Health, lifestyles and working conditions of male and female doctors in Catalonia

Health, gender and professional practice
HEALTH, LIFESTYLES AND WORKING CONDITIONS OF MALE AND FEMALE DOCTORS IN CATALONIA
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After having celebrated the tenth anniversary of the Comprehensive Care Programme for the Sick Doctor (Programa d’Atenció Integral al Metge Malalt - PAIMM), we can firmly state that the Galatea Foundation has successfully consolidated a health care and rehabilitation model for health professionals that has become a well-known reference not only locally and within the country but throughout Europe as well. Considering that the health of the professionals is necessary to guarantee the provision of good quality care, the task taken on by the PAIMM has become essential.

However, the experience of these past years has made us inquire into which factors can have an influence on or determine the sickening or health of our group of professionals. This, in turn, has inevitably led us to consider the need for dealing with this matter in depth.

A few years ago, following the steps of other pioneer programmes, mainly from USA, Canada, and Australia that deal with the care of sick doctors, the Galatea Foundation initiated a number of programmes aimed at promoting research and the subsequent action strategies in the area of prevention and health promotion for medical doctors.

The study we are now presenting is included in the programme called Health, Gender and Professional Practise. Although this paper is the starting point of an area of knowledge that will have to be consolidated with future research, it actually is an exceptional milestone since we have been able to use quantified data for the first time on key questions concerning the professional situation. Likewise, this paper is a pioneer in its approach on measuring the health, lifestyles and working conditions of doctors especially taking into account the gender perspective; a necessary approach considering the growing feminization of our professional group.

The health and well-being of the health professionals are very important issues, as we have previously stated, not only so that quality practise can be guaranteed but also because of the exemplary role represented by doctors in society. We hope that the results we are presenting today will be of use for all the professions related to the medical one so as to advance jointly towards the achievement of actions that will promote the wellbeing and health of those of us in charge of caring for other people’s health.

I would like to thank the authors for the quality of their work and rigor and the Pharmaceutical Company (Merck-Sharp-Dohme) for their sponsorship; this study would not have been possible without them.

Dr. Jaume Padrós i Selma

President of the Galatea Foundation
Health, lifestyles and working conditions
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1. Introduction

Medicine is a profession with a strong social commitment that frequently entails a great involvement in work. Moreover, it is also known that both men and women doctors are increasingly subjected to pressure from various sources (users, organizations they work for, academic aspects…) that can hinder their maintaining the necessary conditions for a healthy development of their task. The PAIME (Comprehensive Care Programme for the Sick Doctor) was set up to assist male and female doctors who are already ill and who do not receive adequate care. During the years PAIME has been running, it has become clear that it is necessary to do an in-depth study of the risk factors and the groups of professionals subjected to the greatest dangers, and prevent the appearance of the burn-out syndrome and pathological stress. This will facilitate detecting, as early as possible, the appearance of the first signs of illness, mental suffering or addictive behaviour in professionals, so that they may receive suitable treatment. The health of the medical profession in relationship to the quality of health services and the running of hospitals is an issue which has a growing impact on health systems in more developed countries. In “Latin” countries, apart from the PAIME experience, apparently, the problem does not exist, even though there are countless situations arising in the day-to-day work of Health Care Centres that are portrayed both in specialized and general press.

Except in the English speaking world, no research has been done to study the relationship between living and work conditions and the health of male and female doctors, establishing comparisons according to sex and studying the possible inequalities (gender perspective). This perspective takes into account not only the effects of the workload and professional duties on both sexes but also those related to problems with household tasks and the care of the family. Subsequently, the differences and inequalities in the distribution of these tasks between male and female doctors can be determined as well as their effects on health and quality of life.

In 2004 the Medical Council of Barcelona published a report on doctors in Barcelona (Rodríguez J.A. and Bosch J.L.C.,2004). Since more than 75% of male and female doctors in Catalonia belong to the district of Barcelona, in general, some of these study results can be extrapolated to all the medical staff in Catalonia. Some of the figures in this study that should be mentioned are those reflecting the youth of these professionals, and the steady increase in the number of female doctors. If this trend continues, it seems likely that in years to come there will be more female doctors than male.
It is necessary to know whether there are health differences and inequalities between male and female doctors and what the relationship is between their health problems and their lifestyle and working conditions, in order to develop strategies for health promotion and prevention among these professionals.

It is well-known that the medical profession, when faced with their own health problems, behave in a different way than what they recommend to their patients. In general, their behaviour and attitudes are contradictory, both as patients and as therapists to other doctors who are sick. The most characteristic reaction is denying or minimizing their health problem or frequently, hiding it, as if having a health problem were a weakness, a trait of vulnerability unable for them to accept. Another notable characteristic is that they find it very difficult to establish a normal doctor/patient relationship and go through the usual procedure: an appointment written down in an agenda, having to wait for a consultation, diagnostic tests following the protocol, an open, updated clinical record, etc. They find it especially difficult to follow the therapeutic instructions prescribed for them.

When the health problem is a mental one or one of addiction, hiding it is almost systematic. If they continue to practise medicine, they may even put patients’ lives at risk.

The Galatea Foundation was created to try to correct the lack of data and specific programmes for both male and female doctors. Its aim is to study the mental health problems of health professionals, the risk factors which set off these problems and to do every possible thing, within its scope and possibilities, to help generate the wellbeing of these professionals and the prevention and cure of their illnesses.

The aim of this report is to present the main results of the survey “Health, lifestyles and working conditions of male and female doctors in Catalonia”, promoted and commissioned by the Galatea Foundation and carried out by a team of researchers from the Centre of Analysis and Health Programmes of Barcelona (CAPS).

First of all, a review is made of all the literature on the subject. Then, the aims, used methods and results are described. Finally, some notes are provided on the main conclusions of the study.
2. Background

Interest in investigating the state of health of people working in the health system, mainly male and female doctors and professional nurses, has led to various studies, especially in the English speaking and Northern-European countries. Nevertheless, bibliography on the subject is not as extensive as was originally thought. One of the first limitations when searching for bibliography on the health of doctors is the difficulty in choosing the key words in the Medical Subject Headings (MeSH). If we put in doctor or physician or physician role and health, the vast majority of articles found in the search are on the actual work of health professionals and very few are on aspects of their health. Even when the search is narrowed down, this overlapping of subjects persists. In the MeSH (Medical Subject Headings) no term has been found which allows the specific selection of bibliography on health, wellbeing, lifestyle and the use of health services by doctors themselves.

The first studies on the health of doctors came from the USA and were carried out in the late nineteen seventies. These studies were specifically on the abusive consumption of alcohol and/or drugs by doctors. During the nineteen eighties mental illness was added. Towards the nineteen nineties, without abandoning the concern for psycho-pathologic conditions, the general health of doctors and how they perceived it began to be discussed. About this time, studies on Burn-out and stress also began. Currently, there is much more interest in the English speaking world in the wellbeing of professionals, their life-styles and working conditions, as well as the repercussions these factors may have on the quality of Health Services.

Most of these studies and reflections have come from the English speaking world, mainly the USA followed by Canada, Australia and New Zealand. In Europe, the northern countries have been the leaders in this field of work. From the nineteen nineties British research has focussed on the issues of stress and alcohol. In the continental European and Mediterranean area no studies have been performed on the health of doctors and very few on the perception that they themselves have of their own health.
2.1. Morbimortality and working conditions

The few epidemiological studies carried out from the 1940’s to the 1970’s showed a progressive decrease in mortality in the medical professionals compared with the general population in northern European Countries (Hörte L.G. y co., 1987). Contrarily, the rate of suicides for doctors was much higher than that for the general population. This has been confirmed in various later studies (Lindeman S. and co., 1966; Aasland O.G., Ekeberg O., Schweder T., 2001).

There have also been studies analyzing the relationship between morbidity and mortality in both male and female doctors and for specific working conditions and lifestyles. Notable studies have been done on the psycho-social work environment, stress, emotional burnout and depression (Firth-Cozens J., 2001; McManus I.C., Winder B.C. and Gordon D., 2002). More recent studies point to a progressive increase in recent years of dissatisfaction among professionals regarding their medical practice. In the 70s, less than 15% of doctors mentioned low work satisfaction, from the 1980’s on more than a third mentioned it and in 2001, 58% of the doctors in the sample studied by Zuger and co referred to it. (Zuger A., 2004). Some studies point to the fact that male doctors expressed this through somatic symptoms whereas female doctors suffered from psychological burnout (Bergman B, Ahmad F. and Stewart D.D., 2003).

The results of an study carried out in Mallorca among general practitioners have shown that more than 25% of the surveyed doctors have had psychological burnout according to GHQ-28 questionnaire. According to this study, work satisfaction is a key element to protect mental health and prevent burnout (Esteva M, Larraz C, Jimenez F 2006).

Some recent studies have also shown that the health of female doctors is especially sensitive to a negative psycho-social work environment (Stewart D.E. and co., 2000; Linzer M. and co., 2002). Female doctors have more than a 60% higher probability than male doctors of showing signs and symptoms of psychological burnout and loss of professional motivation or burnout. The relative risk of burnout increases from 12 to 15% for every 5 extra hours worked a week, over 40 hours (McMurray and co., 2000).

2.2. Perceived health of male and female doctors

In Finland, in 1997, a postal survey was carried out on a third of registered doctors under 66 years of age and still active. A 74% response rate was obtained (3,313 professionals). Their perceived state of health, chronic conditions and their use of health services were studied. At the same time, this information was compared with other information obtained in the survey done by the National Health Survey of Finland on the active population. Generally speaking, the results showed that female doctors had a better perceived state of health than working women in the general population, but they used the health services more and accumulated more days off for illness than their male colleagues. On the other hand, male
doctors used the health services less than the general population. They treated themselves and prescribed medicines for themselves in a higher proportion than female doctors. It also showed that male doctors reported more chronic conditions than working men from the general population. The methodology of this Finnish study is the most similar to the one used in the study presented in this report (Toyry S. and co., 2000).

2.3. Life-styles of male and female doctors

Various studies have shown that male and female doctors have healthier lifestyles and lower mortality rates than the population in general, even when compared to people of the same socio-economic position. This fact has been particularly well substantiated as regards tobacco consumption. A study on the health of women doctors in the USA (Women Physician’s Health Study), for example, has shown that only 4% of women doctors smoked, whereas 8% of women of the same social class did so and 25% of women in the general population (Frank E. and co., 1998; Frank E., 2004). The way doctors dealt with their health issues also appeared to affect their patients’ attitude and their motivation to change their lifestyle. In 1984, a framework study was published which clearly showed that medical advice given to patients reflected to a great extent the beliefs and behaviour that professionals themselves had towards health issues (Wells K.B., Lewis C.B. and Ware J.E., 1984). In a study carried out in Palo Alto (California), it was found that 96% of male doctors and 82% of women doctors did regular physical exercise, a finding which contrasts with the discovery that 48% of male doctors and 32% of women doctors were overweight (Bortz W.M. II, 1992). The same study found that 2% were smokers.

An article published recently (Sebo P. and co., 2007) points to the spectacular drop in cigarette addiction among men and women doctors in Primary Health Care (Health Centres, Hospital Outpatient Departments) in Switzerland and indicates that currently only 12% are smokers, whereas in the general population this percentage is 30%. Noteworthy is the high percentage of high risk consumption of alcohol among these professionals (30% according to the AUDIT questionnaire). According to the same questionnaire (AUDIT), 6% of the surveyed doctors were high risk drinkers (Reinhardt T. and co., 2005). No study has been found on doctors’ alcohol consumption in our area.

2.4. Use of health services and medicines by men and women doctors

The paradox that medical professionals do not look after their own health in the same way as they do with their patients is well known. The importance of men and women doctors’ health, both their physical health and the one referring to a psychological and affective balance, is fundamental so that quality medical care can be offered and medical errors can be avoided.
Most of the studies consulted on the use of Health Services by men and women doctors clearly show that these professionals use formal health services less than the general public. The most frequent choice is an informal consultation with colleagues or people at work and self-prescription (Forsyth M., Calnan M. and Wall B., 1999; Bruguera and co., 2001; Davidson S. and Schattner P., 2003; Kay M., Mitechll G. and Del Mar C., 2004; Töyry S. and co.; Hern E. and co., 2005). In this area, a study promoted by the Medical Council of Barcelona in 2000 (Bruguera et al, 2001) showed that a large percentage of doctors had no open clinical record (medical dossier) (48%), 47% did not have the regular health check-ups offered in the workplace and more than half (52%) did not follow the instructions of the doctor they had consulted. A further alarming finding was that 82% self-prescribed. This study pointed out in its conclusions that: “A high proportion of doctors adopt unsuitable attitudes with regards to their health care. The medical profession should therefore give thought to the need of changing this behaviour.”

As regards self-prescribing, the results of a study carried out in Norway emphasize that 90% of doctors who have used medication for which a prescription is required have prescribed it for themselves. The most frequently used medicines were antibiotics (71-81%), analgesics (18.21%) and hypnotics (9-12%) (Hern et al, 2005). Töyry et al (2004), from the results of a cross-sectional study carried out in Finland from 1986 to 1997 concluded that: “The large proportion of doctors who treat their own illnesses, especially mental conditions, with self-prescribed medication gives cause for concern. Also the large percentage of those who self-medicate for chronic illnesses, which require not just medication but also a change in lifestyle and a check on complications, is alarming”.

2.5. Reproductive health of women doctors

For more than thirty years medical literature has reported an increase in obstetric problems among women doctors. In a study comparing women doctors and the population in general, the former had higher relative risks (RR) of early contractions RR=1.86 and of having a premature birth RR=2.33 than women who were not doctors. An increase in the number of examinations with echograms was also observed among women doctors (Miller N.H., Katz V.I., and Cefalo R.C., 1989).

Another study found that 43% of women doctors who became pregnant during their training as interns had medical complications, as well as a higher incidence of hypertension (12%) than the population as a whole (5%). This was the same for three specializations (Obstetrics-gynaecology, psychiatry and surgery). (Phelan S.T., 1988).

Other studies have linked women working in the operating area with a higher number of miscarriages, congenital malformations and sterility. In a study carried out in England among 5,700 women doctors it was shown that those who worked in the area of anaesthetics had underweight babies, a higher rate of infant mortality and babies with more congenital malformations in the cardiovascular system than other women doctors. It is suspected that anaesthetic gas could be the cause (Pharoah PO et al., 1977).
3. Aims of the Survey

3.1. General goal

To provide information on the health, health-related habits and behaviour, the use of Health Services and medicines, and the work (paid and household work) of the male and female doctors in Catalonia. The goal is to plan health promotion and prevention programmes for these professionals, as well as to acquire an in-depth knowledge of the similarities, differences and inequalities in the health of male and female doctors (gender perspective).

3.2. Specific objectives

To determine the socio-demographic characteristics, working conditions and domestic environment (home relationships, distribution of household duties, care of dependents and the availability of help) of male and female Catalan doctors.

To describe the perceived health of Catalan doctors and analyse how this is related to age, the structure of home relationships and the main workplace.

To describe habits and behaviours related to the health of Catalan men and women doctors and discover how they relate to age, the structure of home relationships and the main workplace.

To describe the use of Health Services and the consumption of medicines by male and female doctors and analyse how this is related to age, the structure and relationships in the home and the main workplace.

To make a comparative analysis of all the studied areas according to sex and, whenever possible, with a gender perspective.
To compare some of the main results with those found in the active population of Catalonia in the same age range and with the results found for the active population in the same age range and in the same social class (CS I).
4. Methodology

4.1. Statistical universe and study population

The survey “Health, lifestyles and working conditions of male and female doctors in Catalonia” is targeted to all men and women doctors registered in the Catalan medical councils (Barcelona, Girona, Lleida and Tarragona) who are active (between 30 and 55 years) and who carry out their professional activity in patient care. Doctors who are on special leave or who work exclusively in management, training or research are excluded. The sample was designed for an expected 800 completed questionnaires, Finally 762 valid ones were analysed, i.e. 95.3% of the sample. This sample is representative of all of the male and female doctors in Catalonia (according to previously stated criteria) and achieves a margin of error of ±3.55% of the total. The actual doctors to be interviewed were selected randomly and probabilistically from blind lists (without identification data) provided by the corresponding medical bodies. The internal distribution of participants was proportional to the characteristics of the universe based on the control variables of sex, age, area and speciality.

4.2. Response

The response was about 31.5%; only one out of three of those who received the questionnaire returned it completed, 2,400 questionnaires had to be sent out in order to obtain the projected sample. It should be pointed out that this response can be considered high for a survey sent by mail, even more so if one keeps in mind that the questionnaire was relatively long and aimed at a group with very little time to spare.

Actually, a large part of the response was possible because of a fairly thorough follow-up by phone. Therefore, if we calculate the percentage of response from those who were not telephoned because they did not have a contact telephone, this was around 14.4%, which shows that reminders by phone more than doubled the response. No differences were observed between those who answered the questionnaire and those who did not. The survey was designed to allow for this situation and people who did not respond were substituted for others with similar characteristics.
For more details on the design and control of sampling representativeness and on the development of field work, contact Galatea Foundation.

4.3. Confidentiality

One of the elements of the survey which gave cause for concern when it was being designed and the system to collect information was being discussed, was guaranteeing the confidentiality of the replies as these were necessary for the research but belonged to the private sphere. On this point, it should be mentioned that although identification data were used, this use was restricted to processes that were absolutely necessary, for example mailing letters and questionnaires and the follow-up by telephone to encourage replies. As previously mentioned, sampling was done by using blind lists, in which no personal information appeared and a field work operative method was set up by which the name of the person who replied (and the rest of identifying information) could not be linked to the information taken from the questionnaire.

By rigorously following ethical standards and with data protection, the database of the survey results does not contain any information that can identify the person who has replied (even towns with few inhabitants have been grouped together and codified), and not even the Medical Associations or the Galatea Foundation can find out who gave which answers.

4.4. The questionnaire and field work

The survey was based on a questionnaire of 86 pre-coded questions to be self answered. The questionnaire was mailed with a telephone follow-up (up to 7 calls per questionnaire) aimed at helping and encouraging replies. The field work, mailing and reception of the questionnaires was done from December 2005 to April 2006.

The main areas included in the study are: health-related habits and behaviour; perception of one’s own health; perceived quality of life; health conditions; use of health services and consumption of medicines; satisfaction with various areas of life; working and professional situation; family and home structure. In the case of women doctors, various aspects of reproductive health were also studied. The questionnaire was designed in such a way that it could be compared with the *Enquesta de Salut de Catalunya (ESCA)* – (Health Survey of Catalonia) from the year 2002 (Catalan Health Service 2003).
4.5. Compound variables

The questionnaires returned completed were coded and recorded on a computer so that they could be worked on with the SPSS statistical treatment programme.

The resulting database contains 209 direct variables from the questionnaire, as well as others that have been grouped or generated from the previous ones. We will define the main generated variables, i.e. without going into those variables grouped in a standard way (age, number of hours, etc.) which are suitably labelled throughout the report.

Family structure

A variable generated from information on the number of people who live in the home with the interviewed person, and their relationship. Home structure is classified as follows:

- Single person: when the person lives alone.
- Lives as a couple: when the person lives with a partner – without children.
- Lives as a couple with children: when the person lives with a partner and their children or the children of one of them.
- Single parent: when the person lives with children but without a partner.
- Other types of homes: when the person lives with other people other than the corresponding nuclear family, whether they are related or not. The partner and other people, partner and children and other people and single parent homes with other people have also been included in this category. Most people included in this category live in families made up of the partner, children and other people (n=27.45% of the category "Other types of homes").

The psycho-social work environment

This has been measured by adapting the “Job Content Questionnaire” (Karasek R.A., Pieper C. and Schwartz J., 1993; Escribà-Agüir V., Más-Pons R. and Flores Reus E., 2001) which measures psycho-social demands, control, and the support and compensations of work. The Psycho-social risk factors are of an abstract nature, and cannot therefore be measured by a single question but with a battery of items, scales – related to the concept of interest (Table 1). The maximum score for each item is 4 (except psychological demands, where the higher the score the lower the psycho-social risk is). To obtain the index of psycho-social risk, the answers to these items have been coded using the five dimensions studied: support of superiors, psychological demands, control, support of colleagues and participation. Replies followed a scale by Likert varying from ‘1’: very much in agreement, to ‘4’: not at all in agreement. Except for the dimension of psychological demands, the negative questions were recoded. Results go
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from 1 (no exposure) to 4 (maximum exposure). The internal consistency of the scales was calculated using the Cronbach alpha coefficient which, except for the item on work control (Cronbach alpha 0.577), has always been over 0.7 (Cronbach L.J., 1951).

Table 1 shows the different scales and their internal consistency measured with the Cronbach alpha coefficient.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Support from superiors</td>
<td>My boss is concerned about the wellbeing of those who work with him/her</td>
</tr>
<tr>
<td>(Cronbach alpha = 0.828)</td>
<td>My boss takes note of what I say</td>
</tr>
<tr>
<td></td>
<td>My boss is hostile or conflictive towards me</td>
</tr>
<tr>
<td></td>
<td>My boss gets people to work as a team</td>
</tr>
<tr>
<td>Psychological demands</td>
<td>I have to work hard</td>
</tr>
<tr>
<td>(Cronbach alpha = 0.828)</td>
<td>At work I am often asked to do things that are not compatible</td>
</tr>
<tr>
<td></td>
<td>My work requires me to concentrate for a long time on what I am doing</td>
</tr>
<tr>
<td></td>
<td>I am often interrupted at work and I have to start again later</td>
</tr>
<tr>
<td></td>
<td>I have to work against time</td>
</tr>
<tr>
<td></td>
<td>My work is often delayed as I have to wait for the results of tests done by other persons or departments</td>
</tr>
<tr>
<td>Control over work</td>
<td>I need to be creative in my job</td>
</tr>
<tr>
<td>(Cronbach alpha = 0.577)</td>
<td>My job allows me to make many decisions on my own</td>
</tr>
<tr>
<td></td>
<td>My job involves a great number of different things</td>
</tr>
<tr>
<td></td>
<td>Every day I have a lot of influence on what takes place at work</td>
</tr>
<tr>
<td>Support/back-up from colleagues</td>
<td>My colleagues are hostile or conflictive towards me</td>
</tr>
<tr>
<td>(Cronbach alpha = 0.794)</td>
<td>My colleagues are interested in me as a person</td>
</tr>
<tr>
<td></td>
<td>My colleagues promote team work</td>
</tr>
<tr>
<td></td>
<td>When I have a work-related problem I can count on my colleagues for help</td>
</tr>
<tr>
<td>Participation</td>
<td>I can have considerable influence on decisions affecting my Unit</td>
</tr>
<tr>
<td>(Cronbach alpha =0.7769)</td>
<td>In my unit decisions are made collectively</td>
</tr>
<tr>
<td></td>
<td>My ideas on work in the unit are taken into consideration</td>
</tr>
</tbody>
</table>

Mental health

It was decided that the mental health measurement “General Health Questionnaire” of 12 items (GHQ12) should be incorporated into the survey. The GHQ-12 (Goldberg D., 1972) regularly used in the Barcelona Health and in the Catalonia Health Surveys, is aimed at the general public. It is an
instrument that detects two types of conditions: the incapacity of normally carrying out the activities of a “healthy” individual, and the recently observed phenomena we can call distress. This screening tool is also widely used to detect current psychological dysfunctions that can be diagnosed, mainly centred on momentary ruptures in the normal psychological functioning, more than in established psychiatric pathologies. This is why it covers personality disorders or patterns of adaptation when they are associated with deep distress. According to the method recommended by the GHQ (Goldberg D., 1978) in order to obtain the Mental Health Index, answers 1 and 2 of each question score 0 and answers 3 and 4 score 1 point. People who have more than 2 points are considered to be at risk of psychological distress.

**Body mass index**

To determine obesity, the Quetelet index or body mass index (BMI), based on the declared weight and height, is used. This is the parameter that is best co-related with the percentage of body fat, although it is overestimated in muscular individuals and underestimated in people of a low lean mass (old people). The cut-off point for obesity is accepted as a value of BMI equal or higher than 30 kg/m². According to the World Health Organization (WHO), the BMI is classified into:

- **Underweight:** individuals with a BMI under 20 kg/m²
- **Acceptable weight:** varies according to sex
  - Women: BMI of 20 to < 25 kg/m²
  - Men: BMI of 20 to < 27 kg/m²
- **Overweight:** varies according to sex
  - Women: BMI of 25 to 30 kg/m²
  - Men: BMI of 27 to 30 kg/m²
- **Obesity:** individuals with a BMI over 30 kg/m²

**Physical activity**

For this study, total physical activity is considered to be the sum of the number of minutes devoted weekly to walking and doing sports. The number of minutes devoted to sports is also considered separately. The minimum physical activity considered to have positive repercussions for health is 90 minutes (walking, doing sports or both activities) weekly (Pate R.R. et al., 1995). The minutes are always grouped in multiples of 30 minutes.

**Tobacco consumption**

In this study the consulted persons are classified into different categories of smokers, according to their answers. The categories are:
Smokers:
\[\begin{align*}
&\text{Regular smoker: persons who smoke every day (minimum one cigarette a day)} \\
&\text{Occasional smoker: persons who smoke less than one cigarette a day} \\
&\text{Non smoker: persons who do not smoke now and who have never smoked} \\
&\text{Former smoker: persons who had been regular or occasional smokers but who do not smoke now}
\end{align*}\]

**Alcohol consumption**

To find the amount of alcohol consumed, people are asked how many drinks or how many glasses they consume during a work day and at the weekend. This information allows us to calculate the grams of alcohol ingested by each individual based on the equivalence between the grams contained in each type of drink and the amount consumed. The equivalence considered is:

- **Beer (medium-sized bottle)** 10 g.
- **Glass of wine, sparkling wine or similar** 10 g.
- **Measure of brandy, vermouth, liqueurs or similar** 20 g.
- **Measure of whisky, gin, vodka, rum, Spanish Aquavit, cocktails or similar** 20 g.

Once the frequency and amount consumed was known, the average grams consumed daily by individuals who declared they consume alcohol at least once a week could be calculated. The individuals are classified as:

- **Teetotal**: those who declared they had never consumed alcohol.
- **Consumption**: those who had consumed up to 20 g. a day for women and up to 30 g. a day for men.
- **Moderate consumption**: 31-30 g./day for women and 31-40 g/day for men.
- **Drinker at risk**: those who had consumed amounts over the risk threshold:
  - 31 g. or more daily (women)
  - 41 g. or more daily (men)

**4.6. Analysis**

The data is presented in frequencies and percentages. For the continuous variables distributions are presented through the ANOVA, with the respective confidence levels at 95%.
Results that did not show a normal distribution were compared using non parametric tests such as the Mann-Whitney U test. In some cases, models of multivariable logistic regression were also adjusted.

With a confidence level of 95%, the differences were considered significant when p<0.05.

All results compare men and women. The analysis was carried out using the statistical package SPSS 13.

4.7. Structure of the results report

This report has 7 sections (5.1 to 5.7), with the results obtained from the analysis of the survey “Health, lifestyles and working conditions of men and women doctors in Catalonia”. Section 5.1 gives a general description of the surveyed population, representative of men and women doctors in Catalonia, from 30 to 55 years old, who are professionally active and who work in medical tasks, in surgery, laboratories, radio-diagnosis and other areas of patient care. In section 5.2 the characteristics and conditions of their paid work is described in detail and 5.3 describes the home and family scene of the studied population.

The following sections are: state of health; health-related behaviours; use of services and consumption of medicines; and the reproductive health of women doctors. In the section on state of health, the main indicators of health used in population surveys are described; perceived state of health, chronic conditions and mental health. Pain and fatigue are also studied. In the section on health-related behaviours, hours of sleep, tobacco and alcohol consumption, body mass index (BMI) and physical activity are analysed. In the section on use of services and consumption of medicines, the behaviour of men and women doctors concerning their own health, preventative practices and the consumption of medicines, prescribed or not, are analysed. Finally, in the section on the reproductive health of women doctors, an analysis is performed of their regular gynaecological check-ups, regular mammograms, their menstrual situation and pre-menstrual symptoms, pregnancies and their results.

In sections 5.4, 5.5 and 5.6 the analysis is in the following order:

In the first place, all variables shown are compared according to sex in the three axes that we have considered fundamental for data analysis: age (grouped in 2 categories: 30 to 44 years and 45 to 55 years); the structure of home relationships: one person homes, living with a partner, living with partner and children, father or mother living with children (single parent homes) and other situations of home relationships; the main workplace: Primary Health Care Centre (CAP), hospital surgical service, hospital medical service, clinics or private surgeries and ‘other situations’. These analysis axes were chosen because of their importance and repercussions on health, lifestyles and use of services.
Health, lifestyles and working conditions of male and female doctors in Catalonia

In the second place, men and women are analysed separately, following the same axes previously mentioned, to detect any differences in the studied determining factors between men and women. In some cases, complementary analyses are also carried out which may add information to the results.

In section 5.7, variables in the reproductive health of women doctors were analysed according to the main workplace and age. The analysis of the family structure in the home has been shown to be co-lineal in most of the analysed variables (which was to be expected as there is a close relationship between them) so it was considered that they did not add any relevant information to the descriptive analysis.

The most fully analysed results in this report are the statistically significant (p<0.05) ones. Other results not statistically significant have also been commented on because of their noteworthy implications (in such cases, it is always mentioned that the relationships found were not statistically significant).

In the main variables of all sections, whenever possible, a table has been given comparing results found with population data from the *Enquesta de Salut de Catalunya* (ESCA) – (Health Survey of Catalonia) 2002 in the working population in the same age group and also in the working population in the same age group and same social class (social class 1).
5. Main Results

5.1. Socio-demographic characteristics

Distribution by age, sex and place of birth

The survey was answered by 762 persons, 47.1% men and 52.9% women, and follows the same distribution structure of registered men and women doctors in this age group.

Most surveyed men doctors are in the 45 to 55 age group, whereas the majority of women doctors are in the 30 to 44 age group (p<0.05). This clearly shows how the profession has become increasingly feminine in the last decade. The average age is 46.2 years (D.E. = 6.3) for men and 43.5 (D.E.= 6.8) for women.

**Figure 1** shows the age pyramid of the population studied in five-year groups.
Most male doctors (80.1%) and female doctors (78.4%) were born in Catalonia, 13.8% and 16.4% respectively were born in other parts of Spain. Only 5.5% were from other countries. It is significant that 3.3% of these were born in a South American country. No significant statistical differences were found between men and women according to their country of birth. Even so, the higher percentage of women doctors born outside Catalonia is significant. This coincides with the greater work mobility of women, both for personal reasons (to accompany family or their partner), and for work reasons (because of the demand for posts).

**Distribution according to specialities**

Out of the surveyed people, 83.3% are specialists, with no difference between men and women, although differences exist according to the type of speciality. In women, the six most common specialities are family and community medicine (28.8%), paediatrics (10.9%), anaesthetics and re-animation, psychiatry (5.6%), obstetrics and gynaecology (5.9%) and internal medicine (5.6%). The rest of the women doctors who answered (37%) are distributed in 32 other different specialities. In men, the six most common specialities are family and community medicine (21.3%), orthopaedic surgery and traumatology (7.3%), general surgery and surgery of the digestive tract (7%), anaesthetics and re-animation (5.1%), obstetrics and gynaecology (5.4%) and paediatrics (3.8%). The rest of men doctors who answered (46.9%) are distributed in 35 other different specialities (Figure 2 and Figure 3).

Only 18.1% had completed a doctorate and 13.1% were currently working for one.
5.2. Occupational situation and professional activity

Number of jobs and sector of activity

Almost half the surveyed doctors had more than one job (Figure 4 and Figure 5), with significant differences according to sex. Whereas 62.2% of men state they have more than one paid job, in women, this proportion is only 33.6%. For men, having more than one job is age-related: as men get older the probability of having more than one job increases. On the other hand, the relationship is not significant in women.

Figure 3: Distribution according to the most frequent specialities in men

Figure 4: Distribution according to the number of current paid jobs (women)

1 Results corresponding to the adjustment of models of multivariate logistic regression.
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These differences can be explained by the distribution of men and women in the public and private sector. More than half of the women work exclusively in the public sector whereas this percentage is 30.7% for men. 46.6% of the men work concomitantly in the public and private sector; in women, this proportion is 24.1% (Figure 6).

Main workplace where professional activities are practiced

Consistent with the gender segregation for specialities, differences between men and women in the places where they carry out their work exist. Most women work in Primary Health Care Centres (CAP in
It is more common for men to have more than one job, regardless of where they work. A significantly higher proportion of male doctors who have two jobs work mainly in hospital surgical services (72.1%), in other places (72.9%) and even in Primary Health Care Centres (CAP) (58.4%) (Figure 8).
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**Seniority and type of contract**

The average number of years worked in the current workplace is significantly higher for men than for women (13.3 years compared to 9.6 years) – this is consistent with male doctors being older than female doctors.

Gender differences also exist in the type of contract. It is more common for men to have permanent contracts than women (69% compared with 58.5%), whereas the situation is the opposite when it comes to self-employment and temporary posts. (Figure 9).

**Figure 9:** Distribution according to type of contract and sex

It should also be mentioned that amongst doctors under 45 (p<0.05) temporary contracts, provision of services and temporary posts are more common.

For those who are salary-earners (all those in Figure 9 except those who are self employed), the percentage in temporary work (this category includes interns, with temporary contracts, the provision of services and others) of female doctors is triple than that of other women from the same social class and 13 points above that of Catalan women as a whole. In male doctors, this percentage of temporary work is almost six times higher than among the active population in Catalonia from social class I (Table 2).

**Management positions**

There is a clear gender difference in management positions that cannot be explained by age, seniority or the type of workplace (33.8% for men and 18.7% for women). As shown in Figure 10, in any

---

2 Results corresponding to the adjustment of multivariate logistic regression models.
type of workplace, including the basic Public Primary Health Care Centre, where the surveyed women are represented 8 points over men, there is a higher proportion of men than women in management positions.

Compared with figures from the ESCA the proportion of management positions held by female doctors (18.7%) is similar to that of active women (16.8%), but much lower than that of active women from the same social class (37%). Amongst male doctors, the proportion holding management positions (33.9%) is slightly higher than that of all active men, but much lower than those of social class I (54.4%) (Table 2).

Most of the survey respondents had an immediate superior who was a male, although because of gender segregation it was slightly more common for men to have a male superior and for women to have a female one (Figure 11).
The working day and hours worked

The working day differs according to sex. Men more often work a full day with a midday break whereas women tend to either work through the afternoon and evening, to work shifts or some mornings and some afternoons (Figure 12).

The average number of hours worked in the previous week, counting all paid work and the time spent on call was 52 hours for men and 45.6 hours for women. 44% of those surveyed had been on duty in the previous 30 days, which means an average of 72.7 hours, with no differences between sexes.

The number of hours worked per week increases with the number of jobs held, going from 44.7 for those who only have one job to 55.6 for those who have four.

It was found that 56% of men between 30 and 44 and 41% of those between 45 and 50 had been on duty during the month before the survey. For women, 53% of those between 30 and 44 years had been on duty, a percentage that goes down to 30% for women between 45 and 55. In Figure 13, it can be seen that the distribution of hours of work varies according to whether doctors are or are not ‘on call”, their age and sex. Among the youngest who are on duty (30 to 44 years), there is no difference in the number of hours worked per week according to sex. However, in the 45 to 55 age group, men work more hours than women.
The number of paid hours worked a week varies according to the workplace. As Figure 14 shows, the number of hours is much higher in hospital services, where there is no difference according to sex, than in local health centres where men work considerably longer hours than women. This is probably linked to the fact that it is more common for men to have more than one paid job. It must be remembered that the studied relationship is the total number of hours of all paid jobs according to the place where the main job is carried out.
The average number of hours worked by doctors is clearly greater than that of the active population in Catalonia, and almost ten hours more than the active population of the same social class (Table 2).

**Table 2: Comparison of working conditions in men and women doctors with the active population of Catalonia**

<table>
<thead>
<tr>
<th></th>
<th>Medical staff</th>
<th>Active population in Catalonia</th>
<th>Active population social class I Catalonia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salary earners - % of temporary contracts</td>
<td>23.5 33.2</td>
<td>14.4 20.0</td>
<td>4.3 11.5</td>
</tr>
<tr>
<td>Average hours worked weekly</td>
<td>52.0 45.6</td>
<td>41.4 36.4</td>
<td>42.6 36.9</td>
</tr>
<tr>
<td>Management positions</td>
<td>33.8 18.7</td>
<td>28.0 16.8</td>
<td>51.5 37.0</td>
</tr>
</tbody>
</table>

**The psychosocial environment of work**

There is ample evidence of the effect of psycho-social risk factors on health. Unlike safety, hygiene or ergonomic risks, psycho-social risks are intangible. Therefore, in order to evaluate them, first, this abstract reality must be made more concrete through theoretical models that explain the state of health. Then, the dimensions of risk identified by the models should be measured using scales. One of the most common ways of explaining the relationship between psycho-social risks and health is based on the balance of psychological demands – control – social support (Artazcoz L., 2001).

Psychological demands can be understood as: workload, being pressured by time and interruptions which force the person working to stop momentarily what he or she is doing and start again later, and which tend to be related to inadequate planning or lack of coordination. The control over work content has two sub-dimensions: opportunity to develop ones own skills, i.e. doing a job in which the person has the opportunity of working at what he or she can do best (varied and creative work); and autonomy. Moreover, the importance of having an influence on and participating in the decisions made in the unit should be taken into consideration.

Social support means both the emotional relationship and the operative aspects of being able to rely on competent colleagues or superiors who will cooperate to get the work done. The most negative situation for health is characterised by high psychological demands, low control and low social support. Working in isolation is also a negative factor (Johnson J.V. and Hall E.M., 1988).

Recently, various studies have shown the harmful effect on health of an imbalance between effort and work compensation. These studies basically concentrated on cardiovascular conditions. Possible sources of compensation for paid work are: a salary in accordance with the effort involved, recognized or valued work and the control of one’s status, i.e. the degree of certainty about the future, or the fulfilment of the
expectations people have for themselves. Threatening the future of paid work undermines the perception on how well one does one's own job, one's self-control and self-esteem because of the constant feelings of anger and frustration, fear, irritation or mental blockage. (Siegrist J. 1996).

In reference to the control of status, the following can be considered threats: work instability (Artazcoz and co., 2004), the lack of prospects for promotion, undesired changes or inconsistency of status. In short, doing a job for which one is over-qualified shatters the hopes and plans for the future. Some psychological theories hold that if the situation of imbalance between effort and compensation does not go on for a long period of time, then it is not of physiological importance. According to this hypothesis, people try to correct this imbalance by lowering their expectations or reducing the effort they put in. The problem is that, at the present time, workers are not free to make these decisions in the highly instable and competitive work market that exists. Among the less qualified this means that the situation of imbalance between effort and compensation becomes chronic in order to keep a job. Among those with higher qualifications, there is an imbalance between effort and compensation in the development of a professional career.

Psychological demands, control over work content, social support in one’s work and compensation make up the four basic general axes which explain the effect of psycho-social risks on health. The associated conditions go from those situated in the short-term psycho-social sphere (anxiety, depression, lack of work satisfaction, psycho-somatic conditions) to those from the longer-term biological sphere, (cardiovascular conditions, stomach ulcers, back ache, among others).

In this study all analysed psycho-social dimensions are situated at a medium to high level, except for participation in unit decisions, which would be at a medium level. There are no gender differences as regards social support from superiors or any in psychological demands. Control over work and participation in unit decisions, on the other hand, are lower among women, while support from colleagues is higher (Figure 15)\(^3\). It is interesting to note that gender differences found in control and participation are also found in people who do not have management responsibilities.

\(^3\) Mann-Whitney U test.
Characteristics in the psycho-social environment differ depending on the workplace. Doctors who work in local Health Centres have more psychological demands, less control over their work and less participation in unit decisions. For men, differences in the support of colleagues are not significant according to the workplace, whereas women who work in hospital medical services have the least support from colleagues.

In both gender differences can be seen regarding the support from superiors, the lowest being in “other situations”. A breakdown analysis of this category shows that emergency services are where the support from superiors is lowest (Figure 16).
As understood from Figure 17, psychological demands are similar and without sex differences in both local health centres and hospitals. Significantly, the lowest demands are for men in hospital surgical services and women who work in clinics and private surgeries.

Whereas demands are similar, the level of control of those who work in the CAP is significantly lower than for those who work in hospital services. Women have noticeably less control than men in hospital surgical and medical services (Figure 18).

Support from colleagues is high in all workplaces, no differences being found between men and women (Figure 19).
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As with control, participation in unit decisions is lower in the CAP (Primary Health Care Centres) than in hospital services. There is a significantly lower participation by women compared to men, both in the CAP and in hospital medical services (Figure 20). These differences do not change when the analysis is restricted to people with no management responsibilities.

Work dissatisfaction

There is less work satisfaction among professionals in the CAP and ‘other situations’ – especially hospital emergency services – than in hospital medical and surgical services (Figure 21). There is also less satisfaction among male interns and women doctors with temporary contracts (Figure 22).
In a multivariate logistic regression model, taking all the following into consideration simultaneously: sex, age, number of jobs, type of workplace, type of work relationship and number of paid hours worked per week, the variables that explain low work satisfaction are the workplace (more dissatisfaction among professionals in the CAP), type of contract (greater dissatisfaction among self-employed), and the total number of hours worked (the more hours worked, the greater dissatisfaction).

Although in the ESCA 2002 satisfaction with working conditions and satisfaction with salary were not enquired about separately, the general question on satisfaction with one’s present job shows very different results from those found in this study. Only 9.1% of Catalan men with paid work and 11.1% of women in the same situation say they are not satisfied with their jobs. In the Catalan population in social class I these percentages are even lower (9.7% of men and 3.9% of women).
5.3. Domestic and family sphere

The structure of home relationships

Most of the surveyed people live with their partner and children, especially the men. The proportion of women who live alone (13%) almost doubles that of men. The proportion of women who live without a partner and with children (most of them being responsible for single-parent homes) is also higher. The proportion of those responsible for single-parent homes is 2.2% for men and almost three times higher at 6% for women (Figure 23).

Figure 23: Distribution of structure of home relationships according to sex

There is a higher proportion of younger people living alone or just with their partner (Figure 24). Seventy four point one percent (74.1%) of men and 64.3% of women have children living at home with them. Seven percent (7%) of men and 10.4% of women live temporarily or permanently with handicapped people or people over 75.
Distribution of domestic tasks and the care of dependents

Although 70% of women and 66% of men who live as a couple say they share in the care of children under 15, gender inequalities are observed in the distribution of these tasks. Whereas 6.2% of women do them alone, 22.9% of men acknowledge that their partners do these tasks. Only 5% of women can say the same thing about their partners (Figure 25).

In the population of Catalonia (ESCA 2002), 55% of women with a paid job (43.1% in social class I) and 57% of men (55.1% in social class I) say they share in the care of children under 15. It is significant
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that 29.1% of women (30.4% for social class I) state that only they look after the children under 15, whereas for men, this percentage is 1.6% (1.4% for those of social class I).

Inequalities in the home are much more noticeable in the distribution of other domestic tasks such as cleaning, ironing, cooking, etc. A third state that they share doing domestic tasks, but no male doctor is the main person responsible for these tasks, whereas 7% of female doctors claim they are. A third of female doctors share this responsibility with someone they hire. Finally, 43.5% of men point to their partners as being in charge of household tasks, whereas only 4.4% of women can do the same (Figure 26).

71% of the surveyed people (of both sexes) have hired help in the home to do household tasks such as cleaning, ironing, cooking, etc. A lower proportion, some 16%, hire someone regularly to take care of children or old/ill people living in the home, again with no difference as regards to sex.

The results of the ESCA 2002 show that in 50.9% of cases, women with a paid job and who live with their partner (26.9% in social class I), are the main person responsible for domestic tasks, whereas this percentage is 2.4% for men (2.9% in social class I). 5.4% of women (17.6% in social class I) state that they have hired help, whereas this percentage is 3.6% (18.6% in social class I) for men.
Use of time

Women who live with a partner or in single-parent homes spend more time on domestic work than men in the same situation. While for those who live solely as a couple, with nobody else, no gender differences can be seen, these differences appear, the same as in the general population, when there are others, mainly children, living in the home (Figure 27).

![Figure 27: Hours spent on household chores according to sex and the structure of family relationships](image)

When women live with a partner they spend less time than men at their paid job and the differences become greater when they have children. It is significant that in the group of people who live alone, it is the women who have the greater number of paid hours of work (Figure 28). These results are compatible with the sexual division of work, which on the one hand assigns women domestic jobs and the care of dependents, making it difficult for them to get promoted, and on the other hand, maintains the central role of man as the main provider of financial resources in the family unit. This means that both sexes are overloaded with work, but in different ways.

![Figure 28: Paid hours of work according to sex and structure of home relationships](image)
As observed in Figure 29, 21% of men and 27% of women state they did not have time to enjoy their hobbies or to relax during the week before the survey.

**Figure 29: Distribution of leisure time for hobbies or to relax during the last week according to sex**

![Figure 29](image)

**Satisfaction with different spheres of life**

The use of questions on satisfaction with different aspects of life is a good indicator to analyze a person’s adaptation to the environment where they live and their wellbeing.

No differences regarding gender can be observed in satisfaction with different aspects of life. In general, both men and women doctors are more satisfied with their private life (less with friendships than with their partner or family) than with their working life. More than half say they are not satisfied with their salary or other work conditions. There is a significantly low degree of satisfaction as to free time (Figure 30).

**Figure 30: Prevalence of dissatisfaction with different aspects of life by sex**

![Figure 30](image)
5.4. The state of health

*Perceived state of health*

The perceived state of health is one of the most commonly used indicators in medical and epidemiological literature and has been widely used in population health surveys. It consists of the following closed question: “Can you tell me if in general your health is excellent, good, fair or poor?”, (as used by Krause and Jay, 1994). The version used in the Health Survey of Catalonia (ESCA) and in this study is a variation of this question: “How would you say your health is generally?” The choice of answers is: excellent, very good, good, fair and poor.

One of the main reasons for using this health indicator in surveys is that it is easy to obtain results with a single question and various aspects of health can be quickly seen (Bergner, 1985). Self-assessment of one’s state of health combines the subjective experience of acute and chronic illness, of a fatal or non-fatal nature, with feelings such as being exhausted, tired or in pain. It is therefore a good indicator of people’s quality of life. Several authors justify the use of this indicator as it is linked not only with an individual’s perceptions regarding his/her physical and mental health, but also with the presence of clinically diagnosed illnesses, and because it is a strong predictor of mortality (Segovia J., Bartleti R.F. and Edwards A.C., 1989; Ross and Bird, 1994; Idler E.L. and Benyamini Y., 1997).

In general, the state of doctors’ health in Catalonia is good. Only 4.8% of men consider it to be fair or poor and for women, this percentage is 7%. This difference is not statistically significant (Figure 31).

**Figure 31: Distribution by sex of perceived state of health**

![Graph showing distribution by sex of perceived state of health](image)
When the health of men and women is compared, no differences between the two analysed age groups can be observed, according to the family relationships or to the workplace.

By analysing the sexes separately it can be seen that male doctors who work in a local Health Centre have a greater proportion of fair or poor health (10%) than those who work in ‘other places’ – for example 1.3% for those who work in a hospital medical service (p<0.05%). This also happens with female doctors who work in local Health Centres (8.5% of poor state of health), although this ratio is borderline in having any statistical significance (p=0.05).

Compared with percentages for the population of Catalonia as a whole, the above percentages are similar to those for people from the same social class, and lower than those for the whole of the active population (Table 3).

**Chronic conditions**

The presence of chronic conditions is considered an objective indicator of health, both in the diagnoses resulting from clinical assessments as in the subjective account of the presence of these diseases. Open questions or specific lists are frequently used in health surveys (Kehoe et al. 1944). Some authors have studied the associations between various factors and the exactness of answers to questions on the presence and types of chronic conditions. Among these factors, the following are noteworthy: age (Liang et al., 1991; Kehoe et al., 1994), sex (Jackson et al., 1996), education (Kehoe et al., 1994; Kriegsman et al., 1996) and previous contact with the health service (visits to the doctor, hospitalizations, etc.) (Kriegsman et al., 1996).

The very definition chronic conditions includes one of its advantages as an indicator of health: its duration (Verbrugge, 1995). In this way the subjective declaration of a chronic illness implies a stable fact that justifies its use as a good indicator of health (Kriegsman, 1996). One of the advantages of presenting a list which is a reminder of chronic complaints is the homogeneity of the answers in the instruments used for these lists (Borrell, 1995). The main limitation of these lists, however, is that the non-inclusion of certain illnesses could be reflected in their under declaration.

**Types of chronic conditions**

In the survey used for this study a list of six chronic conditions (respiratory illnesses, diabetes, cardiovascular diseases, emotional conditions and/or anxiety, and digestive diseases) was used, because of the high prevalence of these conditions in the adult population of Catalonia. However, this question also included an open field where the presence of another chronic condition could be indicated and named. A specific question on muscular-skeletal pains and headaches was also used, which we will comment on at a later point.

**Figure 32** shows the prevalence of chronic conditions by sex. A significantly high proportion of emotional conditions and/or anxiety can be observed both in women (18.1%) and men (10.4%). Hypertension in male doctors (10.1%) and respiratory diseases in female doctors (7.2%) are the illnesses with the next highest frequency in the study population.
The prevalence of diabetes in male doctors (2.2%) is very similar to that in the Catalan population (1.6% - 0.7% social class I). Women doctors, on the other hand, show a much lower prevalence of diabetes than active women and even lower than women from their same social class (Table 3).

If we compare the data from the ESCA, in Catalonia, the prevalence of arterial hypertension in men doctors is lower than that of active men from the same social class (10.1% and 12.6%, respectively) and the same as that of men from the active population (10.3%). In women doctors, the prevalence of hypertension is lower than that in the population of active women and from the same social class (Table 3).

Presence of some chronic condition

In order for ratios between chronic conditions and stratification variables (age, work centre, and structure of the home) to be more easily understood and to increase the statistical power in comparisons between men and women, they have been grouped in a variable dichotomy: conditions ‘YES’ (presence, in the same person, of one or more conditions), or ‘NO’ (no chronic condition).

No significant differences can be found between men and women according to the both studied age groups or to the workplace. On the other hand, the percentage of chronic conditions in women who live alone is lower (40.4%) than that of men in the same situation (75%).

When we analyse men and women separately, we observe that both men and women over 44 have more chronic conditions (55.6% and 57.9% respectively), although the differences are greater among professionals between 30 and 44 (Figure 33).
For men, neither the structure of the home nor the workplace is a determining factor as regards the presence of chronic conditions. However, for women the structure of the home is. Women who live in single parent homes show a higher proportion of chronic conditions (75%), whereas those who live with their partners and have no children show the least (38%).

Overweight and obesity

The International Obesity Task Force (IOTF), the World Health Organisation (WHO), scientific societies, including the Sociedad Española para el Estudio de la Obesidad (SEEDO) (Spanish Society for the Study of Obesity), and other groups of experts, currently accept as criteria for the definition of obesity, values equal to or higher than 30 for the body mass index (BMI) (weight in kg/(height in m))². The SEEDO’97 study was able to estimate the prevalence of obesity in Spain using these criteria, by means of individual anthropometric measurements. With this data, it was estimated that the prevalence of obesity (BMI >30) for the Spanish population between the ages of 25 and 60 as a whole was 13.4% (11.5% for men and 15.2% for women). The global weighted overload (overweight + obesity or a BMI of > 25) is 58.9% in men and 46.8% in women. Using data from the National Health Survey, based on the weight and height given by the surveyed person, the prevalence of obesity for the Spanish population over 20 had been estimated as 7.8% (8.4% for women), considerably lower figures than those previously mentioned. Although the weight and height given have a good correlation with individual measurements, they tend to be biased as people overestimate their height and underestimate their weight. This affects the BMI values and leads to an under estimation of the prevalence of obesity in population studies. (Consensus SEEDO 2000).

37% of male doctors and 70% of female doctors have a body mass index which can be considered within the normal range (BMI between 20 and 24). Underweight is more frequent among women (6.5%). There is a significantly higher percentage of overweight (53.4%) and obesity (8%) in men (Figure 34).
8.9% of young women are underweight while there are no men recorded in this situation. It is more common for men and women 45 years old or over to be overweight. An increase in the percentage of obesity with age, however, is only seen in men. No differences are found in the BMI of men and women who live alone. However, men who live with their partner, their partner and children or in other family situations are more overweight or obese than women in the same situation of family relationships. If this variable is analysed according to the workplace, a higher proportion of overweight or obese men can be seen in all places.

In the analysis done separately by sex, it is seen that age is not a determining factor for the BMI in women, whereas for men it is. In male doctors between 45 and 55, there is more overweight and obesity. Neither the structure of the home nor the workplace is a determining factor for the BMI of either men or women.

**Mental health**

The GHQ-12 questionnaire (12-item General Health Questionnaire) is a screening tool for mental health in a general population, developed by Goldberg (1972, 1978) and adapted to many languages, including Catalan. It is one of the two most commonly used tools in health surveys. Various studies have shown that sex, age and level of education do not significantly affect the validity of this tool.

This study has used the GHQ-12 as an indicator of mental health. The same dividing line has been used as the one ESCA uses for the population of Catalonia, whereby interviewed people who score higher than 2 on a scale of 12 show psychological suffering.

According to the GHQ-12 results, 21.1% of women and 16.2% of men in this study show psychological suffering, and the difference between them is on the borderline of statistical significance (p=0.049). No
differences have been found between men and women in the two age groups, nor according to workplace or structure of the home. Neither did the analysis done separately by sexes show a relationship between mental health and age, the work centre or the structure of the home. It is interesting to see, however, a statistically significant relationship, both for men and women, between mental health and different aspects of satisfaction. On this point, what most affects the mental health of women is dissatisfaction with family relationships, whereas this is the only aspect that does not have a statistically significant relationship with men’s health. What most affects men’s mental health is dissatisfaction in the relationship with their partner (Figure 35).

The prevalence of psychological distress of doctors (16.2%) is higher than the results found in the active population of Catalonia, specially compared to that of active men (9.1%) and that of social class I in Catalonia (12.6%). For women there is also a higher proportion of psychological distress among female doctors (Table 3). This coincides with the high prevalence of psycho-drugs consumption among male and female doctors (this issue will be more detailed in the section about the use of health services).

<table>
<thead>
<tr>
<th>Table 3: Comparison of the perceived state of health and morbidity in doctors, the working population and social class I working population</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Medical staff</strong></td>
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<tr>
<td></td>
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<tr>
<td>Poor state of perceived health</td>
</tr>
<tr>
<td>Psychological distress</td>
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<tr>
<td>Diabetes</td>
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<tr>
<td>Arterial hypertension</td>
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</tbody>
</table>
Pain and fatigue

Pain

Pain is one of the ways that people have of expressing physical and psychological distress. It is often the expression of unease when faced with social pressures, situations of stress or inequality. Chronic specific or generalized pain is a very good indication of the poor quality of life for men and women (Rohlfs, Valls and Perez, 2005).

Chronic back ache can be one of the early manifestations of physical and mental suffering. It can be closely linked to somatic or degenerative diseases, but also to a physical and emotional overload, conditions at work and of household tasks.

For this study, a scale has been devised with a maximum score of 4, based on the answers to four questions: back ache in the cervical region, back ache in the dorsal region, back ache in the lumbar region and pain in the joints (including hands and feet), with a choice of answers from; ‘Always’ to ‘Never’ (Cronbach Alpha = 0.68).

In this scale of pain, women (1.64 IC 95%: 1.59-1.69) score significantly higher than men (1.48 IC 95%: 1.44-1.53).

In the analysis done separately by sexes, both men and women in the over 44 age group have a higher score. No relationship was found between pain and the workplace. For men, no relationship was found between pain and the structure of the home. This relationship, however, is statistically significant for women, and those who have the worst scores are women who live in single-parent families, or ‘other situations’ of relationships in the home (Figure 36).

**Figure 36:** Pain level according to the structure of home relationships and sex

![Graph showing pain level by sex and relationship structure](image)
Fatigue

A subjective feeling of fatigue can also be a warning sign, and although it is not often linked to current health indicators, the persistence of this feeling can, with time, affect physical and mental wellbeing. It should also be mentioned that feeling tired can be related to clinical or sub-clinical pathologies, diagnosed or not, such as anaemia, hypothyroidism, or neoplasia. In this study, however, it cannot be determined if the cause of fatigue is the presence of some illness. Fatigue can also reflect life and working conditions and an overload that can worsen a person’s quality of life.

For this study a scale has been made with a maximum score of 3, based on the answers to three statements: “I felt tired when I got up this morning”, “I started feeling tired halfway through the day”, “at the end of my working day I felt so tired I could not do anything else”, with a choice of answers from “never” to “always” (Cronbach’s Alpha = 0.72).

On this scale of fatigue, women (1.91 IC 95%: 1.85-1.96) score significantly higher than men (1.68 IC 95%: 1.63-1.74).

In the analysis done separately by sexes, it is interesting to note that both men and women under 44 have a higher score than the 45 to 55 age group. No relationship has been found between workplace and fatigue in men. For women, on the other hand, this relationship is significant and those who work in the medical services of a hospital or in ‘other situations’ are those who show the highest level of fatigue (Figure 37). No relationship was found between fatigue and the structure of home relationships, either for male or female doctors.

Figure 37: Level of fatigue by sex and workplace

When the scores on the scale of fatigue and number of productive working hours were analysed by sex and controlled according to perceived health (grouped into good: excellent, very good and good; poor; fair and poor), a gradient was found for men (as working hours increase, the degree of fatigue
increases). For women, no gradient was seen for those who were in good health, or for those who were in poor health. It is interesting to see that those who feel least tired are those who work between 28 and 40 hours a week (they score better than those who work fewer than 28 hours a week). As this is a cross-sectional study, we cannot find the directionality of this relationship. It is possible that they work fewer hours because they feel more tired (this may be linked to chronic conditions, psychological distress, an overload of domestic tasks and caring for people, etc.). Another explanation of why they are more tired although they work fewer hours could be adverse working conditions and the precariousness of their working environment. These possibilities, however, are not statistically significant either for women or for men.

Another factor taken into account in the analysis is whether these doctors were on duty or not during the past month. It was noted that men who had not been on duty but who worked more than 60 hours, scored higher on the scale of fatigue than those who worked the same number of hours, but had been on duty (not statistically significant). Among women, those who are on duty and worked less than 28 h, or more than 60 h per week, are the most fatigated (not statistically significant).

If the relationship between the number of hours spent on domestic tasks and care of dependents and fatigue is analysed, no significant statistical results are found either. It should be noted that for men, there is a definite gradient (the more hours spent on domestic tasks and care of dependents, the greater the fatigue). As regards women, it is observed that those who spend fewer than 5 hours a week on this type of work have a similar degree of fatigue than those who spend 10 hours or more (considerably higher than those who spend between 5 and 9 hours).

5.5. Health-related behaviours or lifestyles

Behaviours or lifestyles can have beneficial or damaging consequences on health. Some authors consider that lifestyles are discretionary individual choices and that consequently the decisions to behave in certain ways or not are of a personal nature. Others, however, have highlighted the importance of contextualizing people in their social, economic and personal environment to explain why they have chosen certain lifestyles and how they are related to health. Neither can certain psychological aspects be forgotten, which might determine whether or not someone adopts certain habits (Dean, 1989; Donaldson and Blanchard, 1995).

Habits that are positive for health are called in a generic way, healthy habits: “Healthy habits are activities that the individual carries out in order to be healthy, prevent illnesses, protect and benefit health. Health protective behaviours are very broadly defined and can include active attitudes, such as correct nutrition and physical exercise, or not acquiring habits such as smoking” (Krick and Sobal, 1990). On the contrary, there are various behaviours or life styles that have clearly negative consequences on health. Smoking, excessive alcohol consumption and a sedentary lifestyle and its association with being overweight or obesity, are
quoted as factors that contribute the most to morbidity and mortality because of chronic diseases in developed countries (Frazier et al., 1996).

According to various studies, people with higher education do more exercise, smoke less and use cancer screening programmes more (Rohlf I et al. 1998; Atienza A A. et al. 2006; Harper S and Lynch J. 2007). Krick and Sobal (1990) highlight that education has a positive influence on the knowledge of health related issues and social participation, and provides a greater feeling of control over ones environment.

Physical exercise

Physical activity is generally divided into two areas: work and leisure. It has been suggested that in modern society, with the decline in the physical effort needed in most occupations, the main time in which enough exercise can be done so that it will have a positive effect on health is leisure time (Caspersen et al., 1985).

Based on the analysis of physiological, epidemiological and clinical evidence, the recommended amount of exercise adults need to be beneficial for their health (Pate R.R. et al.; 1995) is 30 minutes or more of moderately intense exercise most days a week, preferably every day, and at least 3 days a week. This recommendation emphasizes the benefits of moderately intense exercise and exercise that can be accumulated in relatively short periods, and indicates that maintaining an approximate expenditure of 200 kilocalories a day is the most important part.

Among the benefits of exercise is its importance in the prevention of cardiovascular disease or osteoporosis. It has also been observed that certain psychological conditions such as anxiety, stress and some types of depression can improve with the practice of regular aerobic exercise (Santaularia, 1995). Generally speaking, doing exercise in one’s leisure time can be a pleasant activity providing social contact (Kaplan et al, 1996), a feeling of physical and mental wellbeing, recreation and for some people an escape valve.

The results of this study show, on one hand, that 20.1% of women and 20.6% of men say they had not walked during their leisure time in the two weeks previous to the interview. The correlation between sex and this activity is not statistically significant. Most doctors walk less than 90 minutes a week, but 18.4% of male doctors and 20.6% of female doctors walk more than three and a half hours a week (211 minutes or more).

On the other hand, 59.1% of male doctors and 50.9% of female doctors said they had done some kind of sport during the two weeks previous to the interview. Female doctors tend to do less sport than male doctors (p<0.05). It was noted that a high percentage of male doctors do this kind of exercise for more than three and a half hours a week (18.8%) whereas among female doctors, this percentage does not reach 10%.
In the Health Survey of Catalonia there was not a question on how much time was spent walking, so results can only be compared with those in the study related to percentages of how much sports activity was carried out. In the active Catalan population, 68.3% of men (48.3% in social class I) and 75.6% of women (66.9% in social class I) do sports in their free time. Male doctors do more sports than men of the same social class while female doctors do less (Table 4).

If we consider the total minutes devoted to exercise, by adding the time spent walking to the time spent on sports⁴, no differences are found between men and women. A significantly high proportion of male doctors (68.5%) and female doctors (67.5%) do exercise for more than 90 minutes a week during their leisure time (Figure 38).

No significant differences were found between men and women in the two studied age groups or according to the workplace. There are differences between men and women in the time spent walking depending on the structure of the home. Moreover, the percentage of women not taking part in sports who live with a partner and children (50.2%) or in single parent homes (54.2%) is higher than men in the same situation (43.8% and 12.5%, respectively) (p<0.05) (Figure 39). It is interesting to note that, in the total minutes spent on exercise (sum of walking and taking part in sports); no differences can be seen between men and women. This may be due to the fact that women make use of their free time by going for a walk or taking out their children.

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⁴ In this study the minimum threshold of exercise has been taken as 90 minutes a week (30 minutes for at least 3 days). Afterwards the number of minutes are always grouped into multiples of 30 minutes. Thus, the ones who do more than 210 minutes of exercise a week are those who do more than 30 minutes of exercise daily, which is considered to be the ideal amount.
In the analysis done separately by sexes, age is not seen as a determining factor for walking or doing sports, neither for men nor for women. However, when the total minutes of exercise are analysed, it is found that 16.1% of men under 45 do no exercise, compared with 8.7% in the 45 to 55 age group.

The structure of the home is not a factor in exercising during leisure time for either sex. It is noticeable that the workplace is not associated with exercise in men, whereas in the case of women it is. 23.4% of the women who work in hospital medical services had not done any exercise during the fortnight before the interview. This contrasts with the mere 6.5% for the women who work in private surgeries or clinics.

Consumption of tobacco

The association between tobacco consumption and mortality has been studied for a long time and smoking has been indicated as being an important cause of premature death. Lung cancer, chronic obstructive pulmonary disease (COPD) and coronary disease are some of the diseases associated to tobacco addiction (Peto et al., 1992; Ezzati M. et al., 2005). Cigarettes, mainly the nicotine they contain, are potentially addictive, which is why stopping to smoke is so difficult and attempts to do so are often fruitless (Schelling, 1992). The adverse effects of tobacco consumption have been widely promulgated over the last few decades and are now known by the general public (Breslow, 1996). In spite of all this, the prevalence of smoking continues to be high (Borràs J.M. et al., 2000). The habit starts and is consolidated mainly in the early years of adolescence. Villalbí and Nebot (1996) pointed out that the large proportion of adolescent smokers is a sign that attempts to protect them from tobacco addiction has been a relative failure.

In some developed countries there is a declining trend in tobacco consumption. Although historically this habit began and spread among the well to do, this declining trend is mainly due to the fall in tobacco consumption among people with a higher level of education (Pierce, 1989).
Health, lifestyles and working conditions of male and female doctors in Catalonia

Waldron (1991) did an in-depth study on the subtle gender differences in tobacco consumption and published a fundamental article on the subject. According to this author, in Western countries, with rare exceptions, the highest proportion of smokers has always been men. At the beginning of the 20th century, cigarette smoking was not very common: most tobacco was smoked in pipes or in the form of cigars or snuff, and was a typically masculine habit. Cigarette smoking spread rapidly among men but few women smoked. In the middle of the nineteen twenties this habit began to catch on among young women. As time went by, these women represented the first cohorts of older women who smoked. At the end of the nineteen forties, tobacco addiction was well established among women and the difference between the sexes as regards prevalence began to decline. As from the mid sixties, it could be observed that tobacco consumption in men had begun to decline in many countries, whereas in women it was increasing, mainly due to the massive number of adolescents who had taken up smoking. Consequently, the differences in prevalence between the sexes were not as great (Rakkonen O., Berg M. and Puska P., 1995).

No differences are found in tobacco consumption by sex: currently 20.3% of male doctors and 18.4% of female doctors smoke. 38.2% of men and 35.5% of women are ex-smokers (Figure 40).

![Figure 40: Distribution by sex of tobacco consumption](image)

The median age for men to start smoking was 17 and for women 18. While male doctors say they smoke an average of 8 cigarettes a day, female doctors say they smoke five. It is significant that the number of cigarettes that the ex-smokers say they used to smoke is much higher (twenty cigarettes for men and nineteen for women). This difference may be that it is harder for present smokers to admit the real number of cigarettes they smoke. For people who have stopped smoking, on the other hand, admitting how many cigarettes they used to smoke may not be so hard.

Thirty five point one percent (35.1%) of male smokers and 39% of female smokers say they tried to give up smoking during the twelve months previous to the interview (p<0.05).

No significant differences as regards tobacco addiction are seen in men and women because of their age or workplace. However, according to the structure of relationships in the home, differences are seen...
between men and women who live in single parent homes: women (29.2%) in this situation smoke more than men (0%).

In the analysis done separately by sexes, it can be seen that for men age is associated with the percentage of current smokers (men of 45 or over smoke more). As regards women, there is a correlation between age and the percentage of ex-smokers (a higher number of women over 45 have stopped smoking).

The percentage of smokers among men who live on their own (41.7%) is double than that of any other category of family structure. Those who live as a couple with children smoke the least (18.3%). On the other hand, for women, the structure of home relationships is not a determining factor as regards smoking. Both for men and for women, the workplace has no correlation with smoking.

The proportion of both male and female doctors who smoke is much lower than in the active population of Catalonia. 35.4% of men and 44.5% of women in social class I from the active population of Catalonia smoke, whereas only 29.4% of male and 18.4% of female doctors smoke (Table 4).

Alcohol consumption

‘Alcohol is a risk factor in numerous physical and psychosocial problems. The more alcohol is consumed, the higher the risk. 67.7% of the Catalan population between 15 and 64 admit having consumed alcohol during the last 30 days and 9.5% are drinkers at risk. According to the World Health Organization (WHO), in 2002, alcohol consumption related problems contributed 4% to the total morbidity in the world. Measured by the number of years of life lost through disability, alcohol is in third place among health risk factors in developed countries’ (Segura L., 2006).

As occurs with the population in general, male doctors drink more than female doctors (p<0.05), although a very low proportion of doctors of either sex drink to excess. Only 0.3% of men and 0.02 of women are drinkers at risk (41 grams or more of alcohol daily for men, 31 grams or more for women). Most of those interviewed are “prudent” drinkers (less than 30 grams of alcohol a day for men and less than 20 grams for women). 16.4% of men and 29.5% of women are teetotallers (Figure 41). In the active population of Catalonia, the percentage of at risk alcohol consumption is much higher, both for men (10.2% with 8.8% in social class I) and women (3.4% with 0.8% in social class I) (Table 4).

There is no difference in alcohol consumption between male and female doctors between the ages of 45 and 55. In younger doctors, however, there are twice as many women teetotallers (40%) than men (20%). No differences are seen between men and women according to the structure of the home. When the analysis on the workplace was carried out, it was noticed that there is a higher percentage of women teetotallers (29.5%) in hospital medical services than men (14.3%).
In the analysis done separately by sexes, age was not a determining factor for alcohol consumption in male doctors, but it was for female doctors. Whereas 64% of women between 30 and 44 years of age are teetotallers, this figure falls to 36.1% in women between 45 and 55.

No relationship is found between alcohol consumption and the family structure or the workplace, either for men or women.

**Figure 41: Distribution of alcohol consumption by sex**

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
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<tbody>
<tr>
<td>Teetotallers</td>
<td>16.4%</td>
<td>69.7%</td>
</tr>
<tr>
<td>Prudent</td>
<td>82.7%</td>
<td>29.5%</td>
</tr>
<tr>
<td>Some</td>
<td>0.6%</td>
<td>0.5%</td>
</tr>
<tr>
<td>At risk</td>
<td>0.3%</td>
<td>0.2%</td>
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**Hours of sleep**

Although the basic amount of sleep needed is not completely clear, some studies suggest that people who sleep fewer than 6 hours or more than 9 hours a night show signs of worse health than those who sleep between 7 to 8 hours.

Certain studies point to sleep deprivation causing a decrease in productivity, attention and the ability to remember or to learn. Lack of sleep can also have a negative impact on health, e.g. a greater probability of having obesity and an increased risk of suffering chronic diseases such as diabetes or cardiac conditions. Lack of sleep also has a negative impact on mental health: people who sleep fewer than 6 hours a night are more likely to suffer depression, anxiety and irritability, and also substance abuse (Weinger M.B. and Ancoli-Israel S.A.).

Another important point is that lack of sleep can jeopardize personal safety or the safety of those around us, for example an increased risk of accidents at work or traffic accidents.

For this analysis, the number of hours of sleep per day has been grouped into “6 hours or less”, “7-8 hours” and “9 hours or more”. The most unfavourable of these groups as regards health is sleeping 6 hours or less a day.
In general, male doctors sleep fewer hours than female doctors. Whereas almost a third of men (29.8%) sleep 6 hours or less, this percentage is 23.6% in women. Nevertheless, most male doctors (70%) and female doctors (74.2%) sleep between 7 and 8 hours a day.

The relationship between sex, hours of sleep and age is on the limit of statistical significance for the under forty-fives. Whereas 32.2% of men in this age group sleep 6 hours or less, this percentage falls to 22.8% in women of the same age group (P=0.046).

No differences are found between men and women in the hours of sleep according to the workplace. Yet, it is interesting to note that women who live alone sleep fewer hours than men in the same situation (p<0.05). This contrasts with the fact that men who live with their partner and children sleep less than women in the same situation (p<0.01). 50% of men in single-parent homes sleep 8 hours or less, but there are so few men in this situation (n=8) than statistical contrasts cannot be made (Figure 42).

Age and workplace are not determining factors in the number of hours of sleep, either for men or for women. The structure of the home does not affect the number of hours of sleep for men but it does for women. Thus, a greater proportion of women who live alone (30.8%) and those who live as a couple (28.8%) sleep 6 hours or less a day. Among those who live with a partner and children or in single parent homes, this percentage is 20% (Figure 42). This coincides with the high percentage of women who live alone or with a partner and who work more than 60 hours a week. When logistic regression models are adjusted by age, workplace and structure of home, and separated by sex, no greater risk of sleeping 6 hours or less is found either for men or for women.
In men, no relationship was found between having sleep problems and the number of hours of sleep. On the other hand, in the category of 6 hours of sleep or less (62% compared with 32.6% in men) a higher percentage of women often or always have these problems. In women who never have sleep problems this percentage is 19.8%. This correlation continues to be significant when it is adjusted by age.

If the hours of sleep are analysed as a continuous variable, the mean hours of sleep a day is 6.8 (D.E. = 0.7) for men and 7.0 (D.E. = 0.8) for women.

The percentage of people who sleep 6 hours or less in the active population of Catalonia is lower than that of both male and female doctors (Table 4).

<table>
<thead>
<tr>
<th>Medical staff</th>
<th>Active population Catalonia</th>
<th>Active population social class I Catalonia</th>
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<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
</tr>
<tr>
<td>Sports in free time</td>
<td>59.1</td>
<td>50.9</td>
</tr>
<tr>
<td>Tabacco consumption</td>
<td>20.4</td>
<td>18.4</td>
</tr>
<tr>
<td>Drinkers at risk</td>
<td>0.3</td>
<td>0.2</td>
</tr>
<tr>
<td>6 hours or less of sleep</td>
<td>29.8</td>
<td>23.6</td>
</tr>
</tbody>
</table>
5.6. Use of health services, medicines and preventative practice

The importance of obtaining and analysing data on the use of health services is fully recognised. Health planning and the assessment of resources are among its most noteworthy applications. Roberts et al. (1966) summarises these applications: “Data on the use of health services are important for finding out about the epidemiology of the impact of diseases, of associations between health-related behaviour, of specific and general costs of medical conditions as well as for planning and health management.” The use of health services depends on a number of factors. These can linked both to users/patients (age, sex, promptness and recognition of symptoms and the need to seek attention), and to factors related to the health services, i.e. the type of service, its availability and the trust placed in it. The quality of available services and the way patients are treated should not be overlooked. According to Meininger (1986), the subjective perceptions of symptoms and interpreting that health care can possibly solve or minimize them are positively linked to the use of health services. One of the consequences of the presence of chronic diseases is the use of medical surgeries and other health services (Verbrugge and Patrick, 1995). Also, when the perceived health is not very good or poor, health services, mainly Primary Health Care Centres, are used more to consult both general practitioners and specialists (Fernández de la Hoz and Leon, 1996). Bucquet and Curtis (1986) related the levels of incapacity or dependence to being determining factors in the search of cures or medical treatment.

Using different analytical perspectives, various studies have shown that women use health services more than men and in a greater proportion (MacIntyre, 1993; Sweeting, 1994). Some of these studies try to show why these differences exist and others point to the lack of homogeneity in the use of services by men and women, depending on the type of service, age groups and social classes. In conclusion, generally speaking it can be stated that women use health services more, although when certain types of services, social classes and age groups are analysed separately, this tendency can change.

Behaviour when faced with a health problem

Most doctors seek advice from their colleagues when they have a health problem: only 10.3% of men and 8.2% of women do not do so (Figure 43). No differences are found between men and women due to age, home structure or workplace.
Age and the structure of home relationships are not determining factors in this behaviour for either men or women. For men, however, the workplace is important. Male doctors who work in Primary Health Care Centres have the highest percentage in the category 'do not ask for advice from colleagues' (18%) (Figure 44).

When the surveyed people feel ill, they mainly tend to ask a colleague or friend for advice. Differences are observed between men and women's behaviour: whereas 7% of men have not asked for help, this percentage is 4.7% in women. Practically 40% of male doctors seek the help of a colleague, whereas this percentage falls to 28% for female doctors. Female doctors, on the other hand, seek the help of their general practitioners (18%) and specialists (25%) (Figure 45).
Having a general practitioner and an open medical record

22.3% of men and 33.3% of women have a general practitioner who they can see regularly when they have a health problem (Figure 46). Most people who have a general practitioner have an open medical file, but it is significant that the percentage of male doctors who do not is 20%, a substantially higher figure than that for female doctors (9%) (p<0.05). No differences are seen between men and women according to the structure of home relationships, nor the work centre. In the analysis done separately by sexes, none of the variables mentioned has been a determining factor for having a general practitioner and an open medical record.
Usually, the chosen general practitioner belongs to the Public Health Service (this is the case in 76.2% of men and 83% of women who have a doctor). No differences between men and women were observed in the type of hospital or clinic by age, structure of home relationships and workplace. Age, the structure of home relationships and the workplace are not determining factors for choosing a general practitioner in men. In women, however, the only determining factor among these three variables is the workplace: results show that those women working in private clinics or surgeries use the public primary health services less (52.4%). This is in contrast to the 84 to 100% range of use of the public health services observed for other workplaces.

**Hospitalization and types of chosen centres**

If hospitalizations for childbirth are excluded, 7.2% of men and 6.2% of women were admitted to hospitals throughout the year before the interview (Figure 46). The only differences between men and women were observed according to the structure of home relationships: men who live alone are hospitalized more often than women living in the same situation (12.5% of the men and none of the women). In the analysis by sex, the only significant observed relationship was for hospitalizations (except for childbirth) and women’s age: women over 45 years old are hospitalized more often than those between 30 and 44 (8.6% compared to 3.9%).

The ESCA 2002 also shows that, besides hospitalizations for childbirth, in the year before the interview, 7.4% of employed men of the general Catalan population belonging to this age group (9.4% in social clase I) and 6.7% of the women (6.3% in social clase I) were hospitalized. These figures indicate that the percentage of hospitalizations for employed men in class I of the general Catalan population is higher than the one for medical doctors. However, figures show that the percentages of hospitalizations for female medical doctors and for women in class I in the general Catalan population are the same.

When the causes of hospitalization are analysed (including childbirth), the main cause for men’s hospitalizations is surgery (42.3%) and for women’s, childbirth (40%) It is surprising to note the high percentage of men’s hospitalizations due to accidents (Figure 47).
Health, lifestyles and working conditions of male and female doctors in Catalonia

**Figure 47:** Distribució del motiu d’ingrés segons sexe (% sobre ingressats)

Most have been hospitalized in hospitals belonging to the public health system (65.4% of hospitalized men and 61.9% of hospitalized women). No differences were found between men and women as to the choice of the type of hospital by age, the structure of home relationships and the workplace. The workplace is only a determining factor for the type of hospital women are admitted to. It can be seen that none of the women who work in private surgeries or clinics have been admitted to a public hospital: most have been admitted to a hospital belonging to a medical insurance company or to a private centre (**Figure 48**).

**Figure 48:** Distribution according to type of centre of last admittance (women)

Medicine consumption

The medicines taken most frequently by both men and women are anti-inflammatory products and painkillers, although women consume a higher quantity. Female doctors also take more vitamins and minerals whereas medicines for cholesterol are taken more by male doctors. No differences are found between men and women for other types of medicine. The high proportion of medicines that the surveyed
people take on their own account is noteworthy; in contrast to the low proportion of self-prescription in the population in general (Table 5). It should also be mentioned that the consumption of self-prescribed tranquilizers and hypnotic drugs reaches 5% and 4.5% respectively among male doctors and 9% and 5% among female doctors. Antidepressants however, are consumed in a higher proportion on prescription from another doctor rather than with a self-prescription (Figure 49 and Figure 50).

16.8% of surveyed doctors (14.9% of male doctors and 18.9% of female doctors) replied that they had taken psycho-drugs (hypnotic drugs, tranquilizers, antidepressants) during the two weeks previous to the survey. Most had taken only one of these drugs but 3% of men and 3.2% of women had taken two or more drugs from this category. The differences between men and women are not statistically significant (Figure 51).
Health, lifestyles and working conditions of male and female doctors in Catalonia

In younger doctors (from 30 to 44 years of age), no differences are found between men and women as regards consumption of psycho-drugs. Women in the 45 to 55 age group, on the other hand, take a greater proportion of psycho-drugs than men of the same age: 24.4% of women compared to 15.7% of men. No differences between men and women are found as regards the consumption of psycho-drugs according to the structure of home relationships or the workplace.

When the determining factors for the consumption of psycho-drugs are analysed, separating the sexes, it is observed that age is only significant for women (those between 45 and 55 take almost twice as much as those between 30 and 44 at 24.4% compared with 13%). For men, the structure of home relationships is not a determining factor in the consumption of psycho-drugs, whereas women who live in single-parent families take them in the highest proportion (37.5% compared with 13.5% for women who live alone) (Figure 52). The workplace is not a determining factor in the use of psycho-drugs, either for men or for women.

**Figure 51:** Distribution of consumption of psycho-drugs by sex

**Figure 52:** Use of psycho-drugs according to structure of home relationships and sex
A distinction should be made between the consumption of hypnotic drugs and tranquilisers and the consumption of antidepressants. 4.5% of male doctors and 5% of female doctors had taken hypnotic drugs during the two weeks previous to the survey; the percentage of consumption of tranquilisers is 7.5% for male doctors and 11.4% for female doctors; as regards antidepressants this percentage is 4.7% for male doctors and 5.7% for female doctors.

The number of self-prescribed medicines consumed has also been analysed. A high percentage of male doctors (84.4%) and female doctors (88.3%) take medicines they self-prescribe. It should be remembered that mainly anti-inflammatory drugs, painkillers, vitamins and minerals account for these results. No differences in self-medication were found between men and women because of age or place of work. Significant differences can be observed however between men and women according to the structure of home relationships. Thus, women who live with a partner and children self-medicate more than men in the same situation (90.4% of women and 83.3% of men). It is interesting to note that when it is a question of prescribed medicine, there are no differences between men and women between 45 and 55, whereas there are differences in the 30 to 44 age group. It is also women, in this case, that take more prescribed medicine.

In the analyses done separately by sexes, it is observed that none of the variables of interest (age, home structure and workplace) is a determining factor for men or for women, either for self-medication or the consumption of prescribed medicine.

<table>
<thead>
<tr>
<th>Table 5: Comparison of medicine consumption (prescribed or self-prescribed) with active population and social class I</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Medical staff</strong></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Cholesterol Med.</td>
</tr>
<tr>
<td>Allergy Med.</td>
</tr>
<tr>
<td>Hypnotic drugs</td>
</tr>
<tr>
<td>Anti-inflammatory products and painkillers</td>
</tr>
<tr>
<td>Antibiotics</td>
</tr>
<tr>
<td>Tranquilizers</td>
</tr>
<tr>
<td>Vitamins/minerals</td>
</tr>
<tr>
<td>Antidepressants</td>
</tr>
</tbody>
</table>
Health, lifestyles and working conditions of male and female doctors in Catalonia

Preventative practices: ‘flu vaccination, regular check on blood pressure and cholesterol levels

The main groups of people who should have annual vaccinations (in autumn) with the anti-‘flu vaccine are: health workers, those who are over 65, patients with chronic respiratory or cardiovascular diseases and people with a suppressed immune system (CDC 2004).

The importance of arterial hypertension as a public health problem lies in its causal role in cardiovascular morbimortality. It is one of the four modifiable risk factors in cardiovascular diseases, together with dyslipidemias, diabetes and tobacco addiction. It has been calculated that a high percentage of the population with hypertension is not aware of their condition, and therefore their illness is not under control. The PAPPS (Programme for Health Prevention and Promotion of the Spanish Society for Family and Community Medicine) makes the following recommendations for the periodical blood pressure check up: ‘It is recommended that blood pressure be measured: at least once before the age of 14; every 4 or 5 years from the age of 14 to 40 years of age; and every 2 years from the age of 40 on, without a higher age limit’ (Villar A.F. et al., 2003).

Low-risk people with no symptoms are recommended to have their total serum cholesterol checked at least once. For men this should be before the age of 35 and for women before 45. After this it should be done every five or six years, up to the age of 75. People over the age of 75 who have never had their serum cholesterol measured should have it checked at least once (Villar A.F. et al., 2000).

45.7% of male doctors and 40.9% of female doctors state that they have a ‘flu vaccination every autumn. This percentage is much lower in the active population of Catalonia (Table 6).
No differences were found between men and women in the autumn ‘flu vaccination for any of the variables of interest (age group, structure of home relationships and workplace).

In the analysis done separately by sexes, it was observed that only the work place was a determining factor for men and women as regards the autumn ‘flu vaccination. Doctors who work in Primary Health Care Centres have the highest proportion of yearly ‘flu vaccinations (Figure 54).

It can be observed that in the 30 to 44 years age group, a higher percentage of women than men check their cholesterol levels regularly (Figure 55).
Health, lifestyles and working conditions of male and female doctors in Catalonia

**Figure 55:** Regular cholesterol checks (less than 2 years) according to age and sex

In the analysis done separately by sexes it can be observed that for men age is a determining factor for regular cholesterol checks, but not for women. Thus 74.5% of male doctors between the ages of 45 and 55 have their cholesterol levels checked regularly, whereas this percentage falls to 58.9% for the 30 to 44 years age group. Neither the structure of home relationships nor the work place are determining factors for regular cholesterol checks, either for men or for women.

In Table 6 it can be seen that there are no differences with the active population of Catalonia in social class I (70.3% of men and 71.3% of women check their cholesterol levels regularly).

**Table 6: Comparison of preventative practices with the active population and social class I**

<table>
<thead>
<tr>
<th></th>
<th>Medical staff</th>
<th>Active population Catalonia</th>
<th>Active population social class I Catalonia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
<td>Men</td>
</tr>
<tr>
<td>‘Flu vaccination</td>
<td>45.7</td>
<td>40.9</td>
<td>9.1</td>
</tr>
<tr>
<td>Regular blood pressure Checks</td>
<td>89.4</td>
<td>82.1</td>
<td>74.0</td>
</tr>
<tr>
<td>Regular cholesterol Level checks</td>
<td>69.1</td>
<td>72.0</td>
<td>67.8</td>
</tr>
</tbody>
</table>
5.7. Reproductive health of female doctors

Preventative practices

23.6% of the interviewed women doctors state that they do not have regular gynaecological visits to have a Pap smear done. This proportion is higher among those women who have never been pregnant (35%) and those who have undergone a natural menopause (33%). Among the Catalan employed women of the same age group and from social class I, only 13.9% of them have periodical Pap smears (Table 7).

More than half (56.8%) of women have mammograms at regular intervals or periodically. 88% of women over 50 go through this procedure and among younger women, 48% do so even though screening for breast cancer is not indicated for this age group. Significant differences have not been found for workplace. It should be remarked that a higher percentage of Catalan women over 50 belonging to social class I have periodical mammograms: 100% of the interviewed women stated in the ESCA 2002 that they periodically undergo this procedure (Table 7).

Among women who are still menstruating, 46% state that they do not use any contraceptive method. The most frequently used method is the condom (21%) followed by the intra-uterine device (12%) (Figure 56).

Figure 56: Distribution according to the contraceptive method used regularly by women who are menstruating

- None: 45.9%
- Condom: 20.8%
- IUD (Intra-uterine device): 12.4%
- Hormonal: 10.7%
- Others: 3.9%
- Female sterilisation: 3.6%
- Surgical (vasectomy): 2.6%
Health, lifestyles and working conditions of male and female doctors in Catalonia

Table 7: Comparison of preventative practices with active population and social class I

<table>
<thead>
<tr>
<th></th>
<th>Female doctors</th>
<th>Active population Catalonia</th>
<th>Active population social class I Catalonia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular Pap smears</td>
<td>76.0</td>
<td>76.7</td>
<td>86.1</td>
</tr>
<tr>
<td>Regular mammograms (over 50s)</td>
<td>88.0</td>
<td>76.3</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Menstruation and pre-menstrual symptoms**

15.7% of interviewed female doctors were going through natural menopause and 4.2% post-surgical menopause. 2.5% were pregnant (Figure 57). 33% of the menopausal women were using some kind of hormonal replacement therapy. The use of hormone therapy was much higher than that of the general population of women of the same age, which is not more than 10%, although reliable population statistics on this do not exist.

Figure 57: Distribution according to menstrual-related situation

Most of the women interviewed (76.6%) menstruate in periods of between 25 and 32 days. 6.3% have totally irregular periods, although it should be pointed out that most of these are over 44 years of age (79%). 63.4% of those interviewed menstruate for 3 to 5 days; 13% for 3 days or less; and the rest over 5 days. It is significant that 20.7% of female doctors between 30 and 44 have metrorrhagia, 21.3% have clotting in the menstruation and 13.3% say that they consider their menstruation to have been more abundant in the last 6 months – facts which are compatible with the effects of stress on menstrual complaints.
79% of the women who menstruate have pre-menstrual symptoms and no relationship was found with age and structure of the home. However, the relationship with the work place was statistically borderline (p=0.046%). Women who work in private surgeries/clinics are the ones who most say they have pre-menstrual symptoms (90.5%) whereas those who work in hospital surgical services indicated the lowest proportion of pre-menstrual symptoms (68.8%) (Figure 58).

Figure 58: Prevalence of pre-menstrual symptoms in menstruating women

Most surveyed women consider that only they are aware of their pre-menstrual symptoms (73.7%), but 26.3% consider that people around them also notice. These figures are much higher than in the general population, for which we only have generic references from studies of the Anglo Saxon population (Di Giulio G., Reissing E.D.). We have no references on the pre-menstrual syndrome in the Spanish population. The pre-menstrual syndrome, considered from moderate to serious in 26.3% of the surveyed women, can interfere in their ability to concentrate and in their performance at work if it goes on for more than three days a month.

Pregnancy

70% of the interviewed women had at some time been pregnant. The most usual was to have had two full term pregnancies (36.1%) (Figure 59). 17.7% of women doctors had had one child, compared to 45.8% who had had two or more (9.7% of women doctors have had three children or more). The number of children per woman is higher than in Catalonia and Spain (at this moment the figure stands at 1.5 children per woman).
23.6% of female doctors who have been pregnant have had an abortion or miscarriage and 9.3% have had two or more. A percentage of 33% for abortions or miscarriages is very high, according to figures from the Ministry of Health and Consumption. In the general population of the same age, the figure is not more than 20%. It should be mentioned, however, that we do not know what proportion of these were voluntary terminations of pregnancy (VTOP) or miscarriages.
42.5% of women between 30 and 44 had some obstetric complication, while in women between 45 and 55 this percentage is 31.7% (p=0.046).

No correlation was found between premature births and miscarriages/abortions according to the workplace. Obstetric complications, however, were more common among those who work in hospitals (54.2% of those who work in surgical services and 41.7% among those who work in medical services). This relationship continues to be significant when it is age-adjusted\(^5\) (Figure 61).

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\(^5\) Result of adjustment of logistic regression model.
6. Final Notes and Conclusions

Socio-demographic characteristics, occupational situation and professional activity

The feminization of medicine is not a temporary phenomenon. Trends over the last decade have confirmed that in the future there will be a majority of women in the profession. Considerable thought should be given to this. Working conditions will have to change and ways of balancing private and working life will have to be found.

In some specialties where men are still in the majority, a shortage of certain specialists is already noticeable. In order to avoid this, working conditions that are more attractive to female doctors should be offered.

In keeping with the gender segregation in specialties, there are also differences between men and women in the places where they carry out their work. Most female doctors work in Primary Health Care Centres, whereas male doctors mainly work in hospitals. Most male doctors have more than one job, whereas female doctors mainly work in only one place.

The high percentage of temporary contracts and substitutions among salary earners is alarming as it is much higher than in the general population. Among male doctors, the number with this type of contract is six times higher than among men of the same social class and in women doctors it is more than three times higher. These figures are a strong indicator of the precariousness of work for this group. Unstable work situations (contract, etc.) are seen especially among young professionals. There is a clear difference between the situation of doctors over 45 who have contracts, who work in the private sector and who began working at a time when medicine had “social prestige”, and the situation of young doctors on a salary but with unstable conditions. Medicine has become a profession of wage-earners.

It is known that medical professionals devote a great number of hours to their work: male and female doctors work an average of almost 10 more hours a week than men and women from the same social class. This figure is even higher for doctors who have to be on call. It is worth mentioning here that almost half the doctors between 45 and 55 years of age who are on call work more than 60 hours a week.
The wellbeing, quality of life and health of working people are closely linked to the psychosocial conditions of their work. The observed data show that both male and female doctors may endure some of these risks. Although these professionals enjoy good levels of social support from their superiors and colleagues, their degree of participation is not very high whereas their work makes great psychological demands on them.

The degree of low satisfaction with the profession (working conditions and salary, mainly) is high among doctors, especially among those who work in Primary Care. This could be linked to the fact that, although the level of psychological demands is similar to that on professionals who work in hospitals, doctors who work in Primary Health Care Centres participate less in unit decisions and have less control over their work, i.e. autonomy and the opportunity to develop their own activities. This imbalance – high psychological demands with little participation and little control – leads to a situation of high psychosocial risk in the workplace. On this point, it should be mentioned that female doctors, both those who work in the CAP as those working in hospital medical services, have a very low participation in unit decisions.

**Domestic and family sphere**

The sexual division of work among these professionals is a fact. Even though a large proportion of male and female doctors state they share in the care of their children, when it is a question of housework (cooking, cleaning, etc.) female doctors, to a very large extent, are the ones responsible for these tasks in their homes. In comparison with the population of their same social class, female doctors are, to a less extent, the main people responsible for domestic tasks and the care of dependents. This coincides with the fact that almost three quarters of female doctors have hired help to do some or all of these tasks.

When women live with a partner, they work less in paid jobs than men, and differences increase when they live with children. It should be mentioned that, among people who live alone, female doctors do more hours of paid work than male doctors. These results are compatible with the sexual division of work, which on one hand assigns domestic tasks and the care of dependents to women, making it difficult for them to get promoted, and on the other hand, maintains the man, in many cases, as the centre of the family and main provider of financial resources for the family unit. Thus, both sexes are overburdened, although in a different way.

No gender differences are observed as regards satisfaction with different spheres of life. In general, both male and female doctors are more satisfied with their private life than with their working life. This specifically does not refer as much to their friends as it does to their partner or family.
State of health

In general, the prevalence of chronic conditions in male and female doctors is similar to that of the population of the same social class. However, it should be highlighted, that compared to the active population of social class I, there is a higher proportion of male doctors with diabetes whereas the proportion of female doctors with this illness is much lower.

In contrast to everything that has been previously mentioned, both male and female doctors have a better perceived state of health than the population of their same age group and social class. One of the hypotheses used to explain this result is that what doctors call “health” is much more associated to the fact of not having any illness, or if they do have a mild or chronic illness, they are in a position to know its prognosis and evolution. This means that they minimize its effects. Another result of the study which supports this hypothesis is that, if we consider psychological wellbeing, measured by the GHQ-12 questionnaire, we find that psychological suffering of male and female doctors, mainly the latter, is higher than that of the general population. These results give the impression that when medical professionals evaluate their own health, they do not take their psychological wellbeing into account, or if they do, they consider it of less importance. In any case this hypothesis should be investigated through in-depth studies and with qualitative methodology to find out what factors male and female doctors take into account when they evaluate their own health.

It is interesting to notice that both men and women under 45 score higher on the fatigue scale. For all ages, however, on a scale of 3 points, the median scores for women are almost 2 and those for men are above 1.5. The long work hours and the dissatisfaction with free time may be some of the explanations of the high degree of fatigue this professional group has.

Doctors, especially female doctors, score high on the scale of pain. This may be due to an expression of some illness, problems with ergonomics in the workplace, physical and psychological suffering and frequently unease caused by social pressure, situations of stress or the work overload of this professional group.

There is a noticeably high proportion of overweight (53.4%) and obese (8%) male doctors, mainly in those over 45 (p<0.05). On the other hand, only 19.6% of female doctors are overweight and 4% obese, and no correlation is found between BMI and age. This issue should be studied in more depth as the epidemic of obesity in the population is a cause for concern and medical professionals, in spite of being aware of the co-morbidity and higher probability of mortality among obese people, do not seem to apply the advice they give to their patients to themselves.
Health related behaviours or lifestyles

It is interesting to note that in spite of the high percentage of overweight and obese doctors, almost 70% of the people surveyed state they do more than 90 minutes of exercise a week. Neither is very positive to discover than more than a third of doctors are sedentary or do less than 90 minutes of moderate exercise a week during their free time. If we just consider sports, excluding the time devoted to walking, male doctors do more sports than men of their same social class, whereas female doctors do less. The percentage of male doctors under 45 who do no exercise is almost twice as much as for female doctors of the same age (16.1% of male doctors and 8.7% of female doctors).

Although some unkind voices insist that medical professionals smoke more than the general population, the result found in this study does not confirm this. The proportion of male and female doctors (there is no difference between the sexes) who smoke is only 20% whereas in the general population for the same age group and social class I, 44.5% of women and 35.4% of men smoke. In the case of men the percentage of current smokers is age-related (45 year olds and older smoke more). On the other hand, women over 45 have given up this habit more than the younger ones.

Results observed for the moderate or risk consumption of alcohol are much lower among male and female doctors than among the general population. These results should be regarded with caution as the social stigma associated with the consumption of alcohol, mainly among medical professionals, may have caused an under declaration of this consumption. However, we have no tools to state that this under declaration is higher than that of the general population. The majority of women between 30 and 44 years old say they are teetotallers (64%) whereas this percentage among women over 45 is 36.1%.

Most doctors, both male and female, sleep between 7 and 8 hours. In general, male doctors sleep fewer hours than female doctors. A third of male doctors and almost a quarter of female doctors sleep 6 hours or less a night (the highest percentages of less than 6 hours of sleep is found among doctors under 45). This data is a cause of alarm as the percentages are higher than those of the general population, and there are studies that show that sleep deprival increases medical errors and diminishes physical and psychological wellbeing, which in turn brings about low satisfaction, stress and even depression.

Use of health services and medicines and preventative practices

Confirming the results of the previous study by the COMB (Bruguera et al., 2001), both male and female doctors continue to make little use of formal health services. The vast majority ask for help from a work colleague or a medical relative, or from a friend. Female doctors are more likely to seek the help of a general practitioner or specialist (43.2%) whereas only a third of male doctors do so. Also, less than a quarter of male doctors and a third of female doctors say they have a general practitioner. Even more alarming is the fact that among those who have a GP, 20% of male doctors and 9% of female doctors have no open medical file.
If childbirth is excluded, male and female doctors have a similar number of hospital admissions. However, a high percentage of male doctors are admitted because of accidents. Compared with the general population, doctors have a lower percentage of hospital admissions than active men of social class I. On the other hand, the percentage of admissions in female doctors is the same as that of active women from social class I.

The high percentage of medicine consumption among male and female doctors can have various explanations. Anti-inflammatory medicines and pain-killers are in the first place. More than half of female and more than a third of male doctors take these types of medicine, and largely do so, on their own initiative. As previously mentioned, these professionals score high on the scale of pain, and this could be one of the explanations. Why male and female doctors have so much pain is an issue that, should be studied more deeply, in order to find underlying explanations and be able to take action to improve the situation. Another explanation could be their easy access to medicines and the belief that this is the quickest and most effective means of treatment. The differences with the general population could be either that they do not have so much pain, or that they use other ways of treating it.

The high percentage of psycho-active substances (mainly self-prescribed) consumed by doctors, especially female doctors is a cause for alarm. Among younger doctors (between 30 and 44 years of age) there are no differences between men and women as regards consumption of psycho-drugs. Women between 45 and 55 however, consume a higher percentage of psycho-drugs than men of the same age (24.4% and 15.7% respectively). It should be pointed out that 5% of male doctors and 9% of female doctors take self-prescribed tranquillizers. If we add to these figures the proportion of consumption with prescription, we find that 7 out of 100 male doctors and 11 out of 100 female doctors take tranquillizers. As regards hypnotic drugs and antidepressants, these are taken much more by doctors than by the population of Catalonia of the same age and social class.

Although ‘flu vaccination is more common among doctors than among the general population of the same age and social class, the proportion of vaccinated male and female doctors does not reach 50%. It should be remembered that anyone in contact with patients should be vaccinated every autumn.

Compared with the general population, the proportion of male and female doctors who regularly check their blood pressure is high. Regular cholesterol level checks are similar to the general population of the same age and social class.

Reproductive health of female doctors

Female doctors have fewer Pap smear tests (cytology) than the general population. As we do not know how often they have this done, we cannot say if this practice follows current recommendations, which advise women who are not in a risk group, or who have not had gynaecological problems, to have this test
every 3 years. As regards mammograms, 88% of female doctors over 50 have them. Although for women below this age group a mammogram is not usual for cancer screening, 48% of the women surveyed undergo this test.

While there is evidence that hormone replacement therapy is not indicated for the great majority of women during menopause, a third of female doctors in this situation use some kind of hormone replacement therapy.

A higher percentage of female doctors than is considered normal have metrorrhagia, hypermenorrhea and the premenstrual syndrome. These figures suggest that this group has a very high stress level. Further detailed studies are needed to determine if excessive blood loss could contribute to the appearance of hematologic conditions (anaemia, ferropenic anaemia), which can potentially contribute to fatigue, a particularly frequent condition in female doctors.

More than 60% of female Catalan doctors have had full term pregnancies, and almost 46% have had two children or more. This proportion, which is higher than the median for children in Catalonia and Spain (1.5), shows that the role of biological reproduction forms part of their centre of interests.

The proportion of premature babies is high. 10.4% of the female doctors who have been pregnant at any time have had a premature baby. A third of female doctors have stated that they have had an abortion or miscarriage. We do not know in what proportion these were voluntary terminations of pregnancy (VTOP) or miscarriages. The proportion of obstetric complications is higher among women under 45 (42.5%) than among women between 45 and 55, where the percentage is 31.7%. No relationship was found between premature births and abortions or miscarriages according to the workplace, whereas obstetric complications are more frequent in women who work in hospitals.
7. Bibliography


Hörte LG, Hedberg A, Theorell T, Allander E, Malkar H. Suicide patterns among physicians related to other academics as well as to the general population. Results from a national long-term prospective study and a retrospective study. Acta Psychiatric Scand 1987;75: 139-43


Karasek RA, Pierer C, Schwartz J. Job Content Questionnaire and user’s guide, version 1.5. Lowell (Boston): University of Massachusetts Lowell, Department of Work Environment; 1993.


Wells KB, Lewis CB i Ware JE. Do physicians preach what they practice? – A study of physicians health habits and counseling practices. JAMA 1984;252:2846-48

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