Measuring Patient Satisfaction with health care

A/Professor Graeme Hawthorne
Department of Psychiatry
The University of Melbourne
email: graemeh@unimelb.edu.au

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Acknowledgements

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Workshop agenda

1. Background & introduction to patient satisfaction
2. The key theories of patient satisfaction
3. Some measurement issues
4. Review of existing generic instruments
5. Introduction to the SAPS
  – (Short Assessment of Patient Satisfaction)

1. Background: the changing role of the clinician

• Donabedian’s (1988) model of the effectiveness of quality health care
  – Amended to account for usual course of infectious disease

1. Background: monitoring health organizations

• Originally from the USA
  – Proof that hospitals/clinical services were providing a quality service
  – Attempts to move health ‘consumers’ into Health Maintenance Organizations (HMOs) through identifying areas of ‘dissatisfaction’ that could then be targeted for marketing

Example:
• Older Patient Satisfaction Scale (Cryns 1989; 1st 5 items)
  – All-in-all, I get more care here than in any other health care plan
  – The doctors here take the time for you that you need
  – Our health insurance plans cover more services than other plans
  – Admission to a hospital is pre-arranged for you
  – Even on short notice, the care you get is very good
1. Summary: Assessing care value

- By the late 1970s, the confluence of three concerns & the need to evaluate all three
  - A change in the role of the treating clinician
  - Better clinical outcomes
  - Good medical treatment by the clinician = return to health by the patient
- The provision of quality health care services
  - Good health care organizations = providing service quality
  - Monitoring of health care policy = dissatisfaction areas ripe for improvement
- Patient rights leading to a change in the relationship between the patient and the treating clinician
  - Good health care = meeting the patient’s expectations

Collectively led to

Theories & measurements of patient satisfaction

1. A note on nomenclature

- Consumers
  - primarily used in the literature examining health systems, consumer rights, professional accountability & system responsiveness
  - fully informed, rational, people who choose between products
  - in health care there is market failure
- Patients
  - primarily used in the literature examining patient-doctor relationships, patient views on health infrastructure, information provision & service satisfaction
  - ‘patients’ used here because emphasis is on patient-doctor relationship

Useful discussions of the terms:


2. Key theories: Health goals & self violation

- Fox and Storms described this as a person’s orientation.
- Knowledge about the health condition of interest (disease etiology, symptoms and prognosis)
- Beliefs about care (theories of the condition etiology and how it should be treated)
- The expected conditions of care
- Dissatisfaction was caused by transgressions of expectations and prior experiences
- Subsequent research suggests that dissatisfaction arises where there is either (a) a critical event failure or (b) multiple transgressions

Example:

Handout 2: Hawthorne & Harmer (2000) GUTTS

2. Key theories: Personal preferences & health care experience

- Ware et al (1983)
  - patient satisfaction was a function of patients’ subjective responses to experienced care mediated by personal preferences and expectations.
  - In brief:
    - patient attitudes towards health care based on personal preferences and expectations
    - these formed patients’ attitudes towards their experienced care
    - dissatisfaction implied:
      - the need for a change in health care; and/or
      - a need for a change in the patient (e.g. improved health literacy)
  - Example:
    - Patient Satisfaction Questionnaire (PSQ-II) (Ware et al 1983)
    - covers inter-personal manner, technical quality, accessibility, finances, efficacy/outcomes), care continuity, physical environment & availability
    - Handout 4: Ware et al Patient Satisfaction Questionnaire (PSQ-II)

2. Key theories: Expectancy-value theory

- Linder-Pelz (1982 & 1985)
  - Argued that patient satisfaction was a function of expectancy & discrepancy mediated by social evaluation
  - In brief:
    - High satisfaction would be reported:
      - where positive expectations and experiences coincided, and
      - where experiences were as good as or better than those of others
    - The determinants were:
      - Expectations; i.e. beliefs about an object;
      - Value; i.e. a person’s attitude towards an object;
      - Entitlement; i.e. the belief held by an individual that he/she has proper and accepted grounds for claiming a particular outcome;
      - Occurrence; i.e. the perception of what actually occurred during an encounter with the health care system, at whatever level; and
      - Interpersonal comparisons; i.e. with others or with other encounters.
    - Dissatisfaction would occur where expectations were not met
  - Example:

2. Key theories: Quality of amenity/medical infrastructure

Pragmatic theory

- access to facilities & services (e.g. location, opening hours, transportation)
- issues of cost-carrying & insurance (e.g. who pays, is there a ‘gap’ payment, what procedures are covered by insurance)
- service availability (e.g. the range of medical services & treatments available)
- facility infrastructure (e.g. cleanliness, modernity, bed availability & waiting times, quality of services such as food, TV, visiting hours)
- staff interface (e.g. friendliness, responsiveness, respectfulness)

- Examples
  - Already discussed above
  - see slides 5 & 6
  - Handout 1: TOA Research VICTORIAN PATIENT SATISFACTION MONITOR

2. Key theories: Expectancy-value theory

- Fitzpatrick (1984)
  - Satisfaction was a function of personal health goals and dissatisfaction of the extent to which the personal self is violated
  - In brief:
    - Argued for multiple constructs and competing dimensions:
      - Need for the familiar – expectations are socially mediated
      - Reason for seeking health care – satisfaction will be a function of how well the goals are met
      - Importance of meeting emotional needs – since illness strikes at the core of our being, illness and its treatment has a major emotional impact
      - Satisfaction is a function of the interpersonal affective behaviour and communication skills of the clinician (since the patient is in no position to evaluate the quality of the clinician’s technical skill)
  - Example:

1. Summary: the rise of patient satisfaction assessment

Journal article by patient/consumer satisfaction, 1950-2003

2. Key theories: Transgression theories

Fox & Storms (1981)
- Developed the discrepancy & transgression theory of patient satisfaction
  - In brief:
    - Assumed that cultural influences would predispose individuals.
    - Fox and Storms described this as a person’s orientation.
    - Patient orientation reflected:
      - Knowledge about the health condition of interest (disease etiology, symptoms and prognosis)
      - Beliefs about care (theories of the condition etiology and how it should be treated)
      - The expected conditions of care
      - Disappointment was caused by transgressions of expectations and prior experiences
      - Subsequent research suggests that dissatisfaction arises where there is either (a) a critical event failure or (b) multiple transgressions

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  - Example:
2. Key theories: Personal relationships & health outcomes

Donabedian (1988)
- Satisfaction based on personal relationships, treatment outcomes, where these mediated by patient values
- Is in partnership with quality in technical care (service quality, medical infrastructure, treatment options, health care system issues)

- In brief
  - Patient satisfaction may be considered to be one of the desired outcomes of care, even an element in health status itself. An expression of satisfaction or dissatisfaction is also the patient's judgement on the quality of care in all its aspects, but particularly as concerns the interpersonal process. (emphasis added) Donabedian, 1988, p1746
  - Patient satisfaction was... a health care recipient's reaction to aspects of the service delivered and satisfaction over time which result in overall perceptions of quality of service (Goldstein et al. 2000, 854)

- Example:

3. Measurement issues: Overall people are satisfied

Most people are satisfied with their health care
- 70-90% always satisfied, even where there is evidence of continuing health problems
- Reasons include:
  - limited health literacy
  - dependent relationship with the clinician
  - poor instrumentation
  - social response bias

3. Measurement issues: Psychometric standards ignored

- Sitzia (1999) reviewed 195 patient satisfaction studies
  - 81% reported using their own 'new' instrument
  - An additional 10% modified an existing instrument
  - Of those reporting a new instrument, 60% failed to report any psychometric data at all
  - Overall results (p319):

  **Eighty-nine (44%) of the 195 studies reported some validity or reliability data; 76 reported some element of content validity; 14 reported construct validity, with patient's intent to return the most commonly used criterion; four reported construct validity. Thirty-four studies reported internal consistency reliability, 31 of which used Cronbach's coefficient alpha; eight studies report test-retest reliability. Only 11 studies (6%) reported content validity and criterion or construct validity and reliability...**

3. Measurement issues: Satisfaction may be a function of literacy

- Changes in how patients relate to the health care system influence satisfaction with the system
  - The growth in consumer rights implies the patients are much more aware of health care issues
  - May see themselves as informed consumers of health care who take/expect an active part in the decision-making process
  - Research shows a consistent age and education effect
  - Older patients more likely to be 'compliant' with treatment
  - Lower educated patients report higher satisfaction levels
  - Older, less well education patients more satisfied
  - Younger, better educated patients are more health literate
  - BUT Jackson and Kroenke (2001) showed satisfaction may also be a function of expectations:
    - 98% of patients have pre-visit expectations
      - diagnosis (89%), anticipated recovery time (62%),
      - receiving a prescription (96%),
      - diagnostic test (95%), and referral (47%)

3. Measurement issues: Patients are in a dependent relationship

- Patient satisfaction often asked by the clinician at the end of a consultation;
- Asked early in a consultation as an introduction to a broader discussion
- Usually this is a single item question:
  - The response to this question is a function of the dependent relationship and cannot be interpreted as a meaningful measure of patient satisfaction
    - May be a 'happy sheet' response involving acquiescent response bias
    - Between 40-60% of patients exhibit this (Ware et al 1983)

3. Measurement issues: Bias in patient satisfaction instruments

- Instruments may only ask about those matters of concern to the researcher or clinician
    - Access, Receptiveness, Continuity of care, Technical care, Communication, Inter-personal care, Trust, Knowledge of patient, Nursing care, Co-ordination, Referrals, Recommendations, Overall satisfaction

3. Measurement issues: Cross-cultural differences

It cannot be assumed that an instrument developed on one country is applicable in another (6 recent studies show instruments had to be modified)
- Health system structures may be different
  - US HMOs, UK restricted doctor choice versus uncapped system in Australia
- Health insurance arrangements vary between countries
  - Australian universal Medicare and PBS systems = subsidized care
  - Restricted services available in some other countries (e.g. USA, UK)
- Public hospital access
  - At cost in some countries (e.g. US depending on HMO plan), free in Australia

- Implications:
  - Patient satisfaction measures which focus on costs borne by the patient, access to health care or emphasis on the buildings within which care is provided are likely to be less relevant in the Australian context
  - Also cultural differences:
    - Baker et al (2003) reported that patient satisfaction was lower among US patients when compared with UK patients.
4. Instrument review: The criteria for validity

Psychometric theory postulates that the valid and reliable measurement of a latent construct requires the construction of a manifest instrument that delivers an observed model which is isomorphic with the construct.

1. There should be a latent model of the construct, including an adequate description of its dimensions;
2. For each dimension, there should be measurement items, such that the item content covers the dimension adequately. All items combined form the descriptive system of an instrument from which the manifest model is derived;
3. The resulting instrument should possess a nomological net of evidence suggesting validity;
4. It should be reliable and responsive; and
5. It should be short and easy to use.

4. Instrument review: Isomorphism

Isomorphism assumed

4. Instrument review: The manifest model

The Questionnaire

<table>
<thead>
<tr>
<th>Scale 1</th>
<th>Scale 2</th>
<th>Scale 3</th>
<th>Scale n</th>
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4. Instrument review: The criteria for content review

Based on a review of the patient satisfaction literature, instruments should cover:
1. Appropriate access to health services, including the environment within which treatment takes place and the level of care coordination;
2. The provision of health information;
3. The relationship between the patient and health care staff, specifically empathy with the patient;
4. Participation in making choices regarding health treatment;
5. Satisfaction with the treatment provided, i.e. the technical quality of the care provided;
6. The effectiveness of treatment, including the extent to which treatment helps the patient in their daily life;
7. A global patient satisfaction item.

4. Instrument review: Identifying instruments

- Search electronic databases (Medline, Internet)
- Terms used:
  - patient, client, or consumer
  - satisfaction, questionnaires, instrument, measurement or theory
  - patient/client/consumer, satisfaction and theory/instrument.
- Results:
  - 42,076 articles were identified through Medline/Pub Med and over 10,000 websites in January 2007.
  - Search terms refined, leading to 866 unique articles or reports and 126 websites.
  - Abstracts/Reference lists scanned & 138 unique articles/reports identified, extracted and downloaded.

4. Instrument review: Identification of ‘better’ generic instruments

- Various closed, single items
- Client Satisfaction Questionnaires (CSQ-18; CSQ-8)
- Consultation Satisfaction Questionnaire (ConsultSQ)
- La Monica-Oberst patient satisfaction scale (LOPPSS)
- Linder-Pelz satisfaction scales
- Medical Interview Satisfaction Scale (MISS)
- Patient Satisfaction Index (PSI)
- Patient Satisfaction Questionnaire (PSQ)
- Patient Visit Rating Questionnaire (PVRQ)
- Inpatient Evaluation of Service Questionnaire (IESO)

4. Review: Single items

- Typical item:
  - How satisfied are you with your health care?
  - Very satisfied / Satisfied / Not sure / Dissatisfied / Very dissatisfied
- OR
  - How satisfied are you with your health care?

V 0 1 2 3 4 5 V
e

- OR
  - Would you have the procedure again?
- OR
  - Would you recommend this clinic/doctor to your friends?

4. Review: Single item issues

- Often used by clinicians during consultation
- Inadequate coverage of patient satisfaction universe
- No way of identifying which aspects of patient satisfaction need attention
- Often lack reliability:
  - Ware et al (1983) reported 75% of single items failed basic reliability test (where reliability test was set at >0.50)
  - Wyrwich et al (2002) reported single item test-retest at 1-4 days was just kappa = 0.64-0.73 (well under normal criterion of >0.80)

Each reviewed against the review criteria
Handout 7: Patient Satisfaction Review criteria.pdf
4. Review: CSQ-18; CSQ-8

- Country: US (Larsen et al 1979)
- Based on literature review
  - CSQ-18:18-items; CSQ-8: 8-items
- Factor analysis – a single factor explaining 75% of variance
- Covers:
  - Physical surroundings; Support staff; Kind/Type of service; Treatment staff; Quality of service; Amount, length or quantity of service; Outcome of service; General satisfaction; Procedures

Summary review comment:
- too many items measure general satisfaction (30%).
- The distribution of item responses is poor (less than 10% of cases endorse the lower half of the scales).
- This lack of response distribution may explain the high Cronbach α (0.91), which suggests redundancy.
- There are questions about its cultural relevance in an Australian context.
- Handout 8: Larsen et al (1979) CSQ-8

4. Review: Consultation Satisfaction Questionnaire (ConsultSQ)

- Country: UK (Baker 1990)
- Based on literature review & iterative consultation with both clinicians and patients, using factor & correlation analysis
- Covers 18 items in 4 scales
  - general satisfaction (3 items); professional care (7 items); depth of relationship (5 items); perceived length of consultation time (3 items)
  - reliability: Cronbach α = 0.73-0.94

Summary review comment:
- The developmental procedures were excellent.
- It has good coverage measuring general satisfaction, professional care, relationship with the clinician and consultation time.
- There is validity and reliability evidence
- However, the items are repetitious, and there is no item measuring treatment outcomes. The repetition implies that it gains its reliability (and perhaps some validity) through replication.

4. Review: Medical Interview Satisfaction Scale (MISS)

- Country: USA & UK (Wolf et al 1978; Meakin & Weinman 2002)
- Standard version has 21 items
  - Distress, Communication, Comfort, Rapport, & Compliance sub-scales
- Developed using standard psychometric procedures, inc. EFA
- Reliability: Cronbach α = 0.67-0.92.

Summary review comment:
- The MISS has fair psychometric properties, including reasonable coverage.
- Its internal structure is poor, because two different research teams reported this was not congruent with the original descriptive system.
- There are redundant items and they present patients with a paternostical perspective.
- There is some evidence that the MISS may be culturally specific.
- Handout 12: Meakin & Weinman (2002) MISS Adapted

4. Review: Patient Satisfaction Index (PSI)

- Country: Canada (Guyatt et al 1995)
- Standard version has 23 items
- Developed from an item bank, iterative re-administration & logical criteria used to sort and select items into 8 domains
- Reliability: Test-retest ICC = 0.86.

Summary review comment:
- The conceptual base and instrument construction steps were exemplary.
- It is a reliable instruments
- Validity evidence is short
- Because it was designed for patients with life-threatening conditions, the item content reflects experiences rather than satisfaction.
- Unlike the other instruments reviewed, the PSI was designed for interviewer administration
- Handout 5 - Guyatt et al PATIENT SATISFACTION INDEX JClinEpi 1995

4. Review: Patient Visit Rating Questionnaire (PVRQ)

- Country: USA (Rubin et al 1993)
- Also called the: Medical Outcomes Trust patient satisfaction scale and the RAND 9-item patient satisfaction survey
- 9 items
- Reliability: Cronbach alpha

Summary review comment:
- This appears to be an excellent instrument, which was rigorously developed and tested.
- However, there are difficulties with the distribution of item responses (<5% of people endorse the lowest 2 categories)
- May not be all that responsiveness
- Additionally, 4/9 items are concerned with access issues that may not be relevant in an Australian context.
4. Review: Inpatient Evaluation of Service Questionnaire (IESQ)

- Country: Australia (Meehan et al 2002)
- Developed for psychiatric patients, focus groups to develop items, administered to patients and logical criteria & EFA used to select final items
- 20 items covering:
  - Staff-patient alliance (10 items), satisfaction with environment (6 items) and satisfaction with treatment (4 items)
- Reliability: Cronbach alpha = 0.79-0.93

Summary review comment:
- Although well conceptualised and developed, this is explicitly aimed at inpatient use, which may prevent it having wider applicability
- Many items are about service provision and the hospital environment (e.g. food, being entertained) rather than satisfaction with clinical treatment

5. SAPS: Short Assessment of Patient Satisfaction

- Developed in the context of the National Continence Management Strategy
  - But is designed as a generic patient satisfaction measure
- Theories of patient satisfaction suggest it covers 7 areas:
  - Access to health services, the treatment environment
  - Provision of health information
  - The relationship with health care providers
  - Participation in making health care choices
  - The technical quality of care
  - Treatment effectiveness (helping the daily life of the patient)
  - General satisfaction

- Dissatisfaction occurs where there are multiple transgressions OR where there is a catastrophic failure in one area

5. SAPS: Interpretation of results

- Poor coverage of patient satisfaction theory
  - (best is CSQ-18; worst is PSI and GUTSS)
- High reliability a function of redundant items
  - (all 4 instruments)
- Evidence of response bias
  - (CSQ-18 & PSI)
- Poor responsiveness
  - (best is GUTSS)

5. SAPS: Procedure

- Preparing the data
  - Collapse sparse data & inconsistent response categories
  - Delete non-responsive & poorly worded items
  - Pool remaining items for analysis (N=49)
- Data analysis
  - Partial credit item response theory analysis for item examination
  - Mokken analysis for item fit and scale analysis
- Procedure
  - Iterative analyses until best fitting model achieved, consistent with the theoretical 7 areas

5. SAPS: Psychometric properties of SAPS

- Mokken analysis
- Partial credit IRT analysis

5. SAPS: Short Assessment of Patient Satisfaction

- Methods:
  - Random sample of physiotherapy and surgery patients:
    - Females: Rx in previous 12-months
    - Patients sampled from St George Hospital (Sydney) & Royal Women’s Hospital (Melbourne)
- Questionnaire:
  - Then-test: Incontinence Severity Index & Urogenital Distress Inventory
  - Administration of four patient satisfaction instruments:
    - CSQ-18 (Client Satisfaction Questionnaire; 18 items)
    - Consult SQ (Consultation Satisfaction Questionnaire; 18 items)
    - Gastro-Urinary Treatment Satisfaction Scale (GUTSS; 10 items)
    - PSI (Patient Satisfaction Inventory; 23 items)
  - Participants
    - Participation rate = 44% (N=164)
    - Treatment: Physiotherapy (27%), Surgery (40%) Both (33%)
    - Then-test: Improved (82%), No change (12%), Worse (6%)

5. SAPS: Results

<table>
<thead>
<tr>
<th>Dimension</th>
<th>SAPS</th>
<th>CSQ-18</th>
<th>GUTSS</th>
<th>PSI</th>
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<tbody>
<tr>
<td>Coverage of theory</td>
<td></td>
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<tr>
<td>Access &amp; facilities</td>
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<td>+</td>
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</tr>
<tr>
<td>Other</td>
<td>+</td>
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<td>+</td>
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</tr>
</tbody>
</table>

Spearman’s rho = 0.74, 0.75, 0.76, 0.79

5. SAPS: Short Assessment of Patient Satisfaction


Notes:
- Scale statistics: Mokken H = 0.55, g = 0.85, Cronbach a = 0.85
- a = H, item coefficient of scalability; b = G-ratio under P-matrix analysis; c = point biserial correlation; d = logits; e = standard error


Based on pooled items, could a comprehensive model be constructed?
5. SAPS: Interpretation of psychometric coverage

- Interpretation:
  - Excellent coverage of patient satisfaction theory
  - No substantial violations of Guttman monotonicity
  - Loevinger H exceeds value for strong unidimensional scale
  - Consistent relationships between items

5. SAPS: Responsiveness?

<table>
<thead>
<tr>
<th></th>
<th>Consult SQ</th>
<th>CSQ-18</th>
<th>GUTSS</th>
<th>PSI</th>
<th>SAPS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Responsiveness to treatment type (F-value, transformed)</td>
<td>0.35</td>
<td>2.27</td>
<td>4.60**</td>
<td>1.46</td>
<td>3.12*</td>
</tr>
<tr>
<td>Responsiveness to treatment outcome (then-test)</td>
<td>0.10</td>
<td>4.47**</td>
<td>12.40**</td>
<td>2.42</td>
<td>7.23**</td>
</tr>
<tr>
<td>Relative efficiency</td>
<td>1.00</td>
<td>1.80</td>
<td>1.61</td>
<td>1.15</td>
<td>2.18</td>
</tr>
</tbody>
</table>

Superscript: *p<0.05, **p<0.01

a = All 4 instrument scores converted to T-scores, then pooled (averaged) and then quartiled

- Interpretation:
  - SAPS more sensitive than Consult SQ, CSQ-18 or PSI to treatment type and treatment outcomes
  - Less sensitive than GUTSS (condition-specific measure)
  - SAPS more sensitive than any instrument to pooled patient satisfaction indicator

5. SAPS: Conclusion

- All 4 patient satisfaction instruments shown to have some measurement problems (e.g. GUTSS has poor coverage)
- Pooling of items led to construction of the SAPS
- SAPS (7-items) shorter than any other instrument
- SAPS has excellent internal psychometric properties
- SAPS more sensitive than any instrument to pooled patient satisfaction indicator
- SAPS needs to be tested in other samples and populations

- A copy of the report and the SAPS can be obtained from
  - A/Prof Graeme Hawthorne. Email: graemeh@unimelb.edu.au

5. SAPS: Conclusion

Overall workshop conclusion

1. The assessment of patient satisfaction is increasingly important, and has several different purposes
   - To monitor health systems and institutions
   - To assess ‘client’ satisfaction with services
   - To evaluate patient satisfaction with health care

2. Almost all theories of patient satisfaction can be tracked back to the 1970s/1980s

3. There are 1,000s of patient satisfaction questionnaires
   - But very few of them are any good

4. Even recognised instruments have major shortcomings

5. The SAPS is a new instrument that is promising
1. Executive Summary

The Victorian Patient Satisfaction Monitor is being conducted continuously over a three-year period which commenced in September 2000. This report outlines findings from the second year of the Monitor (year ending September 2002), and compares these with the first year.

Over the course of Year Two, almost 16,000 questionnaires were completed and returned by adult acute care in-patients, who used Victoria’s 95 acute care public hospitals. The results show that, from the patients’ point of view, the very high standard of service provided by public hospitals in Victoria during Year One has been maintained throughout the second year of surveying. In Year Two, almost all patients (95%) are satisfied with their stay, and most (87%) feel that they were helped a great deal or quite a bit by their stay. These findings are unchanged from Year One.

In general, perceptions about specific aspects of hospital service are consistent between the first and second year of the Monitor. However two key measures, waiting time for hospital admission and quality of food have significantly improved in Year Two compared to Year One, particularly at the larger hospitals in the State.

Once again, the specific aspects of hospital service receiving strongest positive feedback from patients relate to the staff at public hospitals in Victoria. Indeed, five of the top six measures achieved relate to staff interaction with patients, with perceptions of the courtesy of nurses the top performing measure across the State (97% satisfaction rating). This is followed by the attitudes of staff spoken to prior to admission (96%), the attitudes of admitting staff (96%), the helpfulness of staff (96%), being treated with respect (95%) and cleanliness of rooms (95%).

The areas with the greatest scope for improvement are consistent between Years One and Two. Once again, aspects relating to the Physical Environment and Discharge Planning have the greatest potential for improvement, particularly at the larger public hospitals, or those located in metropolitan areas.

11. Appendix 2: Derivation of the Overall Care Index

- The Overall Care Index (OCI) is a mathematical construct created from 27 individual measures of performance within the VPSM questionnaire.
- The index was developed from exploratory research conducted in 1999 for the Department of Human Services (Victoria) investigating the most appropriate methodology to use when conducting patient satisfaction surveys and how best to assess patient satisfaction.
- The OCI is calculated for individuals and the average of all patients using the hospital reported on is included in the hospital reports (e.g. the average of all patients who used The Alfred Hospital). The index for the hospital category is the average for all respondents who used a hospital in that category (i.e. the average for all patients that used a hospital in the A1 Category).
- The 27 individual measures of performance that contribute to the Overall Care Index are depicted in the figure below.

Construct of the Overall Care Index

![Overall Care Index Diagram]

---

Genito-Urinary Treatment Satisfaction Scale

Instructions: After reading each question, circle the answer that best describes your situation. We know that sometimes answers may not describe you exactly, so please pick the answer that most closely describes you. When you have finished, please check that you have answered all questions.

Q1. How happy are you with the effect of the (operation/treatment)?
   Very happy ....................................................... 1
   Happy ............................................................... 2
   Neither happy nor unhappy ............................... 3
   Unhappy ........................................................... 4
   Very unhappy .................................................. 5

Q2. Over the past 4 weeks do you still have problems with incontinence?
   Yes, extremely problems .................................. 1
   Very much so ................................................... 2
   Some problems ................................................ 3
   Slight problems ................................................. 4
   No problems at all ............................................. 5

Q3. How satisfied are you with the outcome of your (operation/treatment)?
   Very satisfied .................................................... 1
   Satisfied .......................................................... 2
   Neither satisfied nor dissatisfied ......................... 3
   Dissatisfied ....................................................... 4
   Very dissatisfied ............................................... 5

Q4. During the past 4 weeks have you been disappointed with the outcome of your treatment?
   Extremely disappointed ..................................... 1
   Very disappointed ............................................. 2
   Disappointed .................................................... 3
   Slightly disappointed ....................................... 4
   Not at all disappointed .................................... 5

Q5. Before you had the (operation/treatment) was the information from your doctor or other health professional about the (operation/treatment)?
   Very good ......................................................... 1
   Good ............................................................. 2
   Fair ............................................................. 3
   Poor .............................................................. 4
   Very poor ........................................................ 5
Q6 Was the attitude/behaviour of the doctor or other health professional:

- Very good ......................................................... 1
- Good .............................................................. 2
- Fair ................................................................. 3
- Poor ................................................................ 4
- Very poor ...................................................... 5

Q7 How satisfied are you with the explanations your doctor or other health professional has given you about the results of your [operation/treatment]?

- Very satisfied .................................................... 1
- Satisfied ............................................................ 2
- Neither satisfied nor dissatisfied......................... 3
- Dissatisfied ....................................................... 4
- Very dissatisfied .............................................. 5

Q8 Are you happy with the care you received in [hospital/clinic]?

- Very happy ....................................................... 1
- Happy ............................................................. 2
- Neither happy nor unhappy ................................. 3
- Unhappy ......................................................... 4
- Very unhappy .................................................. 5

PLEASE CHECK THAT YOU HAVE ANSWERED ALL THE QUESTIONS.
THANK YOU VERY MUCH FOR YOUR TIME IN COMPLETING THIS QUESTIONNAIRE.

Journal of Community Health Vol. 10, No. 1, Spring 1985

THE MULTIDIMENSIONALITY OF PATIENT SATISFACTION WITH A CLINIC VISIT

Susie Linder-Pelz, M.P.H., Ph.D., and Elmer L. Struening, Ph.D.

ABSTRACT: Three hypotheses regarding the factor structure of patient satisfaction with an ambulatory health care encounter were tested in a New York medical center outpatient sample. All three hypotheses were generally supported. It was found that patients evaluated four distinct aspects of the clinic visits: doctor conduct, convenience, appointment getting, and the visit in general. A significant proportion of the variance in general satisfaction was explained by satisfaction with doctor conduct and satisfaction with convenience. Three factor scales of patient satisfaction were developed with demonstrable internal consistency reliability. Some possible effects of response method on satisfaction ratings were studied; these method effects were not substantial, and it is suggested that this type of psychometric procedure be used in further studies of patient satisfaction.

THE NEED TO MEASURE SATISFACTION WITH PARTICULAR EPISODES OF CARE

In an earlier article it was proposed that patient satisfaction could be defined as (a) multiple evaluations of distinct aspects of health care which are (b) determined (in some way) by the individual’s perceptions, attitudes, and comparison processes. The present paper reports an empirical test of the first proposition.

Most patient satisfaction studies have focused on satisfaction with particular health care settings or plans, ranging from specialized inpatient services to community-based programs. Several studies have focused on satisfaction with health care in general, but relatively few studies have attempted to measure patients’ satisfaction with a specific ambulatory care episode. A health care episode is a sequence of encounters or visits related to a particular illness. For practical purposes it is important to develop measures of satisfaction with episodes of care. This is because patients’ dissatisfaction or satisfaction probably affects subsequent behaviors such as appointment keeping and compliance. A practical first step in understanding satisfaction with episodes of care is the study of a single clinic encounter or visit.

Until 1977 there were published studies of patients’ satisfaction with a particular ambulatory episode. Various methods of measuring satisfaction were used: One researcher used a single measure while seven studies used single question measures for each of several dimensions. Of these seven

Susie Linder-Pelz, M.P.H., Ph.D. is with the Commonwealth Institute of Health in Australia. Elmer L. Struening, Ph.D., is with the New York State Psychiatric Institute and Columbia University. This research was supported in part by a World Health Organization graduate fellowship. Address communications to: Dr. Susie Linder-Pelz, Commonwealth Institute of Health, University of Sydney, N.S.W. 2008, Australia.

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APPENDIX I: THE PATIENT SATISFACTION QUESTIONNAIRE

To what extent do you agree or disagree with the following statements about you visit here today? There are no right or wrong answers. Please put an X above the answer that best says what you feel. Put only one X for each statement.

I would have liked more time with the doctor.

<table>
<thead>
<tr>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Uncertain</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
</tr>
</thead>
</table>

(This response continuum subsequently appeared under each statement.)

As a result of seeing the doctor today I understand my medical condition better.

The medical care I received today was better than most people get.

It was easy getting to the clinic.

The medical problems I've had in the past were ignored.

The doctor seemed to understand exactly what was bothering me.

The doctor should have shown more interest.

I don't want to see the same doctor next time.

I had to wait too many weeks for today's appointment.

In a good clinic the doctor would have better equipment.

The doctor made me feel foolish.

The other staff could have treated me better than they did.

The doctor was one of the best you can find anywhere.

The doctor hardly explained my problems to me.

The doctor should have told me more about how I can take care of my condition.

The waiting area was very comfortable.

The doctor should have been more thorough.

The doctor acted like he was doing me a big favor by treating me.

I had to wait too long at the clinic today.

The doctor should have ordered more tests.

My questions were answered to my complete satisfaction.

All things considered I am completely satisfied with this visit.

DEFINING AND MEASURING PATIENT SATISFACTION WITH MEDICAL CARE

JOHN E. WARE, JR., MARY K. SNYDER, W. RUSSELL WRIGHT, AND ALLISON R. DAVIES

The Rand Corporation

ABSTRACT

This paper describes the development of Form II of the Patient Satisfaction Questionnaire (PSQ), a self-administered survey instrument designed for use in general population studies. The PSQ contains 35 Likert-type items that measure attitudes toward the more salient characteristics of doctors and medical care services (technical and interpersonal skills of providers; waiting time for appointments, office visits, emergency care, costs of care, insurance coverage, availability of hospitals, and other resources) and satisfaction with care in general. Scales are balanced to control for acquiescent response set. Scoring rules for 18 multi-item subscales and eight global scales were standardized following replication of item analysis in four field tests. Internal-consistency and test-retest estimates indicate satisfactory reliability for studies involving group comparisons. The PSQ well represents the content of characteristics of providers and services described most often in the literature and in response to open-ended questions. Empirical tests of validity have also produced generally favorable results.

The Patient Satisfaction Questionnaire (PSQ) was developed at Southern Illinois University (SIU) School of Medicine during a study funded by the National Center For Health Services Research and Development. The major goals of the SIU project were to develop a short, self-administered satisfaction survey that would be applicable in general population studies and would yield reliable and valid measures of concepts that had both theoretical and practical importance to the planning, administration, and evaluation of health services delivery programs. The SIU work led to the development and testing of numerous instruments including several patient satisfaction questionnaires as well as measures of the importance placed on different features of medical care services.

We summarize here the conceptual work and empirical results from the SIU studies that have been available only in technical reports (Ware, Snyder, & Wright, 1976a, 1976b). We focus on Form II, which has proven to be the most comprehensive and reliable version of the PSQ.

CONCEPTUALIZING PATIENT SATISFACTION

In theory, a patient satisfaction rating is a personal evaluation of health care services and providers. It is wrong to equate all information derived from patient surveys with patient satisfaction (Ware, 1981). For example, patient satisfaction ratings are distinct from reports about providers and care. Reports are intentionally more factual and objective. Satisfaction ratings are intentionally more subjective; they attempt to capture a personal evaluation of care that cannot be known by observing care directly. For example, patients can be asked to report the length of time spent with their provider or to rate whether they were given enough time. Although satisfaction ratings are sometimes criticized because they do not correspond perfectly with objective reality or with the perceptions of providers or administrators of care, this is their unique strength. They bring new information to the satisfaction equation. We believe that differences in satisfaction mirror the realities of care to a substantial extent; these differences also reflect personal preferences as well as expectations (see Ware et al., 1976b, pp. 433–463, 607–622).

This research and preparation of this manuscript was supported by the National Center for Health Services Research and Development and by the Health Insurance Study Grant from the Department of Health and Human Services. Report requests and inquiries should be sent to John E. Ware, Jr., Behavioral Sciences Department, The Rand Corporation, 100 Main Street, Santa Monica, CA 90406.
<table>
<thead>
<tr>
<th>Item Number</th>
<th>Item Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>1*</td>
<td>I'm very satisfied with the medical care I receive.</td>
</tr>
<tr>
<td>2</td>
<td>Doctors let their patients tell them everything that the patient thinks is important.</td>
</tr>
<tr>
<td>3*</td>
<td>Doctors ask what foods patients eat and explain why certain foods are best.</td>
</tr>
<tr>
<td>4*</td>
<td>I think you can get medical care easily even if you don't have money with you.</td>
</tr>
<tr>
<td>5</td>
<td>I hardly ever see the same doctor when I go for medical care.</td>
</tr>
<tr>
<td>6*</td>
<td>Doctors are very careful to check everything when examining their patients.</td>
</tr>
<tr>
<td>7</td>
<td>We need more doctors in this area who specialize.</td>
</tr>
<tr>
<td>8*</td>
<td>If more than one family member needs medical care, we have to go to different doctors.</td>
</tr>
<tr>
<td>9*</td>
<td>Medical insurance coverage should pay for more expenses than it does.</td>
</tr>
<tr>
<td>10*</td>
<td>I think my doctor's office has everything needed to provide complete medical care.</td>
</tr>
<tr>
<td>11</td>
<td>Doctors never keep their patients waiting, even for a minute.</td>
</tr>
<tr>
<td>12</td>
<td>Places where you can get medical care are very conveniently located.</td>
</tr>
<tr>
<td>13</td>
<td>Doctors act like they are doing their patients a favor by treating them.</td>
</tr>
<tr>
<td>14*</td>
<td>The amount charged for medical care services is reasonable.</td>
</tr>
<tr>
<td>15</td>
<td>Doctors always tell their patients what to expect during treatment.</td>
</tr>
<tr>
<td>16*</td>
<td>Most people receive medical care that could be better.</td>
</tr>
<tr>
<td>17</td>
<td>Most people are not encouraged to get a yearly exam when they go for medical care.</td>
</tr>
<tr>
<td>18*</td>
<td>If I have a medical question, I can reach someone for help without any problem.</td>
</tr>
<tr>
<td>19*</td>
<td>In an emergency, it's very hard to get medical care quickly.</td>
</tr>
<tr>
<td>20</td>
<td>I can arrange for payment of medical bills later if I'm short of money now.</td>
</tr>
<tr>
<td>21*</td>
<td>I am happy with the coverage provided by medical insurance plans.</td>
</tr>
<tr>
<td>22*</td>
<td>Doctors always treat their patients with respect.</td>
</tr>
<tr>
<td>23</td>
<td>I see the same doctor just about every time I go for medical care.</td>
</tr>
<tr>
<td>24</td>
<td>The amount charged for lab tests and x-rays is extremely high.</td>
</tr>
<tr>
<td>25*</td>
<td>Doctors don't advise patients about ways to avoid illness or injury.</td>
</tr>
<tr>
<td>26</td>
<td>Doctors never recommend surgery (an operation) unless there is no other way to solve the problem.</td>
</tr>
<tr>
<td>27</td>
<td>Doctors hurt many more people than they help.</td>
</tr>
<tr>
<td>28*</td>
<td>Doctors hardly ever explain the patient's medical problems to him.</td>
</tr>
<tr>
<td>29</td>
<td>Doctors always do their best to keep the patient from worrying.</td>
</tr>
<tr>
<td>30*</td>
<td>Doctors aren't as thorough as they should be.</td>
</tr>
<tr>
<td>31*</td>
<td>It's hard to get an appointment for medical care right away.</td>
</tr>
<tr>
<td>32*</td>
<td>There are enough doctors in this area who specialize.</td>
</tr>
<tr>
<td>33</td>
<td>Doctors always avoid unnecessary patient expenses.</td>
</tr>
<tr>
<td>34*</td>
<td>Most people are encouraged to get a yearly exam when they go for medical care.</td>
</tr>
<tr>
<td>35*</td>
<td>Office hours when you can get medical care are good for most people.</td>
</tr>
<tr>
<td>36*</td>
<td>Withholding tests that you can pay, it's almost impossible to get admitted to the hospital.</td>
</tr>
<tr>
<td>37</td>
<td>People have to wait too long for emergency care.</td>
</tr>
</tbody>
</table>

**Table 1 (continued)**

<table>
<thead>
<tr>
<th>Item Number</th>
<th>Item Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>38</td>
<td>Medical insurance plans pay for most medical expenses a person might have.</td>
</tr>
<tr>
<td>39*</td>
<td>Sometimes doctors make the patient feel foolish.</td>
</tr>
<tr>
<td>40*</td>
<td>My doctor's office lacks some things needed to provide complete medical care.</td>
</tr>
<tr>
<td>41</td>
<td>Doctors always explain the side effects of the medicine they prescribe.</td>
</tr>
<tr>
<td>42*</td>
<td>There are enough hospitals in this area.</td>
</tr>
<tr>
<td>43*</td>
<td>It takes me a long time to get to the place where I receive medical care.</td>
</tr>
<tr>
<td>44</td>
<td>Just about all doctors make house calls.</td>
</tr>
<tr>
<td>45*</td>
<td>The care I have received from doctors in the past few years is just about perfect.</td>
</tr>
<tr>
<td>46</td>
<td>Doctors don't care if their patients worry.</td>
</tr>
<tr>
<td>47*</td>
<td>Sometimes doctors take unnecessary risks in treating their patients.</td>
</tr>
<tr>
<td>48</td>
<td>In an emergency, you can always get medical care.</td>
</tr>
<tr>
<td>49*</td>
<td>The fees doctors charge are too high.</td>
</tr>
<tr>
<td>50</td>
<td>Doctors are very thorough.</td>
</tr>
<tr>
<td>51*</td>
<td>The medical problems I've had in the past are ignored when I seek care for a new medical problem.</td>
</tr>
<tr>
<td>52*</td>
<td>Parking is a problem when you have to get medical care.</td>
</tr>
<tr>
<td>53*</td>
<td>There are enough family doctors around here.</td>
</tr>
<tr>
<td>54</td>
<td>Doctors never expose their patients to unnecessary risk.</td>
</tr>
<tr>
<td>55*</td>
<td>Doctors respect their patients' feelings.</td>
</tr>
<tr>
<td>56</td>
<td>It's cash in advance when you need medical care.</td>
</tr>
<tr>
<td>57</td>
<td>Doctors never look at their patient's medical records.</td>
</tr>
<tr>
<td>58*</td>
<td>There are things about the medical care I receive that could be better.</td>
</tr>
<tr>
<td>59</td>
<td>When doctors are unsure of what's wrong with you, they always call in a specialist.</td>
</tr>
<tr>
<td>60</td>
<td>When I seek care for a new medical problem, they always check up on the problems I've had before.</td>
</tr>
<tr>
<td>61*</td>
<td>More hospitals are needed in this area.</td>
</tr>
<tr>
<td>62</td>
<td>Doctors seldom explain why they order lab tests and x-rays.</td>
</tr>
<tr>
<td>63*</td>
<td>I think the amount charged for emergency room service is reasonable.</td>
</tr>
<tr>
<td>64</td>
<td>Sometimes doctors mislead patients about the medical information which their patients should have.</td>
</tr>
<tr>
<td>65</td>
<td>My doctor treats everyone in my family when they need care.</td>
</tr>
<tr>
<td>66*</td>
<td>Doctors cause some people to worry a lot because they don't explain medical problems to patients.</td>
</tr>
<tr>
<td>67*</td>
<td>There is a big shortage of family doctors around here.</td>
</tr>
<tr>
<td>68</td>
<td>Sometimes doctors cause their patients unnecessary medical expenses.</td>
</tr>
<tr>
<td>—</td>
<td>People are usually kept waiting a long time when they are at the doctor's office.</td>
</tr>
</tbody>
</table>

Note: Items marked with an asterisk are included in the 43-item short form of the PSQ; one item in that form does not appear in Form II. In addition, four items (11, 27, 44, and 57) were used only as validity checks.
MEASURING PATIENT AND RELATIVE SATISFACTION WITH LEVEL OR AGGRESSIVENESS OF CARE AND INVOLVEMENT IN CARE DECISIONS IN THE CONTEXT OF LIFE THREATENING ILLNESS

GORDON H. GUYATT,1,2 ALBA MITCHELL,1,3,4 D. WILLIAM MOLLOY,1† ROSALIE CAPRETTA,1 JOHN HORSMAN1 and LAUREN GRIFFITH1

1Department of Clinical Epidemiology and Biostatistics, Department of Medicine and School of Nursing, Faculty of Health Sciences, McMaster University, Hamilton, Ontario, Canada
2Department of Medical Genetics, University of Western Ontario, London, Ontario, Canada
3Department of Public Health Sciences, McMaster University, Hamilton, Ontario, Canada
4Department of Public Health Sciences, University of Western Ontario, London, Ontario, Canada

(Received in revised form 19 December 1994)

Abstract—The objective of the study was to develop valid and reliable discriminative indices which measure patient and relative satisfaction with two closely related aspects of oncological care: the level of care received and their involvement in decisions regarding care. We generated items by literature review and interviews with patients, relatives, and health care providers. In the final questionnaire, we included the items identified most frequently as sources of dissatisfaction and rated most important by 102 patients and 153 relatives. To measure reliability and validity we administered the instruments to 105 patients and 75 relatives of competent patients and 89 relatives of incompetent patients. We constructed three questionnaires: the Patient Satisfaction Index with 23 items, the Relative of Competent Patient Satisfaction Index with 34 items, and the Relative of Incompetent Patient Satisfaction Index with 20 items. We found mean scores of 75% of the maximum possible score, with a wide range of scores. The intraclass correlation for the instruments varied from 0.86 to 0.94. Correlations with global ratings were high (0.39–0.77) and similar to predictions. Correlations with caregivers were lower than predicted (0.18–0.22). For both patients and relatives, our instruments discriminate between those with higher and lower satisfaction with the level of medical care and with their involvement in decision-making.

INTRODUCTION

Investigators interested in patient satisfaction have offered a number of definitions of patient satisfaction [1–3]. All include elements of patient expectations and needs, and the extent to which these expectations and needs are satisfied [4]. One can think of general measures of satisfaction as those designed to be applied in any patient care situation, while specific measures focus on issues of a specific situation in which patients and health care workers interact. Typically, both general and specific measures focus on areas such as provision of information, empathy with the patient, attitude to the patient, access to and continuity with the caregivers, technical competence, and cost and convenience [5–7]. Others have identified ease of accessing care and the quality of interpersonal satisfaction and 1 indicates the lowest level of satisfaction.

The draft questionnaires were administered to five competent patients and one relative of each of 10 competent patients and 10 incompetent patients. Problems with wording and clarity led to a number of revisions to the instruments. These included deletion of several questions because they were poorly understood or did not make sense to some patients, rewording some questions, changing verb tenses in some questions, and changing some pronouns. Subjects were able to use the 7-point scales without difficulty. The final questionnaire is available from the lead investigator. The Cronbach’s alpha values which are 0.94, 0.92, and 0.84 for the PSI, REC-SI, and RIP-SI respectively.

Questionnaire testing. Respondents. We sent letters or made hospital visits to 147 potentially eligible patients. Of these, 147, 84.9% returned the questionnaires. We were unable to contact 79 (discharged, died, moved, refused, or lost) tests were administered.

Range of scores. The possible range of scores for the PSI was from 23 (representing the lowest possible level of satisfaction) to 161 (representing the highest possible level of satis-
Interpersonal and organizational dimensions of patient satisfaction: the moderating effects of health status

MARGARET S. WESTAWAY, PAUL RHEEDER, DANIE G. VAN ZYL 1 AND JOHN R. SEAGER 1
1Health and Development, SA Medical Research Council and School of Health Systems and Public Health, Faculty of Health Sciences, University of Pretoria, University of Pretoria, 2Clinical Epidemiology Unit and Tshiding Hospital, Faculty of Health Sciences, University of Pretoria, South Africa

Abstract

Objectives. Based on Donabedian’s structure, process, and outcome model, this study was conducted to identify the underlying dimensions of patient satisfaction for diabetic patients and determine the effects of demographic characteristics and health status on these dimensions.

Design. A cross-sectional analytical research design was used with a questionnaire, comprising demographic characteristics, the general and mental health items from the SF-36, and a 25-item patient satisfaction scale.

Setting and study participants. The questionnaire was administered to 263 South African diabetic outpatients from the diabetes clinics at two hospitals. There were 174 females and 89 males, aged between 16 and 89 years (mean = 53.5, sd = 13.5). The average number of years of schooling was 6.3 (sd = 4.1).

Main outcome measure. A reliable and valid patient satisfaction scale.

Results. Factor analysis was conducted on the patient satisfaction scale and two factors, accounting for 71.6% of the variance, were extracted. The major items on Factor I were support, consideration, friendliness, and encouragement, labelled the interpersonal dimension. Factor II emphasised availability of a seat and toilet in the waiting area and cleanliness, labelled the organizational dimension. The two factors had very good reliability coefficients: 0.85 (organizational) and 0.88 (interpersonal). Multi-trait scaling showed that all items exceeded the item convergent (r > 0.40) and discriminant (Z > 1.96) validity criteria. Patients in poor general health were significantly less satisfied (P = 0.007) with the organizational quality of their care than patients in good health; patients in poor mental health were significantly less satisfied (P = 0.04) with the interpersonal quality of their care than patients in good mental health.

Conclusions. The findings provided support for Donabedian’s model. They demonstrated that attributes of providers and settings are major components of patient satisfaction, and that the scale is a reliable and valid measure of patient satisfaction for this South African population.

Keywords. black diabetic patients, health status, interpersonal and organizational quality of care, patient satisfaction, South Africa

In South Africa, there is a paucity of reliable and valid satisfaction measures for specific populations. In addition, no local studies have investigated the relationship between the components of patient satisfaction and health status. In order to rectify this state of affairs, compliment international research and provide a credible analysis of satisfaction findings [1], we developed and tested a patient satisfaction scale for diabetic outpatients. Based on Donabedian’s [2] structure, process, and outcome model, this study was conducted to identify the underlying dimensions of patient satisfaction and determine the effects of demographic characteristics and health status on three dimensions.

Patient satisfaction is regarded as one of the desired outcomes of care, an element in health status, a measure of the quality of care, and ‘as indispensable to assessments of quality as to the design and management of health care systems’.

Address reprint requests to M. S. Westaway, Health and Development, SA Medical Research Council, Private Bag X058, Pretoria 0001, South Africa. E-mail: mwest@medrc.ac.za

Table 1 Orthogonal (VARIMAX) two-factor rotational solution for patient satisfaction

<table>
<thead>
<tr>
<th>Items</th>
<th>Factor I</th>
<th>Factor II</th>
</tr>
</thead>
<tbody>
<tr>
<td>Friendly providers</td>
<td>0.86</td>
<td>0.37</td>
</tr>
<tr>
<td>Encouraging providers</td>
<td>0.85</td>
<td>0.39</td>
</tr>
<tr>
<td>Helpful providers</td>
<td>0.86</td>
<td>0.37</td>
</tr>
<tr>
<td>Reasoned providers</td>
<td>0.88</td>
<td>0.39</td>
</tr>
<tr>
<td>Considerate providers</td>
<td>0.89</td>
<td>0.36</td>
</tr>
<tr>
<td>Providers who listen to me</td>
<td>0.90</td>
<td>0.26</td>
</tr>
<tr>
<td>Supportive providers</td>
<td>0.89</td>
<td>0.29</td>
</tr>
<tr>
<td>Providers who let me talk</td>
<td>0.91</td>
<td>0.27</td>
</tr>
<tr>
<td>Providers who let me know</td>
<td>0.82</td>
<td>0.37</td>
</tr>
<tr>
<td>what is expected</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Competent providers</td>
<td>0.82</td>
<td>0.42</td>
</tr>
<tr>
<td>Consideration</td>
<td>0.74</td>
<td>0.41</td>
</tr>
<tr>
<td>Maintenance of contact</td>
<td>0.42</td>
<td>0.68</td>
</tr>
<tr>
<td>Follow-up service</td>
<td>0.31</td>
<td>0.69</td>
</tr>
<tr>
<td>Fair (equal treatment)</td>
<td>0.44</td>
<td>0.57</td>
</tr>
<tr>
<td>Waiting time</td>
<td>0.23</td>
<td>0.62</td>
</tr>
<tr>
<td>Availability of a seat in the waiting area</td>
<td>0.18</td>
<td>0.73</td>
</tr>
<tr>
<td>Availability of a toilet in the waiting area</td>
<td>0.24</td>
<td>0.70</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>0.25</td>
<td>0.70</td>
</tr>
<tr>
<td>Privacy</td>
<td>0.33</td>
<td>0.59</td>
</tr>
</tbody>
</table>

* P < 0.05.

Table 2 Mean scores, s.d., corrected inter-rank correlation coefficients, and Z scores for the two dimensions of patient satisfaction

<table>
<thead>
<tr>
<th>Items</th>
<th>Mean</th>
<th>s.d.</th>
<th>r</th>
<th>Z</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Friendly providers</td>
<td>4.6</td>
<td>0.8</td>
<td>0.92</td>
<td>8.74</td>
</tr>
<tr>
<td>Encouraging providers</td>
<td>4.6</td>
<td>0.8</td>
<td>0.92</td>
<td>8.31</td>
</tr>
<tr>
<td>Helpful providers</td>
<td>4.6</td>
<td>0.8</td>
<td>0.92</td>
<td>8.31</td>
</tr>
<tr>
<td>Reasoned providers</td>
<td>4.6</td>
<td>0.8</td>
<td>0.84</td>
<td>4.57</td>
</tr>
<tr>
<td>Considerate providers</td>
<td>4.6</td>
<td>0.8</td>
<td>0.85</td>
<td>11.30</td>
</tr>
<tr>
<td>Providers who listen to me</td>
<td>4.6</td>
<td>0.8</td>
<td>0.91</td>
<td>9.22</td>
</tr>
<tr>
<td>Providers who let me talk</td>
<td>4.6</td>
<td>0.8</td>
<td>0.92</td>
<td>9.34</td>
</tr>
<tr>
<td>Providers who let me know</td>
<td>4.6</td>
<td>0.8</td>
<td>0.94</td>
<td>11.51</td>
</tr>
<tr>
<td>what is expected</td>
<td>4.6</td>
<td>0.8</td>
<td>0.88</td>
<td>6.78</td>
</tr>
<tr>
<td>Competent providers</td>
<td>4.6</td>
<td>0.7</td>
<td>0.90</td>
<td>6.36</td>
</tr>
<tr>
<td>Consideration</td>
<td>4.6</td>
<td>0.8</td>
<td>0.81</td>
<td>3.95</td>
</tr>
<tr>
<td>Maintenance of contact</td>
<td>4.6</td>
<td>0.7</td>
<td>0.70</td>
<td>3.02</td>
</tr>
<tr>
<td>Follow-up service</td>
<td>4.3</td>
<td>1.1</td>
<td>0.68</td>
<td>4.86</td>
</tr>
<tr>
<td>Fair (equal treatment)</td>
<td>4.3</td>
<td>1.0</td>
<td>0.65</td>
<td>2.85</td>
</tr>
<tr>
<td>Waiting time</td>
<td>3.8</td>
<td>1.5</td>
<td>0.57</td>
<td>3.34</td>
</tr>
<tr>
<td>Availability of a seat in the waiting area</td>
<td>4.5</td>
<td>0.8</td>
<td>0.61</td>
<td>4.27</td>
</tr>
<tr>
<td>Availability of a toilet in the waiting area</td>
<td>4.5</td>
<td>0.9</td>
<td>0.60</td>
<td>3.77</td>
</tr>
<tr>
<td>Cleanliness</td>
<td>4.6</td>
<td>0.8</td>
<td>0.61</td>
<td>3.53</td>
</tr>
<tr>
<td>Privacy</td>
<td>4.7</td>
<td>0.5</td>
<td>0.54</td>
<td>2.17</td>
</tr>
</tbody>
</table>

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The review criteria are those outlined in the second Dementia Outcomes Measurement Suite Project report (Sansoni et al. 2007). Each criteria was weighted for its applicability to the Australian setting (where 1 = not very important in Australia, 2 = important, 3 = very important in Australia).

### Availability of comparison data (weight = 3)
- 1 = minimal or no comparison data available
- 2 = some international comparison data available
- 3 = Australian and international dementia comparison data available including normative data and clinical reference data

### Length/feasibility of instrument for inclusion in instrument batteries (weight = 2)
- 1 = long instrument, 30+ items
- 2 = medium length instrument, 15-30 items
- 3 = short instrument, less than 15 items

### Complexity of administration (for clinician use); and cognitive burden (for self report or proxy instruments) (weight = 2)
- 1 = demanding to understand or administer
- 2 = some difficulties to understand or administer
- 3 = easy to understand and administer

### Cultural appropriateness (ease of use with an interpreter, client literacy, use with culturally and linguistically diverse (CALD) people including Indigenous Australians) (weight = 1)
- 1 = not appropriate for use by CALD or illiterate clients, or with an interpreter
- 2 = limited appropriateness for use by CALD or illiterate clients and interpreters
- 3 = appropriate for use by CALD or illiterate clients and interpreters

### Ease of obtaining score by the evaluator (weight = 2)
- 1 = scoring complex and requires computer
- 2 = can be scored without computer but time consuming
- 3 = scoring easy and does not require computer

### Sensitivity to dementia (weight = 3)
- 1 = not known to be sensitive to dementia status
- 2 = sensitive to dementia status
- 3 = good sensitivity to dementia status

### Reliability evidence available (weight = 3)
- 1 = no or little published evidence identified
- 2 = evidence suggests moderate reliability
- 3 = evidence suggests good reliability

### Validity evidence available (weight = 3)
- 1 = no published validity evidence identified
- 2 = evidence suggests moderate validity
- 3 = evidence suggests good validity

### Cost of the instrument (weight = 2)
- 1 = costs charged for using instrument
- 2 = costs charged for commercial use
- 3 = instrument available free of charges

### Cost of instrument administration (weight = 2)
- 1 = professional
- 2 = paraprofessional/staff member
- 3 = self completion

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**ABSTRACT**

The development and shaping of a general scale to assess client/patient satisfaction is reported. The scale, the CSQ, was constructed empirically by the authors. The CSQ is a response to several problems and issues that currently cloud the measurement of consumer satisfaction in health and human service systems. These problems and issues in assessing satisfaction are described. Finally, we present practical experiences to date in using the CSQ along with general psychometric qualities of the scale and correlates of CSQ results with client characteristics, service utilization, and service outcomes.

In recent years there has been a significant shift toward broadening the scope of client participation in the evaluation of human service programs. A notable example of this trend is the proliferation of research on client and patient satisfaction. The distinguishing feature of satisfaction research is that service recipients are explicitly asked to evaluate the services provided to them. The current paper discusses reasons for assessing satisfaction with services, outlines issues and methods in conducting this type of evaluation, and presents our progress in developing a general scale for use in human service programs.
TABLE 4
THE CLIENT SATISFACTION QUESTIONNAIRE (CSQ)

<table>
<thead>
<tr>
<th>Question</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>How would you rate the quality of service you received?</td>
<td>Excellent</td>
<td>Good</td>
<td>Fair</td>
<td>Poor</td>
</tr>
<tr>
<td>Do you feel the kind of service you received was appropriate?</td>
<td>Yes, definitely</td>
<td>Yes, generally</td>
<td>No, not really</td>
<td>No, not really</td>
</tr>
<tr>
<td>To what extent did our program meet your needs?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Most of my needs have been met</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Only a few of my needs have been met</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>None of my needs have been met</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>If a friend were in need of similar help, would you recommend our program to him/her?</td>
<td>Yes, I think so</td>
<td>Yes, I don't think so</td>
<td>No, I don't think so</td>
<td>No, I don't think so</td>
</tr>
<tr>
<td>How satisfied are you with the amount of help you received?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Inadequate or moderately satisfied</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Have the services you received helped you to deal more effectively with your problems?</td>
<td>Yes, they helped somewhat</td>
<td>Yes, they helped</td>
<td>No, they really didn't help</td>
<td>No, they really didn't help</td>
</tr>
<tr>
<td>Very satisfied</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Inadequate or moderately satisfied</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>*In all overall, general terms, how satisfied are you with the service you received?</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>*Very satisfied</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>*Inadequate or moderately dissatisfied</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>*If you were to seek help again, would you come back to our program?</td>
<td>Yes, definitely</td>
<td>Yes, I don't think so</td>
<td>Yes, I don't think so</td>
<td>No, I don't think so</td>
</tr>
<tr>
<td>*Very satisfied</td>
<td>4</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>*Inadequate or moderately dissatisfied</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

WHITE COMMENTS BELOW

GENERAL DISCUSSION

In summary, the CSQ appears to be a useful measure of general satisfaction with services. It possesses a high degree of internal consistency and correlates with therapists' estimates of client satisfaction. Cox, Brown, Peterson, & Rowe (1978, Note 2) recently used this CSQ in a state-wide assessment of mental health service outcomes.

RICHARD BAKER

SUMMARY
The assessment of patient satisfaction has become an important concern in the evaluation of health services. Measures of satisfaction must be valid and reliable if they are to be used widely. This paper reports the development of a new questionnaire to assess patients' satisfaction with consultations together with initial tests of the questionnaire's reliability and validity. Principal components analysis of the patients' assessments of care revealed three factors of satisfaction: the professional aspects of the consultation, the depth of the patient's relationship with the doctor, and the perceived length of the consultation. The consultation satisfaction questionnaire is available under the conditions of this study and may have a role in research, medical education and audit.

Introduction

PATIENT satisfaction is one objective of care, and, along with recovery from illness or amelioration of the presenting problem, it is therefore an outcome of care. It is also a contributor to outcome, as satisfied patients are more likely to cooperate with treatment. Moreover, satisfaction is the patient's judgement of the quality of care. In addition to these three practical reasons why patient satisfaction should be assessed, there is the philosophical view that patients should be given the right to have their concerns about care taken into account. The growing importance of consumerism in health care is but one element of a broader social movement, and it would be unrealistic to expect that health services will be allowed to remain undisturbed by changes taking place in the rest of society. The new contract for general practitioners instructs family practitioner committees to carry out a patient survey aimed at measuring patients' satisfaction with general practitioner services, and the medical audit and advisory groups set up by the Department of Health in April 1981 have been given the duty of ensuring that patients' interests are taken into account.

Assessment of patient satisfaction has been used as a measure of outcome in studies of aspects of general practice such as drug prescribing, length of consultations and workload. However, there are no patient satisfaction questionnaires devised for use in British general practice that have been subjected to thorough testing of reliability and validity. If surveys of patient satisfaction are to influence decision making, it is important that the assessment instruments are tested rigorously as objective medical measurements, otherwise the quality of care might be made worse rather than better. Several questionnaires have been developed and tested in the USA and used in the UK. Despite the lack of evidence to show that they are reliable and valid when used outside the setting for which they were designed. Nevertheless, three American questionnaires have shown that it is possible to develop methods of assessing patient satisfaction with known levels of validity and reliability.

The method of questioning chosen was a five-point Likert scale asking for agreement or disagreement with statements about the doctor and the consultation. This scaling method has been employed in other surveys and has the advantage of being relatively easy for respondents to complete.

Question selection
The first step was to identify the various issues that patients may take into account in their assessment of consultations, and the second step was to reflect these issues in the questionnaire so that these issues were covered in a way that patients could understand and that obtained a range of opinion. An initial review of other questionnaires on patient satisfaction together with general practice studies that included survey of patient opinions was therefore undertaken in order to determine what aspects of care had been measured.

When the British University quality assurance project was set up, one of its objectives was to develop methods for assessing patient satisfaction with general practice. There are many aspects of general practice that might be included in a patient satisfaction questionnaire, such as office organization, the work of practice nurses or attached staff, use of hospital care, and availability of doctors, in addition to the doctor–patient relationship. However, a questionnaire covering all these areas of concern would be too long for patients to complete quickly, and also infeasible for potential users who are unlikely to wait to assess every aspect in one questionnaire. Therefore, two questionnaires were planned, one to assess satisfaction after a consultation with a general practitioner, and the other to assess patient satisfaction with services offered by a general practice as a whole but excluding the consultation. This paper reports the development of the questionnaire about the doctor–patient consultation.

Method
All the development work was undertaken in one suburban practice of 12,000 patients who were predominantly from social classes I to IV. There were six principals in the practice, with one trainer and one doctor working under the master scheme. Three of the doctors were women and five men.

The questionnaire was required to be brief, understandable and easy to complete for adults aged over 14 years. It was designed to be self-administered, so that it would be cheap and easy to use in different general practices. Throughout the development period it was administered using questionnaires being given to patients as they arrived for consultations at the surgery, with instructions to complete it after the consultation but before departure, leaving it in a marked box in the reception lobby. Patients were excluded if they were under 18 years of age, too ill to complete the form, unable to read the form, or if they had already completed any version of the consultation satisfaction questionnaire. Questionnaires that were incomplete were treated as missing data, and might permit identification of patients, and the method of collecting completed forms was chosen so that patients could feel certain that their comments would be anonymous. The questionnaire was also tailored to indicate that its origin was the general practice unit at the University of Oxford rather than the practice as an enquiry about satisfaction from the patient's own doctor might inhibit the expression of negative comments.

The method of questioning chosen was a five-point Likert type scale asking for agreement or disagreement with statements about the doctor and the consultation. This scaling method has been employed in other surveys and has the advantage of being relatively easy for respondents to complete.
Table 1. Statements from version six of the consultation satisfaction questionnaire: correlations with factor, mean scores and coefficients of variation (total number of respondents = 239).

<table>
<thead>
<tr>
<th>Statement</th>
<th>Correlation with factor</th>
<th>Mean score (SD)</th>
<th>Coefficient of variation (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>General satisfaction</td>
<td>1. I am totally satisfied with my visit to this doctor</td>
<td>-</td>
<td>1.71 (0.67)</td>
</tr>
<tr>
<td></td>
<td>2. Some things about my consultation with the doctor could have been better</td>
<td>-</td>
<td>2.32 (0.92)</td>
</tr>
<tr>
<td></td>
<td>3. I am not completely satisfied with my visit to the doctor</td>
<td>-</td>
<td>2.13 (1.02)</td>
</tr>
<tr>
<td>Factor 1: Professional care</td>
<td>4. The doctor was very careful to check everything when examining me</td>
<td>0.79</td>
<td>1.89 (0.73)</td>
</tr>
<tr>
<td></td>
<td>5. The doctor examined me very thoroughly</td>
<td>0.79</td>
<td>2.07 (0.78)</td>
</tr>
<tr>
<td></td>
<td>6. The doctor told me everything about my treatment</td>
<td>0.78</td>
<td>1.96 (0.76)</td>
</tr>
<tr>
<td></td>
<td>7. I thought the doctor took notice of me as a person</td>
<td>0.68</td>
<td>1.87 (0.79)</td>
</tr>
<tr>
<td></td>
<td>8. I felt that my doctor’s advice about my illness was absolutely right</td>
<td>0.65</td>
<td>1.76 (0.87)</td>
</tr>
<tr>
<td></td>
<td>9. The doctor was interested in me as a person, and not just my illness</td>
<td>0.63</td>
<td>2.08 (0.83)</td>
</tr>
<tr>
<td></td>
<td>10. I understood my illness much better after seeing this doctor</td>
<td>0.45</td>
<td>2.27 (0.81)</td>
</tr>
<tr>
<td>Factor 2: Depth of relationship</td>
<td>11. There are some things this doctor does not know about me</td>
<td>0.85</td>
<td>2.93 (1.03)</td>
</tr>
<tr>
<td></td>
<td>12. This doctor knows all about me</td>
<td>0.83</td>
<td>2.74 (0.98)</td>
</tr>
<tr>
<td></td>
<td>13. I felt this doctor really knew what I was thinking</td>
<td>0.70</td>
<td>2.47 (0.92)</td>
</tr>
<tr>
<td></td>
<td>14. I felt able to tell this doctor about very personal things</td>
<td>0.58</td>
<td>2.09 (0.86)</td>
</tr>
<tr>
<td></td>
<td>15. I would find it difficult to tell this doctor about some private things</td>
<td>0.45</td>
<td>2.28 (0.95)</td>
</tr>
<tr>
<td>Factor 3: Perceived time</td>
<td>16. The time I was allowed to spend with the doctor was not long enough to deal with everything I wanted</td>
<td>0.85</td>
<td>2.25 (0.90)</td>
</tr>
<tr>
<td></td>
<td>17. I wish it had been possible to spend a little longer with the doctor</td>
<td>0.94</td>
<td>2.69 (0.99)</td>
</tr>
<tr>
<td></td>
<td>18. The time I was able to spend with the doctor was a bit too short</td>
<td>0.91</td>
<td>2.47 (0.97)</td>
</tr>
</tbody>
</table>

(SD = standard deviation)

Figure 1. Mean satisfaction scores for the eight general practitioners (total number of respondents = 239).

Development of a Patient Satisfaction Scale

Elaine L. La Monica, Marilyn T. Oberst, Anita R. Makea, and Richard M. Wolf

Three studies to develop and test an instrument to measure hospitalized patient satisfaction with nursing care are reported. Content validation procedures involved both clinicians and patients (N = 75). An inverse relationship of satisfaction scores to negative mood states demonstrated evidence of construct validity. Factor analytic procedures (N = 664) failed to confirm the existence of the subscales initially conceptualized for this instrument and others in common use. Three new factors were identified: dissatisfaction, interpersonal support, and good impression. The dissatisfaction subscale explained 73.6% of the variance and had a high internal consistency (α = .91), the reliability coefficients of the other subscales also were high (α = .92 and .89). Reliability coefficients for the total instrument in successive testings were .92 (N = 100) and .95 (N = 533).

Patients' satisfaction with nursing care is of considerable concern to professionals interested in monitoring care quality and studying the effectiveness of specific interventions. The use of patient satisfaction instruments as a criterion measure has, however, been beset by a variety of methodological and measurement problems including relative insensitivity and questionable validity (French, 1981; Lebow, 1974; Locker & Dunt, 1978; Oberst, 1984; Ventura, Fox, Corley, & Mercuro, 1982; Ware, Davies-Avery, & Stewart, 1978). Universally high satisfaction ratings may suggest, as Tessler and Mechanic (1975) noted, that most people are satisfied most of the time, but high ratings also may be a function of social desirability, implicit threat, and item wording (French, 1981; Locker & Dunt, 1978; Pope, 1978; Ventura et al., 1982). Regardless of underlying cause however, lack of score variability renders many measures of satisfaction virtually useless (Mauksch, 1973; Ventura et al., 1982). Questions of instrument validity most frequently arise from failure to adequately define the concept of satisfaction from either the professional or patient point of view (Locker & Dunt, 1978; Pope, 1978; Ware et al., 1978). In these instances in which instrument development are based on both adequate theoretical definitions and appropriate methods, lack of direct validation with the target client population may produce an instrument of questionable validity (Oberst, 1984). Historically, the most common approach to

Dr. Elaine L. La Monica is professor of Nursing Education and Director of the Institute of Research and Service in Nursing Education, Teachers College, Columbia University, New York, and was the principal investigator on this project.

Dr. Marilyn T. Oberst is associate professor, School of Nursing, University of Wisconsin-Madison, and was the co-investigator on this project.

Ms. Anita R. Makea is a doctoral candidate in nursing administration, Teachers College, Columbia University, New York, and was the research assistant for this project.

Dr. Richard M. Wolf is professor of Psychology and Education, Teachers College, Columbia University, New York, and was consultant in methods and statistics for the investigation. This research was supported by the Department of Health and Human Services, Division of Nursing, Grant No. 2R1H4005420, awarded to Dr. E. La Monica.

We gratefully acknowledge the assistance of Sister Patricia A. Bailey, Bernadette R. Sattlerfield, Beryl Skag, and Elizabeth Tucker, data collectors. This article was received on November 1, 1983, was revised, and on December 4, 1984, was accepted for publication.

Requests for reprints may be addressed to Dr. E. La Monica, Teachers College, Columbia University, 525 West 120th Street, Box 167, New York, New York 10027.

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### Table 3. Factor Loadings in the Rotated-Factor Matrix for the LOPSS (N = 664)

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disatisfaction</td>
<td>.53</td>
<td>.23</td>
<td>.08</td>
</tr>
<tr>
<td>Is not as attentive as (s)he should be</td>
<td>.61</td>
<td>.13</td>
<td>.12</td>
</tr>
<tr>
<td>Does nothing with information I give</td>
<td>.64</td>
<td>.19</td>
<td>.16</td>
</tr>
<tr>
<td>Seems more interested in competing tasks than in listening to concerns</td>
<td>.62</td>
<td>.14</td>
<td>.14</td>
</tr>
<tr>
<td>Does not follow through quickly enough</td>
<td>.56</td>
<td>.11</td>
<td>.17</td>
</tr>
<tr>
<td>Is not as friendly as (s)he should be</td>
<td>.64</td>
<td>.16</td>
<td>.15</td>
</tr>
<tr>
<td>Makes me feel like a &quot;case&quot;, not an individual</td>
<td>.60</td>
<td>.14</td>
<td>.21</td>
</tr>
<tr>
<td>Talks down to me</td>
<td>.60</td>
<td>.11</td>
<td>.16</td>
</tr>
<tr>
<td>Does not answer my call signal promptly enough</td>
<td>.56</td>
<td>.20</td>
<td>.11</td>
</tr>
<tr>
<td>Tells me things which conflict with what my doctor tells me</td>
<td>.48</td>
<td>.24</td>
<td>.04</td>
</tr>
<tr>
<td>Does not keep promises to return to do things for me</td>
<td>.53</td>
<td>.14</td>
<td>.18</td>
</tr>
<tr>
<td>Should be more thorough</td>
<td>.55</td>
<td>.24</td>
<td>.18</td>
</tr>
<tr>
<td>Seems disorganized and flustered</td>
<td>.59</td>
<td>.16</td>
<td>.12</td>
</tr>
<tr>
<td>Neglects to be sure I understand importance of my treatments</td>
<td>.51</td>
<td>.24</td>
<td>.14</td>
</tr>
<tr>
<td>Acts like I cannot understand the medical explanation of my illness</td>
<td>.54</td>
<td>.32</td>
<td>.14</td>
</tr>
<tr>
<td>Fails to consider my opinions and preferences regarding plans for my care</td>
<td>.60</td>
<td>.31</td>
<td>.10</td>
</tr>
<tr>
<td>Seemed reluctant to give assistance when I need it</td>
<td>.62</td>
<td>.10</td>
<td>.14</td>
</tr>
<tr>
<td>Intercoronal Support</td>
<td>.14</td>
<td>.48</td>
<td>.34</td>
</tr>
<tr>
<td>Tells me what treatment effects to expect</td>
<td>.18</td>
<td>.69</td>
<td>.37</td>
</tr>
<tr>
<td>Would know what to do in an emergency</td>
<td>.14</td>
<td>.59</td>
<td>.28</td>
</tr>
<tr>
<td>Shows me how to follow my treatment program</td>
<td>.24</td>
<td>.71</td>
<td>.20</td>
</tr>
<tr>
<td>I can share my feelings when I need to talk</td>
<td>.23</td>
<td>.53</td>
<td>.38</td>
</tr>
<tr>
<td>Does things to make me more comfortable</td>
<td>.22</td>
<td>.69</td>
<td>.28</td>
</tr>
<tr>
<td>Just talking makes me feel better</td>
<td>.22</td>
<td>.71</td>
<td>.22</td>
</tr>
<tr>
<td>Helps me to understand my illness</td>
<td>.34</td>
<td>.65</td>
<td>.28</td>
</tr>
<tr>
<td>Is available when I need support</td>
<td>.27</td>
<td>.69</td>
<td>.28</td>
</tr>
<tr>
<td>Seems to know what (s)he is talking about</td>
<td>.32</td>
<td>.48</td>
<td>.35</td>
</tr>
<tr>
<td>Is gentle in caring for me</td>
<td>.27</td>
<td>.55</td>
<td>.28</td>
</tr>
<tr>
<td>Gives directions at just the right speed</td>
<td>.28</td>
<td>.74</td>
<td>.20</td>
</tr>
<tr>
<td>Makes me feel secure when giving me care</td>
<td>.24</td>
<td>.64</td>
<td>.31</td>
</tr>
<tr>
<td>MAACL Further testing with other possible correlate seems indicated.</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

The findings from the factor analysis clearly do not support the construct validity of the three dimensions of nurse performance initially conceptualized for this study as contributing to patient satisfaction. No factor analytic procedures have been reported for either the Risser or the Himshaw-Atwood version of the PSS, probably because the sample sizes precluded this. However, given the identical definitions and the conceptual frameworks of the PSS and the LOPSS, and the erratic performance of the PSS subscales reported by Himshaw and Atwood (1982), the findings of the present study might be extrapolated to apply to the earlier instruments as well.

The emergence of a distinct dissatisfaction factor suggests several intriguing possibilities. It is possible, that satisfaction and dissatisfaction are not opposite ends of the same continuum, but are separate continua. Such a formulation would be consistent with that of Herzberg (1966) in the area of job satisfaction. The items in the Dissatisfaction subscale were randomly selected from the three a priori dimensions, however, and nothing beyond their negative phrasing appears to distinguish them conceptually from the other subscales. Positive and negative items sometimes do factor out separately, yet measure the same construct. The State-Trait Anxiety Inventory (STAI) (Spielberger, 1983) for instance, loads consistently on two factors (anxiety-present and anxiety-absent), suggesting different sources of variance; the STAI is, however, used as an unidimensional index and other approaches to construct validation supported this unidimensionality (Spielberger, 1983). Given the low correlation of the LOPSS Dissatisfaction subscale with the other subscales and its substantial contribution to the total variance, further exploration of the concept "dissatisfaction" might clarify how patients actually define both satisfaction and dissatisfaction. Himshaw and Atwood (1982) questioned whether the PSS was one scale or three. The findings from the current study suggest that for the LOPSS, the correct answer may be two scales, satisfaction and dissatisfaction.

An alternate explanation for the factor structure of the LOPSS may lie in the use of negatively worded items intended to reduce acquiescence response set; given the variance contributed by these items, it probably succeeded. However, it may also have created a different problem, that of social desirability set. The desire to give socially acceptable answers frequently is cited as a cause of high satisfaction scores. But, patients who are uncomfortable in disagreeing with positive satisfaction statements might be more comfortable agreeing with negative statements because the presence of such statements indicate that the professionals who wrote them acknowledge that such things can and do happen; thus, the negative statements permit or sanction an honest response in a way that positive statements do not.

Two other issues related to the development of...
The ‘Medical Interview Satisfaction Scale’ (MISS-21) adapted for British general practice
Richard Meakin and John Weiman*

Meakin R and Weiman J. The ‘Medical Interview Satisfaction Scale’ (MISS-21) adapted for British general practice. Family Practice 2002; 19: 257–263.

Background. The 29-item ‘Medical Interview Satisfaction Scale’ (MISS-29) was developed in the USA to assess patient satisfaction with individual doctor-patient consultations. It has been used in studies from British general practice. However, there is limited evidence for its psychometric properties in this population.

Objectives. The present study was designed to examine the validity, reliability and applicability of the MISS-29 in British general practice populations.

Methods. The study was divided into two phases. The first investigated the properties of the MISS-29 in a UK general practice population and resulted in a modified MISS (MISS-21). The second investigated the properties of the MISS-21 in a wider UK general practice population. In phase 1, 150 patients over 16 years were recruited sequentially from patients attending a large group practice in suburban north London. Patients completed a questionnaire which collected demographic data and the MISS-29. In phase 2, 168 patients with a new problem were recruited from patients over 16 years consulting 18 GPs in north London, Essex and Suffolk. Patients completed a questionnaire while waiting to see the doctor; this collected demographic data and included six separate items, designed by the author, intended to measure patient satisfaction with previous consultations with the doctor; the patients completed the MISS-21 when they left the doctor’s consulting room.

Results. The response rates for the phase 1 and phase 2 studies were 76.8% and 72.8%, respectively. Factor analysis, using principal component analysis with a varimax rotation, of the data collected in phase 1 resulted in a 21-item scale with the same four subscales as the original MISS-29. Correlations between subscales range from 0.48 to 0.58. Values of Cronbach’s alpha between 0.67 and 0.92 suggest that the subscales are internally consistent under the conditions of the study. In phase 2, 92.1% completed all the items in the MISS-21 and there were no significant relationships between patients’ demographic variables and the proportion of completed MISS-21 questionnaires, nor were there any differences in the proportion of completed MISS-21 questionnaires between type of practice or between practices serving different geographic populations. These findings suggest that the items were acceptable to patients. There were 31 items with positive correlations (0.21–0.63) between scores on the MISS-21 and all aspects of satisfaction with previous consultations, providing supportive evidence for the construct validity of the MISS-21.

Conclusion. This study has demonstrated that the use in British general practice of the 29-item MISS developed in the USA should be treated with caution. However, a new 21-item version with the same four subscales as the 29-item MISS was developed which has satisfactory internal reliability. The correlations between subscales suggest that they represent fairly discrete but overlapping aspects of satisfaction. Evidence is produced suggesting that patients have less difficulty completing the MISS-21 and that it is applicable for assessing satisfaction with the consultation in different practice types and populations in the UK. Limited data supporting the construct validity of the MISS-21 are presented. While this study does not provide a full assessment of the MISS-21, we believe it provides evidence for its psychometric properties, which suggests that it is a valid and reliable instrument for the assessment of patient satisfaction with individual consultations in British general practice.

Keywords. Consultation, general practice, Medical interview satisfaction scale, patient satisfaction.

Appendix 1. The MISS-21

The patient is asked to indicate their level of agreement on a 7-point Likert scale. Very strongly disagree = 1 Strongly disagree = 2 Disagree = 3 Uncertain = 4 Agree = 5 Strongly agree = 6 Very strongly agree = 7

1 The doctor told me just what my trouble is. (DR)
2 After talking with the doctor, I know just how serious my illness is. (DR)
3 The doctor told me all I wanted to know about my illness. (DR)
4 I am not really certain about how to follow the doctor’s advice. (CC)
5 After talking with the doctor, I have a good idea of how long it will be before I am well again. (DR)
6 The doctor seemed interested in me as a person. (R)
7 The doctor seemed warm and friendly to me. (R)
8 The doctor seemed to take my problems seriously. (R)
9 I felt embarrassed while talking with the doctor. (CC)
10 I felt free to talk to this doctor about private matters. (R)
11 The doctor gave me a chance to say what was really on my mind. (R)
12 I really felt understood by my doctor. (R)
13 The doctor did not allow me to say everything I had wanted about my problems. (CC)
14 The doctor did not really understand my main reason for coming. (CC)
15 This is a doctor I would trust with my life. (R)
16 The doctor seemed to know what I was doing. (R)
17 The doctor has relieved my worries about my illness. (DR)
18 The doctor seemed to know just what to do for my problem. (DR)
19 I expect that it will be easy for me to follow the doctor’s advice. (CI)
20 It may be difficult for me to do exactly what the doctor told me to do. (CI)
21 I’m not sure the doctor’s treatment will be worth the trouble it will take. (CI)

DR = Distress Relief subscale; CC = Communication Conflict subscale; R = Rapport subscale; CI = Compliance intent subscale.
Patients’ Ratings of Outpatient Visits in Different Practice Settings: Results From the Medical Outcomes Study

Rubin, Haya R.; Gandek, Barbara; Rogers, William H.; Kosinski, Mark; McHorney, Colleen A.; Ware, John E. Jr

From the Departments of Medicine and Health Policy and Management and the Program for Medical Technology and Practice Assessment, The Johns Hopkins Medical Institutions, Baltimore, Md (Dr Rubin); The Health Institute, New England Medical Center Hospitals, Boston, Mass (Ms Gandek, Mr Kosinski, and Drs McHorney and Ware); RAND, Santa Monica, Calif (Dr Rogers). Reprint requests to The Johns Hopkins University, 1830 E Monument St, Suite 8015, Baltimore, MD 21205 (Dr Rubin).

Abstract

OBJECTIVE: To determine how patients in different kinds of practices—solo or single specialty (SOLO), multispecialty group (MSG), or health maintenance organizations (HMOs)—and with fee-for-service (FFS) or prepaid physician payment arrangements evaluate their medical care.

DESIGN: Survey of adult outpatients after office visits, with sample weighted to represent population of patients visiting physicians in each practice type.

SETTING: Offices of 367 internists, family practitioners, endocrinologists, cardiologists, and nurse practitioners, in HMOs (prepaid only), MSGs (prepaid and FFS), and SOLO practices (prepaid and FFS).

PATIENTS: Adults (N=17 671) at start of the Medical Outcomes Study.

All items had five possible responses ranging from excellent to poor. Evaluative responses were chosen because previous studies demonstrated that these are more related to important outcomes, such as intending to follow a physician’s advice and to return for care, than are patients’ “satisfaction” ratings [8]. Patients received either a manual or an optical scanning form (see Appendix in National Auxiliary Publications Service (NAPS) deposit). Information about the scale also is available elsewhere [24].

Responses were scored in two ways. First, scores were transformed linearly to a 0 to 100 scale, with 100 corresponding to “excellent” and 0 to “poor.” Second, we dichotomized item responses as “excellent” and “not excellent” because current theories of quality management and improvement recommend comparisons to best practices rather than to minimal standards [25]. As conclusions were consistent using both scoring methods, we present results using differences in the proportions of patients who rated care as excellent.

Data Analysis

Overall Ratings by System.—We tested for differences by system of care in patients’ overall ratings of the visit using data from all screened subjects and from the random half of the sample who also rated specific aspects of care. System differences in overall visit ratings by the two samples were compared to confirm that there was no chance bias in the random assignment of subjects to receive the specific rating form. We then examined specific features of care rated by the random half of the sample to determine the reasons for differences in overall ratings among the five systems of care in each city. We also determined whether the pattern of differences among systems of care was similar in each city.

Weighting for Sampling Probability and Clustering Effects.—To correct for the effects of unequal sampling probabilities in the MOS design, results were weighted to better represent the original population of providers and patients in each system. As detailed elsewhere, the weights adjust for the likelihood that a clinician participated and that a patient of a particular clinician was selected [26]. Estimates of standard errors of proportions of patients rating care as excellent were corrected for sampling patients of the same provider to avoid biasing these estimates toward zero.
Monitoring consumer satisfaction with Inpatient service delivery: the Inpatient Evaluation of Service Questionnaire

Thomas Meehan, Helen Bergen, Terry Stedman

Objective: To report on the development, testing and psychometric properties of a brief consumer satisfaction measure for use with psychiatric inpatients.

Method: Focus group discussions with inpatients were used to develop a pool of items related to satisfaction with hospital stay. A second cohort of 72 inpatients was invited to rate the 51 items that emerged for importance in contributing to satisfaction. Mean importance scores highlighted 20 items that were subsequently framed into neutrally worded statements. A draft questionnaire comprising these statements was introduced, on a trial basis, in a range of inpatient facilities.

Results: Factor analysis of 356 completed questionnaires yielded three factors comprising a staff-patient alliance; doctor/treatment issues; and an environmental component. Psychometric properties include good response variability and high internal consistency.

Conclusions: The Inpatient Evaluation of Service Questionnaire addresses many of the shortcomings of existing satisfaction measures. It was developed through extensive consumer involvement, is simply worded, easy to score and appears to perform well with acute and rehabilitation inpatients.

Key words: psychiatric inpatient, satisfaction, scale development.


Consumer feedback is now widely promoted in Australia as a means of informing the planning, delivery and evaluation of mental health services [1–4]. The value of including the patient’s perspective on the services provided is becoming increasingly recognized at a national and statewide level. The ‘measurement of patient satisfaction and patient experience of health services, particularly with respect to outcomes’ is one of the major activities outlined in the Quality Improvement and Enhancement Plan for Queensland Health [4]. Although there is no universally accepted method of assessing patient satisfaction, the use of self-completed questionnaires by patients is commonly employed.

The increasing use of satisfaction surveys in the mental health field has been driven by the move towards consumer participation, the need to provide data for quality assurance/accrual purposes and as a measure of treatment outcome [2,5]. While the results to monitor patient satisfaction has resulted in an exponential increase in the number of survey instruments available, many of these are poorly designed and suffer from questionable validity and reliability [6,7]. A recent review of satisfaction surveys in the US found that only 11% tested interim reliability and only 5% used factor analysis in their development [7].

The majority of instruments used in the mental health field have been developed through items generated by service providers [7]. In the absence of consumer input,

\[
\text{Factor} = a \times 0.51
\]

Consequently, the compiled items from both settings (n = 356) were combined and analysed in a single data set from that point.

To examine the response variability of the EQUS, the 20 scaled items were subjected to a factor analysis. The total score for the items showed good dispersion of responses: 16.6% responded with an average rating of ‘poor’, 19.7% ‘fair’, 35.7% ‘good’, 14.7% ‘very good’, and 13.3% ‘excellent’. The single item rating ‘overall stay in this hospital’ correlated strongly with the total/named score of the other 20 items (Pearson’s r = 0.7826; p < 0.005).

Principal components factor extraction (set at 0.40) with varimax rotation resulted in three factors with eigenvalues greater than one: 0.36, 0.29 and 0.21. Considered together, the three factors accounted for 54% of the total variance. Factor 1, accounting for 46.5% of the variance (Cronbach’s alpha = 0.930), and describes a staff-patient alliance. In particular, the information and explanations given to patients by staff, the respect shown by staff, the availability of staff, the quality of service from nurses and the opportunity to be involved in decisions about treatment were important contributors to this alliance. The second factor accounting for 6.5% of the variance with an alpha (0.739) focused on the treatment environment (cleanliness, privacy, food) and the activities provided for patients. The third factor (accounting for 4.0% of the variance with an alpha 0.400) describes a medical component and comprised items relating to the doctor’s availability and quality of service, as well as explanations about treatment and the way treatment was perceived by the patients to meet their needs. A reliability analysis for the total scale suggests good internal consistency (Cronbach’s alpha = 0.931) with no deletion of items considered necessary or appropriate. The factor loadings are reported in Table 1.

**Discussion**

Ethical clearance for the present study was obtained from each of the hospitals involved. While informed consent was obtained in writing from those patients who participated in the focus group discussions (phase I) and the importance ratings (phase II), written consent was not obtained from the 356 patients who completed the draft survey (phase III). At completion of the survey it was left to the discretion of individual patients who returned it anonymously, written consent from participants was deemed unnecessary.

<table>
<thead>
<tr>
<th>Item</th>
<th>Factor I</th>
<th>Factor II</th>
<th>Factor III</th>
<th>% of variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>The explanations given to you by the nurses about your care</td>
<td>0.79587</td>
<td>0.37256</td>
<td>0.08926</td>
</tr>
<tr>
<td>6</td>
<td>Availability of the nursing staff</td>
<td>0.73285</td>
<td>0.71540</td>
<td>0.58892</td>
</tr>
<tr>
<td>15</td>
<td>The attention the staff gave to your concerns and worries</td>
<td>0.84946</td>
<td>0.69832</td>
<td>0.68732</td>
</tr>
<tr>
<td>13</td>
<td>The respect you received from staff</td>
<td>0.69832</td>
<td>0.84946</td>
<td>0.84946</td>
</tr>
<tr>
<td>1</td>
<td>The information you received about the ward and the services provided when you were admitted</td>
<td>0.58892</td>
<td>0.58892</td>
<td>0.58892</td>
</tr>
<tr>
<td>8</td>
<td>The quality of the service provided by the nursing staff</td>
<td>0.84946</td>
<td>0.68732</td>
<td>0.84946</td>
</tr>
<tr>
<td>9</td>
<td>Availability of your primary nurse/ward coordinator</td>
<td>0.80242</td>
<td>0.80242</td>
<td>0.80242</td>
</tr>
<tr>
<td>10</td>
<td>Feeding you during your stay in hospital</td>
<td>0.84946</td>
<td>0.68732</td>
<td>0.84946</td>
</tr>
<tr>
<td>11</td>
<td>The information you received about your rights while in hospital</td>
<td>0.68732</td>
<td>0.84946</td>
<td>0.68732</td>
</tr>
<tr>
<td>14</td>
<td>The opportunity to be involved in decisions about your treatment</td>
<td>0.58892</td>
<td>0.58892</td>
<td>0.58892</td>
</tr>
</tbody>
</table>

**Table 1.** Factor loadings and variance explained by each factor

**Factor I:** Staff-patient alliance

**Factor II:** Satisfaction with environment

**Factor III:** Satisfaction with treatment

**Discussion**

Ethical clearance for the present study was obtained from each of the hospitals involved. While informed consent was obtained in writing from those patients who participated in the focus group discussions (phase I) and the importance ratings (phase II), written consent was not obtained from the 356 patients who completed the draft survey (phase III). At completion of the survey it was left to the discretion of individual patients who returned it anonymously, written consent from participants was deemed unnecessary.

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Measuring Patient Satisfaction with Incontinence Treatment

Graeme Hawthorne

Janet Sansoni

Laura Hayes

Nick Marosszeky

Emily Sansoni

1 Department of Psychiatry, The University of Melbourne
2 Centre for Health Service Development, University of Wollongong

Suggested citation

Appendix 2: Copy of the SAPS (Revised Items)*

Instructions: After reading each question, circle the answer that best describes your situation. We know that sometimes answers may not describe you exactly, so please pick the answer that most closely describes you. When you have finished, please check that you have answered all questions.

Q1. How happy are you with the effect of your treatment?
   - Very happy ......................................................... 0
   - Happy ................................................................ 1
   - Neither happy nor unhappy. ............................... 2
   - Unhappy ............................................................ 3
   - Very unhappy .................................................... 4

Q2. How satisfied are you with the explanations the {doctor/other health professional} has given you about the results of your treatment?
   - Very dissatisfied ................................................ 0
   - Dissatisfied ..................................................... 1
   - Neither satisfied nor dissatisfied......................... 2
   - Satisfied........................................................... 3
   - Very satisfied .................................................... 4

Q3. The {doctor/other health professional} was very careful to check everything when examining you.
   - Strongly agree .................................................... 0
   - Agree .................................................................. 1
   - Not sure ............................................................ 2
   - Disagree ........................................................... 3
   - Strongly disagree............................................... 4

Q4. How satisfied were you with the choices you had in decisions affecting your health care?
   - Very dissatisfied ................................................ 0
   - Dissatisfied ..................................................... 1
   - Neither satisfied nor dissatisfied......................... 2
   - Satisfied........................................................... 3
   - Very satisfied .................................................... 4

Q5. How much of the time did you feel respected by the {doctor/other health professional}?
   - All of the time...................................................... 0
   - Most of the time................................................. 1
   - About half the time............................................ 2
   - Some of the time............................................... 3
   - None of the time ................................................ 4

Q6. The time you had with the {doctor/other health professional} was not long enough.
   - Strongly agree .................................................... 0
   - Agree .................................................................. 1
   - Not sure ............................................................ 2
   - Disagree ........................................................... 3

Q7. Are you happy with the care you received in the {hospital/clinic}?
   - Very happy.......................................................... 0
   - Happy.................................................................. 1
   - Neither happy nor unhappy. ............................... 2
   - Unhappy ............................................................ 3
   - Very unhappy .................................................... 4

Scoring the SAPS:
1. Reverse the scores for #1, #3, #5, #7.
2. Sum all scores. The score range is from 0 (extremely dissatisfied) to 28 (extremely satisfied).

10 These items are the suggested items for the SAPS after text revision. The original items can be found in Appendix 3.
References


