Beliefs About the Causes of Health Complaints: A Study in Primary Care

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In public and interpersonal health communication, a need exists to explore the nature of lay beliefs about health complaints to achieve effective communication. Beliefs of patients visiting their family physician/general practitioner (GP) may give insight into this matter. The aim of this study was to investigate the spectrum of causes attributed to different categories of health complaints presented at the GP office. Before visiting their GP, 2,253 individuals completed a questionnaire about their health complaint and the cause they attributed to this complaint. The spectrum of causes attributed to all health complaints was compared between distinct categories of health complaints. Sixty-two percent of the GP patients attributed at least 1 cause to health complaints they presented at the GP office. Thirty-eight percent of GP patients did not attribute a cause to the health complaint they presented at the GP office. Patient beliefs differed across distinct health problems. Lay beliefs seemed to differ from basic notions of illness because patients attributed different causes to different health complaints. These differences in beliefs, when patients choose to share them with their GP, may serve as a starting point for the communication between the patients and the GP to achieve an effective communication. A need seems to emerge to discriminate between lay beliefs regarding the nature of specific illnesses and those regarding basic notions. GPs are therefore advised to attend to, or at least ask for, their patients' views specifically .

The key to the success of public health communication is the interaction between the sender and the receiver by exchanging rather than simply transmitting information (Lee & Garvin, 2003). When the sender wants the message to be heard, knowledge of the public beliefs about specific matters of health and disease is indispensable. These health beliefs of the public should be the starting point when designing public health messages .

As with health-care professionals, the causes people attribute to their health problems reflect their beliefs regarding their health complaints (Bury & Wood, 1979). These health beliefs and, in particular, the causes they attribute to their health problems determine to a large extent whether or not they decide to consult a physician (Cameron & Leventhal, 2003). In a recent study on health beliefs, it was shown that a low level of perceived susceptibility to develop carpal tunnel syndrome interfered with persons' helpseeking behavior (Martin, 2007). Another study reported associations between causal attributions of mental distress and attitudes toward seeking help, although differences existed between cultures (Sheikh & Furnham, 2000). Cultural differences in health beliefs form a major factor in poor communication between physicians and patients .

Other researchers have shown that health beliefs play an important role in treatment adherence. For example, Kressin et al. (2007) reported associations between believing that one's blood pressure continues to be high and worse treatment adherence. Another study showed that beliefs about perceived treatment utility were associated with poor medication adherence in HIV-positive adults (Barclay et al., 2007). In a study conducted in primary care, it was concluded that health beliefs regarding the seriousness of asthma were associated with treatment adherence to corticosteroids (Chambers, Markson, Diamond, Lasch, & Berger, 1999) . Previous work has supported the view that people tend to look for external or environmental, rather than internal, explanations for bodily sensations (Robbins & Kirmayer, 1991). The question rises as to whether these external explanations reflect general views, notions, or beliefs about health and disease. Do the causal attributions of the public predominantly reflect stable basic notions and emotional understanding of illness? Or is it possible to distinguish between differentiated and intellectual features of lay beliefs? This is important because communication about specific beliefs differs from communication about basic notions or general health beliefs (Van der Sanden & Meijman, 2008). Another point of interest is whether these causal attributions are associated with the type of health complaint. Do people attribute one cause to all health complaints, or do the causal attributions of the public depend on the type of health complaint? If the physician understands the patient's health beliefs and perspectives regarding their illness and health complaints, they can incorporate this knowledge into their treatment or management to improve health outcomes .

Although many studies have focused on health beliefs in general and causal attributions in particular, most studies of causal attributions have been conducted in specific subsets of the public, such as patients suffering from a particular chronic illness (Barclay et al., 2007; Chambers et al., 1999) . Other studies investigated causes attributed to several illnesses in people who did not have the specific illness at the moment of investigation (e.g., Blaxter, 1983; Lauber, Falcato, Nordt, & Rossler, 2003) .

Causal attributions may differ between people who do and who do not suffer from the health complaints at the moment they attribute causes. People visiting their general practitioner or family physician (hereafter, GP) make an interesting research population for this study because this group resembles the general public more closely than a sample consisting of only patients with chronic illness. In addition to treating many chronic illnesses, GPs treat common health complaints that do not result from chronic illness .

To build on the knowledge from the previously mentioned studies, our study aimed to investigate the spectrum of causes that patients attribute to different categories of health complaints presented at the GP's office .

METHOD

The aim of this study was to examine causal attributions to distinct health problems in a sample of GP patients in the Netherlands .

Research Sample

This study is the result of a secondary analysis of part of the material obtained from the Second Dutch National Survey of General Practice, carried out in 2001 by the Netherlands Institute for Health Services Research (Westert et al., 2005) . Within the survey, patients completed a questionnaire before entering the consulting room of their GP. When permitted by the patient in question, 142 GPs were observed by camera during consultations. Patient refusal rate was low (11.9%). Fifteen to 20 consultations were recorded for each GP, resulting in 2,784 video-observations. The sample characteristics corresponded to the Dutch population (age, sex, type of health insurance). After excluding the 115 patients from whom

no International Classification of Primary Care (ICPC) code was available, as well as patients younger than 18 years, 2,253 patients remained .

Health Problems

Health problems were coded using the ICPC (Lamberts, 1987). In a study on 30 written patient cases (vignettes), the mean agreement on the ICPC codes assigned to the patients' health problems between GPs and four ICPC experts was 81% (Lamberts, 1987; Van der Linden, Schellevis, & Westert, 2006) .

Causal Attributions

Causal attributions to health problems were investigated in advance of the GP consultation, using the causal dimension of the Revised Illness Perception Questionnaire (Moss-Morris et al., 2002). This dimension comprises 18 items, each representing one of the following causes: self-reported stress or worry; mental attitude; family worries; overwork; emotional state; heredity; eating habits; poor medical care in the past; behavior; personality; aging; smoking; alcohol; germ/virus; environmental pollution; altered immunity; chance/bad luck; and accident/injury. Items were scored on a 5-point Likert-type scale that was dichotomized into "no attribution" (answering categories 1–3: strongly disagree, disagree, neither agree nor disagree) and attribution (answering categories 4 or 5: agree or strongly agree) (Moss-Morris et al., 2002) .

Analyses

For each causal attribution, the proportion for the total group of patients was calculated by dividing the number of participants with attributions in that category by the total sample (N = 2,253). Next, proportions were calculated separately for each ICPC code (disease category) containing more than 100 participants.These proportions are presented as the top five most frequently mentioned causes per ICPC code. For each cause, the distribution over the distinct health complaints was tested using chi-square tests.

RESULTS

Frequencies and Spectrum of Causes

In Table 1, the spectrum of causes for the total group of patients is presented. Sixty-two percent of the participants did attribute at least one cause to their health complaints . Thirty-eight percent of the participants did not attribute a cause to their health complaint. This group consists of two subgroups: the majority did not agree with the causes presented in the questionnaire, and a smaller group did not have an opinion about the causes.

Stress or worries, chance or bad luck, and altered immunity formed the top three of most mentioned causes. The spectrum of attributed causes per category of health problem is presented in Table 2. Chi-square tests could not be performed for the causes "alcohol" and "poor medical care in the past" because too many cells (>30%) contained fewer than 5 cases. All distributions of the remaining causes differed significantly (p < 0.001) between the distinct categories of health complaints .

[TABLE 1]

[TABLE 2]

DISCUSSION

The main findings of this study were that the majority of GP patients attribute a broad range of causes to health complaints, and that these causes differ across distinct groups of health complaints. Sixty two percent of the sample identified at least one cause, thus suggesting that GP patients have specific thoughts about the causes of specific health complaints rather than general notions about causes that they apply to health complaints in general. Although one third of the participants did not attribute a cause to their health complaints, the majority of the group who did not attribute any cause chose the answering categories "disagree" or "strongly disagree" rather than 'neither agree nor disagree'. Choosing these answers may be considered as a choice as well, although a negative one. The fact that this group of participants did not agree with the mentioned causes implies that they have thoughts or beliefs about the causes of their health complaints as well . It is likely that they have an idea about the causes of their health complaints, but that this option was not on the list in the questionnaire .

It can thus be said that in this study, GP patients had specific thoughts about the causes of their health complaints while visiting their GP. These findings are in agreement with findings from a qualitative study on ideas about disease and illness of women (Blaxter, 1983). The women in the Blaxter study appeared to have specific ideas about disease mechanisms that did not differ from the ideas in medical science, although they were sometimes wrong at factual levels. Because these women were explicitly invited to think about diseases, they did not discuss perceived causes of illnesses. Another study investigated theories of patients with severe physical diseases, such as cancer, female myocardial infarction, and multiple sclerosis, and reported that different predominant causal attributions were found for the distinct diseases (Muthny, Bechtel, & Spaete, 1992) .

Methodological Considerations

The GPs participating in this study form a representative sample of the general population of GPs in The Netherlands based on information about the GPs' age, sex, geographic distribution of practices, urbanization levels, and distribution of practices in low socioeconomic status areas (Van Dulmen & Bensing, 2006). When interpreting the results, one should realise that the list of causes does not give a complete overview of potential causes. This dimension of the Revised Illness Perception Questionnaire aims to investigate general perceptions of causes. The aim of this study was different, and as a result, some causes were presented as one item, although the clinical implications of both causes were different, such as the category "germ or virus." We cannot provide information on the total range of beliefs about the causes of illness of the participants of this study because only 18 potential causes were presented to the participants . However, this study was not an attempt to provide insight into which particular causes were chosen but rather to compare the spectra of attributed causes between disease categories and within the group of participants. It can be expected that if we had provided more choices for causal attribution, the differences between the spectra of causes attributed to the different health problems would have increased rather than decreased .

Implications for Practice

The primary implication of this study is that the GP patients have specific thoughts and feelings about the causes of their health complaints: they have specific and differentiated

ideas about what factors influence their health. When GP patients discuss their causal attributions with their GP during the consultation, these beliefs should be taken into account by the GP to obtain an effective communication during the consultation. However, further research is needed to investigate whether GP patients share, or are willing to share, their beliefs about causes with their GP. Effective communication between the GP and the patient should start at the level of the patient's ideas. In an ideal situation, communication in the GP's office should be a dynamic process in which the views of the patient, which we now know to be not just basic notions, but disease-specific beliefs, are incorporated .

 In health communication, a balance should exist between discussing lay and professional beliefs and goals before developing an intervention. As patients' views regarding disease causes are likely to change under the influence of the information exchange during the GP visit, inquiring about causes at follow-up should be encouraged as well. Although many investigators have pleaded for an exchange of information rather than a oneway transmission, this is still not common practice in the physician's office (Lee & Garvin, 2003) .

From Patient Communication Toward Public Health Communication
 A continuum exists between expert and lay knowledge, with experts on one side and lay people on the other. Chronically ill are experts in the domain of their illness or disease, and the lay public is placed on the other side of the knowledge continuum. The level of knowledge of health and disease for GP patients as a group, consisting of chronically ill as well as lay people, can be placed in between the chronically ill and the public. Taking this into account, lessons learned in this study of GP patients may be applicable to the public, although caveats should be kept in mind .

 When GP patients have explicit beliefs about the causes of their health complaints, it may be expected that the general public will have differentiated beliefs about causes of health complaints as well. More research is needed to confirm these expectations; it would be interesting to know whether GP patients have ideas about health complaints that are not their own; for example, when personal factors such as a tobacco addiction are not involved, it may be easier to point the finger to others and say that smoking is the cause of their cough, instead of a virus. In addition, it will be of great value to investigate which specific ideas the general public has about causes of distinct health complaints in order to develop effective public health campaigns. It can be expected that, like communication between GP and patient, public health communication requires a dynamic rather than a static approach (Van der Sanden & Meijman, 2008) .

Conclusion
Beliefs of GP patients appear to be specific for distinct health problems in primary care. When patients share their beliefs with their GP, these beliefs should be incorporated into the communication during consultation .

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TABLES

TABLE 1
Spectrum of Causes Attributed by the Total Group of Patients

Causes	n	%
1. No cause	853	38
2. Stress or worry	376	17
3. Chance, bad luck	346	15
4. Altered immunity	305	14
5. Germ or virus	293	13
6. Heredity—it runs in the family	282	13
7. Aging	265	12
8. My own behavior	232	10
9. Overwork	224	10
10. My emotional state	205	9
11. Accident or injury	158	7
12. Family problems or worries	132	6
13. My personality	127	6
14. Diet or eating habits	107	5
15. My mental state	106	5
16. Smoking	71	3
17. Pollution in the environment	51	2
18. Poor medical care in the past	40	2
19. Alcohol	24	1

TABLE 2
Spectrum of Causes Attributed by the Patients for Seven Groups of Health Complaints/Problems With ≥100 Cases

Diagnosis Group	N	Five Most Frequently Attributed Causes				
		1	2	3	4	5
Generic complaints	170	No cause	Altered immunity	Stress/worries	Heredity	Emotional state
Percentage (%)		42	20	19	13	11
Musculoskeletal system	562	No cause	Chance/bad luck	Accident or injury	Overwork	Own behavior
Percentage (%)		35	25	18	16	14
Digestive tract	129	No cause	Stress/worries	Germ/virus	Altered immunity	Chance/bad luck
Percentage (%)		43	19	18	15	12
Psychological disorders	125	Stress/worries	Emotional state	Mental state	Family worries	Own behavior
Percentage (%)		68	55	32	31	30
Circulatory tract	281	No cause	Heredity	Stress/worries	Aging	Overwork
Percentage (%)		41	24	23	15	11
Respiratory tract	253	Germ/virus	Altered immunity	No cause	Heredity	Stress/worries
Percentage (%)		42	34	30	17	13
Skin disorders	208	No cause	Chance/bad luck	Germ/virus	Heredity	Stress/worries
Percentage (%)		44	21	20	12	8

Note.   Participants were asked to rate their agreement for each cause. Consequently, participants were able to agree with more than one cause, which explains the row totals of more than 100%.