

# Gender differences in health and medicine information seeking behaviour- A review

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## Educational aims

- To gain an understanding of the health and medicine information sources utilised by males and females
- To compare and contrast how male and female consumers source health and medicine information
- To examine some potential implications of gender-specific consumer information seeking behaviour on the role of health care professionals as information providers

## Key words

Consumers, health information, medicine information, gender, information seeking

## Abstract

**Consumers periodically seek information about their health and medicines to increase their knowledge and understanding, and to support self-management. Gender has an impact on people's attitudes and behaviour; gaining a better understanding of how males and females differ in the way in which they find and use health and medicine information may help to enhance patient-health care provider communication and the information that they receive. Based on a review of the literature, women overall are more active information seekers than men. A number of differences do exist, notably in: sources of information consulted, information desired and degree of engagement in information seeking.**

## Introduction

When delivering health care services, there is an inherent exchange of spoken and/or written information between health care professionals and consumers. Within the continuum of health, consumers are not only provided with information specific to their own health, medical conditions and medicines at various time points, but they also seek out specific information to help meet their own needs.

When examining the consumer population, one of the most fundamental differences between consumers is gender. Health care professionals are a key medicine<sup>1-3</sup> and health<sup>4-6</sup> information source for consumers and as a result, gender differences and consumers' information seeking behaviour should be considered to better tailor for consumer needs.

Therefore, this paper aims to present some of the findings from the literature exploring differences in male and female health and medicine information seeking behaviour. To identify relevant studies, Medline and Embase searches were conducted, and supplemented by additional reference list searching. MeSH subheadings and key words featured in the searches included: consumer health information, medicine information, drug labeling, information seeking behavior and gender.

## Taking the first step- who is more motivated to seek information?

Overall, more women than men have nominated that they search for health information.<sup>7</sup> Women demonstrate both increased interest, and seek health information more actively than males.<sup>8</sup> This finding was echoed by Kassulke *et al.*<sup>9</sup> and Rutten *et al.*<sup>10</sup>, who have explored searching for information specific to cancer. When examining consumer characteristics which influence health information seeking, women who were carers or suffered from a chronic medical condition had a higher likelihood of searching for health information.<sup>11</sup> This variation in active searching of health information may yield further differences between how information is gained by men and women to meet consumer needs.

## Where do consumers source information?

A myriad of health and medicine information sources exist today for consumers to access and use. Slight differences exist between the genders in where information is sourced. Overall, women display increased likelihood

of consulting various information sources (aside from online discussions) in comparison to men.<sup>12</sup> For instance, relatives have been reported as a health information source more commonly by females aged 36-65 years than males.<sup>8</sup> Broadly, the health and/or medicine information sources accessed can be categorised into: (i) written health and/or medicine information, (ii) health care professionals and (iii) the Internet.

#### **(i) Written health and/or medicine information**

A Finnish study showed that medicine information was obtained from sources such as patient information leaflets (PILs) (48% females vs. 38% males ( $P<0.001$ )), health food retailers (10% females vs. 5% males ( $P<0.001$ )), advertisements (9% females vs. 6% males ( $P=0.002$ )), and printed materials such as newspapers, books and magazines (15% females vs. 6% males ( $P<0.001$ )) by women more so than men.<sup>13</sup> Magazines have been shown to be a more prominent source of health information for women, where approximately 38% women versus approximately 16% men nominated magazines as their main information source.<sup>9</sup> One study also noted that a slightly higher (though not statistically significant) proportion of females than males nominated that they regularly read PILs (73% females vs. 66% males).<sup>14</sup>

#### **(ii) Health care professionals**

Consumer reliance on different health care professionals as information sources may differ between males and females. Dubois and Loiseau<sup>15</sup> noted that nurses were a key cancer information source for females with breast cancer, whereas male prostate cancer sufferers primarily sought information from their oncologist. Additionally, there are also variations in information sources for specific diseases and their perceived reliability. For instance, women with diabetes held friends with prior experience with diabetes in higher regard in relation to reliability, whilst men felt medical doctors and text messages (received as part of an intervention to increase consumer knowledge about diabetes and its management) were most reliable.<sup>16</sup>

#### **(iii) The Internet**

Undoubtedly, one of the largest available repositories of health and medicine information increasingly used by consumers is the Internet.<sup>6</sup> Gender has been found to be a strong predictor in the use of the Internet as a source of health information, where women were more likely to use the Internet.<sup>4, 17-19</sup> Females had a higher chance of using a website as a health information source, when asked about their use during the previous year, than men.<sup>12</sup> Specifically, females have been shown to utilise a statistically significantly larger number of websites and conducted more online searches for health information during a 1 month period than males ( $P<0.001$ ).<sup>4</sup>

However, this does not necessarily indicate that the Internet is a resource which only appeals to women. A larger proportion of men compared to women (46.2% males vs. 36.9% females ( $P<0.01$ )) have claimed to seek health information on the Internet due to the presupposition that information would not be difficult to locate.<sup>20</sup> With regards to how this located information was used, men had a higher chance than women of utilising it to aid in self-diagnosis (48.6% males vs. 40.1% females ( $P=0.02$ )).<sup>20</sup>

Interestingly, no significant differences were noted between male and female motivation to use the Internet to obtain health information in the future (if they had not used it previously as a source of health information)<sup>18</sup> or specifically, as an initial source of health information.<sup>21</sup>

Aside from gender, age is also a factor which impacts Internet searching tendencies, with older women using the Internet less as a health information source in comparison to their younger counterparts.<sup>11</sup> Moreover, younger females have a higher chance of utilising the Internet to obtain health information in comparison to males.<sup>22, 23</sup>

#### **Who asks what? Engaging in health and medicine information seeking**

With no two patient journeys identical, some differences exist overall between the types of information sought by men and women. Female gender has been shown to be a predictor of searching for cancer information.<sup>24</sup> In particular, gender-specific information needs do arise in the management of, or when

learning about, chronic conditions. In relation to diabetes<sup>16</sup>, men were interested in receiving information regarding erectile dysfunction and women were interested in information pertaining to female concerns such as menopause and yeast infections.<sup>16</sup> Similarly, in the context of acute ischaemic events, women wanted more information about angina and hypertension, where men expressed that they would like to receive additional information regarding sexual function.<sup>25</sup>

#### **Discussion**

##### **What does this mean for pharmacists?**

Various differences exist between male and female information seeking behaviour, such as the degree of consumer proactivity, health information needs and how these needs are met. Overall, rising Internet use has been noted amongst consumers in regards to health information searching, which may be associated with ease of accessibility, convenience, maintained privacy and anonymity, amongst other reasons. Health care professionals may not be meeting consumer information needs, such as in the case of female patients' post-acute ischaemic coronary event<sup>25</sup>, where consumers have proceeded to consult the Internet in search of health information due to insufficient information provided by health care professionals.<sup>4</sup> Consumers may not always discuss their information seeking with health care professionals, such as their Internet use.<sup>26</sup> This has an impact on health care professionals' abilities to identify and address any difficulties consumers may have in understanding health and medicine information, or recognise whether information is being misunderstood. Utilisation of health care professionals as information sources may also be impeded by consumers' perceived health care professional time constraints and aversion to supplying information.<sup>1</sup> Gender of health care professionals in relation to the gender of their consumers may also be an important consideration in the information exchange process.

Gender-driven health and/or medicine information needs are inevitable, as seen in the management of medical conditions such as diabetes<sup>16</sup> and when considering indications for use of certain medicines (for example, contraceptive measures). Therefore, health care professionals should discuss with consumers the most appropriate ways in which to meet their information needs, thereby encouraging an open dialogue about health and medicine use. Moreover, active

encouragement of the use of reliable and valid health and medicine information sources is crucial due to the extent of unreliable information freely available on the Internet.

Aside from gender, a plethora of other consumer demographics have been shown to be important to consider when examining the consumer health-related information seeking experience<sup>5</sup>, such as age<sup>5, 9, 10, 13, 21</sup>, education<sup>5, 10, 21</sup>, health status<sup>11</sup> alongside other considerations such as language and cultural differences<sup>27</sup>, which therefore should not be neglected. Consumers' information needs fluctuate over time and accordingly, impact information seeking behaviour. Health care professionals must gauge and address consumer needs, whereby those involved in medicine and health information development should further examine whether information quality and perceived usefulness perpetuate certain consumer information seeking behaviour or conversely, contribute to information avoidance by both genders.

### Conclusion

Differences exist in how males and females source information about their health and medicines. Women are more active information seekers than men, which may be reflected in how they utilise information sources such as the Internet. Gender differences are also apparent in desired information with respect to managing medical conditions. Health care professionals must explore and be privy to these gender differences to ensure that consumer health and medicine information needs are acknowledged and addressed as part of a patient-centred approach to health care.

### Declaration of interest

David K Raynor is the co-founder and academic advisor for Luto Research Ltd, a company that provides performance-based health information testing services.

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### Key points

- Women appear to demonstrate more interest, and are more active health information seekers, than men.
- Consumers consult a variety of different health and medicine information sources, ranging from health care professionals to written materials and the Internet.
- The Internet is becoming a more prominent information source for consumers (used by both men and women). However, consumers' awareness of the quality of online resources needs to be raised by health care professionals.
- Men and women may have different information needs in the context of chronic conditions and their management.
- Information seeking undertaken by consumers may not always be discussed with their health care professionals.

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