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Physicians facing the challenge of nutrition

Though there is a general consensus that the success of a nutrition policy strongly relies on the improvement in the food environment, this should not lead to abandon any effort to improve consumer awareness, knowledge and understanding of nutrition. The papers in this issue clearly show that this is still a challenge for physicians and especially for General Practioners.

The first two papers present some elements of the diagnosis in two different cultural contexts, USA and France. There are clearly big gaps or mismatches between what should be done and what is done, between what the patients are expecting from their GP and what GP refrain to do! The third paper by Kristen Hicks proposes long-term multilevel solutions for increasing awareness of GPS from their undergraduate studies to the continuing medical education.

In a short-term perspective, these papers provide "foods for thought" to GP, who are now facing the challenge of nutrition. How to move from or to combine a curative and reactive approach in diseased people to or with a more proactive and preventive action for healthy individuals? How not to transform counseling into a normative and intrusive process? In this respect, it is good to consider that any discussion around nutrition may also provide valuable and useful information for the global care of your patient...

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May 2016 : S. Panico, CN. Armah & coll., CE. O'Neil, C. Féart & colleagues (Health Benefits of F&V Consumption)

June 2016: J. Breda & J.M. Jewell, D. Stefler, T. Kremer-Sadlik & coll., KE. Lamb & K. Ball (F&V Consumption and Differences across Countries)

July / August 2016 : A. Jones-Mueller, LN. Gase, C. Montes & T. Kuo, S. Anzman-Frasca, H. Angstrom, V. Lynskey & C. Economos, S. Hurd-Crixell, BJ. Friedman & D. Fisher (Eating healthier in the US restaurants)

September 2016 : SB. Foerster, MN. Laska, JA. Wolfson & SN. Bleich, SB. Jilcott Pitts (Supplemental Nutrition Assistance Program in USA & Healthy eating)

October 2016 : ML. Bertoia, M.Wagner, C. Lorts (F&V consumption and weight change)

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Importance of doctors' recommendation on diet and nutrition: Data on disparities among the US adult population over a decade

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Decades of studies have shown the importance of proper nutrition in the health of individuals and populations. Although Americans have gradually adopted better eating habits, 90% of them still fall short of the American dietary recommendations (Healthy Eating Index – HEI). Poor eating habits are a major risk factor in four of the ten causes of preventable death: cardiovascular diseases, cancer, strokes and type-2 diabetes. One-third of premature deaths are attributed to improper dietary habits and sedentary lifestyle. Physicians are trustworthy and well respected for their expertise to guide their patients to healthy lifestyle including diet and nutrition.

Nutritional awareness remains low among the general public and people have a poor idea of their own dietary intake balance. Even though those with a diet-related disease pay more attention to the quality of their food, they are still a long way off from following the HEI recommendations. Understanding dietary information remains difficult for many people, especially those from a poor socioeconomic background and thus are at a higher risk of suffering diet-related diseases. However, raising awareness alone is not the perfect solution. There is a need for an authoritative and trustworthy guidance.

Effectiveness of dietary guidance from physicians

Patients are particularly receptive to counsel on healthy living which is provided during consultations with their doctor since they consider their doctor to be the best source of this type of information. As for the physicians, they are in a good position to help their patients adopt healthier habits in the long term. Short dietary-advice sessions are effective in changing the eating habits of patients and improving their health, especially among those who suffer or are at risk from diseases connected to poor diets.

Reduce health expenditure by at least \$87 billion a year!

If the benefits to individuals are indisputable, the use of such information across the country could have an even greater impact on the population. Direct and indirect health expenditure could be reduced by at least \$87 billion every year, while deaths from coronary diseases or diabetes would fall by between 20% and 30%.

In 2000, the Healthy People Objectives, under the aegis of the Center for Disease Control and Prevention (CDC), underlined the importance of dietary counseling and even considered it a national health indicator. However, such counseling by doctors has remained infrequent. Nutritional counseling during consultations has only occurred among 14% of patients.

Few studies have looked into the influence of associated factors on receiving dietary advice (socio-demographic characteristics, healthcare access, health condition, etc.), and their results have often proved contradictory. Furthermore, since the recommendations on such counseling, very few studies have examined the disparities between patients over an extended timeline and at a national level.

National Health Interview Survey results for 2000 and 2011

To mitigate this deficiency, we used the 2000 and 2011 results of

the National Health Interview Surveys (a cross-sectional study based on a wide representative sample of the American population). The receipt of dietary counseling was measured by asking subjects if they had talked to a doctor or healthcare professional during the previous 12 months and had received information on nutrition at that time. Six variables were selected to study their possible correlations with the medical advice: age, gender, ethnicity, education level, insurance coverage status and BMI.

For the years 2000 and 2011, the sample comprised 23,656 and 26,937 subjects respectively. We used a logistic regression model to examine the correlations.

Whereas only 23.7% subjects in 2000 had received nutritional counselling from their physician, the figure rose to 32.6% for 2011. During the same period, the percentage of subjects who were overweight or obese increased from 61.5% to 64%.

Increase in nutritional counselling prevalence with:

• Age

Adults between 45 and 74 years of age were more readily counselled than younger patients (18-24 age group). For patients over 75, the prevalence of advice had a downward trend between 2000 and 2011. Conversely, 2011 showed an increase in advice given to younger patients (18-24), possibly linked to the increased obesity among young people and acknowledgement of this among doctors.

Obese subjects were more often given advice on healthy eating than those at a normal weight, and the difference was even greater in 2011.

• Education level

The probability of receiving dietary advice increased with the level of education (better understanding, easier communication with the doctor).

• Insurance coverage

Patients without insurance received less counselling. This disparity was even more acute in 2011, with a probability of -60%.

Gender

In 2011, male patients were significantly less likely to have received nutritional counseling than female patients in 2000.

• Ethnicity

Hispanics were 26% less likely to receive nutritional counselling than white people in 2000. On the other hand, they were 18% more likely in 2011. Likewise, blacks (non-Hispanics) were 42% more likely to receive such advice than whites in 2011 (this turnaround was probably connected to the Healthy People national efforts and the increase in obesity among these populations over the 11 years).

It is encouraging that the prevalence of diet-related advice given by physicians mildly increased over a decade. However, there are still significant differences among the population in large part due to healthcare access and gender.

Based on: Ahmed NU, Delgado M, Saxena A. Trends and disparities in the prevalence of physicians' counseling on diet and nutrition among the U.S. adult population, 2000-2011. Prev Med. 2016 Aug; 89: 70-5.



Dietary advice provided by general practitioners: what do patients expect?

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Most general practitioners consider that dietary education is one of their roles¹. However, if it is not requested by patients, the fear of appearing moralising or overly intrusive is a common barrier to discussing diet during consultations^{1,2}. Are these concerns valid? What do patients expect in terms of dietary advice?

As part of a cross-sectional quantitative study, 800 questionnaires were distributed in the waiting rooms of urban and rural practices in the Mayenne département of France, of which 500 were recovered. The 485 questionnaires containing at least demographic data on gender and age were considered usable. The average age of the patients was 48 years; 76% of them were women. Fifty-three percent reported a disease, including 6% obesity.

More than 90% of patients would like to receive dietary advice from their doctor

The results show that more than 90% of respondents want to be weighed at least once a year by their doctor; two-thirds of patients regularly weigh themselves. More than 90% of patients would like to receive dietary advice; the main motivation found was excess weight and then a will to help family or friends. The majority prefer oral advice (72%) and less than one in five patients would like a detailed daily meal plan. Few request advice at every consultation (8.6%) but most do in the event of a diet-related disease (80%). Patients tend to request more advice as they age and if they have a diet-related health problem.

Time devoted to diet: too short for 50% of patients

Half of the respondents think the time devoted to diet is too short and the other half consider it is sufficient, with significant differences between age groups: unlike older patients, those under the age of 45 are more likely to think the time devoted to diet is too short. Fifty-six percent of patients said they would be willing to have a diet-specific consultation and three-quarters think it is beneficial for their doctor to discuss diet with them, believing it could change their habits. General practitioners are the main source of dietary information for only 20% of patients but this increases sharply in the event of a disease. The respondents look for information mainly on the internet and then in the written press and on TV.

One in two men is interested in receiving advice about the frequency of consuming fruit and vegetables

Thirty-three percent of patients are interested in such advice while

more than 55% said they are already aware of this guideline. Unlike older patients, those under the age of 45 have better knowledge of the French National Nutrition and Health Programme (PNNS) guideline "at least five fruit and vegetables per day" and are less likely to request advice. Men are most likely to request advice regarding the frequency of consuming fruit (45%) and vegetables (43%) (respectively 30% for women).

Patients who say their doctor is their main source of information are significantly more likely to request information regarding the frequency of consuming fruit and vegetables. Slightly more than 45% would like advice about snacking.

The barriers mentioned by doctors are not obstacles for patients

Although doctors consider that the overly intimate nature of diet is a barrier to dietary advice^{1,2}, only a minority of patients are afraid of being judged when talking about their diet (10%). Diet is viewed as being too personal for doctors to discuss if they have not requested it by 6.8% of patients. This fear of discussing diet is more common for patients under the age of 45, women, and people describing themselves as too fat to receive dietary advice.

Another obstacle mentioned by doctors was a lack of effectiveness^{2,3}, and yet the majority of patients think it is beneficial for their doctor to discuss their diet with them, and three-quarters think it could help them change their eating habits.

Lastly, another barrier mentioned by doctors was a lack of time during consultations^{2,3,4,5}; one solution would be to propose a consultation devoted to diet only: the majority of patients said they would be willing to come to such a consultation. In spite of everything, another study showed that the majority of patients take advantage of another consultation to ask their diet-related questions⁶; therefore, doctors should initiate this dedicated consultation.

"May food be your best medicine"

Patients are therefore attentive to the impact of diet on their health. They request advice in the event of a diet-related disease but have little awareness of primary prevention. They are not afraid of being judged by their general practitioner when talking about their diet and think it is beneficial for their doctor to discuss it with them. This confirms that general practitioners are providers of dietary advice and should motivate them to address the issue of diet, even when patients do not request it.

According to: Labbé L. Conseils nutritionnels par le médecin généraliste : attente des patients (Dietary advice from general practitioners: patient expectations). Dissertation for the State diploma of Doctor in Medicine. 2015-2016.

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Training physicians to educate patients about fruit and vegetables as an element of a healthful dietary pattern

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A well-established association has been documented connecting obesity and other chronic diseases to increased morbidity and mortality. Yet, evidence is robust that nutrition and lifestyle play a critical role in prevention and management of life threatening diseases. Among nutrition recommendations, the World Health Organization (WHO) recommends to consume 400 grams of fruit and vegetables daily. Scaling down, that is five servings of 80 grams (2 spears of broccoli, 1 small bowl of lettuce, 3 tablespoon mixed veggies, ½ bell pepper, 1 large parsnip/onion/yam or a medium tomato). These recommendations are based on the extensive literature that fruit and vegetables can promote health and ultimately reduce chronic disease risk¹. Rationale for increased fruit and vegetables relates to popular dietary patterns such as the Mediterranean Diet or DASH dietary pattern, both with increased potassium and decreased sodium intake².

Although the message has been clear that high intake of fruit and vegetables can promote optimal health, this message is getting lost in translation amid researchers to healthcare practitioners. Researchers have continued to document the lack of nutrition training in medical school and beyond for physicians on nutrition in healthcare. Therefore, patients are not receiving quality nutrition assessments and counseling by physicians, ultimately a failure in medicine.

How can including nutrition discussions with patients improve? Patients are receptive and seek nutrition guidance; therefore, providing amble opportunities for physicians to learn nutrition basics, assessment techniques and counseling strategies is imperative. This can be achieved by highlighting the importance of nutrition in early academics and continued through practice.

• Mandate nutrition course in undergraduate curriculums. Many universities offer a basic nutrition course (e.g. Fundamentals of Nutrition; Introduction to Nutrition), a course able to be taught by any scientist with nutrition or food science background. Educators can utilize this course as a required component to their curriculum can enhance basic knowledge of nutrient metabolism. More importantly, these courses include conceptual knowledge of healthful dietary pattern including high daily intake of fruit and vegetables. This focus can contribute efforts to meeting national standards including

'Healthy People 2020' and 'European Food and Nutrition Action Plan 2015-2020', which have goals aimed at improving overall nutrition status of the population.

- Integrate nutrition into medical schools. Rather than the limited current offerings of nutrition in medical schools (<20 hours), increasing offerings beyond the basic biochemistry of nutrient metabolism³. Medical schools can partner with local institutions and/or Registered Dietitian Nutritionist (RDN) groups to include courses on topics such as: medical nutrition therapy, nutrition physical assessment and nutrition counseling techniques. Utilizing a Problem Based Learning (PBL) approach, cited to be effective with medical students, would encourage physicians to discuss fruit and vegetables among other healthy dietary components with their patients comfortably⁴. This case study approach can provide practical application tools to actually integrate nutrition counseling into patient interactions.
- Offer nutrition focused Continuing Medical Education (CME). Beyond medical school, encouraging physicians to learn more about nutrition topics focused on their practice needs is a viable method for improving knowledge and confidence. Nutrition science is continuously being updated, except the fact that a healthful dietary pattern including high in fruit and vegetables continues to show improved patient outcomes (e.g. cardiovascular disease, obesity, diabetes). Proposing CME courses on nutrition application and discussing nutrition concepts with patients can enhance delivery to each and every patient.

Conclusion

The topic of nutrition in medical education needs more attention, it needs to begin starting in undergraduate curriculums and continue through medical school and beyond. With continuity among nutrition education, physicians can implement nutrition discussions with patients about healthful dietary patterns including increased quantities of fruit, vegetables and whole grains. Without modifications in the medical education system, we are failing the physicians and ultimately their patients.



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