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Research report

Medical doctors' attitudes and beliefs about diet and health are more like those of their lay countrymen (France, Germany, Italy, UK and USA) than those of doctors in other countries☆

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ABSTRACT

The relation between diet and health has become a public health concern in Western/developed countries. Physicians are influenced in their views about health by their medical training and membership in a particular culture/nation to one extent or another. Their medical training is itself influenced by both a common body of accepted formal knowledge and practice and culture- or nation-specific influences on medical education. In this study, we compared physicians from different countries and physicians and lay individuals from the same country with regard to beliefs and attitudes about the relation between diet and health and other health-related issues. Telephone interviews about diet and health conducted with randomly sampled physicians and laypersons in France, Germany, Italy, the United Kingdom, and the USA revealed substantial cultural/national differences and few differences between physicians and laypersons of the same country. Three different measures of similarity converged in supporting the claim that in the areas of diet and health, physicians resemble their countrymen more than they resemble physicians from other Western countries. The degree to which differences in culture- and nation-mediated medical education influence these results is to be determined.

Introduction

In recent times, in Western/developed countries, food has become less expensive, more abundant, varied, available, palatable and caloric. One consequence of these changes is an increase in obesity (e.g., Charles, Eschwège, & Basdevant, 2008; Ogden et al., 2006), which is an important public health concern. Knowledge about food and diet held by lay members of any country or culture is transmitted by physicians, medical information in the media, cultural or national culinary traditions and health attitudes. Influences on lay beliefs regarding the relation between diet and health are now an issue of concern in psychology as well.

Efforts to improve eating and other health habits are based on the implicit assumption that providing scientific, medical, "rational" information to the public will help people make healthier choices. General practitioners and the medical profession would seem to be well-positioned to convey nutrition-related information to patients, given their professional standing and role to provide medical and health advice. There is some question about the quality of empirically based nutrition information available to medical professionals, though. Indeed, the history of advice concerning food choice in the United States during the 20th century consisted largely of diet "fads" that typically last the order of a decade, were supported by selected empirical evidence and were promoted by physician "entrepreneurs" (Levenstein, in press). Despite this degree of confusion, some nutrition-related practices are well supported empirically. Examples include the cardiovascular benefits of limiting intake of trans-fatty acids (Mozaffarian & Clarke, 2009) and the utility of whole grains and dietary fiber consumption in limiting risk of diabetes (American Diabetes Association, 2006). This type of information could be incorporated readily into medical education. The amount of attention paid in medical education to nutrition and the relation between diet and long-term effects on health has been found to be lacking though (e.g., in the United States [Adams, Lindell, Kohlmeier, & Zeisel, 2006]). This is despite evidence that improper nutrition (both under- and over-eating) is a risk factor for several

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degenerative diseases (Jaron & Galal, 2009). Thus, medical education has not caught up fully to the myriad health problems associated with unhealthy eating. The aforementioned limitations and inconsistencies in empirical evidence about nutrition and the lack of attention in medical education to topics for which empirical evidence is relatively strong may allow medical professionals' advice to be influenced largely by cultural/national beliefs. It is also possible that culturally based beliefs are so strong that the education medical professionals receive is filtered through the long-standing influences of their culture/nation.

"Traditional" medical beliefs and practices were often the focus of anthropologists' attention and have been contrasted with "scientific medicine" (Good, 1994; Horton, 1997). Only a few studies have dealt in a systematic way with variability within and among Western cultures/nations and within the medical profession itself (DeVries & Lemmens, 2006; Helman 1984/2001; Pouchelle, 1999). In her book *Medicine and Culture*, based on a consideration of medical practice in the United States and three European countries, journalist Lynn Payer (1996) reported large cultural/national differences in health practices and related attitudes: "the differences are so great that one country's treatment of choice may be considered malpractice across the border" (p. 24). Payer supports her ideas with relevant evidence, but there is no direct and explicit assessment of her claim that given their shared cultural/national background, physicians and lay people from the same country will bear a stronger resemblance in attitudes and beliefs than physicians from different countries. Of course, this claim presumes that there *are* substantial cultural/national differences.

Payer presents substantial evidence for differences in medical practice among four Western countries (France, Germany, United Kingdom, United States). For example, Payer (1996) identified American culture as being oriented toward aggressive medical intervention. Accordingly, in the USA, rates of several types of surgical procedures are far above average, compared to other countries in the Organization for Economic Cooperation and Development (OECD) (Pearson, 2009). There is also some evidence for lay differences in these same countries in beliefs concerning the link between diet and long-term health. The focus of attention has been France versus the United States. Historical analyses (Stearns, 1997), questionnaire studies of contemporary French and Americans (Fischler & Masson, 2008; Rozin, 2005; Rozin, Fischler, Imada, Sarubin, & Wrzesniewski, 1999; Rozin, Fischler, Shields, & Masson, 2006), and analyses of the food environment (Rozin, Kabnick, Pete, Fischler, & Shields, 2003) all suggest distinct French-American differences. Overall, in terms of representations, French focus more on food, including its freshness, quality, and taste; think of food more as an experience and less as a health risk; view healthiness as a natural feature of good food; embody more collective food values; associate food with conviviality; eat smaller portions; eat less food modified to be "healthier;" snack less and tend to eat meals at more regular hours (de Saint Pol, 2006; Lerner, 1956). More generally, French are governed more in their eating and food decisions by optimizing pleasure, following tradition, being moderate, valuing quality over quantity, and joys over comforts (Rozin, Remick, & Fischler, submitted for publication). Cross-cultural/national differences in attitudes regarding the relationship between diet and health are of particular relevance to the present study.

The present study sets out to document differences between countries in attitudes and beliefs about the relation between diet and health, as well as other health-related issues, and then to assess the claim that in this area, at least, physician attitudes and beliefs are more similar to those of their lay countrymen than to physicians in other countries. We presented our respondents with questions pertaining to diet and health but not directly on "textbook," core medical issues in nutrition. This data collection was part of a general survey on attitudes toward diet and other aspects of health that included specific subsamples of randomly sampled physicians and lay persons in five countries: France, Germany, Italy, the United Kingdom, and the United States.

Methods

Participants

Stratified random samples were solicited for each of five countries: the United States, the United Kingdom, Germany, Italy and France. In each country, approximately 60 lay people and 50 physicians were recruited. Respondent selection and telephone interviews were carried out by a professional survey organization in France. The sample for each country (both lay and physician) was assembled by random selection from the phone book, weighting for regions and the population size of communities. Among those agreeing to an interview, quotas by sex, age and socioeconomic status were then applied to select the final respondents. Physicians in the sample were either general practitioners or pediatricians. The physician sample was drawn from the phone book and, in the US, from the American Medical Association directory. The cooperation rate (i.e., the percentage of telephone contacts that led to an interview [Keeter, Kennedy, Dimock, Best, & Craighill, 2006]) for the survey overall was 20.3%. Cooperation rates for lay people (29%) and physicians (9.7%) differed substantially. The interest in including a wide range of questions led to interviews being somewhat lengthy (about 45 min on average). Also, no compensation was provided to interview participants. These factors probably limited cooperation rates. The lack of compensation was cited frequently by physicians who refused to participate, particularly in the United States and the United Kingdom.

Procedures

A general description of the survey and a book summarizing many of the findings (but not those reported here) is available (Fischler & Masson, 2008). The interview questions were drafted on the basis of results from preliminary, exploratory focus groups conducted in all countries included in the survey and in the four languages represented. The file of telephone contacts amassed from the stratified, random sampling procedure was then connected to the electronic interview items in the Computer Assisted Telephone Interview (CATI) system. Numbers were called sequentially. Interviews were carried out in the native language of the respondent, by an interviewer very fluent in that language (in most cases a native speaker). After greeting potential participants and introducing themselves, interviewers requested participation by stating the following: "We are carrying out an international research project in conjunction with the University of Pennsylvania and the CNRS in Paris and would like to ask you a few questions about your views on the relationship between food and the body. Could you spare me a few minutes of your time?" CNRS is the French National Center for Scientific Research. The name of the participating institution from the respondent's home country was substituted for the University of Pennsylvania. Other participating institutions were Loughborough University (UK), the Social Science Research Center (Germany) and University of Bologna (Italy).

Measures

A subset of 34 items from the survey was selected for inclusion in the present report *before* examination of the results. Only items assessing health and diet-related attitudes potentially influenced