

Development of an instrument for the measurement of doctor-patient relationship

M. Koutsossimou,¹ A. Liakos,¹ K. Adamidis,² V. Mavreas¹

1. Department of Psychiatry, University of Ioannina

2. School of Mathematics, University of Ioannina

The aim of the present study was to develop an instrument for the measurement of the doctor patient relationship, meeting appropriate psychometric standards. An initial review of questionnaires and surveys on doctor-patient relationship was therefore undertaken. Two separate forms of questioning were created consisting of 122 questions for doctors and 137 questions for patients, which were administered to a sample of 72 doctors and 461 patients in 461 meetings. Four different medical specialties participated: Psychiatry (N=126 meetings), Oncology (N=103 meetings), Cardiology (N=120 meetings), Orthopedics (N=112 meetings). In addition demographic and clinical characteristics were collected for each patient and doctor. Factor analysis was performed as an attempt to describe the doctor-patient relationship, in terms of few underlying but unobservable factors. For the extraction of factors the methods of Principal Axis Factoring, Maximum Likelihood and Generalized Least Squares with varimax rotations were employed and Principal Components as well. The choice of the number of factors requested was based on Kaiser's criterion, the scree plot, the portion of variance accounted by each factor, as well as the amount of total variance explained and the interpretation of each factor. Finally, factor scores were obtained using the Anderson-Rubin method and subsequently analyzed using the mixed two-way nested (hierarchical) design approach. Principal components did reveal 24 factors for doctors and 31 factors for patients, accounting for 73.315% and 70.8% of variance respectively. Analysis led to a revised version of the questionnaire, of 26 items, common for both doctors and patients. Based on Kaiser's criterion (.959) and scree plot results, 4 factors of relationship were extracted, accounting for 49% to 54% of the variance. However, a two-factor solution accounting for 45.24% of the variance was chosen, consisting of the positive and negative characteristics of doctor-patient relationship, resulting to a 16-item questionnaire. Reliability was measured by Cronbach's α , during the phase of the common questionnaire implementation, (with a value of 0.96 and 0.94 mentioned for the first week for a sample of 80 meetings of doctors (N=40) with patients (N=80), and a value of 0.94 and 0.93 respectively for a sample of 80 meetings of doctors (N=40) with patients (N=80), for the second week). Validity was measured by correlating items with a 1-10-analog scale and was found to be satisfactory. As a research tool applied to medical practice, it proved to be brief, understandable and easy to complete for both doctors and patients. Common questions for both sides might be of great importance for future research, based on a common communication code. As a research tool it could help define the styles of behaviors that lead to good, bad or neutral doctor-patient relationships, contributing to the measurement of the quality of the doctor-patient relationship.

Key words: *doctor-patient relationship, assessment methods, therapeutic relationship validity, reliability.*

BIBΛΙΟΓΡΑΦΙΑ

1. Luborsky L, McLellan T, Woody G, O'Brien CP, Auerbach A. Therapist success and its determinants. *Arch Gen Psychiatry* 1985, 42:602-611.
2. Horvath AO, Symonds BD. Relation between working alliance and outcome in psychotherapy: a meta-analysis. *Journal of Counseling Psychology* 1991, 38:139-149.
3. Priche S, Gruyters T. The role of the helping alliance in psychiatric community care: a prospective study. *J Nerv Ment Dis* 1993, 81:552-557.
4. Tomasz PA, Tang TZ, Derubeis RJ, Luborsky L. The factor structure of the Working Alliance Inventory in Cognitive-Behavioral Therapy. *The Journal of Psychotherapy Practice and Research* 2001, 10:173-178.
5. Bender W, Haag M, Greil W, Engel R. Compliance in Psychiatry: Development of a Patient Questionnaire. *Pharmacopsychiatry* 1986, 19:176-177.
6. Bowman M. Good physician-patient relationship = improved patient outcome? *J Family Practice* 1991, 32:136-138.
7. Fiester AR, Rudestam KE. A multivariate analysis of the early dropout process. *J Consult Clin Psychol* 1975, 43: 528-535.
8. Saltzman C, Luetgert MJ, Roth CU, Creaser J, Howard Student Counseling Service. Formation of a therapeutic relationship: Experiences during the initial phase of psychotherapy as predictors of treatment duration and outcome. *J Consult Clin Psychol* 1978, 44:546-555.
9. Alexander LB, Luborsky L. The Penn Helping Alliance Scales. In: Greengorg L, Pinsof W (eds): *The Psychotherapeutic Process: a Research Handbook*. Guilford Press, New York, 1986:325-366.
10. Σάντλερ Γ, Νταϊρη Κ, Χόλντερ Α. Αναλυόμενος και αναλυτής, η ανάπτυξη των ψυχαναλυτικών εννοιών. Πρίσμα, 1991. to Patient Rights, 2nd ed. Southern Illinois Press, Carbondale, IL, 1989:83-84.
24. Faden RR, Becker C, Lewis C, Freeman J, Faden AI. Disclosure of information to patients in medical care. *Medical Care* 1981, 19:718-733.
25. Mead N, Bower P. Patient-centredness: a conceptual framework and review of the empirical literature. *Social Science & Medicine* 2000, 51:1087-1110.
26. Robson C. *Experiment, Design and Statistics in Psychology*. 3rd ed. Penguin Books, 1994.
27. Likert R. A technique for the measurement of attitudes. *Arch Psychol (New York)* 1932, 140:44-53.
28. Horvath AO, Greenberg LS. Development and validation of the working alliance inventory. *J Counselling Psychol* 1989, 36:223-233.
29. Francis V, Korsch B, Morris M. Gaps in doctor-patient communication. *N Engl J Med* 1969, 280:535-538.
30. Buller MK, Buller DB. Physicians' communication style and patient satisfaction. *Journal of Health and Social Behavior* 1987, 28:375.
31. Ware JE, Davies-Avery A, Stewart AL. The measurement and meaning of patient satisfaction. *Health Med Care Services Rev* 1978, 1:1-15.
32. DiMatteo MR, Taranta A, Friedman HS, et al. Predicting patient satisfaction from physicians' nonverbal communication skills. *Medical Care* 1980, 18:376-387.
11. Bowlby J. *Attachment and Loss: Attachment*. Basic Books, New York, 1969/1982.
12. Donati P. Modelli e trasformazioni del rapporto medico-paziente. *Manuale di Sociologia Sanitaria La Nuova Italia Scientifica*, 1991:53-65.
13. Parsons T. *The Social System*. The Free Press, Glencoe, IL, 1951.
14. Szasz TS, Hollender MH. A contribution to the philosophy of medicine: the basic models of the doctor-patient relationship. *Arch Intern Med* 1956, 97:585-592.
15. Grelidson E. Client control and medical practice. In: Jaco E (ed): *Patients, Physicians and Illness*, cap. 15. Free Press, New York, 1972.
16. Katz E, Gurwitch M, Tsiyona P, Danet B. Doctor-patient exchanges: a diagnostic approach to organizations and professions. *Human Relations* 1967, 22:309.
17. Bales RF. Interaction process analysis. In: Sills DL (ed): *International Encyclopedia for the Social Sciences*, vol. 7. Mcmillan and the Free Press, 1968.
18. Stiles WB. Verbal response-modes and dimensions of interpersonal roles: a method of discourse analysis. *Journal of Personality and Social Psychology* 1978, 36:693.
19. Rost K, Roter D, Bertakis K, Quill T. The Collaborative Study Group of the SGIM, Task Force on the Doctor and Patient. *Family Medicine* 1990, 22:453-457.
20. Martin AR. Exploring patient beliefs. *Arch Intern Med* 1983, 143:1773-1775.
21. Armstrong D. What do patients want? Someone who will hear their questions. *Br Med J* 1991, 3:303-261.
22. Van Putten T. Why do schizophrenic patients refuse to take their drugs? *Arch Gen Psychiatry* 1974, 31:67-72.
23. Annas GJ. *The Rights of Patients: the Basic ACLU Guide*
33. Bartlett EE, Grayson M, Barker R, Levine DM, Golden A, Libber S. The effects on physician communication skills on patient satisfaction, recall and adherence. *J Chron Dis* 1984, 37:755-764.
34. Brody DS, Miller SM, Lerman GE, Smith DG, Lazaro CG, Blum MJ. The relationship between patients' satisfaction with their physicians and perceptions about interventions they desired and received. *Medical Care* 1989, 27:1027-1035.
35. Dazord A, Gerin P, Jahns JF, Andreoli A, Reith B, Abersur J. Pretreatment and process measures in crisis intervention as predictors of outcome. *Psychotherapy Res* 1991, 1:135-147.
36. Dazord A, Augier-Astolfi F, Guisti P, Frot-Coutaz E. Quality of life and socio-professional rehabilitation: study on patients with chronic mental diseases. *Eur Psychiatry* 1996, 11:277-285.
37. Dazord A. Assessing psychotherapy outcome: the state of the art. *Manage of Perish: the challenges of Managed Health Care in Europe*, 1999.
38. Rees AM. Communication in the physician-patient relationship. *Bulletin of the Medical Library Association* 1993, 81:1-10.
39. Domenighetti G, Casabianca A, Gutzwiller F, Martinolis. Revisiting the most informed consumer of surgical services – The physician-patient. *Int J Technology Assessment Health Care* 1993, 9:505-513.