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## Health and Lifestyle:

## Icelanders' Everyday Life Information Behaviour\*

The topic of the thesis is interdisciplinary and combines information behaviour, health psychology and health behaviour. The aim of the thesis is to gather knowledge about how different groups of Icelanders take advantage of information about health and lifestyle in their everyday life. The thesis sought to explore the interaction between people's information behaviour and their health self-efficacy beliefs and examine how this interaction relates to their health behaviour.

### Data collection and methods

Data for the study was collected as a postal survey. The questionnaire that was used in the study consisted of four main sections: socio-demographic information, information behaviour, health self-efficacy beliefs, and health behaviour. A random sample of 1,000 people, aged 18 to 80, was used in the study, response rate was 51%. When compared with the population the sample was found to be representative of the Icelandic population.

K-means cluster analysis was conducted to determine how the respondents formed four distinct clusters, based on how often they sought information about health and lifestyle by way of purposive information seeking, in 23 information sources. Cluster analysis is a multivariate statistical procedure that attempts to reorganize data sets into relatively homogeneous groups in such a way that within-group variation is minimized and between-group variation maximized (Aldenderfer and Blashfield, 1984; Everitt, Landau and Leese, 2001). A total of 471 participants were classified in the clusters which were called Active cluster, Moderately active cluster, Moderately passive cluster and Passive cluster. Use of sources may be considered as part of information seeking and the cluster analysis gave also information

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about the preference of the clusters for information sources and channels, that is: Interpersonal sources; Media; Health specialists; and Internet. In order to further test for statistically significant differences and to allow a more accurate comparison of the mean scores for the information sources across the clusters, a post-hoc test was conducted for each of the 23 information sources that the respondents were questioned about. To validate the clustering classification and further describe the characteristics of the clusters their relations to a number of external variables from the first two sections of the questionnaire were measured (Aldenderfer and Blashfield, 1984). This includes: socio-demographic characteristics; motivation to seek for information; information encountering; relevance judgements; and barriers towards information behaviour. The clusters health self-efficacy beliefs (Smith, Wallston and Smith, 1995) were also examined and their health behaviour, regarding diet and exercise. The analysis of the clusters information behaviour and their health behaviour was performed in three steps with the final step controlling for the background variables that related significantly to the dependent variable.

#### Results

In the following, results about each of the clusters information seeking behaviour and their preference for information channels will be presented first, after that results about other aspects of the clusters information behaviour and finally results about their health self-efficacy and their health behaviour.

#### The Passive cluster

The Passive cluster is the largest cluster, consisting of 192 individuals. This cluster consists of more men (56.8%) than women (43.2%). Age division is fairly even but more participants with a lower educational attainment belong to it than

to any of the other clusters. The Passive cluster is the one that seeks information about health and lifestyle the least often. It was also found to be conservative in choice of information sources and appreciated most information in channels that generally belong to peoples nearest environment and can therefore be easily accessed, that is Interpersonal sources and the Media. More unconventional sources, such as on the Internet are rarely sought for information. This confirms what previous studies have reported, that people with a lower education seek health information less often that those who are more educated (Beier and Ackermans, 2003; Kenkel, 1990), and prefer the mass media, especially the television as a source of health information (O'Keefe, Boyd and Brown, 1998; Wade and Schramm, 1969). Studies have also found that people with lower education seek health information on the Internet less often than better educated people (Carlson, 2000; Cotton and Gupta, 2004; Fox and Fallows, 2003; Fox and Raine, 2002; Fox et al., 2000) and that the oldest age groups seek health information on the Internet less often than the youngest age group (Carlson, 2000; Cotton and Gupta, 2004; Fox, 2003; Datamonitor, 2002).

## The Moderately passive cluster

Ninety individuals form the Moderately passive cluster. This cluster contains more women (57.8%) than men (42.2%), it has a higher rate of individuals from the younger age groups than from the older age groups and it is better educated than the other clusters. The Moderately passive cluster was found to appreciate sources by Health specialists, together with Interpersonal sources, the most. This was also the case when information was sought in the Media where documentary or discussion programs, where information with experts opinions are likely to be found were mainly prefered. Likewise, on the Internet, websites by the health authorities were particularly favoured. The preference of the Moderately passive cluster is not limited to ordinary everyday sources such as the Media or Interpersonal sources. Rather, they engage in information seeking that, in general, demands more effort to acquire the information they want. Members of the Moderately passive cluster seek information less often than the Moderately active and the Active clusters. This does not agree with previous studies, which have shown that those who are more educated seek health information more often than those who have less education (Bishop et al., 1999; Muha and Smith, 1989; Kenkel, 1990). The information seeking behaviour of the Moderate passive and the Active clusters, however, can be compared to Heinström's study of university students. The study describes the categories of Deep divers and Broad scanners. Deep divers are described as students that put an effort into their information seeking and aim more at finding information of high quality than to seek for a large quantity of information, while Broad scanners were found to seek information from a broad selection of sources (Heinström, 2002). While members of the Active cluster seem to focus on collecting a large amount of information from a wide range of sources, members of the Moderately passive cluster are selective in their choice of information sources and focus more on gathering information of high quality than collecting larger amounts of information from a wide range of sources.

## The Moderately active cluster

The Moderately active cluster is the second largest cluster, with a total of 112 individuals. This cluster has a fairly even age division, it consistes of more women (60.7%) than men (39.3%) and is somewhat better educated than members of the Passive cluster but less educated than the Active and the Moderately passive clusters. The Moderately active cluster seeks information less often than the Active cluster but more often than the Moderately passive and the Passive cluster. The Moderately active cluster prefers information in the Media. Sources on the Internet, on the other hand, are seldom used. Previous studies have shown that lower educated people prefer to seek health information in the mass media (O'Keefe, Boyd and Brown, 1998; Wade and Schramm, 1969) and they seek health information on the Internet less often than those who are better educated (Carlson, 2000; Cotton and Gupta, 2004; Fox and Fallows, 2003; Fox and Raine, 2002; Fox et al., 2000). Results have also found that the oldest age group seeks health information on the Internet less often than the youngest age group (Carlson, 2000; Cotton and Gupta, 2004; Fox, 2003; Datamonitor, 2002). Thus, although members of the Moderately active cluster were found to be the second most active in information seeking they do not engage in more challenging information seeking, but rather prefer to gather information from sources that do not demand special effort to access.

### The Active cluster

The Active cluster has the smallest number of individuals, or a total of 77. This cluster is also younger than the other clusters, it is the second best educated cluster and it has the highest ratio of women (74.0%). The Active cluster is the one that seeks information most often and has a preference for a broad spectrum of information sources. Sources on the Internet are not an exception. Previous studies have shown that those who are active in information seeking also use more sources to seek information than those who are less active information seekers (Kassulke et al., 1993) and that people with a higher level of education seek health information more frequently, and from a wider collection of sources, than those who have a lower educational attainment (Bishop et al., 1999; Muha and Smith, 1989; Kenkel, 1990). Members of the Active cluster were furthermore characterised by a preference for Internet sources, where a considerable difference was found between the Active cluster and the other three clusters. The study confirms the findings of Pennbridge, Moya and Rodrigues (1999), who indicated that those who use the Internet for information seeking are also likely to seek health information more frequently than those who don't. This is, however, in contradiction of the findings of Cotton and Gupta (2004) who reported Internet users seek information in traditional offline information sources less frequently than those who don't use the Internet to seek information. The preference of the Active cluster for Internet sources can furthermore be related to previous studies, which describe those who use the Internet for health information seeking as being more educated (Carlson, 2000; Cotton and Gupta, 2004; Fox et al., 2000; Fox and Raine, 2002; Fox and Fallows, 2003) and younger (Cotton and Gupta, 2004; Datamonitor, 2002; Fox, 2003; Gordon, Capell and Madhok, 2002), although some studies indicate that the middle age group may be more likely to use the Internet for health information seeking (Fox et al., 2000; Fox and Rainie, 2002). Studies have also shown that women use the Internet more than men to seek health information (Fox et al., 2000; Fox and Rainie, 2002; Fox and Fallows, 2003; Nicholas et al., 2001). Members of the Active cluster are enthusiastic seekers of information, with a broad information source horizon. Rather than limiting their choice of information sources to a few, they seek information from a wide range of sources.

## Other aspects of information behaviour

The Passive cluster is the one that is the least motivated to information behaviour. Compared with the other clusters, members of the Passive cluster lack interest in information about this topic and they seldom get involved in discussions about it. Moreover, the Passive cluster was found to have significantly higher information behaviour barriers than the Moderately passive cluster. Hence, there are indications that the Passive cluster is the one that has the least encouraging information behaviour profile. Previous studies have identified interest in a topic as an important reason for seeking information (Eriksson-Backa, 2003; O'Keefe, Boyd and Brown, 1986; Reagan, 1996). It has also been noted that by being associated with information about health and lifestyle and by gaining more knowledge about this topic peoples interest might be enhanced, which may lead to an increase in their information seeking (Hyman and Sheatsley, 1947).

Results about the clusters relevance judgements were compared with their information source preference. All the clusters consider information by Health specialists to be both the most useful and reliable. Yet, the Passive and the Moderately active clusters preferred to seek information in the Media rather than by Health specialists and the Active cluster preferred information in the Media, by Health specialists and on the Internet to a similar extent. Thus, there was an inconsistency between the preference for information sources and the relevance judgements of these clusters. Only the relevance judgements of the Moderately passive cluster were found to be in harmony with their information source preference.

# Health behaviour and health self-efficacy beliefs

The results show that the Active and the Moderately passive clusters have higher health self-efficacy beliefs than the Passive and the Moderately active clusters. The Moderately passive cluster was found to lead a healthier life than the other clusters and the behaviour of the Passive cluster was the least healthy. The odds of being a non-consumer of light food products were greater for the Passive cluster than for any of the other clusters. Furthermore, the odds of being a non-exerciser

were greater for the Passive cluster than for the Moderately passive cluster. An examination of the relationship between health self-efficacy and health behaviour revealed that those who have higher self-efficacy beliefs behave in a more healthy way than those who have lower self-efficacy beliefs.

### **Conclusion**

The four clusters were found to differ not only regarding their information behaviour but also in relation to their health self-efficacy beliefs and health behaviour. The findings indicate that it is not the frequency of information seeking, but information seeking which is accompanied by a critical approach in the selection of information sources, together with high health self-efficacy beliefs, that relates to the healthiest behaviour. The results of the empirical study give additional evidence that health and lifestyle information behaviour and health self-efficacy beliefs are interrelated, and that both information behaviour and health self-efficacy beliefs relate significantly to health behaviour. Based on these results and the knowledge drawn from the previous literature the thesis suggests that health and lifestyle information behaviour, health self-efficacy beliefs, and health behaviour are interrelated.

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