseases to name a few. Though they warrant further consideration, this article will concentrate on periodontitis and its prevention.

Recent calls have been made to refresh interest in oral disease prevention, particularly periodontal diseases and tooth decay (caries). They principally criticise the “treatment-dominated, high-technology” method of curative intervention, outlining that it cannot solve the oral disease burden (The Lancet 2019, 1; Peres et al. 2019). Fortunately, the majority of these oral diseases are largely preventable. A public health approach, with education and prevention at its core, must be implemented to prevent oral diseases from manifesting instead of attempting to stabilise and manage them when discovered in later stages and irreversible damage has been done. Discussion in the current philosophical literature has questioned the use of using classical medical definitions for such ubiquitous and eminently preventable diseases, nodding towards conceptualising them phenomenologically (Rakhra 2019). As an inherent part of dealing with the disease, this conceptualisation must also extend to the prevention and stabilisation of periodontitis.

To explain the contrast between the phenomenology of those classical medical conditions and periodontitis, take the experience of a chest infection. As it begins to develop, we feel run down, get headaches, start to cough and find ourselves short of breath. At these early stages, it is common to take some time out of our schedules to seek rest – we may stop smoking and drinking alcohol, engage in fewer activities and get more sleep. Indeed, we might find ourselves visiting the doctor in the quest for medication and reassurance. In contrast, as periodontitis begins to take hold, we are in the dark. Months and, commonly, years go by until we start noticing blood on our pillow or drifting of teeth. In the best case scenario, we will visit the dentist

on a usual check-up appointment. It would be highlighted to us that our gums are bleeding and what this means for our oral health. These illness experiences are clearly heterogenous.

In the early stages of periodontitis, the disease is biologically manifested through bleeding gums or inflammation of the gingivae, which can easily be detected in the clinic. As the disease progresses, these signs become symptoms and we start experiencing illness. For example, we might report bleeding from the mouth at unexpected times, gum or teeth pain or wobbly teeth. Until these later stages, we have almost no primary experience of periodontitis. When we do become aware of the presence of the disease and seek treatment – the point at which, from a phenomenological perspective, we talk about illness – the need to improve oral hygiene as the absolute baseline of treatment does not differ, though it will be augmented by clinical intervention to relieve pain or aid behaviour change.

Let us consider the most important health preventative behaviour for the prevention of periodontitis – a high-quality oral hygiene regime, i.e. a consistently clean (plaque-free) mouth (Lertpimonchai et al. 2017; Needleman, Nibali, and Di Iorio 2015; Axelsson, Nyström, and Lindhe 2004). Despite there being a relatively simple, non-invasive, cheap and accessible-at-home method to effectively prevent periodontitis, the disease is still overwhelmingly common. Even with the best efforts of the dental team, compliance to appropriate oral hygiene regimes after visiting a dentist can be as poor as 11% with best estimates at just half of patients – simple didactic messages do not stick (Wilson 1996; Nicholls 2006). Though we see nothing thus far in the phenomenological literature relating to prevention of disease, health-promoting behaviours and their poor adherence have been well-studied with reference to health psychology, behavioural psychology and lifestyle medicine. No novel theories have been developed for periodontitis specifically, save for the additional considerations of how dental anxiety might affect our willingness to engage with and attend dental clinics (Wilson 1996, 18).

There exist various theories: in lifestyle medicine, it has been suggested that we do not practice regular health-promoting behaviours because we do not share the same passions and values as the practitioner (Faries 2016, 322). The authors feel this is a misrepresentation, as we see time and again evidence in the empirical literature that patients have the *intention* to carry out health-promoting behaviours (Rhodes and de Bruijn 2013b, 299–305; Asimakopoulou and Daly 2009; Dumitrescu et al. 2011). In health and behavioural psychology, we can find discussion of the ‘intention-behaviour gap’: the finding that even those who intend to engage with certain behaviours, do not for a wide variety of idiosyncratic reasons. Meta-analyses find around half of ‘intenders’ do not engage with physical activity (Rhodes and de Bruijn 2013a, 305). Abundant in the literature are books and articles exploring attitudes to oral hygiene, why we do and do not change our health-promotion behaviours in the face of a periodontal disease diagnosis, how dentists might help improve adherence, what works and what does not (Soldani et al. 2018; Renz et al. 2007; Fardal 2006). Overviews of behaviour-change models, comparisons of their efficacy and suggestions for practice can be found (Nicholls 2006; Asimakopoulou and Daly 2009), however, what is forgotten and rarely discussed is the reason *why*

these issues exist in the first place. This is a long-standing unsolved puzzle for the dental world: why is a well-understood disease with simple, quick and highly-available methods of prevention, one of the most ubiquitous diseases in the world? As elucidated in the previous section, this article aims to shift the focus from cognitive and external factors (values, intentions, personal motivations, finances, access) to a deeper and more structural focus on the universal nature of our embodied experience.

We claim that bodily transparency – specifically, transparency of the mouth – is a plausible explanation. In health, we have seen that the body is not the thematic object of our experience. The body recedes into absence. Even if there are signs of periodontal disease, we do not attend to ourselves as ill or to our bodies as needing attention. If we take the above example of a chest infection, we commonly seek advice or treatment when we have early signs of the disease; when we start feeling ill. Indeed, this has become a major problem for the National Health Service (NHS) in England. The Royal College of General Practitioners (RCGP) has launched a public health campaign to *reduce* the volume of visitors to general practitioners for coughs and other very common illnesses (Royal College of General Practitioners 2017). No such campaigns exist to reduce the volume of patients visiting the dentist for bleeding gums and related symptoms.

From early in the phenomenological literature, we see that the mouth is located within a region that we ourselves cannot simply observe without the use of mirrors or other tools – Merleau-Ponty (1963, 213) states that “the body given to me by sight is broken at the shoulders [...] I will never see anything of all that.” We neither readily nor regularly observe the insides of our mouths; they are absent. We might experience a delicious taste or a cold drink but it is not the mouth or the tongue we experience but the sensations they afford us. Conversely, when we burn our palates or bite our tongues, we experience our oral apparatus for themselves; they are thematised as objects, they *dys-appear*. Like other parts of our body that we do not directly and regularly visualise, in health, the mouth is doubly out of us: not experienced and not observed.

The invisibility of the mouth is manifest clearly when we look at adherence to regimes after clinical visits. It is widely understood that oral hygiene instruction is a continuous process – there must be consistent and repeated work between practitioner and patient to achieve long-term and stable improvements (Nicholls 2006). Public health information and one-to-one advice result in changes to oral hygiene behaviours that do not last and must be reiterated at regular intervals for any meaningful improvements to be seen (Soldani et al. 2018; Madden 2014; Stewart and Wolfe 1989). The Lederian concepts of *dys-appearance* and *social dys-appearance* are manifest here (Leder 1990, 87) – they both result in a thematisation of the mouth as an explicit object towards which health-promoting behaviours should be directed. The screening, diagnosis and conversation in the clinic leads to a rupturing of bodily transparency, where the mouth becomes redefined as having frustrated the habitual body: “one is no longer seamlessly [...] in equilibrium with one’s surroundings” (Dolezal 2016, 28). We become acutely aware of that which was previously absent and attend to our mouths as explicit objects of our experience.

We can also become aware of mouths as a part of our embodied nature by way of *social dys-appearance* (Leder 1990, 87). How we experience our body arises from a combination of factors – importantly, the gaze of others; how I am seen affects how I see myself.^{xiii} Not only is some physical trait brought to my attention through the discovery of poor plaque control or a diagnosis of periodontitis but the body is thematised as lacking by the ostensibly helpful but objectifying gaze of the dentist. As Dolezal writes:

Like pain or illness, which likewise thematise the body, *social dys-appearance* is an uncomfortable and undesirable experiential state in which the body-subject is felt to be exposed, vulnerable, and ashamed. In order to avoid *social dys-appearance*, the subject seeks to behave within socially acceptable parameters and, in addition, to ensure that the body's physical aspect conforms to socially acceptable norms (Dolezal 2010, 360).

This thematisation goes some way to explaining changes to our health-promoting behaviours in the short-term, however, as stated above, these changes do not last.

Though diagnoses commonly result in us considering ourselves as ill, alienated or our bodies as thwarting our plans, this is likely to occur less with those eminently preventable and asymptomatic diseases, such as periodontitis. Interestingly, even those with late stage periodontitis, mobile teeth and multiple missing teeth rarely consider themselves ill. Even if diagnosis does not bring around a sense of illness, it may bring around a new vantage-point from which to view a bodily trait or pathology, or at least, reinforce a viewpoint that we know *we should have anyway* – i.e. maintaining a sufficient level of oral health-promoting behaviour.

This section has outlined the disease of periodontitis and employed it as an example of how the invisible body in health goes some way to explaining our poor adherence to health promotion behaviours. It was contrasted to a more classical illness, such as a chest infection. In a general sense: the notion that our quotidian experience is characterised by bodily absence is a phenomenological explanation for our poor prevention of preventable disease. It shows how, in the clinical environment, this bodily absence is temporarily lost through both *dys-appearance* and *social dys-appearance*; we experience our mouths as diseased and having disrupted the health equilibrium that we had previously held. We experience shame for having not performed to expected standards. As noted, periodontitis is an example of a range of preventable diseases that this phenomenological lens could be used for. It is important to understand this reason for preventable diseases' ubiquity if we are to improve our health and the health of our society. How could we achieve this? The following section provides some suggestions about how we may harness the above for improving health-promoting behaviours.

4. Harnessing Phenomenology for Prevention

Although phenomenology is a descriptive and not a prescriptive approach, the present analysis of how we engage with health-promoting behaviours and explanation of why we are bad at them, opens up a novel way to think about improving prevention of disease. The insights we gain from phenomenology are especially important in pointing out which of the already existing strategies of disease prevention could be the most effective ones. Thus, we maintain that the solution to improving disease prevention will emerge from multidisciplinary collaboration. In what follows, we briefly point to some of these possibilities of improvement, being aware of the fact that they are neither exhaustive nor conclusive.

4a. Incorporate health-promoting behaviours into the habitual body.

If health-promoting behaviours are incorporated into the habitual body, they are performed pre-reflectively or automatically, avoiding the necessity to focus on or thematise one's body in order to carry out specific health-promoting behaviours. One would not need to think about these behaviours, in order to perform them. However, it is unclear how we might achieve this for the entire gamut of preventable diseases that pose risks to our health. It would be necessary to consciously train oneself in order to perform these tasks many times, before it becomes incorporated as a part of the habitual body and no longer needs attention. This is likely to require implementation early in childhood, through education of parents and educational programs in early schooling (for example, regarding oral hygiene).

Numerous countries already employ this method, however, many people still do not brush their teeth regularly; we can see it is not an ideal solution. The problem with incorporating health-promoting behaviours into the habitual body lies exactly in the fact that the habitual body *is* absent body (Leder 1990, 32). That is, we need to pay attention to our body in order to engage in learning a habit but fail to do so, because of its transparent nature in health – with or without the presence of a disease. Here, the input of behavioural psychologists on how to successfully build a habit would be a good addition to phenomenological insights on disease prevention.

4b. Promoting dys-appearance of the absent body

As has been highlighted, *dys-appearance* and *social dys-appearance* can occur when we visit the clinic and find out about a pathology or disease that may or may not be manifest. With periodontitis and oral hygiene instructions, this disruption of the absent body leads to a tangible, though transient, improvement in oral health behaviours (Nicholls 2006; Wilson 1996; Soldani et al. 2018). A method of making the invisible body visible may be to increase the frequency of these visits, whether to a dentist, a smoking cessation service or a diabetic nurse practitioner.

A concern with this solution is twofold: firstly, it requires a huge financial and time investment for both ourselves and the healthcare practitioner. Secondly, precisely because bodily absence is the issue, it is not clear that attendance will be more reliable than adherence to health-promoting behaviours. A solution to these two problems might involve harnessing technology to deliver a set of messages at regular intervals or help us monitor our health (Hofmann and Svenaeus 2018, 7–8).

Without changing the frequency of the delivery of messages, improvement may be found in specifically promoting for *social dys-appearance* when delivering certain health messages, namely, people might be motivated to focus on their bodies (for example, brush their teeth regularly), because they want to avoid negative feelings of shame for not conforming to the dominant social norms. This is discussed by Dolezal (2010, 361–63) with reference to body modification. However, this strategy would have to be approached extremely delicately to ensure we achieve *social dys-appearance* for positive change and engagement with one's health-promoting behaviours whilst avoiding antagonising people, negatively impacting well-being. It must be remembered that the *social dys-appearance* of the mouth and teeth is closely connected to the prevailing social norms (including gender norms) of attractiveness and unattractiveness; desirability and undesirability; normality and abnormality. When these are internalized, it can be disabling for certain groups of society. One may perceive the promoted 'normal' behaviours (and consequent bodily states) as something unattainable, for example, reinforcing negative and unproductive heteronormative appearance stereotypes. A health message which equates healthy teeth with beauty and desirability may not only motivate an individual to adhere to oral health-promoting regimes, but also may promote a desire for an unattainable body image; unattainable either due to low income, age, genetic traits or simply due to a perpetual perception of imperfection. In turn, poorly devised messages may lead to experiences of anxiety, fear and the loss of control on the personal level and inequality and stigmatisation on the social level. Additionally, it has been suggested that top-down, "commercial discourses" may antagonise public empowerment and lead to victim-blaming (Holden 2019, 226–27).

The present article is primarily concerned with those who are poor at adhering to health-promoting regimes, however, it cannot be ignored that many people *do* adhere well and are successful at prevention. The concepts of absent and present body can also be helpful here, as good adherence to oral hygiene regimes may be explained with reference to successful incorporation of oral hygiene behaviours into the habitual body in youth, after a period of distinct illness (absent body), or as a result of pressure from prevailing social norms (present body). However, when the question shifts from theoretical explanation to individual motivations – why a particular individual does a good job at brushing her teeth – we need a multidisciplinary approach to combine phenomenological insights with the work done in other spheres, such as health and behavioural psychology and sociology and so forth.

5. Conclusion

This article used a phenomenological lens to show how we, as embodied beings, engage with health-promoting behaviours – specifically how we engage with oral hygiene regimes to prevent the development of periodontitis – and why we are not good at it. It begins by discussing the role phenomenology has played in conceptualising illness and outlines the importance of the notion of embodiment. Specifically, it draws a distinction between Husserl's *Leib* and *Körper* – ideas that highlight how our bodies are both material objects we can attend to (*Körper*) and something through which we have the ability of experiencing (*Leib*). It goes on to discuss how, despite being essential to (and for) our experiencing – the body is seldom the thematic object of our experience. During times of physical, mental and social harmony, we do not explicitly conceptualise ourselves as embodied and, as such, are not constantly attending to our bodies – the body is absent. The article suggests that, because the prevention of disease is generally pre-symptomatic, it is located in the realm of the absent body.

The experience of one's body is then further explored, focusing on situations when the body *does* become the primary object of our experience or when it *dys-appears*. Two sources of bodily *dys-appearance* are mentioned: illness and the (internalized) real or imagined gaze of the other. A medical screen or diagnosis was given as an example of the two. Whether or not we are experiencing symptoms, the act of attending a clinical setting where we are informed of the presence of a pathology, risk factor or even genetic trait, can lead to a rupture of the transparency that bodily harmony affords us. In these times, we attend to our bodies as material objects (*Körper*) that rupture our previously experienced equilibrium. Notions of *social dys-appearance* and shame were discussed, the central idea being that desire to restore the social harmony is what motivates us to engage with health-promoting behaviours for a time.

The article proceeds to paint periodontitis as an extended example of the above. We discuss how periodontitis is an incredibly prevalent yet eminently preventable disease that can be avoided through high-quality and consistent oral hygiene. The prevalence of this disease is testament to our poor ability to engage with health-promoting behaviours. We suggest that bodily absence – in the case of periodontitis the absence or transparency of the mouth – is a plausible explanation for why we are poor at adhering to health-promoting behaviours in the quest to prevent this disease. We proceed in discussing how a clinical encounter might urge us to attend to our bodies via its *dys-appearance* and *social dys-appearance*, forcing us to focus on our mouth as diseased and breaking the previously experienced bodily transparency. It is noted that periodontitis is simply one of many prevalent diseases, for which prevention may also be considered phenomenologically.

Though not the primary aim of the article, it draws to a close with brief suggestions for strategies of disease prevention, based on this phenomenological viewpoint. It looks at the benefits of incorporating health-promoting behaviours into the habitual body and considers how it might be possible to increase *dys-appearance* in the context of carrying out these positive behaviours. Further research that explores the link between the absent body and health-promoting behaviours would be welcomed, specifically in the applied sphere. Development of the ideas presented in this article and opening up a dialogue between phenomenology, health psychology and lifestyle medicine may provide future practitioners and policymakers with a novel way to think about improving prevention of disease and the wellbeing of their populations.

In this paper we employed the disease of periodontitis as an example of how the absent body in health helps to understand our poor adherence to health promoting behaviours. We claim that periodontitis is an example of a range of preventable diseases that this phenomenological lens could be used for. However, there might be some differences between various preventable diseases, which need to be addressed in the future. For example, there is a difference in what causes body to become present – it can be either the body itself (symptoms) or the Other (disease diagnosis given by the physician, for example). Periodontitis might be different from other preventable diseases, because it is likely that one will get a diagnosis, before getting any symptoms. Whether this cause has an impact on the success of adhering to health promoting behaviours would need to be studied with help of other disciplines.

6. References

- Aho, James, and Kevin Aho. 2009. *Body Matters: A Phenomenology of Sickness, Disease and Illness*. 1st ed. Lexington Books.
- Asimakopoulou, Koula, and Blánaid Daly. 2009. Adherence in Dental Settings. *Dental Update* 36 (10): 626–30. <https://doi.org/10.12968/denu.2009.36.10.626>.
- Axelsson, P., B. Nyström, and J. Lindhe. 2004. The Long-Term Effect of a Plaque Control Program on Tooth Mortality, Caries and Periodontal Disease in Adults: Results after 30 Years of Maintenance. *Journal of Clinical Periodontology* 31 (9): 749–57. <https://doi.org/10.1111/j.1600-051X.2004.00563.x>.
- Boorse, Christopher. 1997. A Rebuttal on Health. In *What Is Disease?*, edited by James M. Humber and Robert F. Almeder, 1st ed., 1–134. Biomedical Ethics Reviews. Totowa, NJ: Humana Press. <https://doi.org/10.1007/978-1-59259-451-1>.
- British Society of Periodontology. 2016. The Good Practitioner’s Guide to Periodontology - 3rd Edition. British Society of Periodontology. 2016. https://www.bsperio.org.uk/publications/good_practitioners_guide_2016.pdf?v=3.
- Carel, Havi. 2012. *Illness. Illness: The Cry of the Flesh*. Durham: Acumen Publishing Limited. <https://doi.org/10.1017/UPO9781844654215>.
- . 2013. Illness, Phenomenology, and Philosophical Method. *Theoretical Medicine and Bioethics* 34 (4): 345–57. <https://doi.org/10.1007/s11017-013-9265-1>.
- . 2016. *Phenomenology of Illness*. Oxford: Oxford University Press.
- Carman, Taylor. 1999. The Body in Husserl and Merleau-Ponty. *Philosophical Topics* 27 (2): 205–26. <https://doi.org/10.5840/philtopics199927210>.
- Chapple, Iain L. C., and Robert Genco. 2013. Diabetes and Periodontal Diseases: Consensus Report of the Joint EFP/AAP Workshop on Periodontitis and Systemic Diseases. *Journal of Clinical Periodontology* 40 (April): S106–12. <https://doi.org/10.1111/jcpe.12077>.
- Consedine, Nathan S., Yulia S. Krivoshekova, and Christine R. Harris. 2007. Bodily Embarrassment and Judgment Concern as Separable Factors in the Measurement of Medical Embarrassment: Psychometric Development and Links to Treatment-Seeking Outcomes. *British Journal of Health Psychology* 12 (3): 439–62. <https://doi.org/10.1348/135910706X118747>.
- Dolezal, Luna. 2010. The (In)Visible Body: Feminism, Phenomenology, and the Case of Cosmetic Surgery. *Hypatia* 25 (2): 357–75. <https://doi.org/10.1111/j.1527-2001.2009.01075.x>.

- . 2015. The Phenomenology of Shame in the Clinical Encounter. *Medicine, Health Care and Philosophy* 18 (4): 567–76. <https://doi.org/10.1007/s11019-015-9654-5>.
- . 2016. *The Body and Shame: Phenomenology, Feminism, and the Socially Shaped Body*. 1st ed. London: Lexington Books.
- Dumitrescu, Alexandrina L., Madhu Wagle, Beatrice C. Dogaru, and Bogdan Manolescu. 2011. Modeling the Theory of Planned Behavior for Intention to Improve Oral Health Behaviors: The Impact of Attitudes, Knowledge, and Current Behavior. *Journal of Oral Science* 53 (3): 369–77. <https://doi.org/10.2334/josnusd.53.369>.
- Fardal, Øystein. 2006. Interviews and Assessments of Returning Non-Compliant Periodontal Maintenance Patients. *Journal of Clinical Periodontology* 33 (3): 216–20. <https://doi.org/10.1111/j.1600-051X.2006.00891.x>.
- Faries, Mark D. 2016. Why We Don't "Just Do It": Understanding the Intention-Behavior Gap in Lifestyle Medicine. *American Journal of Lifestyle Medicine* 10 (5): 322–29. <https://doi.org/10.1177/1559827616638017>.
- Gao, Xiaoli, Edward Chin Man Lo, Shirley Ching Ching Kot, and Kevin Chi Wai Chan. 2014. Motivational Interviewing in Improving Oral Health: A Systematic Review of Randomized Controlled Trials. *Journal of Periodontology* 85 (3): 426–37. <https://doi.org/10.1902/jop.2013.130205>.
- Gimlin, Debra. 2006. The Absent Body Project: Cosmetic Surgery as a Response to Bodily Dysappearance. *Sociology* 40 (4): 699–716. <https://doi.org/10.1177/0038038506065156>.
- Goldberg, Ronald B. 2006. Lifestyle Interventions to Prevent Type 2 Diabetes. *The Lancet* 368 (9548): 1634–36. [https://doi.org/10.1016/S0140-6736\(06\)69676-1](https://doi.org/10.1016/S0140-6736(06)69676-1).
- Goldenberg, Maya J. 2010. Clinical Evidence and the Absent Body in Medical Phenomenology: On the Need for a New Phenomenology of Medicine. *International Journal of Feminist Approaches to Bioethics* 3 (1): 43–71. <https://doi.org/10.3138/ijfab.3.1.43>.
- Grünfelde, Mära. 2018. The Four Dimensions of Embodiment and the Experience of Illness. *AVANT. The Journal of the Philosophical-Interdisciplinary Vanguard* 9 (2): 107–27. <https://doi.org/10.26913/avant.2018.02.07>.
- Henry, Michel. 1965. *Philosophy and Phenomenology of the Body*. Translated by G Etzkorn. The Hague: Nijhoff.
- . 2015. *Incarnation: A Philosophy of Flesh*. Translated by Karl Hefty. Evanston: Northwestern University Press.

- Hofmann, Bjørn, and Fredrik Svenaeus. 2018. How Medical Technologies Shape the Experience of Illness. *Life Sciences, Society and Policy* 14 (1): 11. <https://doi.org/10.1186/s40504-018-0069-y>.
- Holden, A C L. 2019. Dentistry and Oral Health in Online Media Sources: A Discourse Analysis. *Community Dental Health* 36 (3): 221–28. https://doi.org/10.1922/CDH_4623Holden08.
- Husserl, Edmund. 1952. *Ideas Pertaining to a Pure Phenomenology and to a Phenomenological Philosophy Second Book: Studies in the Phenomenology of Constitution*. Translated by A Schuwerand and R Rojcewicz. Netherlands: Kluwer.
- Ingerslev, Line Ryberg. 2013. My Body as an Object: Self-Distance and Social Experience. *Phenomenology and the Cognitive Sciences* 12 (1): 163–78. <https://doi.org/10.1007/s11097-011-9228-9>.
- Jin, LJ, IB Lamster, JS Greenspan, NB Pitts, C Scully, and S Warnakulasuriya. 2016. Global Burden of Oral Diseases: Emerging Concepts, Management and Interplay with Systemic Health. *Oral Diseases* 22 (7): 609–19. <https://doi.org/10.1111/odi.12428>.
- Kassebaum, N.J., E. Bernabé, M. Dahiya, B. Bhandari, C.J.L. Murray, and W. Marcenes. 2014. Global Burden of Severe Periodontitis in 1990-2010. *Journal of Dental Research* 93 (11): 1045–53. <https://doi.org/10.1177/0022034514552491>.
- Kinane, D. F., and I. G. Chestnutt. 2000. Smoking and Periodontal Disease. *Critical Reviews in Oral Biology and Medicine*. <https://doi.org/10.1177/10454411000110030501>.
- Kirkengen, Anna Luise, and Elling Ulvestad. 2007. Heavy Burdens and Complex Disease – an Integrated Perspective. *Journal of the Norwegian Medical Association* 127 (24): 3228–31.
- Leder, Drew. 1990. *The Absent Body*. 2nd ed. University of Chicago Press.
- . 2016. The Experiential Paradoxes of Pain. *Journal of Medicine and Philosophy* 41 (5): 444–60. <https://doi.org/10.1093/jmp/jhw020>.
- Lertpimonchai, Attawood, Sasivimol Rattanasiri, Sakda Arj-Ong Vallibhakara, John Attia, and Ammarin Thakkinstian. 2017. The Association between Oral Hygiene and Periodontitis: A Systematic Review and Meta-Analysis. *International Dental Journal*. Wiley-Blackwell Publishing Ltd. <https://doi.org/10.1111/idj.12317>.
- Madden, Isobel M. 2014. Motivating Patients. *Primary Dental Journal* 3 (3): 30–33. <https://doi.org/10.1308/205016814812736790>.
- Malmqvist, Erik. 2014. Phenomenology, Cosmetic Surgery, and Complicity. In *Feminist Phenomenology and Medicine*, edited by Kristin Zeiler and Lisa Folkmarson Käll, 1st ed., 81–99.

Albany: State University of New York Press.

Martinez-Canut, Pedro, Amparo Lorca, and Rafael Magan. 1995. Smoking and Periodontal Disease Severity. *Journal of Clinical Periodontology* 22 (10): 743–49. <https://doi.org/10.1111/j.1600-051X.1995.tb00256.x>.

Merleau-Ponty, Maurice. 1963. *The Structure of Behaviour*, Trans. A. L. Fisher. Boston: Beacon Press.

———. 2012. *Phenomenology of Perception*. Translated by Donald A. Landes. 1st ed. New York: Routledge. <http://www.sciencemag.org/cgi/doi/10.1126/science.201.4359.899-a>.

Needleman, Ian, Luigi Nibali, and Anna Di Iorio. 2015. Professional Mechanical Plaque Removal for Prevention of Periodontal Diseases in Adults - Systematic Review Update. *Journal of Clinical Periodontology* 42 (S16): S12–35. <https://doi.org/10.1111/jcpe.12341>.

Nicholls, C. 2006. A Retrospective Study of Compliance (Adherence) with a Care Pathway in Periodontal Therapy in a Primary Care Setting. *British Dental Journal* 201 (11): 709–12. <https://doi.org/10.1038/sj.bdj.4814303>.

Peres, Marco A, Lorna M D Macpherson, Robert J Weyant, Blánaid Daly, Renato Venturelli, Manu R Mathur, Stefan Listl, et al. 2019. Oral Diseases: A Global Public Health Challenge. *The Lancet* 394 (10194): 249–60. [https://doi.org/10.1016/S0140-6736\(19\)31146-8](https://doi.org/10.1016/S0140-6736(19)31146-8).

Rakhra, Dylan. 2019. The Dental Anomaly: How and Why Dental Caries and Periodontitis Are Phenomenologically Atypical. *Philosophy, Ethics, and Humanities in Medicine* 14 (15). <https://doi.org/10.1186/s13010-019-0084-5>.

Renz, Anna, Mark Ide, Tim Newton, Peter Robinson, and Debbie Smith. 2007. Psychological Interventions to Improve Adherence to Oral Hygiene Instructions in Adults with Periodontal Diseases. In *Cochrane Database of Systematic Reviews*, edited by Anna Renz. Chichester, UK: John Wiley & Sons, Ltd. <https://doi.org/10.1002/14651858.CD005097.pub2>.

Rhodes, Ryan E., and Gert-Jan de Bruijn. 2013a. How Big Is the Physical Activity Intention-Behaviour Gap? A Meta-Analysis Using the Action Control Framework. *British Journal of Health Psychology* 18 (2): 296–309. <https://doi.org/10.1111/bjhp.12032>.

———. 2013b. How Big Is the Physical Activity Intention-Behaviour Gap? A Meta-Analysis Using the Action Control Framework. *British Journal of Health Psychology* 18 (2): 296–309. <https://doi.org/10.1111/bjhp.12032>.

Rousseau, Nikki, Jimmy Steele, Carl May, and Catherine Exley. 2014. “Your Whole Life Is Lived through Your Teeth”: Biographical Disruption and Experiences of Tooth Loss and Replacement. *Sociology*

of Health and Illness 36 (3): 462–76. <https://doi.org/10.1111/1467-9566.12080>.

Royal College of General Practitioners. 2017. “3 before GP”: New RCGP Mantra to Help Combat Winter Pressures in General Practice. 2017. <https://www.rcgp.org.uk/about-us/news/2017/december/3-before-gp-new-rcgp-mantra-to-help-combat-winter-pressures-in-general-practice.aspx>.

Sartre, Jean-Paul. 1943. *Being and Nothingness: An Essay on Phenomenological Ontology*. Translated by Hazel E Barnes. 2nd ed. London: Routledge.

Slatman, Jenny. 2014. *Our Strange Body: Philosophical Reflections on Identity and Medical Interventions*. Amsterdam: Amsterdam University Press.

Soldani, Francesca A, Thomas Lamont, Kate Jones, Linda Young, Tanya Walsh, Rizwana Lala, and Janet E Clarkson. 2018. One-to-One Oral Hygiene Advice Provided in a Dental Setting for Oral Health. *Cochrane Database of Systematic Reviews*, October. <https://doi.org/10.1002/14651858.CD007447.pub2>.

Stewart, James E., and Gary R. Wolfe. 1989. The Retention of Newly-Acquired Brushing and Flossing Skills. *Journal of Clinical Periodontology* 16 (5): 331–32. <https://doi.org/10.1111/j.1600-051X.1989.tb01664.x>.

Svenaesus, Fredrik. 2009. The Phenomenology of Falling Ill: An Explication, Critique and Improvement of Sartre’s Theory of Embodiment and Alienation. *Human Studies* 32 (1): 53–66. <https://doi.org/10.1007/s10746-009-9109-1>.

———. 2019. A Defense of the Phenomenological Account of Health and Illness. *The Journal of Medicine and Philosophy* 44 (4): 459–78. <https://doi.org/10.1093/jmp/jhz013>.

The Lancet. 2019. Oral Health at a Tipping Point. *The Lancet* 394 (10194): 188. [https://doi.org/10.1016/S0140-6736\(19\)31639-3](https://doi.org/10.1016/S0140-6736(19)31639-3).

Toombs, S. Kay. 1990. *The Meaning of Illness: A Phenomenological Approach to the Patient-Physician Relationship*. Rice University, Houston, TX.

———. 1995. The Lived Experience of Disability. *Human Studies*. <https://doi.org/10.1007/BF01322837>.

Toombs, S Kay. 1987. The Meaning of Illness : A Phenomenological Approach To The Patient-Physician Relationship. *The Journal of Medicine and Philosophy* 12 (1987): 219–40.

Weil, Jon. 2000. *Psychosocial Genetic Counseling*. New York: Oxford University Press Incorporated.

Wilson, Thomas G. 1996. Compliance and Its Role in Periodontal Therapy. *Periodontology 2000* 12 (1): 16–23. <https://doi.org/10.1111/j.1600-0757.1996.tb00075.x>.

Zaner, Richard M. 1981. *The Context of Self: A Phenomenological Inquiry Using Medicine as a Clue*. Ohio University Press.

Zeiler, Kristin. 2010. A Phenomenological Analysis of Bodily Self-Awareness in the Experience of Pain and Pleasure: On Dys-Appearance and Eu-Appearance. *Medicine, Health Care and Philosophy* 13 (4): 333–42. <https://doi.org/10.1007/s11019-010-9237-4>.

ⁱ In this article, prevention is used to refer to those diseases where there is good evidence to show that certain health-promoting behaviours may lead to avoiding manifestation of a disease, e.g. not smoking leading to a lower risk of lung cancer. It does not refer to prevention by way of avoiding trauma or where diseases are avoided or eradicated, for example, by way of mass vaccination.

ⁱⁱ Of course, we brush our teeth for more reasons than to simply avoid periodontitis – we do not want bad breath or for our teeth to decay or stain. However, for simplicity, we will just utilise periodontitis as a single sequela of poor oral hygiene.

ⁱⁱⁱ While Leder (1990) uses the concepts absent and present body, in the context of *social dys-appearance* where the visibility of the body comes to the fore, feminist phenomenologists have tended to use the concepts of bodily invisibility and visibility (Dolezal 2010).

^{iv} See (Carman 1999) for an exploration of the body in the works of Husserl and Merleau-Ponty.

^v Indeed, there has been discussion that for some groups of people, such as women, the absent body is an infrequent state. The rupture of bodily absence, or invisibility, has been explored in the analysis of cosmetic surgery, regarding the source of the desire for aesthetic changes, see (Dolezal 2010; Gimlin 2006; Malmqvist 2014) for further discussion of the topic.

^{vi} Though *dys-appearance* is a homophone of disappearance, its meaning is almost opposite. Leder (1990, 83–84) derives the term from ‘dys’ (as in dysfunction) and signifies appearance *due to* dysfunction.

^{vii} It is of great importance to clarify that genetic diseases are not without shame in different ways. For example, there may be shame involved in the passing of genetic mutations on one’s children or having loved ones led to deal with inevitable changes to the ill person. See (Weil 2000, 19–23, 48) for further on this topic.

^{viii} Though it is not the aim of this article to explore this idea, it has been suggested that shame leads to clinical avoidance – see (Consedine, Krivoshekova, and Harris 2007). Further work to explore the contribution shame provides to clinical avoidance and anxiety would be welcomed.

^{ix} In using the term ‘illness’ we are referring to “the experiences of the person being ill, in contrast to the term ‘disease’, which [...] means a biological process or state of the body that tends to (but does not always, at least immediately) cause the suffering of illness” (Svenaesus 2009, 54). See also (Rakhra 2019, 2–3) for clarification on this distinction situated in a context of dental diseases.

^x Given the ubiquity of periodontal diseases, one might question this group of diseases as being diseases. See (Rakhra 2019; Boorse 1997) for discussion on this topic.

^{xi} It is worth noting that, though poor oral hygiene is a necessary condition for periodontitis, the extent and speed of the disease can be modified by our age and other systemic factors, such as smoking, diabetes and some more transient systemic changes, such as pregnancy (Kinane and Chestnutt 2000; Martinez-Canut, Lorca, and Magan 1995; Chapple and Genco 2013).

^{xii} It has not escaped our attention that if a disease is treated with medication, for example, we must also adhere to taking the drugs, turning up for appointments and so on. However, this is not considered health-promoting behaviour in the preventative sense as it is a change in a very specific environment that leads to the treatment of a symptomatic pathology. One’s body is likely to have *dys-appeared* and, as such, falls outside of the scope of this article.

^{xiii} Though, in the case of the dentist, the gaze is actual and present, another human (or non-human) presence is not needed for *social dys-appearance* to occur. Indeed, how we perceive others to perceive us is fundamental in our conceptualisation of ourselves. See (Sartre 1943; Toombs 1995; Gimlin 2006; Rousseau et al. 2014) amongst others.