Questionnaire Development for the Measurement of Patients' Attitudes Toward Renal Transplantation

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ABSTRACT

Objective. The aim of this work was the exploration of chronic renal insufficiency patients' attitudes toward treatment, various motifs underlying their acceptance or refusal of kidney therapy, and understanding of their psychologic content. Examinations were carried out of chronic renal insufficiency patients' attitudes toward renal treatments, and a questionnaire suitable for its assessment was developed.

Methods. Suppositions of patients before and after renal transplantation were explored by means of semistructured interviews. The content-based analysis of the interview narratives revealed the system of content-categories, which we fitted with attitude questions. Transplant patients took part in the trial of the questionnaire, and the statistical analysis of their replies revealed specific variations in patients' attitudes toward transplantations.

Results. The results of the principal component analysis classified the replies of transplanted patients into 8 categories for interpretation: hope of recovery, effects of dialysis in deterioration of quality of life, mistrust of transplantation, refusal, anxiety in the run-up phase to transplantation, difficulty in acceptance of the disease and transplantation as a treatment, fears of living-donor transplantations, acceptance of transplantation, and curiosity about dead donors.

Conclusions. Our research explored attitude variances among patients for and against transplantations. A good understanding of patients' attitudes (the exploration of valid and invalid assumptions) might exert a positive influence on patient decisions, and might improve their attitude toward their treatment and their adherence from preparation for the operation to the postoperative phase of recovery.

CHRONIC renal failure is a significant public health issue all over the world. In Hungary, similarly to the industrialized world, the number of dialysis patients is higher year by year, with a 6%–8% rate of annual growth [1]. Moreover, the fact that patients on the transplant list amount to a lower proportion of end-stage renal failure sufferers poses a global problem.

In Hungary, this is especially true, because ~15%–20% of patients choose the alternative of transplantation. Against this number, the percentage of patients willing to undergo living-donor transplantation is insignificant, although that would be the most optimal solution in the treatment of end-stage renal failure. Hungary became a full member of Eurotransplant in July 2014, which raised the number of transplants by 16%–17% [2]. In 2014, cross-donor transplantation, widely used in several countries for years, also became an option in our country. To keep pace with fast developing practices of medical science and to provide patients with the most suitable personal treatment

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possible, the assessment of their attitude and judgement toward various procedures is crucial. All the above enable researchers to extend the knowledge base of factors that psychologists may address to make patients' decision making easier.

In Debrecen, an education program called "Gerundium" has been developed recently to promote the education of secondary school students by medical students in the context of transplantation. One of the objectives of this program is also to increase the number of living-donor transplantations [3].

MODALITY SELECTION

The past decade saw a growing interest in decision making on renal replacement therapy. Related research, focusing primarily on post-dialysis patients, was carried out mostly in North America and Central Europe. Scientific information on patient attitudes toward kidney transplant listing is incomplete [4]; knowledge and understanding of the factors influencing decision-making options are lacking [5].

Patient preference toward kidney transplantation is a strong predictor for getting on the waiting list [6]. Preemptive transplantation is favorable in terms of patient and graft survival rates; therefore, the earliest possible decision making is recommended [7,8]. Most research seeks to explore knowledge on donor transplantation and donation. Similar research on recipients is uncommon in international research as well [9].

PATIENT ATTITUDES TOWARD TRANSPLANTATION

Despite the significance of the problem, investigations on the effects of patient attitudes on decision making are rare in international scientific literature. Negative perceptions regarding the disorder are predictors of mortality, and their impact on the outcome of treatments is the same as that of clinical parameters and comorbidity [10]. In her research, Margareta A. Sanner classified several groups in terms of individual attitudes toward transplantation and donation. Ambivalent attitude is mainly characteristic of patients with the belief that the transplant of the organ carries certain aspects of another person. Patients with more optimistic attitudes are those who regard humans as a machine, in contrast to those who believe that transplant surgery changes their postoperative personality [11]. Schlitt et al carried out research on transplant candidates and transplant patients regarding attitudes toward graft and donor; 62% of transplant patients considered the graft to be their own organ, 37% regarded it as a foreign organ now belonging to their body, and 1% considered it to be a foreign body; 40% of wait list patients assumed that they would perceive a graft as their own, and 5% thought their whole body would be foreign to them [12]. In several cases, scientific literature gives accounts on the refusal of living-donor transplantation by the majority of recipients, where the underlying motifs include distress about the other person and excruciating feelings of indebtedness [13]. Vámos et al performed studies with dialysis patients among renal transplant refusers who met other patients with negative treatment outcome in several cases, and found that these patients typically assumed unfavorable postoperative health status and had incorrect or missing information on the issue [14].

OBJECTIVES

The main purpose of the present study was to explore the attitudes of transplant candidates and thereby assess the obstacles in the path of clinical transplantation concerning their options, the acceptance or refusal of treatments and the underlying distress, misconceptions, and true and untrue information.

METHODS

On the basis of predefined criteria, semistructured interviews were performed with transplant patients and transplant candidates (23 patients). The content of the interviews was analyzed and the resulting definitive content units were evaluated. Content analysis identified 198 content groups regarding kidney replacement therapy and renal transplantation, classified into 18 groups. Subsequently, the certain content groups were evaluated by independent medical professionals to supervise the existence of cognitive-emotional coherence among them and the eligibility of their classification into uniform content-based groups. Following this selection, 133 content-based groups were broken down into 16 groups. Attitude questions were generated on the basis of the 133 content-based groups and used for investigations with the clinical samples. Patients were requested to use a 5-point Likert scale in their answers to assess their agreement with certain replies; 62 patients completed the questionnaire, and the resulting findings were statistically analyzed.

Analysis Sample

Our research was carried out among chronic renal failure patients in the Department of Transplantation, Institute of Surgery, Clinical Center, University of Debrecen, Hungary.

Patients on the transplant waiting list and transplant patients were interviewed, and the resulting questionnaires were completed by transplant patients. Sample inclusion criteria were end-stage renal failure patient or transplant patient 18–70 years of age. The distribution of the test sample is presented in Table 1.

Table 1. Distribution of Test Sample in Terms of Patients

Item	*n*	%
Female	23	37.1
Male	39	62.9
Hemodialysis	41	66.1
Peritoneal dialysis	9	14.5
Hemodialysis and peritoneal dialysis	3	4.8
No dialysis	6	9.7

	Min	Max	Mean	SD
Age, y	22	75	51.47	12.119
Time after surgery, y	0.5	23	7.983	6.4674
Time on dialysis, y	0	13	7.983	6.4674