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57 – Gut Feelings as a Guide in the Diagnostic Reasoning of GPs

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Introduction

General practitioners (GPs) all over Europe sometimes experience the feeling that something is wrong with a patient during a consultation, although they do not know exactly what(1, 2). This so-called 'sense of alarm' is a feeling of sudden heightened awareness alerting a GP and causing them to worry about the patient's health status. It is often accompanied by physical sensations in the abdomen (hence 'gut feelings') or the heart. Remarkably, the decisions of Dutch medical disciplinary tribunals indicate that the timely manifestation of this sense of alarm should be part of the professional standard for doctors(3). However, in the era of evidence based medicine (EBM), gut feelings sound slightly old-fashioned, and the question may arise as to how much gut feelings really contribute to a GP's decision making process. Ten years ago, an international group of GP-researchers started a study on the topic. This chapter reports on their findings.

Focus Groups and a Delphi Consensus Procedure

We explored the meaning and significance that GPs attach to gut feelings using a focus group method. Most of the participating GPs considered gut feelings to be a valuable instrument that they could rely on (4). They emphasized that besides the sense of alarm, the sense of reassurance also played a substantial role in general practice, i.e. when a GP is sure about the prognosis and therapy, even in the absence of a definitive diagnosis. The basis of gut feelings is a GP's knowledge, including medical knowledge, experiential knowledge and contextual knowledge, the latter defined as everything a GP knows about the patient apart from the symptoms and signs. Various determinants influence the process of arousing gut feelings, such as the doctor's personality, factors that fit the general picture, alerting triggers and interfering factors.

In order to find valid definitions of gut feelings, we conducted a Delphi consensus procedure and achieved consensus on precise descriptions of the sense of alarm and sense of reassurance(5) (See Text box 1).

Gut Feelings Questionnaire

Based on the consensus statements, we then composed a short questionnaire to determine the presence of gut feelings in the context of GPs' diagnostic reasoning. The gut feelings questionnaire (GFQ) was validated after a construct validation procedure(6). Consequently, we are now able to study the diagnostic value of gut feelings. We produced a linguistically validated English-language version, and the GFQ is now also available in French, Polish and German.

COGITA European Network

The European General Practice Research Network (EGPRN) gave us the opportunity to present the results of our study at several conferences, which led to the establishment of a network of FD researchers interested in the topic, called COGITA (www.gutfeelingsingeneralpractice.eu). Its aim is to share research findings and to prepare proposals for cross-border research projects. At yearly meetings, European researchers discuss research findings and advise on the implementation of new studies. A glossary of diagnostic reasoning terms related to the topic of our research was composed by the group and published on the COGITA website.

1. Statement 1: A 'sense of alarm' means that a GP perceives an uneasy feeling as he/she is concerned about a possible adverse outcome.
2. Statement 2: A 'sense of alarm' implies that a GP worries about a patient's health status, even though he/she has found no specific indications yet; it is a sense of 'there's something wrong here'.
3. Statement 3: A 'sense of alarm' activates the diagnostic process by stimulating a GP to formulate and weigh up working hypotheses that might involve a serious outcome.
4. Statement 4: A 'sense of alarm' means that, if possible, the GP needs to initiate specific management to prevent serious health problems
5. Statement 5: A 'sense of alarm' will decrease as the diagnosis and the right management become clearer.
6. Statement 6: A 'sense of reassurance' means that a GP feels secure about the further management and course of a patient's problem, even though he/she may not be certain about the diagnosis: everything fits in.
7. Statement 7: The 'sense of reassurance' and the 'sense of alarm' constitute a dynamic element in a GP's diagnostic process.

Text box 1. Consensus statements

Theoretical Framing

To explain how gut feelings arise and function in GPs' diagnostic reasoning, we reviewed the literature from medical, psychological and neuroscientific perspectives(7). Gut feelings are based on the interaction between patient information and a GP's knowledge and experience. We visualized this in a knowledge-based model integrating the two well-known reasoning tracks of medical decision-making and medical problem-solving, adding gut feelings as a third track. (See Figure 1) These three tracks fit well in dual-process theories, where analytical and non-analytical reasoning continually interact as two modes of knowing and thinking. The interaction enables GPs to use elements of all three tracks, depending on the task and situation. The role of affect as a heuristic within the physician's knowledge network explains how gut feelings may support GPs in navigating efficiently in often complex and uncertain diagnostic situations.

Skilled Intuition

Intuitive thoughts come to mind without apparent effort but their value is the topic of many scientific debates(8). Some researchers showed that intuitive judgements based on simplifying heuristics are often flawed. Others believe that intuition defined as the process of pattern recognition is trustworthy in some domains such as nursing, medicine, fire-fighting and accountancy. It is based on experience that recognises valid cues. E.g. medicine provides a high-validity environment where cues are stable and regular and can rather easily be recognized. In such domains prolonged practice and rapid feedback may enable students to develop a so-called skilled intuition which can be trusted. Gut feelings are based on skilled intuition and form a substantial part of the diagnostic reasoning process.

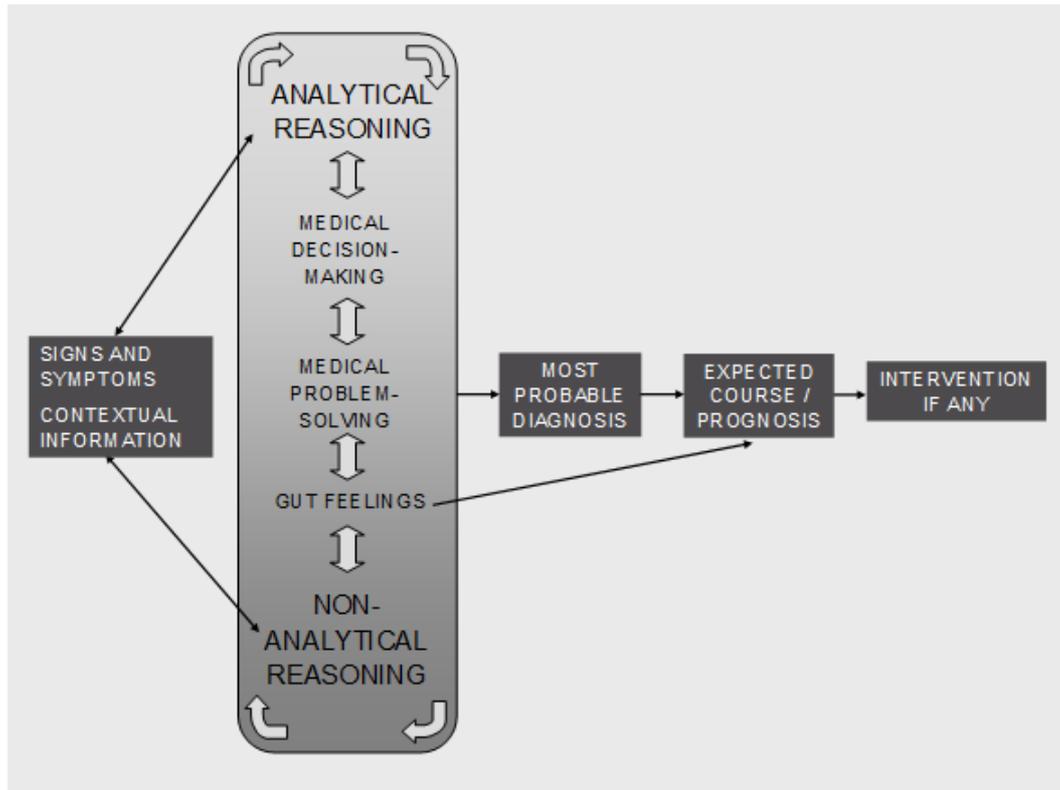


Figure 1. Knowledge-based model of GPs' diagnostic reasoning.

Evidence Based Medicine

Although evidence and skilled intuition may sometimes appear as irreconcilable opposites, the combination fits in very well with the EBM concept that is based on the integration of scientific knowledge, patients' preferences and physicians' expertise and skills. Doctors have to weigh up these three elements in their decision-making process, but it is remarkable that the literature offers no studies on how this integration process must be achieved or taught.

Future

We may conclude that the gut feelings concept exists and that they substantially contribute to GPs' diagnostic reasoning process. In the future, we will study them in greater depth, i.e. by investigating the predictive value of gut feelings, the influence of the determinants of experience and contextual knowledge, and the significance of gut feelings in the learning process for diagnostic reasoning in workplace settings. We welcome any researchers who would like to participate in our research.

For more information and contact please visit www.gutfeelingsingeneralpractice.eu .

Take Home Messages

- Gut feelings , i.e. a sense of alarm and a sense of reassurance, play a substantial role in the diagnostic reasoning of general practitioners.
- The sense of alarm stimulates a GP to formulate and weigh up working hypotheses that might involve a serious outcome.
- The sense of reassurance means that a GP feels secure about the further management and course of a patient's problem, even though he/she may not be certain about the diagnosis.
- Gut feelings can be considered a third track in general practitioners' diagnostic reasoning next to medical decision-making and medical problem-solving.
- Gut feelings are a kind of skilled intuition and fit well in EBM.

