Access to Food and Health Information among Elderly People Living in Germany and the United Kingdom

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Abstract. CHANCE was a European wide project which investigated Community Health Management in specified local communities in Germany, Latvia, Romania, Sweden, Austria, and the United Kingdom (UK). The paper considers specific questions relating to access to food and health information by communities in both Germany (namely Kohlhaus and Südend in Fulda) and the UK (Liverpool South Central). Empirical data were collected from elderly people living in private households (65 people in the UK and 48 people in Germany) and used to assess the levels of comprehension of nutrition messages (by means of awareness of the "5-a-day" campaign), the wider sources of health information used, and the usage of information provided on food labels. The results show that elderly people from the UK were more aware of what the "5-a-day" meant compared with their German counterparts. There are three main sources of health information accessed by respondents in the UK. They are as follows: television (52.3%), doctors (50.8%), and newspapers (41.5%), which show that mass media have a role in conveying health information in the UK. In Germany, the most important source of health information is a doctor (89.6%). There is a relationship between the levels of education attainment in Germany and the likelihood of reading food labels. In the UK it was difficult to reach this conclusion as many respondents chose not to provide information on their education status. The research conclusions may be used to inform and enhance community health management in elderly populations in the future.
Key words: Community Health Management, elderly people, health information, nutrition labelling, "5-a-day".

Introduction

In the future, the largest number of European people will fall in the older age categories resulting in concomitant challenges to the European health care systems. In order to confront this challenge, it is important to develop strategies that improve the health and well-being of elderly people. Nutrition has an important influence on healthy ageing; hence, the nutritional status of elderly people needs to be analysed, evaluated and, where possible, enhanced. An individual's nutrition behaviour is complex and can be directly and indirectly affected by the living environment. Therefore, health promotion programmes need to consider elderly people and the contexts in which they live, in order to be successful. Sources of health information should be used effectively as resources for health (nutrition) promotion, and to counteract the fact that health messages can be seen as omnipresent and often lead to irritation and anxiety on the part of consumers (WHO, 2008).

Research Objective

The CHANCE project "Community Health Management to Enhance Behaviour" was a project of ten partners[1] within the EU programme GRUNDTVIG/ "Lifelong Learning Programme" (December, 2007 – November, 2009). The project picked-up the proposition that an individual's health status is directly affected by environmental conditions (e.g. air pollution), individual behaviour (e.g. smoking) as well as also being indirectly affected by environmental conditions (infrastructure) that influence health behaviour (e.g. physical inactivity) (Freytag-Leyer B. et al., 2009). The objective of the project was to analyse how people living in different environmental contexts, perceive and handle health. Furthermore, CHANCE aims to compare specific resources and needs of different European communities in order to determine what

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contextual features of neighbourhoods matter with regard to health. Each partner in the project worked directly with selected communities (in a process that involved the direct participation of inhabitants and stakeholders). In addition to identifying the different national health information systems in each community (and how these systems are perceived in the local communities), each selected community was examined on its resources (including household resources) and surrounding environment (Freytag-Leyer B. et al., 2009). The analysis was undertaken with the aim of identifying the needs for health-related information in the communities as well as barriers for the best use of health messages.

Basis for the Research

The following hypotheses formed the basis of the analysis:

1. Elderly people are not necessarily aware of the current "5 a day" health message.
2. Information provided by the food industry (e.g. on food packaging) is of less significance than other sources of health information.
3. Elderly people do not always take account of food label information when they buy food.

Subjects involved in the Research

The empirical data collected by the CHANCE project categorised people into age groups (Table 2). For elderly people there were three categories: age 61-70, age 71-80, and above 80 years (Table 3). All people of these age groups who took part in the CHANCE project were at home living people. In Fulda, the total number of participants in the study was 186, of which 48 (25.8%) were elderly (61 years or older). In Liverpool, 170 participants took part in the study, of which 65 of them (38.2%) were elderly. The number of elderly participants in each of three categories: age 61-70, age 71-80, and above 80 years are shown in Table 1.

Table 1

Elderly Subjects in Fulda and Liverpool

Age groups	Fulda		Liverpool	
	Number of people	Share of the whole sample	Number of people	Share of the whole sample
61-70 years	23	12.4	32	18.8
71-80 years	19	10.2	27	15.9
81 and over	6	3.2	6	3.5
Total	48	25.8	65	38.2

Source: (Zimmerer, S., 2008), (Schlecht, I., 2009)

Table 2

Number of people and their knowledge of the "5-a-day" campaign in Fulda

What does "5-a-day" mean to you?	Age				
	61-70	71-80	81 and over	Total	Total in Percent
5 meals a day	3	5	1	9	18.8
5 bottles of water a day	1	-	-	1	2.0
5 fruit and vegetables a day	7	4	1	12	25.0
Don't know	11	8	4	23	47.9
Missing answer	2	1	-	3	6.3

Source: (Schlecht I., 2009) n = 48

Table 3

Number of people and their knowledge of the "5-a-day" campaign in Liverpool

What does "5-a-day" mean to you?	Age				
	61-70	71-80	81 and over	Total	Total in Percent
5 meals a day	-	2	-	2	3.1
5 bottles of water a day	-	-	-	-	-
5 fruit and vegetables a day	28	22	5	55	84.6
Don't know	4	1	-	5	7.7
Missing answer	-	2	1	3	4.6

Source: (Schlecht I., 2009) n = 65

Research methods

The research includes the analysis on the households' resources and the perception of health information in a community. A questionnaire for quantitative data similar in all cities was used as a research method. The questions were developed in collaboration with the international partners (see above) of the CHANCE project and were translated into the languages of the participating cities. The questionnaire consisted of 40 questions in the German version and 38 questions in the English version. The German version included two additional questions about the native language. Both versions contained questions relating to how well-informed people feel, their sources of health information and how they process and transfer that information into their daily lives. The survey in Germany took place during the summer of 2008, in the United Kingdom during the autumn of 2008; most questions were completed in the participants' homes. The Item Response Theory (IRT) was used as a base for statistical estimation.

Since the paper is based on a comparison between Germany and the United Kingdom, it considers only the data from Fulda and Liverpool. The analysis was done using software SPSS 15.0.

Results and Discussion

Nutrition Knowledge

Awareness of the "5-a-day" campaign was used to help determine if current nutrition messages were reaching the target groups.

Among the German elderly participants, the expression "5-a-day" was not well known, or was wrongly interpreted. Most of the older people (47.9%) reported that they did not know the meaning of "5-a-day" (Table 2). Twelve of the elderly participants (25.0%) answered the question correctly. One person thought the meaning of "5-a-day" was to drink five bottles of water a day, and nine persons related "5-a-day" to five meals a day. These findings point out that in Fulda awareness of the ''5-a-day'' message among the elderly is low.

In Liverpool the elderly people were better informed about the "5-a-day" message. The majority of the 55 elderly participants (84.6%) in Liverpool answered this question correctly (Table 3). Only two people (3.1%) answered the question incorrectly and thought the "5-a-day" referred to five meals a day. None of the elderly participants thought the "5-a-day" meant drinking five bottles of water per day. From all elderly participants, five reported that they did not know the meaning of the "5-a-day". Only three (4.6%) of the participants in the elderly age group did not answer this question at all. The non-responders included two people from the age group of 71-80 years, and one person was older than 81 years.

The results showing that the "5-a-day" message is received better among the elderly in Liverpool may reflect a more intensive campaign in the United Kingdom as a whole, or the way that the information in the United Kingdom is addressing elderly people more directly than in Germany.

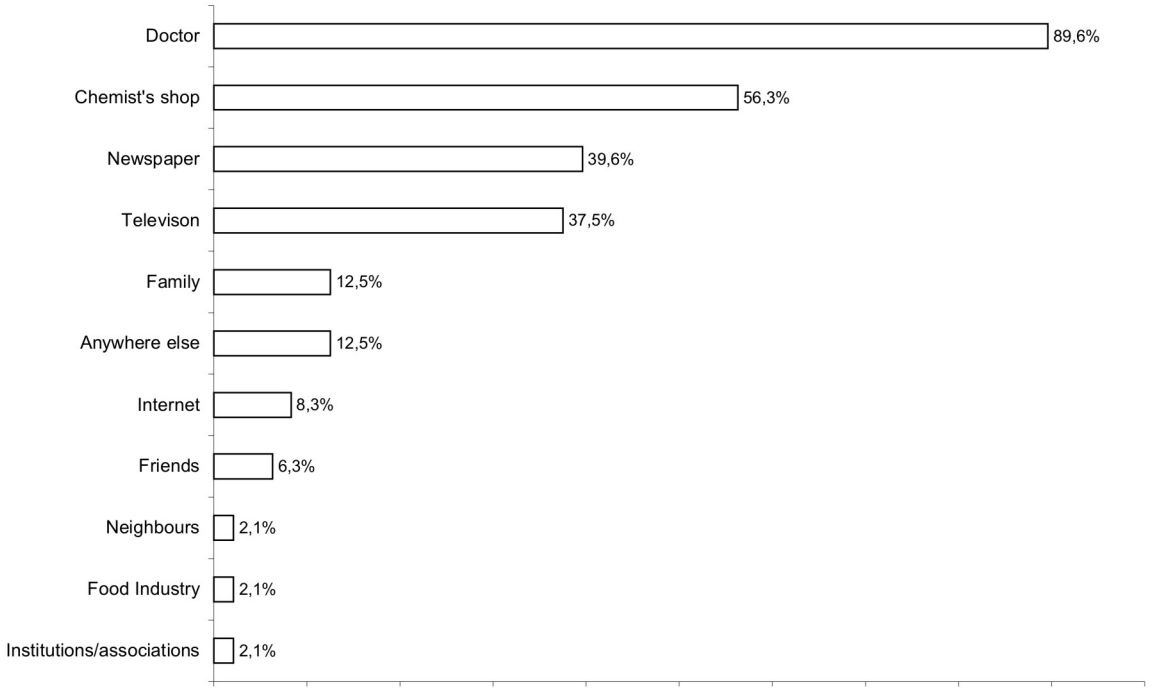
Sources of Health information

In Fulda the source of health information elderly people refer to most are the doctors (89.6%) followed by the chemists (56.3%). Newspapers and television are sources of health information used by 39.6% and 37.5% of the elderly participants respectively (Figure 1). All participants from the oldest age group (81 years and over) stated that they received their health information from their doctor. The Internet is not an important source for most of the participants. Only four participants from the age group of 61-70 years reported using the Internet as a source of health information. Neither local community organisations, state nor governmental organisations were identified as sources of health information.

In the United Kingdom the source of health information most frequently mentioned by elderly participants in Liverpool was the television - 52.3% (Figure 2). For many elderly people in Liverpool the doctor is also an important source of health information (50.8%), followed by a newspaper (41.5%), family (30.8%), and friends (24.6%). Elderly participants in Liverpool did not commonly use the Internet as a source of health information; only five elderly people reported receiving health information through this medium. Twelve of the participants (18.5%) identified the local community and local organisations as a source of health information. Four participants (6.2%) identified institutions and associations as sources of health information, and five participants (7.7%) identified the state and government (Figure 2). The results from Liverpool show that elderly people were receiving health information from a wide range of different sources.

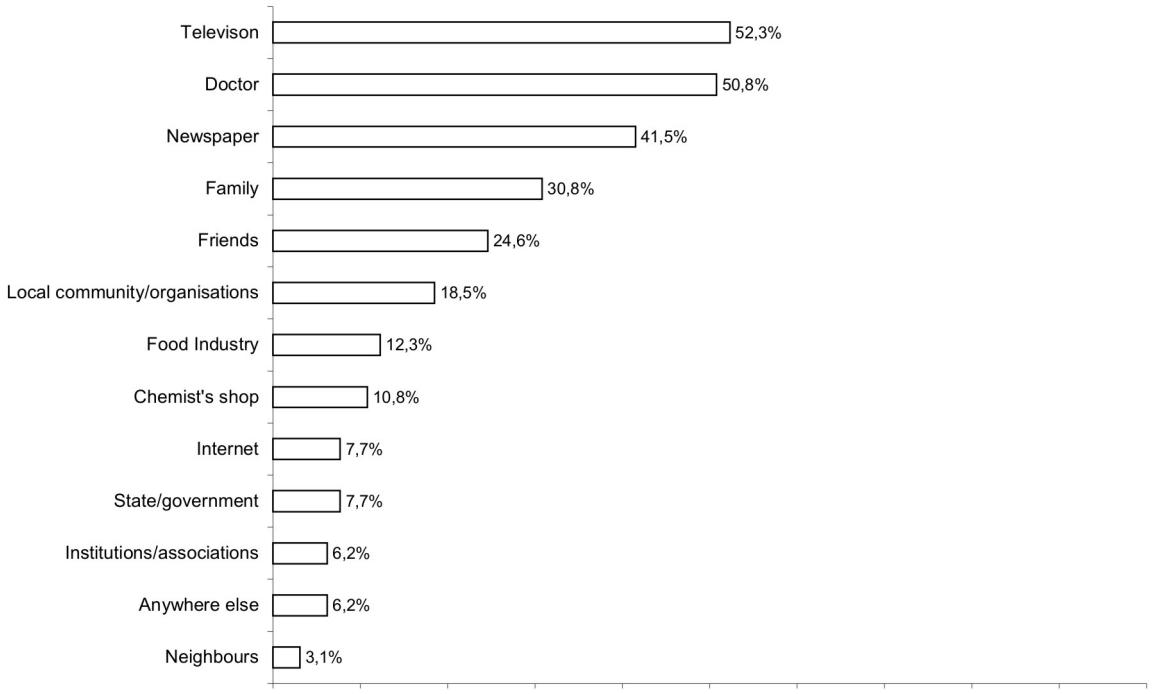
A comparison between the German and British elderly people participating in the CHANCE project shows that the elderly people in the two different communities tend to receive health information from different sources. In Fulda the doctor was a source more frequently used (89.6%) than in Liverpool (50.8%) (Figures 1 and 2). The source of health information most frequently mentioned in Liverpool was television, but this was only mentioned by 37.5% of the elderly German participants. Participants from both communities, in Fulda and in Liverpool, reported the newspaper as a source of health information in a similar way (the third most frequently mentioned source in both communities). However, the chemist's shop was mentioned by 56.3% of the elderly German participants whilst only 10.8% of the British elderly participants mentioned this source.

Elderly people from both communities reported that they did not commonly use the state or government as a source of health information. However, in Liverpool the local community was identified as a source of health information for 18.5% of the elderly participants; the German elderly participants did not identify the local community at all as a source for receiving health information. Family and friends were identified as an important source of health information by more of the elderly participants from Liverpool (30.8% and 24.5%) than the elderly participants from Fulda (12.5% and 6.3%).



Source: (Schlecht I., 2009), n=48, multiple answers possible

Figure 1. **Sources of health information for elderly people participating in Fulda**



Source: (Schlecht I., 2009), n= 65 multiple answers possible

Figure 2. **Sources of health information for elderly people in Liverpool**

Table 4

Number of elderly people reading the ingredient lists and nutritional information on food packages in Fulda

When you buy food do you read the list of ingredients and nutritional information?	Age				
	61-70	71-80	81 and over	Total	Total in Percent
Always	4	2	1	7	14.6
Often	3	5	-	8	16.7
Sometimes	7	5	1	13	27.1
Rarely	1	-	1	2	4.2
Never	6	6	3	15	31.2
Missing answer	-	-	-	3	6,2

Source: (Schlecht I., 2009) n= 48

Table 5

Correlation of education level with the reading of nutritional lists (relative frequency) in Fulda

Education Level	When you buy food do you read the list of ingredients and nutritional information? (in percent)				
	Always	Often	Sometimes	Rarely	Never
No graduation	-	12.5	7.17	-	-
Lower secondary school with graduation	42.8	37.5	61.5	100.0	66.7
O-level	-	25.0	15.3	-	13.3
A-level	57.1	25.0	7.7	-	20.0
Other	-	-	7.7	-	-

Source: (Schlecht I., 2009) n =45

Table 6

Number of elderly people reading the ingredient lists and nutritional information on food packages in Liverpool

When you buy food do you read the list of ingredients and nutritional information?	Age				
	61-70	71-80	81 and over	Total	Total in Percent
Always	4	2	2	8	12.3
Often	6	5	-	11	16.9
Sometimes	11	7	1	19	29.2
Rarely	3	7	1	11	16.9
Never	7	4	-	11	16.9
Missing answer	-	-	-	5	7.7

Source: (Schlecht I., 2009). n= 65

Nutritional information and food labelling

Findings from Fulda show that over a third of the elderly participants (31.2%) never read the ingredient lists or nutritional information on food packages (Table 4). Although thirteen participants (27.1%) sometimes read the ingredient lists and nutritional information on food packages, only seven of the 48 elderly people (14.6%) always read this type of information. There were three elderly participants who did not answer this particular question. The findings indicate that reading food labels is not an important source of nutritional information among the elderly people in Fulda. These results support the findings that elderly people participating in the CHANCE project do not use the information provided by the food industry (such as the information on food packaging) as a source of health information (Figure 1).

When correlating the use of nutrition information on food packages to the individual's education level, results show that 66.7% (10 out of 15) of the elderly German participants who never read the nutritional information on food packages had achieved a lower secondary level of school graduation (Table 5). In contrast, 57.1% (4 out of 7) of the people who claim to always read information on the foods they buy were qualified with a qualification suitable for University entrance (A-level).

In Liverpool nearly 1/3, (19 of the 65 or 29.2%) of the elderly participants claimed that they sometimes read food labels (either ingredient lists or nutritional information on food packages) (Table 6). Eight elderly participants (12.3%) claimed they always read the food labels, and eleven participants (16.9%) reported that they never read the ingredient list and nutritional information on food packages (Table 6). Five of the elderly participants from Liverpool did not answer this particular question. Due to the difficulties collecting data related to the level of education, no correlation between reading food labels and education level could be made for the Liverpool participants.

The pattern of reported usage of ingredient and nutritional information on food packages is not too dissimilar between the German and British elderly participants. In Fulda 31.3% (14.6% + 16.7%, Table 4) of elderly participants reported either always or often using this information; in Liverpool 29.2% (12.3% + 16.9%, Table 6) of elderly participants either always of often used information on food packaging. Participants who reported that they sometimes used this type of information amounted to 27.1% in Fulda and 29.2% (tables 4 and 6) in Liverpool. In Fulda, 35.4% (31.2 + 4.2%, table 4) of elderly participants reported either never or rarely using information on food packaging; in Liverpool 33.8% (16.9% + 16.9%, Table 6) of elderly participants reported rarely or never using this type of information.

Conclusions and recommendations

Knowledge about the "5-a-day" health message was more familiar among the British elderly participants than the elderly German participants. This supports earlier findings (Ghebrehewet S., Stevenson L., 2003) that people living in Liverpool may be well aware of life-style factors that impact their health, even if they still need additional help to make life-style changes.

In Fulda the three sources of health information most frequently mentioned for elderly people are the doctor, the chemist's shop, and the newspaper. Although this was slightly different to Liverpool, where the three most frequently mentioned sources of information were the television, the doctor, and the newspaper; this perhaps highlights the importance of the doctor's practice as a means of distributing health information. It may well be that the data from Germany also suggest that there is a greater potential for pharmacists in the UK to be involved in the distribution of health information and messages in the UK. Since it might not be clear how much nutritional information is provided by either doctors or pharmacists, perhaps there is a role for linking nutritionists or dieticians into the networks of doctors or chemists' shops.

Although nearly 20% of the elderly participants in the United Kingdom identified the local community as a source of health information, which contrasted with none of the elderly German participants identifying this source; this may well demonstrate the untapped potential of local communities, local organisations, and networks to be used to provide health information in both countries.

Although the data from Fulda suggest that there is a link with usage of information on food packaging (such as nutrition labels) and level of formal education attainment, the data from both Fulda and Liverpool suggest that approximately only one third of participants regularly (either always or often) use this type of information. It may be that there is further work to be undertaken to understand why the use of this type of information is not higher, and if there are particular issues here related to the elderly (e.g. text with small font sizes on food packaging). This may question the usefulness of using food packaging to convey health messages, despite the intention of the EU food labelling to inform and protect citizens (EUPHA, 2005). This is before any more detailed consideration of whether information read on food packaging or labels actually influences food choices.

In conclusion, the particular research has provided a better understanding of how different sources of health information may be used in different communities, in different parts of Europe. This will help better inform future strategies for improving health related information reaching communities, and using the information by communities in practice.

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