

# NTU and TTSH researchers study how to improve doctor-patient communication



Dr Png Keng Siang (right) in a simulated consultation. PHOTO: NTU

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SINGAPORE - For doctors and other medical professionals, interacting with patients can sometimes be more of an art than a science. Communicating effectively and empathetically requires experience, not just medical knowledge.

A new joint study by researchers from the Nanyang Technological University (NTU) and clinicians from Tan Tock Seng Hospital (TTSH) aims to offer a novel approach to improve the human dimension of healthcare in the form of conversation analysis (CA).

The study was led by Professor Luke Kang Kwong Kapathy and Assistant Professor Lim Ni Eng from the NTU School of Humanities in collaboration with Adjunct Assistant Professor Png Keng Siang, a senior consultant at TTSH's urology department.

CA is a method of studying social interactions by analysing video footage which is transcribed verbatim. It is used in many humanities disciplines such as sociolinguistics and anthropology.

From mid-2016 to mid-2018, 150 first-visit consultations at TTSH urology clinics were filmed with the written consent of the patients. The footage was processed to remove personally identifiable information.



A doctor attends to a simulated patient in a mock consultation session. The video footage is processed to remove any personally identifiable information, which includes blurring out both the doctor and the patient's faces and applying a black and white filter over the image. PHOTO: NTU

These recordings were then transcribed, scrutinised and analysed, said Prof Luke on Wednesday during a media briefing at TTSH.

"Studying the language, responses and social psychology in the clinical setting gives us insights on what makes patients more receptive to doctors' recommendations and more willing to go through necessary tests," he added.

Both verbal and non-verbal interactions in the transcripts and footage were analysed - a process that is ongoing - to determine how both the doctor and patient understood their interactions.

The researchers identified recurring scenarios.

For example, a doctor would usually recommend a battery of diagnostic tests to determine the cause of a symptom such as the presence of blood in urine. The researchers found that it was common for patients to express fear or apprehension towards certain procedures like cystoscopy, which involves running a thin tube to the patient's bladder through the urethra.

This might be reflected in questions about whether the procedure will hurt, whether there are other tests that can be done instead, or in non-verbal cues like silence or body language showing discomfort.

By identifying the context of a given interaction and any instances of misunderstanding, the researchers also noted specific points at which doctors could improve their communication with patients or their families and caregivers.

Prof Lim said: "We found that when the doctor picks up on these concerns or fears, they usually try to give the patient even more information, for example, by talking about anaesthetics or risks, or by describing the procedure in detail, but this does not reassure them. The patients are looking for empathy, not just information."

Instead, the doctor could describe how previous patients responded positively to the procedure, he added.

The method used in communication training for medical students and doctors in all three medical schools here typically involves an actor role-playing as a patient in a scripted, simulated scenario.

The CA technique can complement this process and can yield richer insights compared to statistics, surveys or retrospective interviews currently used in health communication studies.

"CA is a fresh look into communication in healthcare which doctors were not previously exposed to," said Prof Png.

"It is different from the usual research we do where we mainly look at statistics. We are excited that our day-to-day doctor-patient interactions can shed so much insight through the use of this novel approach."

The team plans to expand the use of CA beyond the urology department to other areas in TTSH, including ophthalmology and palliative care.

Prof Lim said: "End-of-life conversations are a medical issue and yet deeply human. We want to see how we can get caretakers and patients to talk about important things at the last stage of life. It's important not just for the terminal patients but also their caretakers, who need closure."