# Theoretical Ideas about the Gender Gap in <br> Life Expectancy in Austria 

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#### Abstract

Differences in the life expectancy of men and women are a well-known fact. Though several theories take into account the wide range of factors underlying this phenomenon, they can only partly explain it. To get a deeper understanding of these issues, we use a qualitative approach to study this topic from another point of view. Therefore expert interviews with physicians and gender medicine researchers are conducted to gain insights about the health lifestyle of men and women that may reveal hypotheses why the gender gap in mortality is narrowing. The study is guided by the Grounded Theory methodology and based on our empirical findings, and our paper concentrates on ideas which will provide more insight into the actual theoretical debate about the gender gap in life expectancy. The theories bear in mind that apart from biological factors, behavioural factors are strongly connected to the gender gap in the mortality issue. Men and women tend to behave differently and their behaviour is linked to social norms and expectations. They have a different understanding of illness and behave differently with regard to seeing doctors. This paper examines the behavioural factors that are linked to the gender gap in mortality phenomenon and connects theoretical implications with the findings of our own research.


## Introduction

It is a common fact that women live longer than men (e.g. Case and Paxson 2005; Luy 2003). This phenomenon can be found in all developed countries and there has been a large amount of research about its underlying determinants.

This key issue of differential mortality research by gender is documented in a large number of publications (e.g., Stolnitz 1956; Retherford 1975; Lopez 1983; United Nations 1988; Waldron 2000; Vallin 2006; Trovato and Heyden 2006).

One of the main conclusions of research about this topic is the fact that, apart from those aged 0 to 1 , it is the age group 50 to 80 that contributes the largest share to the overall gender gap in life expectancy, i.e., in this group, female superiority is highest-a fact that makes this age group all the more important, since it not only determines the magnitude but also the dynamics of the gender gap in life expectancy. There has been a huge quantity of interdisciplinary research on this topic and the popular scientific interest is high. In medical research, the young discipline of gender medicine is gaining popularity and determines in detail the biologically related facts why women live longer than men. However, the previous trend that the gender gap in life expectancy between women and men was ever widening came to a halt during the 1970s/1980s and has started to decrease ever since (Luy and Zielonke 2007).

Based on this knowledge our overall research question for this project is the following: Why do women live longer than men, and why is this gender gap in life expectancy narrowing?

As there are rather few studies about mortality differences in Austria we want to contribute to that specific topic by giving insights into the situation in this country. Furthermore there are many different explanations of why women live longer than men and they vary between disciplines and empirical outcomes. To gain new insights into the health perception and behaviour we want to offer theoretical ideas regarding non-biological factors to explain parts of the gender gap in life expectancy by considering the knowledge of physicians/general practitioners (GPs). Hypotheses were developed based on qualitative interviews with Vienna-based physicians as well as experts in the field of gender specific medicine in Vienna. The interviews reveal what they know about the causes underlying gender-specific mortality differences and detect the implicit role of gender-specific health and morbidity structures.

The paper starts with theoretical considerations before describing the qualitative approach in detail. After that the theoretical model that was developed during the analysis is illustrated on the basis of one main category. The final discussion part relates the empirical findings with the previous theoretical considerations.

## Theoretical considerations

After World War II the gender gap in mortality began to widen not only in Austria but in most industrialised countries (Luy 2003). However, since 1980 this gender gap has now slowly been declining (Luy 2002). In developed countries, mortality during the first 50 years of life is low and shows only moderate differentials by sex (Buettner

1995; United Nations Secretariat 1988). The age group 50-80 accounts for more than half of the total gender difference in life expectancy at birth (Luy and Zielonke 2007).

Theories identify three areas assumed to be influencing gender-specific survival. Apart from the biological factors, environmental factors as well as behavioural factors are named. Luy (2003) points out that behavioural factors are most likely the major reason why sex differences in mortality have widened. In this article we want to focus on the behavioural factors that influence mortality. Men are described to live more dangerous lives, to do more dangerous work and to be exposed to more stress. Women on the other hand seem to consult their physicians more often than men which gives them the advantage of discovering illness earlier (Luy 2003; Jenkins 1976).

Christensen (2008) also detected different factors concerning gender-specific differences. There are "biological risks, risks acquired through social roles and behaviours, illness behaviour, health reporting behaviour, physicians' diagnostic patterns and differential health care access, treatment, and use" (Christensen 2008: 1578). These biological risks are the differences between men and women when it comes to hormones, genetics and the immune system. Especially estrogens are assumed to be a protective factor in favour of women regarding cardiovascular diseases. Acquired risks include all the factors which dominate the social surroundings, such as socio-economic and occupational status etc. However, health behaviour can also be part of acquired risks, in the form of smoking, alcohol consumption, nutrition and physical activity habits. How women and men behave when they are ill can be different too. And what health means to women may be different to the health perception of men. Women tend to define wellbeing as an important factor of health whereas men define health mainly through the existence or non-existence of illness, respectively (Christensen 2008).

The theory of "individual freedoms" distinguishes health behaviour into two parts: "negative freedoms" want to convert wellbeing in short-termed effects while "positive freedoms" are reasonably oriented towards a long-term effect. "Positive freedoms" are ascribed to women but the concept is culturally and historically affected (Johansson 1991; Dasgupta 1990; Luy 2002). Since "negative freedoms" can provide a short-term energy boost the "positive freedoms strategy" has reduced the mortality risk in upper stages of life. Since these degrees of freedom and the changing disease environments the authors argue that it is impossible to predict how gender-specific mortality differences will develop. This theory belongs to lifestyle research and is highly connected to socio-economic principles.

Women seem to deal with stress in ways different from men (Waldron 1985). Also with regard to stress, the theory of socio-economic stress exposure claims that a certain stress type, described as the "Type A" behaviour, ${ }^{1}$ is related to ischemic heart diseases and it was further discussed that coronary heart diseases are assumed to be linked to different social and occupational stress factors which affect men more often (Jenkins 1976; Luy 2002).

[^0]Lüschen et al. (1994) distinguish three health-related lifestyles: The group of interventionists (Type 1) acts very health-consciously, often taking vitamins and doing exercise. The health practitioners (Type 2) lead a healthy lifestyle as well because they smoke less and practise sports a lot. They eat more than average but are considered to have a healthier lifestyle than the interventionists. The health nihilists (Type 3) have unhealthy eating habits, hardly ever indulge in physical exercises and often drink alcohol and smoke (Hradil 2005). Type 1 is found disproportionately more often in women than in men. In Type 2 female representation is higher than average compared to men and the Type 3 health lifestyle is mostly associated with men (Lüschen and Niemann 1995; Hradil 2005).

Other ideas focus on the fact that behaviour is assumed to be connected with social norms, which are different in relation to gender. Waldron (1985) maintains that women might respond earlier to symptoms than males and more often make use of the available offers in preventive medical care. Traditional gender roles favour rather unhealthy and risky behaviour for males and a more cautious and preventive conduct for females. However, the author mentions that the connections between these phenomena need to be more clarified (Waldron 1985).

The behaviour that leads to a higher mortality for males was and still is socially connected with social norms concerning appropriate behaviour by gender. Women seem to have a greater access to social support, they have a different response to stress like and they are more likely to take psychotropic drugs whereas males more often drink alcohol. The traditional male roles support rather unhealthy and risky behaviours for males and preventive ones for females. However these connections need to be more clarified and also how the mechanisms contribute to the phenomena (Waldron 1985).

A lot of research has been done about smoking behaviour and how it affects mortality differences of men and women but although it is more accepted for women to smoke nowadays, the knowledge of the dangerous effects of smoking does not have severe effects on smoking behaviour (Waldron 1985). It was shown that due to the adaptation of the social status women today have a higher workforce participation and therefore tend to smoke more often which results in higher female mortality. This may contribute to the narrowing gender gap in mortality (Nathanson 1995; Waldron 1985). Reasons why the gender gap may be narrowing are expressed in smoking behaviour that women have adopted during the last decades (Luy 2003).

In a study focusing on monks, Luy (2003) found that the survival condition of men in the German general population differs from that of monks due to their different lifestyle. Monks live several years longer on average than other males and the gender gap in mortality between nuns and monks is not as large as in the usual population. This again points in the direction that not so much environmental but behavioural factors are important when talking about mortality.

All these studies and assumptions can only explain part of the gender gap in mortality. We want to focus later on a more detailed picture of the factors that may lead to this phenomenon.

## Methodological approach

## Qualitative expert interviews

Since our aim was to gain a broad understanding of morbidity and health behaviour, we conducted expert interviews with physicians. By these interviews we wanted to figure out how doctors who work with middle-aged and elderly people every day and often monitor their health condition, illnesses and convalescence over considerable periods of time judge the issue of gender, health, and mortality. We assume that based on their many years of observations, physicians have drawn their own conclusions about the connection between gender and health.

Expert interviews are a proper method for the reconstruction of complex experience and knowledge consistency and are used when the research interest has a focus on decisions maxims, experiential knowledge, rules for action routines and knowledge relying on systematic problems, which can be mentioned explicitly or implicitly (Nagel and Meuser 1997). The guideline consists of open questions which should stimulate narration. After an introductory question the topics of the interview concentrate on health behaviour, age-specific questions, morbidity and mortality and in specific the gender gap in mortality. The interviews obtain knowledge on structural and systemic influences and gender specific implications.

## Sampling

Throughout this study we use theoretical sampling which was invented by Glaser and Strauss (1967) and is based on theoretical considerations which guide the sampling process during the whole research. That means that new interview partners are chosen because of theoretical considerations.

The theory which is going to be developed from the data material is the reference point for considering how promising the next case will be and how relevant it will be for the development of the theory (Flick 2006). During the research process it has to be decided when the theory reaches a point where the integration of new cases is no longer going to produce further findings anymore. Glaser and Strauss (1967) define this as the "theoretical saturation": "The criterion for judging when to stop sampling the different groups pertinent to a category is the category's theoretical saturation. Saturation means that no additional data are being found whereby the sociologist can develop properties of the category" (Glaser and Strauss 1967: 61).

Until now we have conducted 21 interviews- 16 with general practitioners and five with gender-medicine researchers. The interviews lasted between 15 minutes and $1 \mathrm{~h} 40^{\prime}$, and currently there are ten men and eleven women in the sample. Eleven physicians have health prevention checkups in their scope of service and two GPs also work as public health officers and medical examiners. Other specialisations of the physicians include AIDS advisories, help related to addiction problems, physical exercise counselling as well as diabetes and obesity prevention service. The working lifetime of the medical doctors is between 5 and 31 years. With this sample we want to catch different perspectives of our issue. We used snowball sampling to identify
our participants. Contact information on medical doctors was obtained via the Ärztekammer ${ }^{2}$ website and through personal contact.

## Analysis

Throughout our study we use the methodological approach of the Grounded Theory. Hypotheses are developed when comparing on a case-by-case basis and these hypotheses influence the collection of new data. It is not a linear but a circular process where the different stages of the analyses revolve around each other. Therefore it is a combination of sampling, collecting data, coding the data and developing hypotheses so that the collection of new data can be planned (Corbin and Strauss 1990).

The basic outcomes of the analysis are concepts developed by comparing incidents and events and serving as indicators of phenomena (Corbin and Strauss 1990). The coding paradigm as suggested by Strauss (1998) concentrates on the following factors: conditions, interaction among the actors, strategies and tactics and consequences.

The first step of the analysis is the open-coding stage where the transcripts are analysed sequence-by-sequence until the data offer sufficient conceptualisation. The second step is axial coding where categories are linked to their subcategories and the occurring relationships are studied against data. The last step consists in selective coding and at this stage the categories are arranged around the core category. The core category stands for the central phenomenon of the study. And the more the concepts and the core category range on an abstract level, the wider the theory's applicability (Corbin and Strauss 1990).

Throughout this whole research it is important to concentrate on the circular process where data are collected, categories developed, changed and compared to other categories so as to have the developing theory gradually emerge.

[^1]
## Our theoretical model

Figure 1 shows one important main category namely "perceived gender roles". This category consists of three sub-categories and their specific characteristics.

Figure 1: Perceived gender roles/gender identity

## Perceived gender roles/ Gender identity

| Attributes |
| :---: |
| Conscientiousness |
| Femininity/ <br> Masculinity |
| Inhibition threshold |
| Resilience |
| Instinct |
| Hierarchical stress |

Behavioural pattern
Communication as key skill


Body perception


Movement as daily routine

Socialisation

## Generation change

Health behaviour at older ages

> Lifestyle adjustment


Health as commodity

Identification

Responsibility

## Perceived gender roles

Surprisingly many physicians do not realise that gender influences health behaviour. In the interviews, they did not refer to any differences in behaviour by men and women. Not all medical practitioners saw gender as an element that distinguishes their clients. However, there were also several interview partners who spoke about different experiences with their patients determined by gender. We will analyse the perceived gender roles that were described by physicians in Vienna. Some of them spoke about differences by gender without being directly asked, others had to be asked explicitly about perceived differences. We distinguish three categories: (1) attributes, (2) behavioural pattern and (3) generation change. We will discuss these categories in detail below.

## Attributes

Patients were ascribed various kinds of attributes, some of which were very often connected with gender. We will focus now on the category "attributes" and how it appeared in our data. Women in general are described as more
"conscientious" compared to men. Health is valued by women more than by men, at least it is not taken for granted. Women see their health situation as important and they regularly turn up at their physicians. Men in comparison do not consider their health that serious and quite often ignore symptoms. However, it is not only that women turn up more regularly for checkups, they also show a better compliance and are more conscientious regarding the adherence to prescribed therapies.

Women are tougher in that respect, they tend to go to the doctor more regularly,
and maybe they are also a bit more consistent in doing what they are told.
Women are more consistent and they are described as being more vigorous when it comes to following the advice of their doctors. Furthermore, women more often go to preventive medical checkups as well as other services that are beneficial for their health situation. The respondents argued that men do not think about their health as much as women. Problems like high blood pressure will be discovered later by men and/or they will not deal with it instantly. When illnesses are discovered later, individuals have less time to react. Women are described as acting responsibly, they know when their last checkup was and they contact their doctors to make appointments for the next medical examination. They are described as being active regarding their health situation. Men on the other hand are seen as rather passive and only react when someone reminds them of seeing their doctor. They rarely take the initiative on their own.
> that they really keep their appointments in mind and say, Okay, now it's been twelve months, so I'm coming back for a new one. [...] With men it is rather that I tell them - when I happen to see them in my office - What's up, shouldn't we have our next checkup? Yeah sure, let's have one. But they do not come on their own.

General practitioners in Vienna realise that their female patients are to some extent more conscientious. This is not a theoretical assumption but rather an experience they have made over the years.

Just take a look how many men are waiting outside: none at all. I think women in general, and there's no doubt about this, pay more attention to their health than men, [and] they go to the doctor more often.

Women more often than men perceive their health as something that needs to be cared for. Some practitioners see this behaviour as an important reason to explain part of the gender gap in mortality. As we will point out later in detail, women do not only feel responsible for their own but also for their partners' behaviour. Men seem to set their own responsibility aside, counting on their partners to care for them as well. Having a partner was described mainly as a positive effect on the health situation of men. We will return to this point later. On the other hand women were sometimes described as being overly worried about their health; thus it was said that they already see a physician upon feeling any sort of pain.

## Some women simply come with the most minor complaint, in some cases this is

 bordering on hypochondria.This behaviour was criticised and was not regarded as healthy behaviour. On the other hand, listening to oneself and caring about one's body by following the instinct was described as something that makes life more valuable.

However, in most cases it was seen as very positive that women in general go to see the doctor rather soon. One explanation that GPs have for this different behaviour is that women seem to have a lower inhibition threshold.

> that women go to the doctor more easily, that they maybe have, er, a lower tolerance threshold.

No matter if they talked about medical exams or about other problems that occurred and needed to be solved-it was argued that this behaviour is connected with the fact that women learn rather early in life that a routine checkups are something normal which should be taken seriously. Another factor is that women in our society are also mainly responsible for the health and the care for the children. They already need to go to regular checkups during pregnancy, and later it is mainly women who accompany their children when going to the physician. This is likely to help them overcome any inhibitions because they are used to such visits: when people are used to a common behaviour they will be able to cope with their inhibitions more easily.
that women, through giving birth and also later with the children, well, go to the
doctor more often, because maybe the inhibitions are not as high ...
Having an understanding for health and caring for one's own health is here connected with having children and taking over responsibility and thus getting used to seeing a physician.

Both genders were described as still connected with traditional values. In the category " $\underline{\text { femininity/masculinity" we describe the fact that men and women are seen as still }}$ acting rather traditionally. Thus one attribute that was connected with male patients was the fact that men try to behave in a dominant way.

> there's still this old myth of the hero, and so the ruinous lifestyle is considered as a male thing, also in their own self-perception.

To be a hero and to live without considering risks and not to take care of one's health is connected with the image of being a real man. Several interview partners referred to this phenomenon. The consequence is that men live a more dangerous life because this is associated with their understanding of their gender. Especially tobacco and alcohol use were related with men. This behaviour is still connected with "real men". To be strong and to be able to work under pressure is another thing that was seen as rather masculine.

He took off like an arrow, like the real macho thing, right off. Full speed, ready to take on anything at full throttle, wham-blam, and then suddenly they lose their breath and fall flat on their face ...

Males are connected to hard work and if they do their work not only fast but also with a lot of power they are considered to be masculine. To be powerful means to show no weakness-and seeing a physician is seen as such a weakness.
it's almost a little like being embarrassed to go to the doctor because that means showing weakness in a way ...

When one wants to be considered powerful, any kind of weakness has to be avoided. Men very often feel responsible to care for their families financially and having to see the doctor would create the feeling of weakness. Because of such stereotypes it is more difficult for men to accept weak points, so they tend to point out that everything is fine. It was said that especially when man have the feeling that everything is all right and normal it is even more difficult to motivate them to go to the physician. Some describe this behaviour as being in "men's nature".

Maybe it is just in the nature of man that he thinks, Aw shucks, I'm okay anyway, so why should I go there and have them check me out?

This was mentioned as a very important reason why men go to the doctor so rarely. This holds true for regular checkups but also when talking about real illness, i.e. when people already feel that something is not quite as it should be. Here as well, the dominant male behaviour is to ignore the symptoms and to be strong.

> When men come in I mostly say something like, Well well, why didn't you come to see me two or three days ago already, or better even last week?

The issue of course is that the sooner a disease is cured the easier the patient will get healthy again. When ignoring one's own health situation for a longer period of time, more serious problems can occur. The role of a man is dominated by a strong and powerful gender image. Having feelings was said to be highly connected with femininity and it was mentioned that many men try not to get associated with these attitudes.

So this certainly also has sociopolitical [...] reasons, and reasons in upbringing. That, well, men are the strong guys, in a manner of speaking, and therefore don't need any doctor, and this is certainly a result of upbringing, the male role model ...

The opposite of this perceived behaviour was connected with emotions and femininity. Women are described as being rather emotional in a very positive way. Their sensitiveness for their body and their feelings are described as healthy.

Women have more access to their emotionality. And so they probably tend to reflect more and just do more for their own mental hygiene. For a man, it is not very chic to talk about feelings.

Having feelings and talking about them is linked with femininity, and both attitudes are described as having a positive effect on the health status. When someone is convinced that his or her behaviour has a positive effect for the personal wellbeing than even unhealthy actions can be good for health.

The highest inner authority for me is the psyche, that means you may even do something that's physically unhealthy as long as you can say it's good for the soul. And I think that women are a lot better in this, because they're not so much determined in their role image. A woman is allowed to have feelings, but a man-this is the classical role model-rather not.

To reflect not only one's own behaviour but also one's feelings is a strategy to heal traumas. Based on their experience, physicians tell that women more often talk directly about feelings and their wellbeing. Men on the other hand have difficulties in dealing with their emotions so they tend to ignore and forget their situation. Today it is undisputable that things people experience have an effect on their health. When someone is always under stress or has to cope with too much sorrow the results for health will sooner or later be negative. The advantage which is described below by the interview partners is that women in relation to men realise and reflect their feelings and talk about them, which is already a strategy to better deal with them.

> I am talking about the, well, the mental barrier to let it out and to show itwomen are much better at this.

Showing others their weak points is described as extremely difficult for men in our society. Women are very concerned with their mental state, taking care of their own feelings, and this helps them to realise when something is different, which then provokes a reaction more easily.

They are very good in sensing small complaints and they immediately notice when something is different from before, this feeling of, It never was like that.

Because women tend to listen to their own bodies more they realise a lot sooner when something is different. The first step is realising that things are other than before, which is the precondition for beginning to change something about it.

Compared to men, women are described to have a better "resilience". Women hold more responsibilities and in most of the cases have to shoulder their paid work as well as household and family chores. It is more a question of possibility when women can take a rest and relax. However, as they are more resistant they can better cope with stress. They are also described as being able to manage their resources and their energy in a more efficient way.

Well, when talking about stress I think women generally can take more stress. They are better equipped to handle it, and another thing is that women are better in rationing their energy.

Several interview partners pointed out that women are more robust than men and more efficient in their use of energy and this can be seen as very important reason why they live longer.

Another explanation was that men face a different type of "hierarchical stress" compared to women which was mentioned as one theoretical reason for their dying earlier.

> My explanation would be that there may really be a different of behaving under stress, as one has seen in monks' convents, that hierarchical behaviour of men is indeed more stress-oriented.

Because of this special form of stress males may have a disadvantage that can result in a health situation which is bad in the long run.

The gender role of women is strongly connected with taking care and being a mother. They care for the entire family as well as for themselves. This was often described as a behaviour that is normal in the sense that women "follow their instinct". Because women can trust their instincts they are seen as behaving more naturally.

> Even women who place extreme importance on outer appearances actually have a relatively reasonable and instinctive relation to their health and their body. This instinctless, almost communist approach to the body is much more typical for men.

This last remark made particular reference to the young generation. Males in general were described as rather egoistic and focused on their needs and desires. When they start to concentrate on any one thing they were said to often exaggerate it. Some young men were described as extremely focused on their own body. This was seen as too extreme and not healthy anymore, as the instinctive and normal approach is lost.

> So these blokes are such narcissists that the mind boggles-they are exclusively concerned with their body and their health. This is far beyond a way of life, this is their only goal in life, their sole purpose: their fitness and their body shaves, unbelievable!

In general women are described as more careful about their health, in the sense that they deal with health issues in a better way. The gender role of women is more often connected with a healthy lifestyle than the male role. This makes it easier for women to deal with their body. Gender roles also have a direct effect on behaviour and habits. We will discuss this issue now in detail.

## Behavioural pattern

The category "behavioural pattern" also contains elements that are connected with gender and how it affects the behaviour in different situations. The interviewed physicians said that they saw different behaviours regarding women and men. One very important argument is that women are seen to have the "key skill of communication".
that women somehow are in general more communicating and mostly just quicker in getting advice or wanting to share ideas. So that one finds out about a few problems maybe ...

Because of this skill women simply realise their health problems sooner which gives them a possible advantage regarding their healing process. They do not only talk about their problems with the doctor but also with people from their social network and then they realise that they should take care. It is natural for women to talk about health issues and as we have pointed out women in general are more used to going to check ups which of course has an impact on their further health behaviour.

By way of the mammography they are then sitting in my office, and there's always this typical and-what-else-might-be-a-wise-thing-to-do-while-at-thedoctor conversation with women.

What there is to do is often highly dependent on the opportunity one perceives. How much information someone obtains depends a lot on whether s/he talks about it. On the other hand males are described as rather ignorant when it comes to talking about their health.
... sometimes comes instead of her husband, and then she might say, Look, I'm sending him here in the afternoon, and he's got this and that and stuff, but he's probably not gonna tell you any of that, so I'm telling you.

Here we see again that women take care of their partners, but more than that, they also communicate in their stead of them-to make sure that the male patient receives optimum treatment. While men mainly want to get objective information from the physician, women tend to talk about their issues in very many ways.

That men are more interested in getting pseudo-factual or really factual information [while] women are more into talking with other people about it.

In the literature it is very often stated that the service offered to women is worse than that to men. Women are asked fewer questions and more often are given incorrect diagnoses (see e.g. Adams et al. 2008; Bönte et al. 2007). In our research the physicians remarked that women's communication skills have a positive effect on their health situation because they describe their problems and symptoms better than males. They realise problems earlier and talk about them in more detail while their feelings guide their narration. They are more meticulous when it comes to describing their symptoms.

> Finding what's wrong with a man is tremendously difficult-to begin with, I sometimes can't even be sure if the bloke has a kidney problem or if it's a slipped disc because he isn't even able to tell me what his pee is like. That's just the way it is. With a woman, you hardly ever have that problem.

Women can explain in detail what their state of health is like. They simply observe in more detail what is going on and how their body reacts. In the perception of the Vienna physicians there was either no difference between women and men in communicating health problems or they saw an advantage for the women. Interestingly enough, female physicians do observe advantages in the communication skills of female patients whereas their male colleagues tended to say that there were no differences at all. Adams et al. (2008) found that female doctors in general focus more on the verbal histories of their patients. This might be a reason why they detect a difference in the communication of women and men.

The category "responsibility for the family" was connected with the female gender habit as well. We already said that women mostly are responsible for the family in general with regard to health issues. So they tend to care not only for their own body and health but also for all family members, and in particular for their male partner.

The men cannot be persuaded to anything. This is a most tiresome task, when the wife comes in together with the hubby and it is so ... these are really embarrassing scenes sometimes when he, like, almost like a stubborn child that mummy has to drag to the lady doctor, really this is almost the standard situation.

In general it seems to be that men are responsible for working and earning money but not for issues like health. The above physician calls the behaviour described "almost the standard situation". Often women get the necessary medicine for the whole family because the male partner himself is not willing to go to the doctor at all. Women are described as more sensitive and caring about the health situation of others sometimes even more than of their own. And in many cases they are right in accompanying their partners to the doctor.

> Yes, I see that quite frequently that the wives are pushing their husbands to take a checkup and that the finding is often something quite serious...

Because men are used to the fact that their partners look after them they never learned to take care of themselves and what's more, they do not see any need to do so.

> I think that the men who are married are better taken care of, simply because they are brought in here, while single old men are bound to be poorly provided for. This is quite noticeable for me in some cases when the wife dies first, and then I do no longer see the men coming in although they used to see me on a regular basis before.

The experience of this Vienna physician again shows that very often women take care of their whole family's health situation. In spite of this, some first changes can be observed here. Younger men were described in general as more interested in their health, so their behaviour is bound to change which will also have an effect on their mortality. We will discuss this later in detail. On the other hand, not only men have changed their behaviour but the women as well, and this is seen not only in the younger generation.

> The women, they've become more assertive during the last few years, so nowadays they just drag their husbands to the doctor as well. There's more men than a few years ago coming in for screening exams as well, I can give an example from my own family: like, my father, he never went to any doctor, but then one day my mother said, Okay, you're going to the screening now, and she just took him there.

Despite such changes several doctors see the main responsibility still lying in the hands of women. Caring for someone was described as an original quality of women. Being connected with their own health so closely, they somehow seem to bear a heavier load by having a family, whereas men have a positive advantage from being within a partnership. For a man it was described as almost essential to have someone who cares for him after being treated with a difficult disease while for women it was seen as a burden when she had to care for the whole family.

> When you can give the male part a partner, his wife I mean, then this means for the man clearly a stress reduction [...] This is completely different for men and for women.

This was linked to the fact that men are taken care of within the family and that being ill for them means to be relieved. To be pampered by someone was seen as a positive factor for recovering. For sick women, however, it was seen often as stress factor to have a family. They cannot recover well because they have to meet many
responsibilities. The duty to care for the family is connected with femininity and not masculinity.

The "lifestyle" of women was described as more oriented towards health. This was also connected with nutrition. Women care a lot more about their appearance and so their "body perception" was an important factor regarding their health behaviour. The image of an overweight man was described as not so bad compared to an overweight woman.
because a fat belly does not have the same bad image as for women
Women face more restrictions regarding their outer appearance and so they care more about their bodies. Men do not seem to have the same social pressure as women regarding their appearance. A woman who does not try to take care of her weight and of her body is faced with much more problems and questions than a man.

Being a bit sturdy is a sign of health, so everything's okay-it just makes me good-looking when I'm a bit on the tubby side.

Especially female doctors referred to compliance difficulties with this type of men. When they perceive their own body as all right and do not see any need to change, of course it is more difficult for the physician to convince them of a healthier behaviour. Somehow men do not realise weight problems as much as women. It was said that already young women learn that their looks and their weight are important. Men on the other hand were seen as rather ignorant about their own weight.

> About one and a half years ago, we read about a survey that said [..] we had the fattest men in all Europe. But interestingly enough, when you nowadays ask if men here consider themselves as too fat or overweight you'll find out quickly that this is not the case at all.

However, it was often said that this attitude has changed for the younger generation.
Another category that needs to be mentioned here is that women in general are described as "wanting to get active" about their body and health. They want to improve their health and want to change things. As soon as they realise a health problem they want to find a solution, usually by changing their behaviour.

Because I think that women, when something is hurting or when they've got anything that's not normal, as for instance a blood test result or whatever, that they [...] want to do something about it

Men on the other hand were described as ignoring such facts and preferring to forget about the whole unpleasant issue. Women become active and want to change things, while men tend to do nothing at all about health problems.

I am talking about serious conditions here, and even there I have the feeling that men are more into suppressing such things

Based on this physician's experience, males tend to ignore negative diagnoses by avoiding to face the facts and with that, any consequences for their actions.

It was also said that for women "moving around is considered a daily routine" because even today the daily household chores are an essential element of their gender roles.

> Women keep moving about the household until their last days. And when you're very very old, these everyday chores are enough to keep yourself upright.

Men in comparison were seen as rather unconcerned with such chores in many cases and thus as not moving about as much. This may affect mortality as in this way women stay fitter into high age. Not doing any sports but preserving their fitness by dealing with everyday duties and activities was seen as an element that affects old people's health in a positive way.

One last category with respect to behavioural patterns is "socialisation". It was said that the behaviour of women and men depended on the socialisation they had gone through. People learn that their body is important and that they should be careful not to become overweight and that a belly for women is not preferable. They see how their mothers care for the whole family's health and learn to behave accordingly.

I think women [are] a lot more interested in health issues right from the start, although I think this is a social concept.

Not only the attitude towards health but also how to deal with situations and in particular with stress situations was mentioned as a learned behaviour.

Women grow up in a multiple stress load, that's why they are more resilient in stress situations than men.

So dealing with stress is seen as a behaviour that is learned. Since children see their mothers in stressful situations more often than their fathers, it is from them that they learn possible strategies in dealing with them and also that females are confronted with stress earlier in life. Because of these elements women are better equipped to deal with health issues, and men in general tend to ignore their health. Men have learned to be the "strong ones" who never need a doctor if it can be avoided. To overcome these role models was seen as rather difficult by our respondents, but some said that the change has started already. We will come to this issue now.

## Perceived gender roles: generation

Another category of perceived gender roles is the "generation change". Some physicians described their patients with regard to generational aspects. One element here was the lifestyle adjustment. Lifestyle adjustment in general means that today's young generation may be different related to other cohorts. Physicians have explanations for this occurrence because of their long-term experience with their patients. One aspect is the different health behaviour of men and women that we have discussed in detail already. There has been a change in the health behaviour of younger men in relation to older men. The practitioners explain this phenomenon with a new "type of men":

And then there this rather new phenomenon, they are at least just as exhausting, I mean the ones from fifteen [years] to their mid-thirties-an entirely new type of men.

This new "type" has a much deeper relation to its body. They are informed about various health products, and as a response to this type, health gets more relevant in the media so people go to health prevention checkups more often. In comparison to the patriarchal kind of men in their forties and fifties, these men are more healthconscious now:

So, well, this old-school type in the, I don't know, the 1940s or 1950s or thereabouts, these blokes weren't even interested in their health

It is obvious that there has been a generational change when male health behaviour is concerned. Younger cohorts are now giving broader consideration to health-related issues.

It's the media that make men go flocking to the screening tests at all.
And one consequence of the health debate becoming a new topic is that people are more likely to talk about their health problems in their personal social networks as well. Thus a change in a person's health behaviour is often connected to bad news about the health condition of someone in their social network. When hearing about this in talks with other people, they decide to have health prevention checkups-to feel better, but also for fear of contracting the same disease. The media are one more reason why it is more common today, even for men, to exchange health issues in their peer groups.

Maybe because the information campaigns about health screening tests and healthy lifestyles have finally arrived in the male consciousness, and so it's probably a generation thing that men now do care some more about their health.

It was also argued that this generational shift was in fact due to education campaigns promoting health checkups. Thanks to information and peer-group exchange men nowadays concentrate on their health than the generations before.

Furthermore, women today adapt to the lifestyle of men, which is also given as a possible reason why the gender gap is narrowing. Smoking is often said to be the main driver for this phenomenon, with bad nutrition habits and excess alcohol use as runner-ups.

The conditions for this generation change were also discussed. Cultural factors are one reason: historically, "it was indecent" for women to smoke, while nowadays younger women smoke because they consider smoking as "chic".

Another argument was that the amount of stress for women is increasing because of their higher workforce participation compared to previous generations.

I mean that women now do have more opportunities to take up professions which used to be classical male domains, so that of course they're exposed to the same stress factors there.

The lifestyle adjustment can also have implications on the individual level. One physician explained the generational change of women by the phenomenon of discovering traits of the other gender in oneself. Men are still considered to be the "strong gender" and it is harder for them to be confident with their feminine aspects than the other way round, i.e. women can accept their masculine sides more easily and also have the ability to assess it. This phenomenon was described by one physician with the following quotation:

Emancipation is the liberation of the feminine in the man and of the masculine in the woman.

In sociology it is a common fact that women and men are socialised in different ways and that it is more accepted for a woman to have some male elements in her behaviour than vice versa. Men tend to be strong and react less emotionally than women. At this point we notice that this different behaviour pattern is related to health issues as well.

One gender medicine researcher explained that women adopted a male lifestyle in different job positions and that this adoption led to better acceptance in their relatively high positions at work.
that the woman's role in certain positions is simply only taken for granted by the adoption and acceptance of a masculine lifestyle. Think of a female top manager, she very soon adopts a very male style, not only in her language, in her way of acting, but also in her dress code. And I think that these additional stress factors are leading, for instance, to increased nicotine consumption in women.

So when these women adopt a masculine lifestyle, this shows in their speech, their actions and also in the way they dress. Originally male-related behaviour is thus passed on to women now, and therefore women are likely to pursue unhealthy habits too, especially when it comes to smoking.

The next characteristic of the generational change is the health behaviour at older ages. It may be due to the fact that health issues today tend to be more discussed in public and that the younger cohorts are well informed about medication and therefore more likely to be choosy when it comes to prescription drugs. The following statement supports this idea.

That the younger ones are more easily won over for these things, also for getting information [...] so that they also [...] go on wellness holidays and things like that.

Some preconditions for this generation change, when it comes to health considerations about medicine and activities that improve the personal wellbeing, are active information seeking and the open-mindedness of both the media and the public in general.

However there is also a controversial view to this: older generations are more likely to accept the physicians' authority and therefore do not doubt what they tell them to do. Another explanation is that older people are more health-conscious with respect to food and behavioural aspects and that they also listen more to the advice of their doctor when it comes to practical recommendations about matters of everyday life.

Well, I must say that our very young patients are somewhat more frivolous in the way they eat, in their general approach to life and so on. The older ones are a bit more conscious in this respect, they also stick more to practical instructions about everyday life, let's say where eating habits are concerned, or behaviour aspects, or taking their medication and so on.

Health as a commodity is another element of the generational change. This is also linked to the superficial discourse of the body cult. Young people are sometimes considered "victims of the industry" because the media keep insinuating that individuals should be dissatisfied with their appearance so they consume products that make them feel more satisfied. This process is triggered by the economy and does not have many positive aspects. When asked why its consequences are bad, one answer was:

No, because they do not integrate that into a positive and healthy way of life. This is an extremely narrowed understanding.

The media are an important element in presenting health-related issues. We noticed that this has two dimensions. The media can be helpful for people seeking information and for giving more publicity to health problems and advertising health checkups. But another dimension is the media's bad influence: health is marketed like a commercial product that can be purchased to gain more satisfaction with personal appearance. In that case the media are influenced by the economy, which results in a restriction rather than a trigger for a positive health behaviour change. Health as a commodity should also be mentioned when it comes to pursuing physical activities. With the generation change, attitudes towards physical activity have altered.

The women who sometimes exaggerate this a bit, and then there's the backlash in a way, so that you can for instance say that certain eating disorders like bulimia in competitive athletes, well any sports, where it's a matter of fitness at any price.

This contribution says that the role and the perception of physical activity has changed but that there are also different types of behaviour in doing sports. In the group of competitive athletes certain diseases are common, such as bulimia, which are related to fitness but in fact are not healthy at all.

A generation change can also be observed concerning the modification in family status. It is now common that many people under 40 live without a partner. That means they have to take over responsibility for themselves when it comes to illness and diseases. Before, the typical arrangement was that the female partner in a relationship took care of the health of the whole family. So today it is mainly men who are facing this new problem:

Now when more and more men live alone, then they must finally bear the consequences and start looking after their own health.

Another medical doctor described the following problem. It is a fact that managers lead a stressful life and therefore suffer from various diseases. She wanted one of her patients to stop leading such an unhealthy lifestyle by explaining how important it is to arrive at a better management not only of one's work, but first of all of one's own health.

I think once men have understood, that it's about their own bodies, about their management of their own bodies, then they'll finally react.

Generation changes are highly marked by social values and norms. It was argued that men are the strong gender by definition and have to be tough when faced with health problems. However, the roles have been gradually changing, as discussed intensively above. During this change it is important that the male role model should be revised.
or the discussion about man-I mean what does it mean at all, the role of man? [...] I think that it's certainly not easy for many to find their new identification here.

It is important that men have an opportunity to reconsider their role in society and how this affects their health behaviour. The consequence is that man should renew their role identification and this is an individual process which has to be learned.

## Discussion

In this last section, we will discuss the theoretical considerations based on the empirical findings of our study.

Jenkins (1976) described that men are faced with a specific type of stress. Our study rather reveals that women have developed better strategies for coping with stress and not so much that they do not go through the same type of stress. This shows, following the findings of Nathanson (1984), that the important question is how stress is managed, and with regard to our results, women seem to do better in this.

The concept of Lüschen et al. (1994) can be very well connected to our findings. They pointed out that women in general lead more healthy lives. Our findings also support the findings of Waldron (1985) that women seem to be more sensitive to healthrelated issues whereas men pursue a more risky lifestyle. Women tend to be more conscientious, going to the doctor more often. This was connected to an inhibition threshold acting in favour of women, meaning that women lose their inhibition more likely than men when it comes to having to see a physician and they are also acting in responsibility for their entire family. So again social norms, as also mentioned by Waldron (1985), seem to be guiding the behaviour of men and women. This was also linked to our category masculinity and femininity. As men consider themselves as powerful individuals in control of everything, they experience a sort of shame when having to consult a physician. We also found that men place great importance on being able to work fast and even under pressure. This can be linked to the theory of "individual freedoms" (Johansson 1991; Dasgupta 1990; Luy 2002). "Negative freedoms" can provide a short-term energy boost but must be considered as adverse factors when it comes to living a healthy life. It was also mentioned that women have a higher potential to organise and focus their energies and physical resources-a fact that can be linked to the notion of "positive freedoms".

As Waldron (1985) mentioned, behaviour is connected to social norms, which are different according to gender. Through our research we can support this proposition. Thus for example, the change in smoking behaviour can be linked to social norms. Formerly, smoking was mostly related to men and it was inappropriate for women to smoke. Nowadays smoking has become more common for women and is socially
accepted. In the younger population smoking is indeed considered to be "hip" and therefore starts at very young ages. So there may be a high connection to the hypothesis that the gender gap is narrowing because of the smoking behaviour that women have adopted during the last decades (Luy 2003). In our research we can support this hypothesis as smoking is often linked to risky behaviour as well as to women's higher workforce participation and their suffering of all kinds of stress.

The analysis of the interviews showed that lifestyles are beginning to change and that women behave more and more like men-and vice versa. Women today smoke and also drink alcohol much more than fifty years ago, while men have begun to care about their bodies and even agree to seeing a doctor when they notice symptoms. Another finding was that women have started to identify their "male sides", and also men their female aspects, although for women this was described to be much easier.

We want to point out that all these elements are important to consider because the lifestyle a person chooses is highly connected with perceived gender roles and how people see their behavioural options. Only considering the mutual relationships of all these elements allows a better understanding of the gender gap in mortality.

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[^0]:    1 "Type A behaviour": looking for achievement, competitiveness, impatience, time urgency, abruptness of gesture and speech, overcommitment to the profession, excesses of drive and hostility (Jenkins 1976).

[^1]:    ${ }^{2}$ This is the official medical association in Austria: http://www.aekwien.or.at/997.py

