Teaching and learning about uncertainty in family medicine

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Uncertainty is a fact of life in medicine. We face all kinds of uncertainty in our work: uncertainty about diagnosis, investigations, treatment, and outcomes for the patient. There is also financial, political, social and organizational uncertainty in our health services. All this happens against the background of uncertainty in our daily lives.

Acceptance of uncertainty can help us to develop effective strategies to deal with it. It takes a special person to cope with this in the low-tech, high-touch world of general practice. This is something we can teach our students and our trainees, as well as something we must work on all through our careers. Does uncertainty lead us to ask the patient more questions, order more tests, prescribe more treatments, make more referrals, and do more surgery? Does it lead us to take time for personal reflection and discussion with colleagues, patients and their families? A large body of literature has grown up around this. I would like to explore what is new in this field and suggest future directions for research.

Attitudes to uncertainty have shifted. We have moved from attempts to master or diminish uncertainty to efforts to cope with it. Many accept and some even celebrate that things remain uncertain.

Uncertainty can be tolerated.[1] Involving the patient in the process may be the key. By sharing responsibility with the patient we can make it easier on ourselves. Taking advantage of the long-term relationship in family medicine and using the possibilities we have for close follow-up allow us to use time as a diagnostic and therapeutic tool. This may help us to reduce the anxiety present in both doctor and patient at the initial visit.

Uncertainty arises in primary care because we are often the point of first contact with the medical care system.[2] Patients appear with undifferentiated symptoms. A patient-centered approach, focusing on the understanding the patient's reasons for consulting, may help both the doctor and the patient. We may ask four questions, summarized by the letters FIFE: about the patient's Feelings about the condition, their explanatory model or Ideas about the illness, the effect on the illness on their daily Function and their Expectations of tests and treatments. An empathic doctor-patient relationship is an important tool for managing uncertainty.

The model of shared decision-making can affects doctors' feelings of uncertainty and their willingness to disclose this to patients.[3] Anxiety about uncertainty was related in one study to female gender and was more prevalent among doctors at an earlier stage of their training. However willingness to learn about shared decision-making was found to increase the comfort of sharing uncertainty with patients. The implication is that formal training can help people to cope with the inevitable uncertainty of practice.

Consider the case of a 30 year-old man who comes to the family doctor with low back pain of three days' duration, after heavy lifting at home.[4] The neurological examination is normal. When doctors at a medical conference were asked how certain they were of their diagnosis at that point and how certain they were that their usual treatment would help this patient, the figures were high on both counts. When they subsequently learned that this patient had a history of successful treatment with radiotherapy and chemotherapy for Hodgkin's disease ten years earlier, all revised their assessment of their certainty in their diagnosis and treatment. Context, it appears, is everything.

Notions of probability and statistics enter into our discussion of uncertainty but it appears that they are not scientific.[5] Our use of probability reflects our subjective belief in the likelihood of an event occurring.

Neuroticism of the physician may play a role in expressions of uncertainty and one's ability to deal with it.[6] It is a challenge for medical education to attempt to modify these intrinsic factors.

Uncertainty also plagues our patients. One study looked at ambiguity, defined as a lack of understanding of symptoms and complexity, defined as lack of understanding of treatment, in the lives of 462 patients with chronic obstructive lung disease.[7] Criticism from family members increased uncertainty while participation in patient support groups helped patients by decreasing their uncertainty. Research into patient self-help groups and their effects on uncertainty and self-efficacy might be useful in Portugal.

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Uncertainty may also be seen in a positive light by patients, as it can represent hope. This is one argument presented against breast self-examination (BSE).[8] Babrow and Kline suggest that we need to recognize, understand and validate uncertainty in our patients. The evidence suggests that BSE increases anxiety without decreasing morbidity or mortality from breast cancer. As Lelord has said: "Sometimes happiness lies in not knowing the whole story."[9]

Uncertainty also plays a role in giving a patient a prognosis.[10] It helps to normalize uncertainty, to address the patient's emotions about it, and to involve the patient's family in helping to deal with the future.

This also affects medical teachers at a certain stage in their professional development. One program in South Africa moved medical education from a tertiary care hospital to clinics in the community.[11] Local family doctors, who were recruited as teachers, expressed initial uncertainty and insecurity in their new role as faculty. Time and support were required until their new identity as clinician teachers emerged. It is reassuring to see how this process is universal and is not unique to the Minho region where I teach.

Floden[12] characterized the uncertainty that many teachers feel. They may ask: "How much do my students know and understand, how effective is my teaching, how can I best use the limited time I have with students, and what intellectual and social authority do I have to teach?" In that light, we may describe the risks and benefits of uncertainty in the classroom. Too much uncertainty can lead to anarchy while too little uncertainty can lead to dogmatism. The same applies to medical education.

Medical students appreciate that we can't know it all, we don't know everything, and we can't even agree on what we think we know. We can help our students by listening to their concerns, helping them to phase their questions, strengthening their healthy coping mechanisms, providing the information they need, and simply by being there for them.

Some believe that evidence based medicine and computers will be sufficient to lift the "fog of uncertainty".[13] However it is clear that technology and data are not enough. Tudela, Almeida Lobo and Ramos[14] described how we are working in a complex system on the edge of chaos. Uncertainty is a constant feature of our world. Strategies for coping with this include shared reflection of narratives in Balint groups.

What are some of the directions that future research on this topic might take? We need to know how much uncertainty plays a role in the daily encounters in family medicine. What techniques do patients and doctors use in dealing with this? We need to assess the consequences of uncertainty, including costs. We need to understand the meaning of uncertainty in the unique cultural context of Portuguese family medicine. The results of research in this field will be helpful to us and could certainly be published here.

This editorial is dedicated to the memory of Dr. Ivar Ostergaard, the original co-author of the workshop on uncertainty in family medicine presented at the WONCA 2001 conference in Tampere.

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CONFLICT OF INTEREST

None reported

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