

# Gestural behaviour as an indicator for measuring the quality of a doctor- patient- relationship

## Abstract

The communication between a doctor and his patient is important for progression in therapy. The therapeutic relationship is not only characterised by verbal communication but also by nonverbal behaviour. The following study examines the relation between hand movement behaviour and quality of the relationship.

The doctor's and patient's hand movement behaviour of the first four minutes of four video-taped doctor-patient-actor encounters is analysed with the NEUROGES-ELAN coding system. An actor played the role of the patient throughout the different sessions. The doctors were real persons which participated in an communication training. The focus here was on the hand movements of both persons during the whole session. Furthermore, the doctors' negotiation is assessed by a questionnaire evaluating communicative competence (KEK).

The results show differences in the doctors and patient hand movement behavior. In two videos the interacting persons showed a higher number of body-focused hand movements than in the other videos. These movements applies to negative emotions, so this could hence be associated with a worse quality of the doctor-patient-relationship. These results were supported by the questionnaire (KEK).

The analysis was executed with a small number of test persons. In future studies, it would be interesting to compare the results with other tools, such as for example the opinions and impressions of the actor.

## Introduction

The doctor patient interaction substantially influences therapy outcome. About 30 percent of the success of psychotherapy can be explained by relationship variables [1].

Nonverbal behaviour is an important factor in the therapeutic relationship since it is associated with cognitive, emotional and interactive processes. In particular, self-touching behaviour has been reported to be associated with arousal or self regulation, negative emotions, and depression [2, 3]. In contrast, gestures reflect conceptual processes. For instance, the patient's gestures may reflect the concept of her/his disease or her/his relationship to other significant persons. As such, changes in these gestures reflect changes in mental concepts in the course of psychotherapy [2,4].

This study examines the relation between hand movement behaviour and quality of the relationship, focusing on the following hypotheses:

- a high frequency of self-touching behaviour is associated with the doctor's low communicative competence
- a high frequency of gestures is associated with the doctor's high communicative competence

## Methods

### Sample

- 4 video-taped 10-minutes doctor-patient-actor encounters from the KoMPASS study [5]
- 3 female, 1 male
- patient-actor is always the same actor, who pretends to be a patient with cancer and who is confronted with a bad message
- hand movement behaviour analysis of the first four minutes

### Measurements

#### 1. Analysis of hand movement behaviour

NEUROGES-ELAN coding system [6], Module I:

- Activation (values: *movement* or *no movement*)
- Structure (values: *phasic*, *repetitive*, *irregular*, *shift*, *aborted*)
- Focus (values: *in space*, *on body*, *within body*, *on separate object*, *on attached object*)
- Structure and Focus values are concatenated
- the hand movement behaviour was analysed by two certified raters who were not informed about the KEK assessment and the study hypotheses
- Interrater Agreement was established on 25% of the data

#### 2. Assessment of communicative competence

Kölner Evaluationsfragebogen Kommunikation (KEK) [7]

- assessment of one questionnaire evaluating communicative competence for each encounter
- score up to 50 (a Score of 50 indicates a high competence)

## Results

The figures below show for each doctor-patient dyad the number of hand movement units per minute of each StructureFocus value.

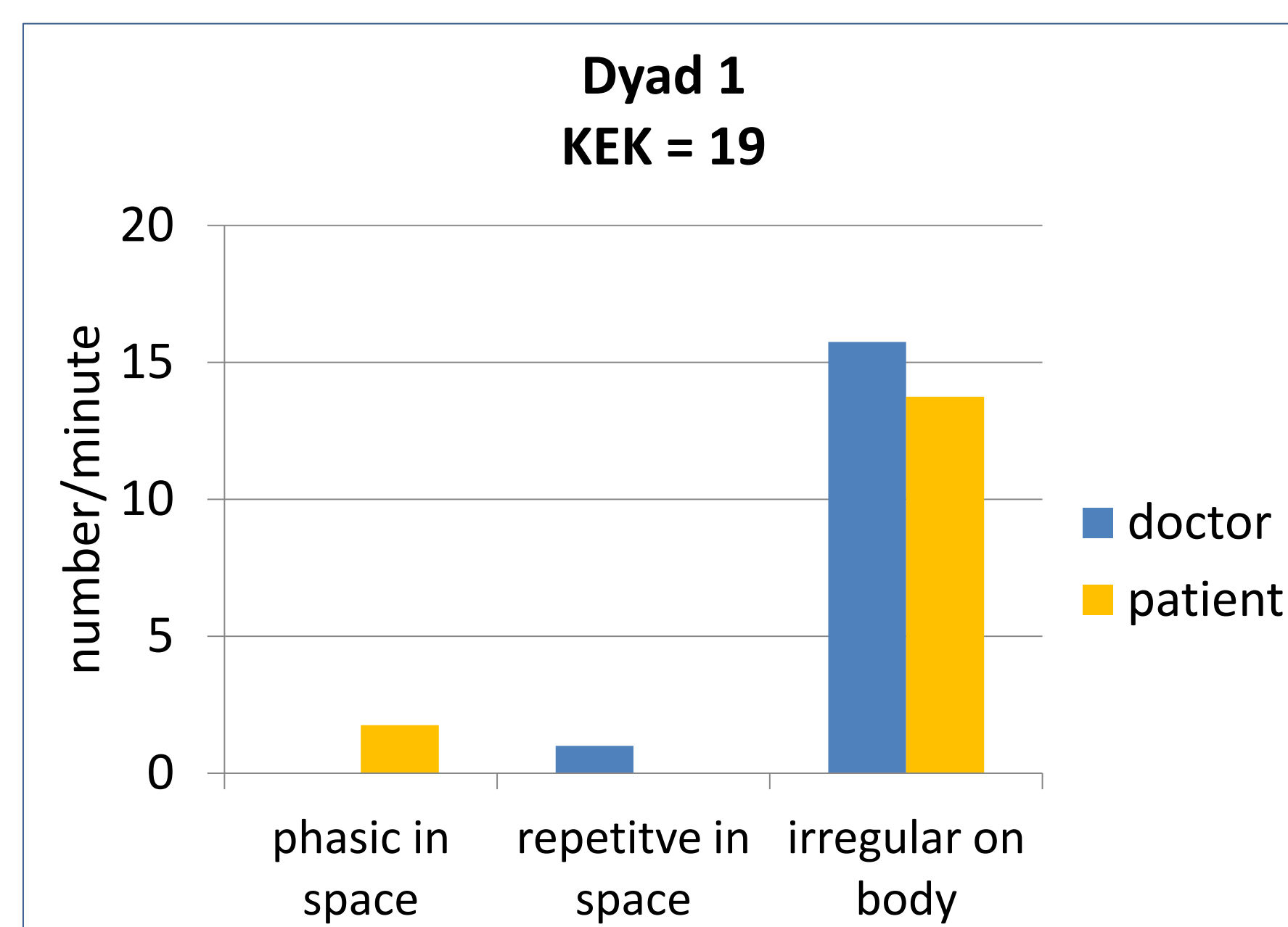


Figure 1

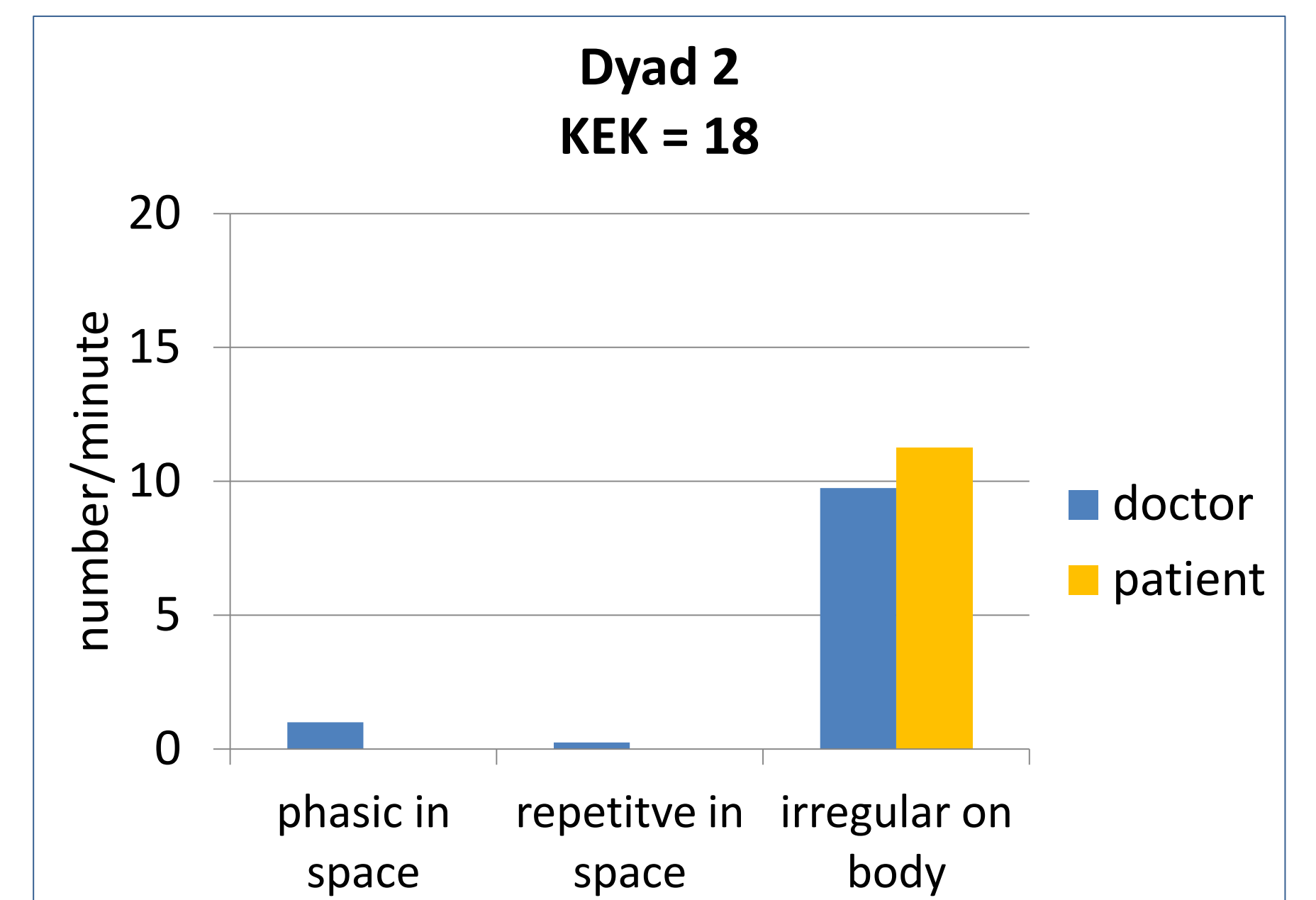


Figure 2

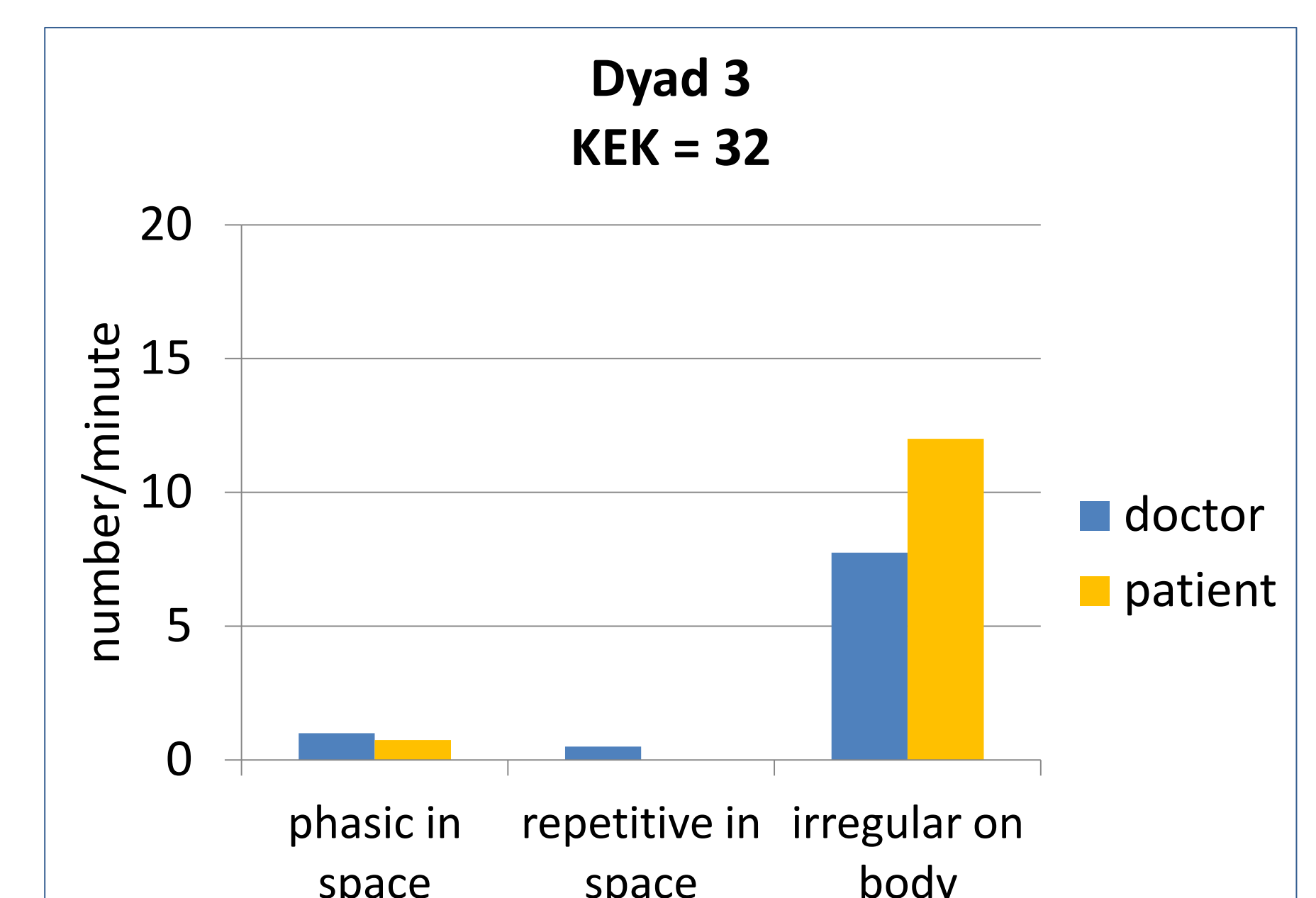


Figure 3

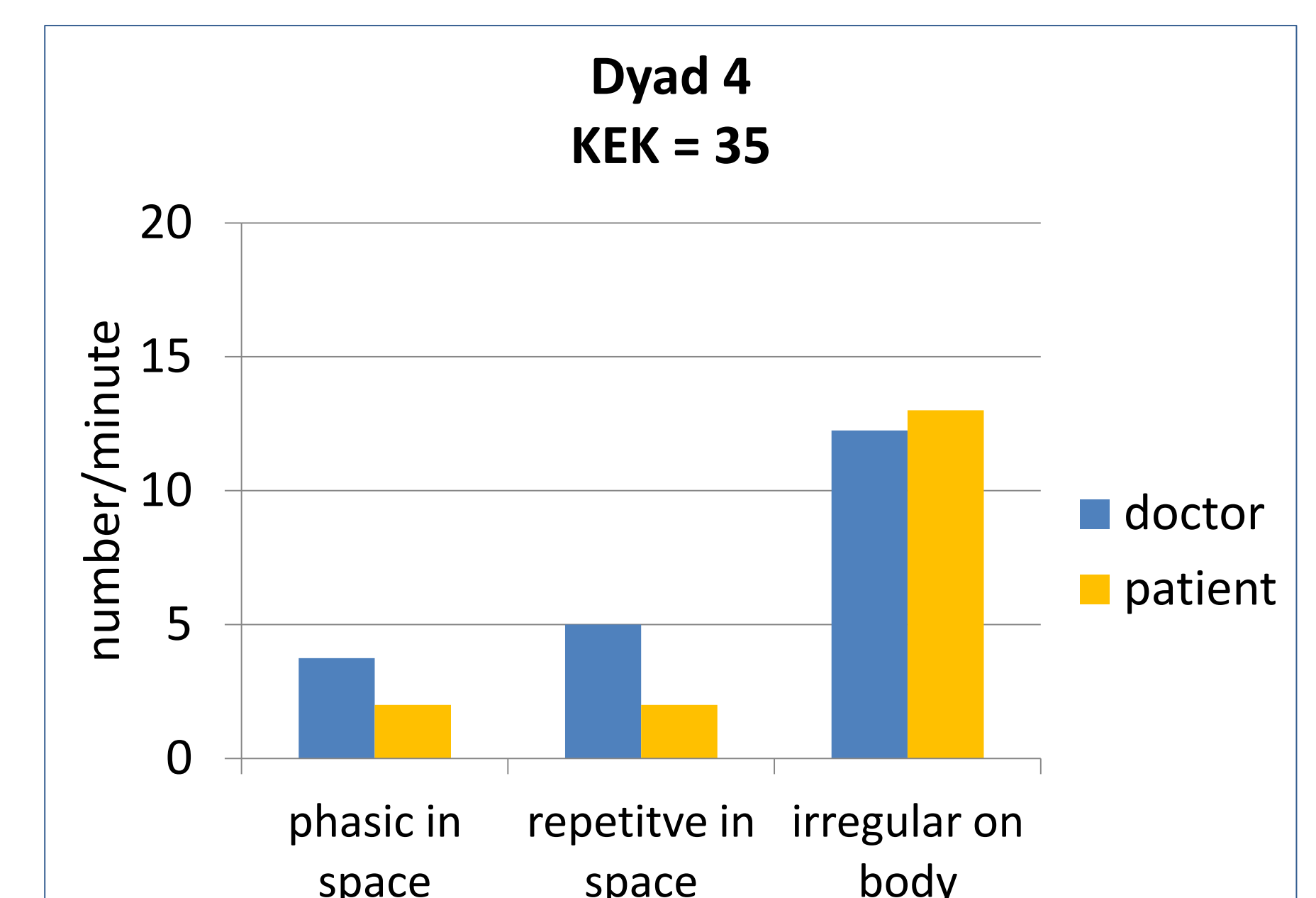


Figure 4

## Discussion

- The preliminary results show that a doctor's low communicative competence, as measured with the KEK, is associated with a high frequency of self-touching behaviour and a low frequency of gestures in both the patient and the doctor. Vice versa, a doctor's high communicative competence is associated with a low frequency of self-touching behaviour and a high frequency of gestures.
- Thus, the findings suggest that in interaction with a doctor with a high communicative competence, the patient is less occupied with arousal regulation and instead, she/he has more resources for conceptual processes.

## Contact

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## References

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