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Predictors of Satisfaction with Care in Romanian Patients with Type 2 Diabetes

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Abstract

Diabetes mellitus involves difficult lifestyle adjustments, and requires long-term treatment. This study investigates the contribution of patient clinical condition, socio-demographics, frequency of attendance, and disease related self-efficacy on Type 2 diabetes's satisfaction with care. Eighty-five outpatients, diagnosed with Type 2 diabetes completed the Patient Satisfaction Questionnaire, the Diabetes Empowerment Scale, and a demographic questionnaire. Multivariate regression revealed that disease severity, frequency of visits, and self-efficacy were significantly related with patient satisfaction. Findings indicate that efforts to achieve a higher level of satisfaction should be directed towards patients in the primary stages of illness, and towards patients with low levels of self-efficacy.

Keywords: Patient satisfaction, Type 2 diabetes, chronic illness, quality of care;

1. Introduction

Chronic diseases are the primary cause of mortality and morbidity in Europe, and research suggests that complex conditions such as diabetes will enforce an even higher burden in the future (Busse, Blumel, Scheller-Kreinsen & Zentner, 2010). In 2008, Health Consumer Powerhouse (HCP) published its report on the performance of diabetes care provision in the European Union, stating that all European countries, and especially Eastern European countries, need to improve their diabetes care (Cebolla & Bjornberg, 2008). The same report, ranked the Romanian diabetes care as the 26th among 29 countries, based on five quality of care indicators: 1) information, consumer rights, and choice, 2) economic support, 3) prevention, 4) access to procedures, and 5) outcomes. The Romanian health system faced major problems concerning diabetes care on all assessed indicators, but especially regarding prevention strategies (e.g., blood sugar and cholesterol check-up), access to medical procedures (e.g., lack of trained diabetes nurse practitioners), and information, consumer rights, and choice (e.g., patient participation in health care decisions) (Cebolla & Bjornberg, 2008). In addition, Romania does not provide enough economic support for diabetic patients (Cebolla & Bjornberg, 2008). Although the budget allocated by the Romanian Ministry of Health for diabetes care has increased in the last 10 years more than 9.5 times, from 32,053 thousand RON to 398,017 thousand RON (Morgovan, Cosma, Ghibu, Burta, Bota & Polinicencu, 2010), Romania spends less on diabetes care than any other country in the European Union (Nolte & McKee, 2010). This under funding could be putting patients at risk (Zhang, Zhang, Brown, Vistisen, Sicree, Shaw et al., 2010).

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Nevertheless, it is commonly accepted that chronically ill patients have specific needs, different from those of the patients with acute diseases (Wild, Roglic & Green, 2004). Patients with diabetes should strive to obtain and integrate information from health professionals with different specializations, to adhere to treatment, to monitor their health, and to make appropriate care decisions (Clark, 2003). Therefore, diabetes mellitus requires a multifaceted response from the patient over long time intervals. As stated by the World Health Organization (WHO), the fundamental problem that leads to deficiencies in chronic conditions care is the inability of the current health system - largely organized according to an acute disease model - to meet the specific needs of chronically ill patients (Nolte & McKee, 2010). In this light, successful diabetes care demands not only efficacious tests and treatments, but also a patient-centred practice, specifically designed to help patients manage their condition and optimize health outcomes (Wagner, Austin, Davies, Hindmarsh, Schaefer & Bonomi, 2001).

The above circumstances motivated us to conduct the current study with the aim of investigating the contribution of the patient´s clinical condition (disease duration, disease severity, and the presence of comorbidity), patient socio-demographics (age, education, and residence), frequency of attendance, and disease related self-efficacy on Type 2 diabetes's satisfaction with the quality of care.

2. Methods

2.1. Participants and procedures

The study sample consisted of eighty-five patients diagnosed with Type 2 diabetes, regular attendees at a public outpatient diabetes clinic in Cluj-Napoca, Romania. The data were collected anonymously, through face-to-face structured interviews in the clinic.

Participants ranged from 40 to 79 years of age (M = 59.54; SD = 8.38). In terms of gender, 71.8% were females. Seventy three percent of the respondents reported living in urban areas. Half of the participants had a high school education, 32.9% had primary studies and 16.5% reported university diploma. Concerning the frequency of attendance for diabetes care during the previous year, a little over half of the respondents had between 4-5 visits, 40% had between 2-3 visits, 4.7% had between 6-7 visits, 1.2% had between 8-9 visits, and 1.2% had 10 medical visits. With reference to diabetes severity, 43.5% of the patients were already treated with insulin. Participants ranged in diabetes duration from 1 to 27 years of diabetes (M = 8.5; SD = 6.5). A little over eighty-four percent of the respondents reported having at least one chronic disease beside diabetes.

2.1.1. Instruments

The socio-demographics characteristics measured were: age (in years), education (primary studies, high school education, university diploma) and residence (urban/rural). Clinical factors assessed were the presence of co-morbidity (yes or no), disease duration (years) and disease severity (treatment with insulin). The number of medical visits for diabetes during the previous year was also recorded.

Self-efficacy was assessed using the Diabetes Empowerment Scale (DES) (Anderson, Funnell, Fitzgerald & Marrero, 2000). The DES (twenty-eight items) questionnaire measures the psychosocial self-efficacy of people with diabetes on three subscales: Managing the psychosocial aspect of diabetes (nine items; e.g. "In general, I believe that I can cope well with diabetes related stress", α = 0.71), Assessing dissatisfaction and readiness to change (nine items; e.g. " In general, I believe that I can tell how I´m feeling about caring for my diabetes", α = 0.77), and Setting and achieving diabetes goals (ten items; e.g. " In general, I believe that I can choose realistic diabetes goals", α = 0.77). All items are scored on a five-point scale from 1 (strongly disagree) to 5 (strongly agree).

Patient satisfaction with medical care was evaluated using the Patient Satisfaction Questionnaire III (PSQIII) (Hays, Hayashi & Ware, 1987). The 51 items in PSQIII are used to score seven multi-item subscales: General satisfaction (six items; e.g. "The medical care I have just being receiving is just about perfect", α = 0.71); Technical quality (ten items; e.g. "I have some doubts about the ability of the doctors who treat me", α = 0.74); Interpersonal aspects (seven items; e.g. "My doctors treat me in a very friendly and courteous manner", α = 0.65); Communication (five items; e.g. "doctors sometimes ignore what I tell them", α = 0.51); Financial aspects (eight items; e.g. "I have to pay for more of my medical care than I can afford", α = 0.75); Time spent with doctor (two items; e.g. "Doctors

usually spend plenty of time with me", α = 0.57); and Access/availability/convenience (twelve; e.g. "I have easy access to medical specialist I need", α = 0.64). All items are scored on a five-point scale from 1 (strongly disagree) to 5 (strongly agree).

3. Results

3.1. Descriptive statistics

The results regarding the association between patient characteristics variables and the various subscales of the PSQIII (Table 1) indicated that: diabetes severity (insulin treatment), obtaining psychological support, managing stress, and frequency of medical visits during previous year reached significance at the $p < 0.05$ level and were considered as covariates in the multiple regression analysis.

Table 1. Means (M), standard deviations (SD) and correlations between all variables and patient satisfaction dimensions (N=85).

Variables	M	SDs	GSAT	TECH	INTER	COMM	FINAN	TIME	ACCESS
Age	59.54	8.38	.039	.103	.005	.129	.051	-.067	.164
Education	--	--	-.180	-.046	.032	-.150	-.010	-.055	-.140
Residence	--	--	.088	.127	-.015	.047	.024	.041	-.016
Frequency of attendance	--	--	.142	.191	.083	.214*	-.204	.090	.111
Insulin	--	--	.136	-.223*	-.149	-.206	.027	-.258*	-.230*
Co-morbidity	--	--	.063	.035	-.022	.026	.064	.012	.061
Disease duration	8.5	6.5	.142	.164	.039	.146	.103	.053	.080
Obtaining psychological support	4.53	.52	.222*	.219*	.128	.160	.159	.198	.080
Managing stress	4.46	.61	.195	.330**	.264*	.336**	.133	.343**	.066
Goal setting	4.27	.67	.105	.090	.021	.112	.202	.129	.153
GSAT	20.81	4.96	--	.623**	.577**	.607**	.453**	.475**	.572**
TECH	42.54	6.63	--	--	.700**	.653**	.319**	.626**	.447**
INTER	30.80	5.03	--	--	--	.607**	.292**	.650**	.476**
COMM	21.87	3.33	--	--	--	--	.309**	.553**	.432**
FINAN	28.52	7.73	--	--	--	--	--	.287**	.493**
TIME	8.87	1.83	--	--	--	--	--	--	.338**
ACCESS	45.29	7.05	--	--	--	--	--	--	--

Education (primary=1, secondary=2, high=3); residence (urban=0, rural=1); insulin (no=0, yes=1); co-morbidity (no=0, yes=1). GSAT=General Satisfaction, TECH=Technical Quality, INTER=Interpersonal Aspects, COMM=Communication, TIME=Time spent with doctor. **p <0.01; * p <0.05.

3.1.1. Multiple regression analyses

Table 2 presents the results of multiple regression analyses using General satisfaction, Technical quality, Interpersonal aspects, Communication, Time spent with doctor, and Access/availability/convenience subscales of the PSQIII as the dependent variables.

Table 2. Results of multiple (linear) regression analyses of variables associated with patient satisfaction dimensions(N=85)

Variable	GSAT	TECH	INTER	COMM	TIME	ACCESS
	B	B	B	B	B	B
Age	.025	.062	.062	.081	-.117	.172
Education	-.179	-.016	-.016	-.073	-.025	-.122
Insulin	-.210*	-.176	--	--	-.189	-.238*
Obtaining	.209*	.069	--	--	--	--

psychological support						
Managing stress	--	.248*	.248*	.312**	.327**	--
Frecvency of attendance	--	--	--	.201*	--	--
R² (R² adjusted)	.128(.085)	.143(.089)	.075(.041)	.169(.127)	.170(.129)	.100(.067)
F	2.94*	2.64*	2.18	4.06**	4.10**	3.00*

**p <0.01; * p <0.05.

The findings revealed that, adjusted for age and education, patients in early stages of diabetes (without insulin treatment) were significantly less satisfied with medical care in general (B = - 0.21, p < 0.05) and with the access to the care component (B = - 0.23, p < 0.05). Patients who had more frequent medical visits during the previous year were significantly more satisfied concerning doctor-patient communication (B = 0.20, p < 0.05). In addition, the findings indicated that patients, who had high levels of diabetes-related self-efficacy, were more satisfied with medical care in general (B = 0.20, p < 0.05) and with the following care components: technical quality (B = 0.24, p < 0.05), communication (B = 0.31, p < 0.01), and time spent with the doctor (B = 0.32, p < 0.01).

4. Conclusion

Patients with diabetes must interact effectively with the health care system to obtain the necessary support to manage their illness (Anderson, Funnell, Fitzgerald & Marrero, 2000). The present study indicated that disease severity, disease related self-efficacy, and the frequency of attendance were highly related to Type 2 diabetes satisfaction with quality of care in an ambulatory setting.

The results of the present study suggest that, our population of diabetes patients was highly satisfied with the quality of care. Nevertheless, the findings revealed that patients in early stages of diabetes (without insulin treatment) were significantly less satisfied with medical care in general and with the access to care components. Previous studies on chronically ill patients' satisfaction have reported an opposite tendency – greater disease severity leads to lower levels of patient satisfaction (Hack, Pickles, Ruether, Weir, Bultz & Degner, 2009; Serber, Cronan & Walen, 2003). These differences could be attributed to the characteristics of the Romanian health system marked by rapid transformations, which were paralleled by difficulties in maintaining high quality services, especially in the public health sector (Baban, Balazsi, Bradley, Rusu, Szentagotai et al., 2005). One hypothesis would be that health professionals give priority to patients with a greater disease severity due to the saturation of the secondary health care level. In addition, the number of physicians in Romania is low (1.9/1000 population) compared with the European Union average (3.4/1000 population) (Vladescu, Scîntee & Olsavszky, 2008). A diabetes care focused on the secondary level is likely to create a lack of accessibility to medical services (European Forum for Primary Care, 2006). The literature suggests that early diagnosis and intensive treatment of the persons who have the disease will lead to a reduced prevalence of complications and improved long-term prognosis (Farmosa, Mandy & Lucas, 2011). Due to the rising diabetes prevalence, ensuring the accessibility to care for all diabetes patients will be most easily achieved in primary care with a pivotal role for the family physician (European Forum for Primary Care, 2006).

In addition, the results indicated that patients who had more medical visits during the previous year were more seriously ill. Those patients were significantly more satisfied concerning doctor-patient communication. Although in this study we did not control the extent to which a large number of meetings resulted from the initiative of the doctor or of the patient, this factor was identified as an indicator of the physician-patient relationship intensity.

Another finding of the present study is that patients who perceived that they had an active role in managing diabetes (obtain social support, were self-motivating, and determined when they are ready to change their diabetes self-management plan), were more satisfied with technical quality, communication, and time spent with the doctor - demonstrating that psychosocial variables are important in determining patient satisfaction with quality of care (Serber, Cronan & Walen, 2003).

The study has several limitations. First, we used a cross-sectional design and thus the postulated relationships cannot be interpreted causally. Second, the recruitment of the participants may have an impact on results. In the

present study one may argue that the participants who accepted the interview are those who were satisfied with the quality of care. Future efforts require prospective longitudinal designs with larger samples to determine the patient, physician and contextual factors that shape patient satisfaction with care.

To conclude, the results strongly suggest that efforts to achieve a higher level of satisfaction should be directed mainly towards patients within the primary stages of illness, but also towards patients with low levels of self-efficacy.

Acknowledgements

References

Anderson, R.M., Funnell, M.M., Fitzgerald, J.T., & Marrero, D.G. (2000). The Diabetes Empowerment Scale: A measure of psychosocial self-efficacy. Diabetes Care, 23, 739 - 743.

Baban, A., Balazsi, R., Bradley, J., Rusu, C., Szentagotai, A., & Tataru, R. (2005). Psychosocial and health system dimensions of cervical screening in Romania. Cluj-Napoca, Romania: Romanian Association of Health Psychology, Department of Psychology, Babes-Bolyai University, Engender-Health.

Busse, R., Blumel, M., Scheller-Kreinsen, D., & Zentner, A. (2010). Tackling chronic disease in Europe. Strategies, Interventions and challenges. European Observatory on Health Systems and Policies.

Cebolla, B., & Bjornberg, A. (2008). Euro Consumer Diabetes Index. Report: Health Consumer Powerhouse.

Clark, N.M. (2003). Management of chronic disease by patients. Annual Review of Public Health, 24, 289 - 313.

European Forum for Primary Care (2006). The management of chronic care conditions in Europe with special reference to diabetes: the pivotal role of Primary Care. Position paper. Netherlands, www.euprimarycare.org

Farmosa, C., Mandy, A., & Lucas, K. (2011). Identifying changes in diabetes care. Practical Diabetes International, 28, 31-34.

Hack, T., Pickles, T., Ruether, J.D., Weir, L., Bultz, B.D., & Degner, l.F. (2009). Behind closed doors systematic analysis of breast cancer consultation communication and predictors of satisfaction with communication. Psycho-Oncology, 19, 626 - 636.

Hays, R.D., Hayashi, T., & Ware, J.E. (1987). Multitrait-multimethod analyses of patient satisfaction measures. Paper presented at the meeting of the Western Psychological Association, Long Beach, CA.

Morgovan, C., Cosma, S., Ghibu, S., Burta, C., Bota, M., & Polinicencu, C. (2010). Study of diabetes mellitus care cost in Romania during 2000-2008. Fundamental & Clinical Pharmacology, 24, 92 – 98.

Nolte, E., & McKee, M. (2010). Caring for people with chronic conditions, A Health System Perspective. European Observatory on Health Systems and Policies Open University Press.

Serber, E.R., Cronan, T.A., & Walen, H.R. (2003). Predictors of patient satisfaction and health care cost for patients with fibromyalgia. Psychology and Health, 18, 771 - 787.

Vladescu, C., Scîntee, G. & Olsavszky, V. (2008) Health systems in transition: Romania. European Observatory on Health Systems and Policies, 10, 1 - 172.

Wagner, E.H., Austin, B.T., Davis, C., Hindmarsh, M., Schaefer J., & Bonomi, A. (2001). Improving Chronic Illness care: Translating evidence into action. Health Affaris, 20, 64 - 78.

Wild, S., Roglic, G., & Green, A. (2004). Global Prevalence of Diabetes. Diabetes Care, 27, 1047 – 1053.

Zhang, P., Zhang, X., Brown, J., Vistisen, D., Sicree, R., Shaw, J., & Nichols, G. (2010). Global healthcare ependiture on diabetes for 2010 and 2030. Diabetes Research and Clinical Practice, 87, 293 - 301.