Reviewer's report

**Title:** Micro-expression recognition training in medical students: a pilot study

**Version:** 1  **Date:** 10 April 2009

**Reviewer:** Myriam Deveugele

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Major compulsory revisions:

Although I began to read this article with a lot of interest, I am very skeptical ending it. The research uses a commercial tool, which is appropriate but I lack the relevance and evidence for use in medicine. Let’s start with the introduction:

The authors take a very strange way to come to their research questions: emotions and their recognition make it possible to behave flexibly, OK. Emotions are shown in doctor-patient relation OK. Patient-centred communication has a positive influence OK (although 'strongly influenced patients' health is overreacting, there is a lot of literature saying to be careful with this conclusion). But: patient centeredness incorporates different aspects of communication and is not equal to recognition of emotions, the other way around a good recognition of emotions does not necessarily imply patient-centred behaviour. So this connection is far too brief.

Saying that doctors have problems in responding to cues is true, but saying this based on one paper from 2000 is poor. The study of Tamblyn shows a relationship between scores on the OSCE and retained complaints, but OSCE scores include far more than communication alone, and going from this paper to the research on micro-expression recognition is surely not accurate.

A study on 4.5 months old babies is nice, but what is the connection between the interaction between babies and their mother and a doctor-patient relationship within medicine?

Paul Ekman states that ‘recognition of facial expressions may be useful in doctor-patient relation’. On what ground? Why? What is the evidence? What is the hypothesis to state this?

Communication training in medical schools has proven to last after graduation, state the authors, with one paper from 1986! There is a lot more literature warning that training does not automatically lead to use of the trained skills in practice.

So, the introduction contains a lot of old literature, incorrect use of the literature and lacks evidence for the study presented.

My suggestion to the authors: do a careful literature search on non-verbal communication, on the relation between recognition of non-verbal communication in general and specific on facial expression recognition macro as well as micro. If you find evidence that doctors with better skills in this area are better doctors, than the study will be worth full. Concerning the use of the Mett instrument,
please provide some evidence that this instrument can actually help doctors to
gain better recognition of facial expressions (and not only studies by the author,
who has commercial benefits).

Methods

This paragraph is much better that the introduction. Choosing first year students
is fine and selecting them by their results is OK. But please provide some
information on the OSCE. What were the topics? When did the students
participated (at the beginning or at the end of the first year)? Score list? ….
Too bad that the participating rate was low.

Results.

Start with a description of the participants. The first result (difference in OSCE
scores) is the result of the inclusion, so do not mention it neither here neither in
the discussion.

Discussion

First give the main conclusions: both group are equal at the pre-test, the group
with the highest OSCI scores, scores better at the post-test. Then start thinking
why this could be, there are multiple possible hypotheses, intelligence, speed of
learning, motivation, self confidence…. Please reflect.

One general remark: if you try to provide literature evidence for some opinion, the
first rule is to look for equal or comparable groups. Relating to results with
schizophrenia is therefore a bit odd to my option… It is to hope that doctors do
not have psychiatric problems and that their communicative behavior is ‘normal’.
So please skip this study.

Concluding: I am not convinced that this study is good. Is there a connection
between recognition of facial expressions and communication? Are doctors with
better facial recognition skills better communicators, do they react more and
better on cues? Does learning to recognize facial expressions lead to behavior
change, so that doctor really pick up cues? If there is not any evidence or answer
on these questions, than this study on learning effect is too early. First we need
to know if there is need to train these skills in medicine before effect studies can
be done.

**Level of interest:** An article of insufficient interest to warrant publication in a
scientific/medical journal

**Quality of written English:** Needs some language corrections before being
published

**Statistical review:** No, the manuscript does not need to be seen by a
statistician.

**Declaration of competing interests:**

I declare that I have no competing interests