MEDINFO 2007
HISA Ltd Australia
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A Classification of the Behaviours of Doctors, Patients and Computers in the Family Practice Consultation

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Abstract

General Practice (Family Practice) in Australia has rapidly computerised over the past ten years. Currently over 90% of General Practitioners (GPs) have a computer on their desk, and use it for clinical functions. One of the key elements of General Practice is the doctor-patient relationship, and survey work has suggested that both doctors and patients have concerns about the impact of computers on this relationship. This study describes how the doctor-patient-computer relationship is enacted in Australian General Practice. By dealing with the relationship as a triadic one we can see how the computer acts as an equal partner. As a precursor to more detailed analysis, we have described for each player in the consultation two overarching styles and three categories of behaviour exhibited at different times of the consultation. An understanding of these styles is needed before moving on to an analysis of the flow of information and power in the consultation.

Keywords:

computers, physician patient relationship, communication skills

Introduction

Computerisation of the general practice/primary care space is now almost complete in Australia, with 91% of doctors now using a computer on their desktop for prescribing. This is a figure that has come about rapidly, with only 60% reporting the same level of computing five years ago [1, 2]. computerisation occurred due to a combination of government initiatives and GP driven demand for computer prescribing [3]. This represents the most significant computerisation of the clinical encounter since the mass computerisation of the United Kingdoms National Health Service in the 1980's. Computers are now used in all facets of the consultation – prescribing, recall systems, progress notes and decision support [4]. Surprisingly, there is little literature on the direct effects of this computerisation on the doctor-patient relationship itself. Both surveys of the level of computerisation in Australia registered significant concerns by doctors to the effects of the presence of computers on the doctor-patient relationship [2, 5], although this concern is not necessarily reflected by patients [6, 7]. With a significant emphasis in primary care on the doctor-patient relationship[8, 9] , it is important the computers role in the relationship be studied.

Methods

The method has been described in detail elsewhere[10]. Twenty GPs generated 128 consultations for analysis.. The use of video allows the combining of both speech and body language in the analysis, as well as taking into account the interplay between all three players.

Results

We have been able to describe several classifications of behaviour across the various players (doctors, patients and computers) in the consultation. Central to the framework is the type of classificatins of the interaction provided by the players in the consultation. We described two for each player. The second element is the categories of behaviours exhibited during the consultation, which can occur independent of the classifications

The Classifications

Classifications apply overarching themes to the behaviours exhibited by the actants in the relationships (see table 1 for a summary). Doctors are either *Unipolar* or *Bipolar*. *Unipolar* doctors are characterised by the doctor seemingly being driven by the needs/presence of the computer. Their lower body orientation is predominantly towards the computer, and they often ask questions motivated by the computer or input information during the consultation. By contrast, *bipolar* doctors clearly indicate switches of focus with significant lower body shifts – using these shifts to indicate "computer" time vs. "patient " time. Patients are either *dyadic* (view the interaction with the doctor as prime, with the computer as a tool) or *triadic*, where the patient is happy to deal with the computer as an integral, if not equal, partner in the consultation. Similarly with the computer we can describe either *active* or *passive* styles of behaviour. Doctor styles generally remain consistent throughout each consultation and across consultations. Patients are only seen for one consultation, so although they are consistent across that consultation, no conclusion

can be made as to whether this is consistent across all consultations, either with that doctor or all doctors. The computer can change its style during the consultation, according to the directions of its programming.

The Conceptual Framework maps the overarching styles with the observed behaviour categories (or macro behaviours). An example of the framework in use is given in the example at the end of the paper..

The Behaviours

- Engaging behaviours: Refers to those behaviours when the doctor needs to engage with the patient in the consultation
- Disengaging behaviours; Conversely, refers to those behaviours when the doctor wishes to shift *away* from the patient, towards the computer.
- Cogitation: Refers to those behaviours related to the doctor staring at the computer for no clear reason. May include grazing (brief stares) to quite long periods of attention.
- Screen controlling: A patient behaviour where they try to bring the computer (through its surrogate, the screen) into play in the consultation. This is a more active process than the next category
- Screen watching: The patient uses the screen as a focus of attention in the consultation
- Screen excluding: Deals primarily with the doctor, not the computer, and may exhibit behaviours that actively excludes the computer.
- Informative: The first computer behaviour; where the computer provides important information for either patient or doctor.
- Distracter: Where an action by the computer (passive or active) acts to distract one of the other actants.
- Prompt: Where the computer acts to remind either of the actants of an action that needs to be attended toAuthor affiliations

Discusson

This classification of behaviours is similar in many ways to what has occurred in previous studies. Other work has taken a particularly doctor centric view, and had described specific doctor styles, such as managerial/interpersonal/informational [11] or behaviours such as “magic box”[12]. However my study extends on the previous work in several ways. I have attempted to be value neutral in my observations, I make no attempt to judge what may be “better” or “worse” in what is observed. Secondly, I am treating the relationship as an interaction between three players – describing and classifying not just doctor (the most usual observation) behaviour but also the patient and the computer. Patient centredness [9] requires us to take into account the patient perspective, therefore in the new consultation we should take into account the role and behaviours of the computer. Scott and Purves[13] have described the relationship as a triadic one, the sum of the interactions between three players. This work represents the first attempt to characterize the relationship from all three perspectives. This framework will allow further analysis/tagging of the video files. Thus a video of bipolar doctor/dyadic patient will be tagged according to the presence of screen watch behaviours, allowing a picture to be created as to what those behaviours are. This triadic perspective, and the application of the theoretical approach allows us to now take these classifications to the next step – reviewing the consultations to look at the flow of information in the consultation, how the triadic relationship works in the first minute, and the role of printing in the new consultation.

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