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Cardiovascular disease risk factors? A qualitative study of how patients with high cholesterol interpret their risk

By:

Dr: Nizar Abdullah Khaled
and
Dr: Kinan Salman Mansour

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Abstract

Introduction: Previous studies has demonstrated the significance of considering laypersons' understandings of disease risk when attempting to elucidate health-related behavior. Nevertheless, risk interpretations are intricately intertwined with social context. The purpose of this study was to investigate how asymppatient 11atic patients with elevated cholesterol perceive their cardiovascular disease risk.

Aim: Consider the interpretation of cholesterol-lowering medication and cardiovascular disease risk by asymppatient 11atic patients with elevated cholesterol levels.

Methods: A total of fourteen patients who were at risk of cardiovascular disease and had elevated cholesterol levels were interviewed. Using an ethnographic approach, patterns that emerged from the patient accounts were analyzed.

Results: In the context of daily social life, general practitioner information regarding elevated cholesterol and the risk of cardiovascular disease was reinterpreted. The harm linked to high-fat foods was compared to the enjoyment derived from participating in social and cultural gatherings where this form of cuisine was custopatient 7and valued. When attempting to reduce the risk of developing high cholesterol, a positive outlook was utilized as a tactic. However, risk awareness was perceived as a source of anxiety and self-absorption; this anxiety rendered the body vulnerable to disease, thereby impeding the prospects for leading a healthy existence.

Conclusion: The association between elevated cholesterol and the likelihood of developing cardiovascular disease is influenced by social interactions and routine life considerations. This should be addressed in general practice when risk-reducing medication preferences are sensitive.

Keywords: High cholesterol Qualitative research, Cardiovascular disease, Risk perception

Introduction

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The leading cause of death worldwide, cardiovascular disease, was responsible for 30% of all fatalities in 2008. A well-established risk factor for cardiovascular disease, high cholesterol is correlated with an unhealthy diet and insufficient physical activity. By combining cholesterol-lowering medication with lifestyle modifications, high cholesterol can be reduced.

Nevertheless, treatment cessation of cholesterol-lowering medication among patients is observed in as little as half of the cases, within six months, and further declines occur after one year. Patients without observable physiological symppatient 11s of cardiovascular disease exhibit the most pronounced decline. The lack of documented health benefits associated with short-term cholesterol-lowering medications renders their discontinuation or intermittent use undesirable from both an individual and health service standpoint (Francula 2018).

The factors contributing to the non-compliance or discontinuation of cholesterol-lowering medication have been investigated. According to the studies, patients may have a limited understanding of the epidemiological information that physicians impart over disease risk. There have been endeavors to decrease the percentage of patients who experience uncertainty regarding their decision to participate in medical preventive treatment for the duration that the general practitioner (GP) recommends it; however, the impact on adherence has yet to be definitively determined. However, social negotiations, risk interpretations, and ordinary life experiences outside of the doctor's office have received scant attention. Anthropological and sociological research has demonstrated the significance of investigating individuals' perceptions of risk and health as integral components of continuous social processes, wherein distinct rationales for behavior are employed in interpreting various subjects. Decisions regarding the continuation or discontinuation of risk-reducing medication are influenced by daily life concerns, which serve as a context for patients' reflections on the potential for discomfort and approaches to managing that risk (Shah, 2010).

Methods

Participants and recruitment

This document describes a qualitative investigation that is a component of the RISAP study. An Intricate Risk Communication and Shared Decision-Making Intervention in General Practice. Developing risk information for patients at high risk of cardiovascular disease and assessing the effect on the number of prescribed cholesterol-lowering medications were the objectives of the RISAP study (Mas, 2020). Through the participation of five general practitioners (GPs) who had engaged in focus group discussions during the RISAP study's inception, fourteen patients were enrolled. The general practitioners (GPs) were requested to furnish the interviewers (two social anthropologists with formal training) with the names and addresses of their most recent patients who met the subsequent requirements:

1) Patients who, in accordance with the Danish guidelines for the prevention of cardiovascular disease in general practice, had elevated cholesterol and a high or very high risk of cardiovascular disease (Benschop, 2019).

2) Individuals who had been provided with information regarding the potential preventive use of cholesterol-lowering medications.

3) Patients who did not exhibit any observable signs or symppatient 11s of cardiovascular disease. The researchers contacted fifteen patients via letter with study-related information; of these, fourteen patients (eight women and six men) provided verbal consent to partake in an interview without compensation (Table 1).

Table 1 Patient characteristics

Patient	Age	Marital status	Co-morbidity
Patient 1	61	Widower	Pre-diabetes
Patient 2	60	Married	None
Patient 3	65	Married	None
Patient 4	65	Married	None
Patient 5	67	Married	None
Patient 6	64	Married	Diabetes
Patient 7	61	Married	Familial hypercholesterolemia
Patient 8	62	Married	None
Patient 9	66	Married	None
Patient 10	61	Married	Diabetes
Patient 11	61	Married	Pre-diabetes
Patient 12	70	Widow	Stroke
Patient 13	24	Single	Familial hypercholesterolemia
Patient 14	59	Married	Diabetes

The participants were subjected to individual interviews (n=8) or interviews with their spouses (n=6). Fieldnotes were utilized to augment the interviews. Each one to two-hour interview was conducted in the residences of the patients. A total of twelve out of fourteen patients indicated that they were prescribed cholesterol-lowering medication. Patients from both pripatient 7and secondary prevention of cardiovascular disease were included in the sample; however, none of them exhibited any symppatient 11s that they attributed to elevated cholesterol or cardiovascular disease at the time of the interviews. Pseudonyms are used to identify the participants in the paper (Amani, 2012).

Results

A number of the participants hypothesized that elevated cholesterol levels were the result of a particular way of life characterized by an excessive consumption of fatty foods and sedentary behavior, and in some instances, genetic predisposition (A, D). On the contrary, the majority of the respondents indicated that they maintained healthful eating patterns, at least during the week (May, 2012). They emphasized the importance of partaking in fatty foods as a component of a social occasion, such as dining with family and friends, appreciating the flavor and presentation, and offering compliments to the host, all while savoring one another's company. The participants only considered rich foods, which they believed to be associated with cardiovascular risk, as one aspect of the social events. Fatty foods were highly regarded due to their renowned flavors and the cultural cuspatient 11s associated with them. Therefore, the negative consequences of consuming fatty foods were compared to the enjoyment derived from participating in social and cultural gatherings where such foods were prevalent and valued (Liang, 2020).

Certain participants posited that an emphasis on risk should be accompanied by an optimistic or receptive outlook on life (F). Adopting an embracing attitude entails valuing pleasurable aspects of daily life and being less preoccupied with commonplace bodily sensations or symppatient 11s that are experienced by the elderly (B). According to this view, risk awareness induced anxiety and self-isolation, and this anxiety rendered the body more prone to disease, thereby diminishing the likelihood of leading a healthy existence. Some participants emphasized that there is no correlation between high cholesterol and a person's general health; if a person believed themselves to be healthy, high cholesterol posed little risk or peril (Major, 2018). From this perspective, the benefits of maintaining a healthy lifestyle may even surpass the potential drawbacks of high cholesterol (E,F). Nonetheless, the majority of patients regarded the cholesterol-lowering medication as a legitimate remedy for hypercholesterolemia; nonetheless, they emphasized the personal obligation to maintain a healthy diet and engage in regular physical activity (C). It has been reported that cholesterol expressed numerically

is simple to comprehend in the absence of somatic sensations or symppatient 11s. General practitioners (GPs) were perceived as intermediaries or interpreters of critical and intricate information pertaining to the patient's body, possessing the capability to convert particular anapatient 11ical characteristics into numerical value (Osuna, 2021).

Discussion

The analysis unveiled an underlying interpretation of close body-mind relationships in which social events, positive attitudes, and cholesterol-lowering medication supported a gradually deteriorating body that increased the risk of cardiovascular disease (Leritz, 2011). There was a correlation between high cholesterol and the social activity of dining, and the social activity was considered a factor in both acquiring and maintaining a high cholesterol level. Concerning high cholesterol would entail assuming the medically defined risk of cardiovascular disease; however, if one maintained a state of equilibrium in both physical and mental well-being, high cholesterol did not present a significant hazard. The general practitioner (GP), who would offer reassurance and oversight, discussed the potential efficacy of cholesterol-reducing medication in reducing the tangihle numbers (Alzahrani, 2019).

The results of this study indicate that information from the GP about high cholesterol and the risk of cardiovascular disease was reinterpreted in the context of daily social interactions, where individuals make decisions based on various concerns (which should not be confused with anxiety) and employing justifications for their behavior drawn from various discourses. From this theoretical standpoint, knowledge and norms are merely two of numerous presumptions that influence behavior; experiential factors frequently dictate course of action. They are employed to elucidate the apparent inconsistencies between individuals' knowledge and behavior regarding a particular subject. For instance, individuals may switch between various concerns in order to reconcile the disparity between their health authorities' (including the GP) guidance on the correct course of action and social relationships that may encourage risky behavior (Buie, 2016). From this particular standpoint, knowledge is considered a social practice

wherein concerns regarding cholesterol and cardiovascular disease are sourced from various mediums, such as medical and ethical guidance on healthy living and ordinary social experience. This study highlights the significance of maintaining patients' resistance to the biomedical definition of elevated cholesterol as a cardiovascular disease risk factor in order to prevent non-adherence. Patients' perceptions of elevated cholesterol make sense in a social context, and it's possible that preventing cardiovascular disease is not the top priority. Overall, this indicates the need for a more transparent approach to the decision-making process of patients, recognizing that cardiovascular disease risk may not be a significant concern in their daily activities (Crimarco, 2020).

There is an argument that general practitioners (GPs) ought to address these concerns so as to enhance communication and facilitate shared decision-making with patients regarding the benefits and risks of preventive treatment. Felde and Elverdam have provided an account of how the association between elevated cholesterol and the likelihood of developing cardiovascular disease is influenced by the patient's social practice and contextual rationality. They recommend that general practitioners (GPs) be mindful of the patients' interpretations and meanings ascribed to high cholesterol. They contend that general practice offers an especially fertile environment for discussing the risk perceptions, experiences, and social behaviors of patients (Hedayatnia, 2020).

Limitation

The interview method provides researchers with access to the participants' recollections of their actions and the significance they attribute to those actions; however, they do not have access to the actions themselves, with the exception of those performed during the interview. Thus, observing lived risk in the study was not feasible; access to accounts of daily life was the only thing that could be obtained. Out of a total of twelve GIs who were contacted regarding the recruitment of participants for the interview study, only five agreed to assist, contributing between one and four patients each. It was hypothesized that there would be more variation in the perspectives of the interviewed couples regarding cardiovascular disease and the use of cholesterol-lowering medication, despite the fact that each of the

interviewed couples with high cholesterol was treated by the same general practitioner. This finding confirmed our assumption that there was more variation among the interviewed participants than among the GPs who recruited them.

Conclusion

This study investigated the manner in which asymppatient 11atic individuals with hypercholesterolemia perceived the risk of cardiovascular disease. The observation that up to half of asymppatient 11atic patients with high cholesterol who begin cholesterol-lowering medication discontinue treatment within six months, with a further decline occurring after one year, prompted the research query. The study demonstrates how patients perceived cholesterol-lowering medication as a suitable response to reducing the risk of cardiovascular disease; they either accepted, opposed, or contemplated its use. Additionally, it was demonstrated that the general practitioner (GP) has a substantial impact on overseeing cholesterol levels. The GP should address these concerns during consultations about cholesterol-reducing medication as a treatment option because patients' perceptions of elevated cholesterol and the risk of cardiovascular disease are influenced by their social networks and daily lives.

Appendix

Table 2 Quotes from participants
A: patient 2: Our regions of the world are culturally distinct; in other countries, for instance, the epidermis is affected differently by environmental pollution; that is the way it is (...). Well, in general, many Danes suffer from it (high cholesterol), which may have something to do with the Danish way of life. We are quite affluent in my country, but I personally monitor what I eat; I certainly don't consume that much fat and sugar.
A: patient 13, Inc. Simply put, we eat whenever we convene. When you meet in the city at a café or travel out at night, we always wind up at 3 a.m. at a pizza bar for shawamas and pizza. It may be detrimental to your health, but I probably wouldn't put up with it.
A: Patient 6: You gather for a casual conversation and a bite to eat... We celebrate the South Tunsh with pastries. Seven hand cakes, or jdes sandmyske kaffirbord, are six spongy cakes. On occasion, thirty pastries Good old-fashioned fare for us
A: patient 10: Due to my diabetes, I must be cautious around the family mean; mineral water and canots Particularly when gravy and pork cracklings are involved, it is critical to savor every bite; otherwise, they would be extremely dissatisfied.
B: patient 2: I truly have no apprehension regarding it [high cholesterol]. However, it annoys me [...]. Subsequently, I conclude, "Okay, you're not as young as you once were." You are unable to... That is precisely how I perceive the matter. As you age, a particular circumstance will emerge. Undoubtedly, something will manifest itself.
B: patient 12, please: In essence, time does not pass and one does not become younger. [..] You enter "repair mode," during which a bodily process occurs without your conscious perception of it. Patient 3 B: [Regarding Patient 4, the spouse] He participates in the Old Boys League, which is one way to avoid having a heart attack while watching television... you'll pass away on the football field (both chuckle).
C: patient 1: I have faith in the professionals. If they advise me that taking the medication is the correct course of action, then I should do so. And as he informed me, it is impossible to extend your life. Nonetheless, there is still hope; perhaps you can prevent a blood embolism or accomplish something else. You might then experience an improvement in your quality of life. However, it is impossible to achieve a 15-years increase in life expectancy by ingesting medications for everything. He replied, "That is irrelevant." He stated that lowering the statistics [cholesterol level] is the pripatient 7objective. That is the crux of the matter. By reducing the quantity.
C: patient 14: He says it's fine, there's no impending peril, and the medication keeps the level low. [...] He monitors my weight, blood lipids, and blood pressure to prevent them from rising too high. Although I am unable to perceive it, others do—the positive and negative obesity within you. His fault notwithstanding, I thoroughly relished my youth.
C: patient 8: You live your own existence; ultimately, it is not your responsibility, that much is clear. Simply put, he observes you, and the attendant does the same... [...] It was 6.2 (pages of a lab output are turned over) and is now below 3. Everything appears to be in order. You must still consume... properly; otherwise, the medication will certainly not be effective. I am certain of that.
E: [Fieldnotes]: The married Patient 7and Patient 8 retired early from a lifetime of strenuous physical labor. Patient 7, a diminutive female, adamantly denies consuming sweets, whereas Patient 8 , a robust individual who claims to have a "sweet tooth." Patient 7 claims that her father passed away as a result of a clot in his major coronary artery, and her GP is concerned that if Patient 7 does not take her cholesterol-lowering medication, she may experience the same fate. Numerous members of both Patient 7's and Patient 8 's families have passed away from blood clotting; however, Patient 7holds the belief that she possesses a distinct form of cholesterol that is not shared by Patient 8. Due to the quotation: Patient 7: Even slender individuals have it. One of our acquaintances is remarkably slender. Moreover, his cholesterol level is extremely high. It is

not related in any way to obesity.

D: Patient 11: It should come as no surprise that if your father suffered a stroke at the age of 40 or if you were exceedingly overweight, you could have someone suture your lips together [laugh], but medication is probably not even close to being sufficient in those situations. Essentially, everything changes when the condition does not exist in your family, you lead a healthy lifestyle, and you feel good and fit. It's not that difficult. [...] You perform your capabilities, move your body, and ascend the stairs [...] I believe that excellent cholesterol is only harmful to a select few individuals.

E: [Field annotations] patient 3 and 4, 65 years old, is an unskilled laborer who is retired. Due to an elevated cholesterol level, Patient 3 is prescribed medication. Patient 4 underwent a medical examination fourteen days ago.
[Discussion of the interview dialogue]

Patient 4: Subsequently, mine was also considerably elevated.
Interviewer from the GP: What did she say to you?

She stated it is slightly too high, Patient 4. "What should we do in response to that?" she inquired.
Subsequently, I declared, "We take no action whatsoever."
What did she say at that time, interviewer?
Patient 4: I must confess that I consume one herring daily.
Patient 3: (appearing to interrupt) (she advised us to make an effort to lose weight during the holiday season)
We will need to attempt it once more, Patient 4.
Thus, you'll simply attempt again, asks the interviewer.
Absolutely, Patient 4! To prevent disease, I will not take any medication.
Negative, responds the interviewer.
Patient 4: Medication is something I demand only when something is amiss with me.
Then, the interviewer, what did she say? Why...?
Patient 4: A load of garbage does not belong inside of me. Simply put, I'm that kind of person!
What if it turns out that you truly require cholesterol-lowering medication?
It must be utterly necessary, Patient 4. Since I have previously stated that I will not take medication for disease prevention. Herring number two would be preferable.

Beth: Well, another herting might not necessarily reduce it (laughing).
Interviewer: However, what do you believe that [herring] will hinder?
Patient 4: I'm not sure, but what exactly is it designed to prevent?
Beth: Cardiovascular disease, in that case; nothing else.
Patient 4: Indeed, although nothing is incorrect with me. It is not an issue that my blood pressure is. Although diabetes is hereditary, I do not have the condition. I never knew my mother's sibling, but he passed away in the thirties or forties, or whatever the hell it was, of diabetes. 1940. Additionally, my mother passed away from diabetes. Furthermore, my sister passed away from diabetes.

E: Patient 5: I told him I have a general aversion to taking medications. It is my belief that we ought to exercise patience and observe.
Interviewer: Did this occur five to six years ago?
Patient 5: Indeed, they subsequently persuaded me to give it a shot.
Interviewer: All right. What was his statement?
Patient 5: He warned that if I didn't do something, I might develop blood blockages and other complications.
The interviewer. OK. Has a member of your family experienced a blood clot?
Patient 5: Indeed. One-sided paralysis affects one of my brothers.
Interviewer: Does the mere thought of that evoke fear within you?
Patient 5, I beg to differ. Indeed, not the least.
When did your GP recommend that you attempt a cholesterol-lowering medication?
Patient 5: When I visited him, he instructed me to begin it. Each and every time for the past two to three

years. I continued to give in. Interviewer, what exactly did he say to induce your compliance? Patient 5: I cannot recall anything he said other than menacing me by stating that I, too, could potentially develop a blood clot. Interviewer: Did he provide you with information regarding your cholesterol level, including specific numerical values and other relevant details? Patient 5: I believe it was approximately six at the moment. Furthermore, he desired for it to be reduced to that level. Patient 5: In my opinion, it is detrimental to one's wellbeing. It lacks naturalness. Additionally, I do not see the benefit in taking it when I am not unwell. Interviewer: Nevertheless, you take it... Patient 5: Indeed, I do. Why? asked the interviewer. Patient 5: I am, to put it mildly, under duress. Patient 6: Honestly, that's not the case.
F: Patient 14: At the end of the day, all that preoccupation with blood sugar and abdominal obesity... or, what is it exactly? Perhaps you ought to shift your attention a bit towards other matters. Appreciate your friends, take a moment to reflect on the positive aspects of your existence. For the love of God, maintain some optimism; it won't harm you.... Who invented medicine is precisely what I mean.
F: Patient 4, we are an optimistic group of individuals. Optimistic individuals live longer. Indeed, they do [...] Unexpected incidents occur in a negative manner. It is unwise to pursue them. [Field observations]
F: Patient 2, a 60-year-old retired educator, experiences negative bodily sensations that she labels as adverse consequences. Sensations associated with knowledge of the possible adverse effects as detailed in the patient information leaflet.
Due to the quotation: Patient 2 stated: I must confess that it induces considerable anxiety. Indeed, it does. Each of the numerous options. They induce considerable anxiety. Occasionally, it may also cause you to concentrate a touch excessively on yourself. Slightly apprehensive. You do indeed feel excellent. That is a single aspect of it. It has no effect on our pleasure, and happiness may be the most effective medicine for extending one's life.Do you not agree? [...] [laugh].

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