

Creating space for gut feelings in the diagnosis of cancer in primary care

INTRODUCTION

In a series of recent *BJGP* articles, our group has explored GPs' gut feelings in relation to the decision to investigate for cancer.¹⁻³ Our first article, a systematic review and meta-analysis, indicated that GPs' gut feelings represent a rapid summing-up of multiple, often subtle, verbal and non-verbal cues noted in the consultation. This summing-up could lead to a sense that a patient was seriously unwell, and when GPs had this gut feeling the odds of a cancer diagnosis were four times higher than when no gut feeling was recorded.¹ Two interview studies then explored gut feelings with GPs and patients, respectively, who had either made referrals or been referred for cancer investigation.^{2,3} Both groups perceived gut feeling was gradually honed with increasing clinical experience and personal experience of the patient. Patients said that they thought the 'thorough GP' would validate this short-cut in clinical reasoning through further evidence gathering. GPs reported building a case for their gut feelings by gathering additional clinical information and by discussing the case with colleagues, rather than acting on them in isolation. Both groups shared concerns about whether acting on gut feelings would lead to unnecessary referrals and made the GP more vulnerable to litigation, and commented on the tension between using them in the changing landscape of primary care. At first glance, gut feelings, with their emphasis on subtleties and individual knowledge, may seem incompatible with technology, algorithms, and protocolised practice, but we consider whether digital health technology might support, not supplant, gut feelings (Box 1).

SUPPORTING DECISION MAKING

A recent systematic review exploring factors

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shaping GPs' use of cancer decision support tools reported that GPs felt a disquiet for protocolled or algorithmic decision making as many patients were not easily 'pigeon-holed'.⁴ Our GP participants found gut feelings especially useful when managing patients who fell into the grey area of primary care where there is a mismatch between clinical guidance and their own assessment of the patient.^{2,5} It could be argued that risk prediction models are particularly helpful in decision making for patients without red-flag symptoms who fall into this 'grey area'.⁴ However, existing clinical decision support tools do not take into account the kinds of cues that our review and our interviewees told us contribute to a gut feeling. Subtle cues or behaviours that were deemed important in stimulating gut feeling included struggling to put on a coat after the consultation, a sudden expression of concern in a usually stoic patient, or a patient appearing unusually withdrawn or sitting differently. Whether electronic decision support tools will ever be able to capture this sort of contextual information is unclear, as is the extent to which the use of decision support tools create a barrier to GPs valuing or noticing the cues that stimulate gut feeling.⁶ Despite these uncertainties, it has been observed that GPs

are more likely to act on a risk prediction if it agrees with their own clinical judgement, and risk prediction models could be useful when GPs are building a case in support of their gut feelings.⁴ Automating this process may be problematic as gut feelings are rarely recorded, and if they are, they are recorded in inaccessible free-text fields. If coded or accessed, perhaps using natural language processing, mentions of gut feeling could automatically trigger risk calculation or prompts for further action. When protocolled or algorithmic decision-making tools are used, however, they must have inbuilt flexibility to recognise that one size cannot fit all.

SUPPORTING CONTINUITY

Primary care permits a patient-focus, rather than disease-focus, through continuity of care. Relational continuity of care is associated with reduced morbidity and mortality.⁷ The ability to recognise patterns and changes in the individual over time, whether in relation to their own usual health status or that of patients similar to them, is key to the development of gut feelings. The COVID-19 pandemic has worsened already well-established reductions in continuity of care through both staff absence and redeployment, and with an unprecedented shift to remote consultation.⁸ Rapid increases in remote consulting have also re-highlighted concerns about the degradation of gut feelings due to subtle cues being missed via telephone or video call or not being captured in an eConsult.⁹ There may be a role for technology though in maintaining an 'overview' of the patient to compensate for disruptions in continuity by highlighting increasing consultation frequency even if a different GP is consulted each time, or important deviations in the usual trajectory

Box 1. Key messages

- The study of gut feeling highlights the importance of subtle cues and clinical observations not easily incorporated into guideline recommendations.
- Gut feelings often rely on a clinician's understanding of what is normal for their patient, which is built over time by relational continuity and clinical experience.
- Primary care is experiencing time pressures and a reduction in continuity of care that could harm the use of gut feelings, but which may be relieved by technology.
- Digital health technology could create space in the consultation for gut feelings by monitoring for irregularities in attendance and freeing the GP from administrative tasks.

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of prescriptions or test results.¹⁰ Even displays of unusual facial tension, pallor, or irregular breathing could be flagged from footage of video consultations.¹¹ In this way, technology could present an additional layer of continuity, identifying changes too subtle or complex to notice if the patient is unknown to the GP.

CREATING SPACE FOR GUT FEELINGS

The area where digital tools may have the greatest impact is in reducing the burden of non-clinical tasks, creating space within the consultation for GP gut feelings to develop. Digital scribes may free the GP from administrative tasks by using speech recognition software to update the patient's record in real time or by coding unstructured free-text notes. Clinical note creation tools may also be able to provide the GP with summarised, salient information, for example, on the patient's lifestyle or social determinants of health.^{10,12} Less time with the computer and more time with the patient may foster empathy, a key component in the development of gut feelings, by increasing the GP's personal knowledge of their patient and allowing more time to form a human connection.

GUT FEELINGS UNMASKED

Our work on gut feelings emphasises the importance of preserving the longitudinal patient relationships and breadth of clinical

care that sets primary care apart from other specialties. Digital tools have great potential to support decision making and administration, and to augment the doctor–patient relationship.

Retaining experienced GPs and increasing the average length of the GP consultation will help to preserve the utility of gut feelings. Studying gut feeling has exposed important limitations of protocolised, discontinuous, time-limited health care for detecting cancers, especially if the patient does not present with red-flag symptoms. Artificial intelligence may assimilate some of the pressures of primary care but cannot replace the cognisant clinician.

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