Assessing the Empathy of Medical Students: Validity of the Consultation and Relational Empathy (CARE) Measure

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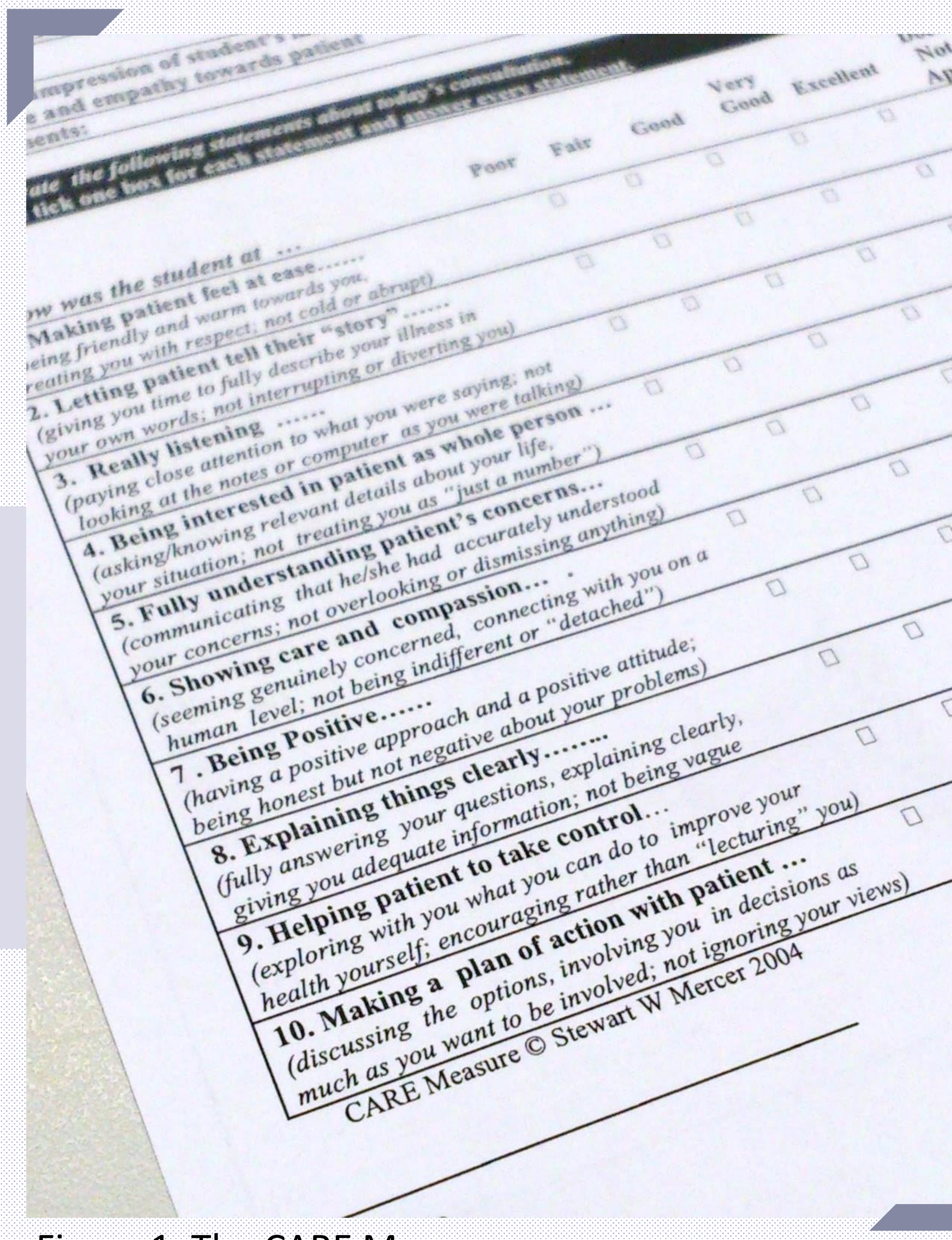
Introduction

Empathy underpins the doctor-patient relationship and has a direct, positive impact on the quality of patient care.[1] Medical student empathy predicts future doctor-patient empathy, underlining the importance of cultivating and assessing this early in training.[2] The Consultation and Relational Empathy (CARE) measure has been developed and validated in primary care settings to enable patients to assess a doctor's empathy.[3] Once validated in this educational context, the CARE measure may be a useful formal assessment tool to identify deficiencies in medical students' relational empathy, as perceived by their future patients. The aim of this study is to establish the validity of the CARE measure in assessing medical students' empathy in a formative clinical examination setting.

Method

All 158 final year medical students who undertook the Family Medicine clinical competency test (CCT) in 2013 were assessed by trained simulated patients. The patients completed three measures of empathy: the CARE measure, a global rating score and the Jefferson Scale of Patient's Perception of Physician Empathy (JSPPPE). They also completed a checklist to assess students' history-taking, a measure of knowledge which is theoretically unrelated to empathy. The construct validity of the CARE measure was determined using exploratory and confirmatory factor analysis with the convergent and divergent validity analysed using Spearman's rank correlation coefficients.


...mpression of student's ...
...e and empathy towards patient
...ents:
...ate the following statements about today's consultation.
...tick one box for each statement and answer every statement.

	Poor	Fair	Good	Very Good	Excellent	Does Not App...
...w was the student at ...						
Making patient feel at ease...... (being friendly and warm towards you, treating you with respect; not cold or abrupt)	☐	☐	☐	☐	☐	☐
2. Letting patient tell their "story"...... (giving you time to fully describe your illness in your own words; not interrupting or diverting you)	☐	☐	☐	☐	☐	☐
3. Really listening ...... (paying close attention to what you were saying; not looking at the notes or computer as you were talking)	☐	☐	☐	☐	☐	☐
4. Being interested in patient as whole person ... (asking/knowing relevant details about your life, your situation; not treating you as "just a number")	☐	☐	☐	☐	☐	☐
5. Fully understanding patient's concerns... (communicating that he/she had accurately understood your concerns; not overlooking or dismissing anything)	☐	☐	☐	☐	☐	☐
6. Showing care and compassion... (seeming genuinely concerned, connecting with you on a human level; not being indifferent or "detached")	☐	☐	☐	☐	☐	☐
7. Being Positive...... (having a positive approach and a positive attitude; being honest but not negative about your problems)	☐	☐	☐	☐	☐	☐
8. Explaining things clearly....... (fully answering your questions, explaining clearly, giving you adequate information; not being vague)	☐	☐	☐	☐	☐	☐
9. Helping patient to take control... (exploring with you what you can do to improve your health yourself; encouraging rather than "lecturing" you)	☐	☐	☐	☐	☐	☐
10. Making a plan of action with patient ... (discussing the options, involving you in decisions as much as you want to be involved; not ignoring your views)	☐	☐	☐	☐	☐	☐

CARE Measure © Stewart W Mercer 2004

Figure 1. The CARE Measure

Study instrument

The CARE Measure is a 10-item instrument with each item rated on a 5-point Likert scale (Figure 1). The scores from the ten items are added, giving a maximum possible score of 50, and a minimum of 10 with higher scores indicating a higher level of empathy. In this study, up to 2 'Not Applicable' responses or missing values were allowable, and were replaced with the average score for the remaining items. Questionnaires with more than two missing values or 'Not Applicable' responses were removed from the analysis.

Results

Results were generated using data from the 6 rotations of CCT examinations in 2013. All 158 students participated with 97 (61.4%) of them being male. The age of the participants ranged from 22 to 37, with an average of 24.3.

Factor analysis

Exploratory factor analysis extracted one factor with eigenvalues ≥1.0. This factor, on which all 10 items in the CARE measure loaded significantly, explained 77.63% of the total variations. It was supported by the confirmatory factor analysis. Based on the conventional guidelines, the original one-factor model met the criteria demonstrating excellent goodness-of-fit as shown in Table 1.

Table 1. Goodness-of-fit indices

	Cut-off values	**Value**
RMSEA (Root mean square error of approximation)	≤0.08	0.059
AGFI (Adjusted goodness-of-fit index)	≥0.8	0.830
CFI (comparative fit index)	≥0.95	0.996
χ^2 statistic		43.737
P-value of χ^2 test	≥0.05	0.148

Internal Consistency

Cronbach's alpha of the 10 items was 0.944, which indicates the CARE Measure had a high level of internal consistency.

Convergent and divergent validity

The CARE Measure was found to have a strong positive relationship with both convergent measures: global rating and the JSPPPE, while only weakly correlated with the divergent measure: history taking score.

Table 2. Correlation between patient's CARE Measure total score with convergent and divergent constructs

	Spearman's rho (ρ)	***p***	**n**
Convergent constructs			
Patient's Global Rating of Empathy	0.794	< 0.001	157
JSPPPE	0.771	< 0.001	157
Divergent construct			
History taking score	0.277	< 0.001	158

Conclusion

The CARE measure was shown to be valid in an undergraduate family medicine clinical examination setting. It may be a useful tool to assess and to provide patients' feedback to students on specific inter-personal elements of their consultation.

References

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