Measuring consultation skills in primary care in England: evaluation and development of content of the MAAS scale

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SUMMARY

Background: Consultation skills are essential for general practice. Tools for measuring consultation skills in everyday practice are not well developed.

Aim: To examine and develop the content validity of the MAAS History-taking and Advice Checklist GP (MAAS-GP) tool, which is used in The Netherlands for testing consultation skills, with simulated patients in United Kingdom general practice, from the perspectives of both general practitioners and patients.

Design of study: Qualitative research using semi-structured interviews.

Setting: Alternate patients attending seven general practices in the north west of England.

Method: Thematic analysis of the contents of patient and GP interviews, and of focus groups, mapping key themes to the MAAS-GP.

Results: There was strong agreement between patients and GPs on issues mapping to 46 out of 68 items of the MAAS-GP. Eight further MAAS-GP items were linked to issues only raised by patients and four to issues raised only by GPs. The remaining 10 items could not be related to issues raised by either. All of the issues raised by GPs could be mapped, but 27 patient items could not. These were included in a revised checklist, the Liverpool MAAS (LIV-MAAS).

Conclusion: the revised tool seems to have content validity in measuring consultation skills. Measurement of its reliability is now required.

Keywords: consultation; doctor–patient relationship; focus groups.

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Introduction

PATIENT-CENTRED consultations, information sharing, and concordant decision-making between doctors and their patients are principles at the heart of primary care, as highlighted in the recent NHS Plan.[1] Research has shown that patients are able to take an active role in determining service provision by participating in treatment decisions, reflecting on the quality of care they receive, and providing feedback to healthcare professionals and their managers.[1,2] Doctors are increasingly being encouraged to incorporate patients' views into evaluations of their practice and to engage in continuing professional development, as part of a wider scheme to ensure competence and the delivery of high quality care to patients.[1-3] This requires a high level of skill in communication during the consultation.

Formal examination can assess knowledge, but this knowledge does not necessarily transfer to actual performance during consultations with patients.[1] A number of tools for assessing the consultation skills of medical students and general practitioners (GPs) have been developed, and they can be used in real or simulated scenarios with patients.[1-4] Those used in the United Kingdom (UK) have recently been reviewed.[1] The criteria in assessment tools have been largely derived from a combination of published evidence and the expert knowledge of GPs and academics, rather than of patients.[1-3] A review of 14 selected assessment tools showed that the evidence of validity and reliability was incomplete for most of them, with only two fitting the criteria of reliability, validity, and practicability.[1] None of them included a patient perspective.

The more detailed of these two checklists, the MAAS History-taking and Advice Checklist GP (MAAS-GP), was devised in The Netherlands to assess the performance of GPs within consultations with real or simulated patients.[1] It codes 68 items under five headings. The items are defined as explicit instructions, which are designed to delimit interview behaviour and increase inter-assessor reliability. Although the validity of the MAAS-GP has been established in The Netherlands, there is no published evidence for its use in the UK. As part of a wider study of GP consultations, this study aimed to establish the content validity of the MAAS-GP by assessing whether or not the items reflect issues identified as the key indicators of a successful general practice consultation in the UK. One of the aims was also to examine its development to include the patients' perspective.

Method

Semi-structured interviews were conducted with patients

HOW THIS FITS IN

What do we know?

Until now there have not been any tools to measure consultation skills that have been shown to be valid or reliable in real patient encounters in general practice settings. Existing tools are often developed by doctors and are only suitable for use by them, and they may also lack a patient perspective. A Dutch tool, the MAAS History-taking and Advice Checklist GP (MAAS-GP) was developed for evaluating students in simulated consultations.

What does this paper add?

This study evaluates what patients and general practitioners consider to be the features of a good consultation and uses them to evaluate and extend the Dutch scale for possible use in the United Kingdom. The modified scale seems to have face validity, but its reliability needs to be tested.

The study explored with patients:
- How they hope GPs will be able to help them
- Their estimation of what the doctor will do
- The choice of GP for this appointment
- What happened in their consultation
- Patients' 'satisfaction' with the consultation and outcome
- Patients' views, theories, and experiences of illness and medication
- Action taken when ill and past experiences of care
- What factors make a good (and bad) consultation
- What would happen in an 'ideal' consultation

The following areas were discussed with GPs:
- Their role and relationship with patients
- What happens in a typical consultation
- Finding out why patients are consulting
- How they find out what patients want
- Patient involvement in the consultation
- Information giving (verbal and written)
- How they ensure that patients have understood
- What influences decisions to treat patients
- Patient communication during the consultation
- Building relationships with patients

Box 1. Patient and GP interviews.

and GPs to explore their respective views of general practice consultations.[1] The interview schedules for both patients and doctors are shown in Box 1. A convenience sample of 15 GPs from the north west were interviewed. Ten of these were men and five were women, aged between 35 and 62 years of age. Seven were from single-handed practices and eight were from partnered practices. They came from inner-city, suburban, and rural areas. Three were GP trainers. Four described themselves as Asian, and 11 as white.

Alternate patients attending the practices of seven of the 15 GPs were asked to take part. Two interviews were planned, consisting of one before consultation and one follow-up interview by telephone within three days of the consultation. Patients who did not have a telephone were not excluded from the interview at the surgery, nor were those who knew in advance that they would not be available for a follow-up interview; for example, because they were going on holiday. One practice was in the inner city, four were suburban, and two were in rural villages.

The study was approved by the local ethics committee and by the GPs.

During their interviews, both GPs and patients were asked to reflect on the role of patients and GPs in a consultation and to identify and discuss any issues that they believed were likely to lead to a satisfactory outcome (Box 1). The interview data were transcribed and then analysed thematically, aided by the computer software NUDIST 4.0.

To test the resonance of the themes derived from the interview data, two focus group discussions were set up away from the GP practices: one with GPs, and one with members of the public.[1] For practical reasons, GPs known to a member of the research team were invited to the focus groups, and included male and female GPs, from single-handed and partnered practices in inner-city and suburban areas. Members of the public were recruited to the project group by a volunteer working in an inner-city health centre, who invited people who were attending the surgery for appointments or using the community room at the centre to take part. This group included men and women, aged between 22 years and over 80 years of age.

The data from both focus group discussions were analysed thematically and compared with the results of the interview data. The results from the combined data were used to devise over 80 statements, or items, intended to reflect the responders' views of the basis of successful interaction of GPs and patients during consultations in primary care. These inductively derived items were then compared with the 68 items on the MAAS-GP, to check for agreement and variation. No attempt was made to weigh or grade the importance of individual items.

Results

Two hundred and thirteen patients, aged between 18 and 75 years of age were recruited. Around 50% of patients approached by the research team agreed to take part. No age, sex or ethnicity characteristics were associated with those patients who declined to participate when compared with the research participants. The majority (88%) of the patients described their ethnicity as white, and 12% as black or Asian. More females (62%) participated than males, and 52% of responders described themselves as employed or in full-time education, 36% as retired, and 12% unemployed.

The thematic analysis of the interview and focus groups data revealed a strong agreement between patients and GPs on many topics, leading to the inclusion of 46 out of the 68 items of the MAAS-GP (the full MAAS scale and agreement between doctors and patients can be seen at: http://www.liv.ac.uk/prg/publications1.htm). Of the 22 remaining MAAS-GP items, ten could not be related to issues raised by either GPs or patients, eight were linked to issues raised only by patients, and four items to issues raised only by GPs. The 12 items about which there was a discrepancy in the views of doctors and patients are shown in Table 1. All of the GP issues could be mapped to items on the MAAS-GP, but 27 patient items could not. A revised checklist was developed, the Liverpool MAAS (the LIV-

Table 1. Items in the MAAS-GP where there were discrepancies between doctors and patients.

	Items identified by patients	Items identified by GPs
I. Exploration of reasons for encounter		
3. Asks the patient to clarify why he is presenting this problem at this particular moment	✓	–
II. History taking		
10. Explores the intensity of the complaint	✓	–
20. Explores the gains of the complaint	✓	–
24. Explores functioning during leisure time	✓	–
26. Asks about illnesses and mental health problems in the past	✓	–
31. Reviews the system pertaining to the main complaint	–	✓
IV. Structuring the interview		
45. Offers an agenda for the consultation	✓	–
47. Concludes the 'history-taking' with an ordering of the main results	✓	–
49. Completes the exploration of the reason for encounter and the history-taking sufficiently before presenting solutions	✓	–
V. Interpersonal skills		
61. Makes proper eye contact with the patient	✓	–
VI. Communicative skills		
63. Concretises at the proper moment	–	✓
67. Makes, when necessary, proper confrontations	--	✓

MAAS), adding the 27 unique patient items: 19 to four existing sections, and eight as an additional section, 'attitudes to treatment' (Box 2).

To what extent does the MAAS reflect the views of GPs?

All the GPs commented on the importance of open questions to enable patients to state all their reasons for consulting, corresponding well with Section I's exploration of the reason for the encounter. GPs believed that knowledge of a patient's background made it 'easier' to work out what the patient wanted or needed from the consultation.

Only 13 of the 23 items in Section II's history taking were accepted by GPs. The focus groups agreed that when GPs and patients had an ongoing relationship, and/or treatment was for a chronic condition, the consultation style changed into a relaxed 'shorthand'. This approach was inconsistent with the MAAS-GP, which states that GPs should actively question, rather than actively listen, and hence there was no agreement with many items.

There was broad agreement on the items in sections III and IV. GPs continued to describe a very flexible and responsive approach to their consultations with patients and saw the consultation as a total experience with an outcome, rather than strictly demarcated into discrete areas of activity. A formal introduction (item 44) was not considered necessary by either patients or GPs.

There was agreement with all but one of the items in Sections V and VI (interpersonal skills and communicative skills). Some GPs in the focus group agreed that patients did not always want to participate in their consultations, whereas other GPs in the same group felt that it was worthwhile trying to involve patients and to actively encourage them to talk. Interpersonal skills were also alluded to by many GPs, who described how they attempted to establish a rapport with patients and used non-verbal communication to reassure and encourage patients during the consultation,

although eye contact was not specifically mentioned by GPs.

To what extent does the MAAS-GP reflect the views of patients?

Patients agreed with the items in Section I, and described how they responded well to open questions from their GP. Many patients described telling their GPs about their personal lives and circumstances to contextualise what they felt was wrong and to explain why they were there.

Patients agreed with 13 out of the 23 items in Section II, overlapping with the views of GPs. Although most patients preferred to explain why they were presenting, and for their GP to listen, other patients reported that they were unsure what the GPs wanted or needed to know, and felt that more guidance through direct questions was useful. Patients wanted GPs to ask about particular aspects of their medical history to be sure that this information was taken into account during the current consultation.

Patients commented that information should not be just 'given', but shared and made accessible so that they could enter into a discussion with the GP. Patients mentioned all of the items in Section III, agreeing that clarity of information was important and that it should be repeated and even written down, especially information about follow-up arrangements.

Patients also endorsed the items in Section IV, as they liked to know where the discussions were leading. Patients wanted to say why they were there before the GP did, and wanted the GP to know 'everything' before presenting a solution. Patients wanted to know what was wrong and appreciated GPs taking the time to explain. Patients often complained that some GPs' questions 'jumped about' without clear direction. Patients described how they looked for verbal and non-verbal cues from their GP to talk and participate in their consultation. Eye contact from the GP was regarded as the clearest indication that the GP was interest-

Section A. Attitudes to treatment
- Asks/confirms patient's attitude to taking medicine
- Asks/confirms how the patient feels about taking long-term medication
- Explores the reasons for any preferences/dislikes
- Discusses any alternative treatments that the patient might like to consider
- Discusses any options for non-pharmacological treatment
- Reviews and discusses the patient's current medical regimen, if appropriate
- Discusses any history of side effects
- Discusses/confirms possible side effects from any prescribed medication

Section III. Presenting solutions
- Explores all of the reasons why compliance may not be possible/difficult
- There is overt confirmation between patient and doctor on the most appropriate treatment plan
- Informs the patient how to access other sources of advice/information, including any relevant support groups
- Checks whether patient has understood information
- Overtly checks patient's understanding of the follow-up arrangements

Section IV. Structuring the interview
- Looks at the patient as they enter the room
- Greets the patient by name
- Orients body towards the patient/adopts a 'listening' position
- Looks at the patient when asking reason for encounter
- Discourages/manages any interruptions with the patient in mind
- Deals adequately with requests from the patient
- Asks if everything has been covered, and if they want to discuss anything else
- Doctor gives a clear invitation for the patient to return if …
- Doctor elicits patient's satisfaction with the visit
- Brings the consultation to an unambiguous close
- Doctor says 'goodbye' as the patient leaves

Section V. Interpersonal skills
- The GP does not appear distracted
- Doctor does not patronise the patient/make unnecessary or unhelpful references to factors such as gender or age

Section VI. Communicative skills
Uses open-ended questions appropriately

Box 2. The 27 additional items incorporated into the MAAS-GP to form the LIV-MAAS.

ed and was listening. Lack of eye contact was consistently cited as a reason why patients felt unable to talk to their GP and ask questions.

Discussion

This study shows a high level of agreement between the views of GPs and patients with five out of the six sections of the MAAS-GP. The informal and less structured approach considered appropriate by GPs diminished agreement in one section of the MAAS-GP that was based on a more formal approach. However, some patients may prefer the more structured and direct approach to consultations, supporting the principle that GPs should consider tailoring their approach to individual patients.[1]

Although the MAAS-GP reflects the GPs' views adequately, the identification of a further 27 items implies that it only partially reflects the priorities of patients. This study and other research show that patients are able to comment on and differentiate between different aspects of their care, including clinical tasks.[1] Therefore, patients' views can be, and we believe should be, incorporated into any checklist used to assess GP performance.

These additional items relate to treatment issues, such as information giving, shared decision making, and patient preferences, and fit well with a concordant model of prescribing.[1] Other items identified by patients emphasise that the communicative and interpersonal skills of GPs continue to be important to patients and that their role in the effective delivery of health care should not be underestimated. There is a fundamental link between the interpersonal skills of GPs and their ability to determine why a patient is seeking care.[1] Effective communication between doctors and patients has been described as 'a central clinical function',[1,2] with communication skills training forming a key part of newer curricula for medical students and continuing medical education.[1]

There are a number of limitations to this study. Although this part of the research involved over 200 patients and 15 GPs, the number of participants remained small. As the GPs recruited to the project were self-selecting, and claimed a prior interest in patient–GP communication, their views may be not be representative of other GPs. We endeavoured to ensure a wide range and diversity of GP experiences and backgrounds, in contrast to other studies that focused on GP trainers.[7] Similarly, our patients were drawn from diverse settings, but since they were not entirely independent of the GPs who participated, bias cannot be excluded. Furthermore, the MAAS-GP was devised using simulated patients in The Netherlands, and its validity has not previously been tested in the UK. Further work is required to demonstrate its reliability and its applicability to consultations in the UK and to help refine it into a less cumbersome tool.

Since an effective assessment is one that uses inductively-derived and objective criteria to identify indicators of good performance, this study demonstrates the value of involving both patients and GPs in the development of methods of assessment. The results suggest that assessment checklists that have not involved patients to derive items and/or test content validity, are likely to be assessing what is important to GPs rather than to patients in general practice consultations. We believe that, with the addition of 27 items, the modified consultation assessment checklist (LIV-MAAS) shows content validity for both patients and for GPs. Further work is needed to establish it as an acceptable research tool for use in general practice.

References

1. Department of Health. *The NHS Plan: a plan for investment, a plan for reform.* London: Department of Health, July 2000.
2. Haas M. The relationship between expectations and satisfaction: a qualitative study of patients' experiences of surgery for gynaecological cancer. *Health Expect* 1999; **2:** 51-60.
3. Department of Health. *Patient and public involvement in the new NHS.* London: Department of Health, September 1999.
4. Grol R. Research and development in quality of care: establishing the research agenda. *Qual Health Care* 1996; **5:** 235-242.
5. Department of Health. *Supporting doctors, protecting patients: a consultation paper on preventing, recognising and dealing with*

poor clinical performance of doctors in the NHS in England. London: Department of Health, November 1999.

6. Tate P, Foulkes J, Neighbour R, *et al.* Assessing physicians' interpersonal skills via videotaped encounters: a new approach for the Royal College of General Practitioners Membership examination. *J Health Comm* 1999; **4(2):** 143-152.

7. Cox J, Mullholland H. An instrument for assessment of videotapes of general practitioners' performance. *BMJ* 1993; **306:** 1043-1046.

8. Fraser RC, McKinley RK, Mulholland H. Consultation competence in general practice: testing the reliability of the Leicester assessment package. *Br J Gen Pract* 1994; **44:** 293-296.

9. Ram P, Grol R, Rethans J, *et al.* Assessment of general practitioners by video observation of communicative and medical performance in daily practice: issues of validity, reliability and feasibility. *Med Educ* 1999; **33:** 447-454.

10. McKinley R, Fraser R, van der Vleuten C, Hastings A. Formative assessment of the consultation performance of medical students in the setting of general practice using a modified version of the Leicester Assessment Package. *Med Educ* 2000; **34:** 573-579.

11. Kurtz SM, Siverman JD. The Calgary-Cambridge Referenced Observation Guides: an aid to defining the curriculum and organizing the teaching in communication training programmes. *Med Educ* 1996; **30(2):** 83-89.

12. McKinley RK, Fraser RC, Baker R. Model for directly assessing and improving clinical competence and performance in revalidation of clinicians. *BMJ* 2001; **322:** 712-715.

13. Fraser R, McKinley R, Mulholland H. Consultation competence in general practice: establishing the face validity of prioritised criteria in the Leicester assessment package. *Br J Gen Pract* 1994; **44:** 109-113.

14. Holden J, Wearne J. Membership by assessment of performance: developing a method for assessing established general practitioners. *Br J Gen Pract* 2000; **50:** 231-235.

15. Difford F, Hughes R. Experience of using rating checklists for the assessment of vocational trainees in general practice. *Br J Gen Pract* 1991; **41:** 360-364.

16. Kraan H, Crijnen A, van der Vleuten C, Imbos T. Evaluation instruments for medical interviewing skills. In: M. Lipkin, S Putnam, A Lazare (eds). *The medical interview: clinical care, education, and research*. New York: Springer, 1995.

17. Kraan H, Crijnen A. *The Maastricht History-taking and Advice Checklist: studies of instrumental utility.* Amsterdam: Lundbeck, 1986. [Thesis].

18. Chesson R. Low profile, high impact: the role of the sociologist in quality in health care. *Qual Health Care* 1996; **5:** 230-234.

19. Like R, Zyanski S. Patient satisfaction with the clinical encounter: social psychological determinants. *Soc Sci Med* 1987; **24:** 351-357.

20. Williams S, Weinman J, Dale J. Doctor–patient communication and patient satisfaction: a review. *Fam Pract* 1998; **15:** 480-492.

21. Jung H, van Horne F, Wensing M, *et al.* Which aspects of general practitioners' behaviour determine patients' evaluations of care? *Soc Sci Med* 1998; **47:** 1077-1087.

22. Marinker M. *From compliance to concordance: achieving shared goals in medicine taking*. London: Royal Pharmaceutical Society, 1997.

23. Beckman H, Frankel R. The effect of physician behaviour on the collection of data. *Ann Intern Med* 1984; **101:** 692-696.

24. Simpson M, Buckman R, Stewart M, *et al.* Doctor–patient communication: the Toronto consensus statement. *BMJ* 1991; **303:** 1385-1387.

25. Lipkin M, Quill T, Napodano J. The medical interview: a core curriculum for residencies in internal medicine. *Ann Intern Med* 1984; **100:** 277-284.

26. Whitehouse C. The teaching of communication skills in United Kingdom medical schools. *Med Educ* 1991; **25:** 211-318.

Acknowledgements