Healthcare decision-making in end stage renal disease-patient preferences and clinical correlates

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Introduction

Medical decision-making is critical to patient survival and well-being. Healthcare decision-making is a highly complex process, the outcome of which is the interplay of several interrelated factors and not limited only to uncertainty in scientific evidence. As decision-making is affected by several factors, it is prone to error. Patients with end stage renal disease (ESRD) are faced with incrementally complex decision-making throughout their treatment journey.

The extent to which patients seek involvement in the decision-making process and factors which influence these in ESRD need to be understood. Understanding ESRD healthcare decision-making from a cognitive ability and psychological perspective is paramount due to their impact on life-changing decisions

Study objectives

In the present study, 'information-seeking' and 'decision-making' preferences are evaluated in a large group of ESRD patients.
We sought to
a) Describe the properties of Autonomy Preference Index (API) instrument in ESRD population.
b) Examine clinical, psychological and neurocognitive correlates of 'autonomous decision-makers' vs 'delegators' in ESRD.

Methods

The API study data are derived from data ascertained for the BASIC-HHD study (1), a multi-centre observational study on barriers and enablers of home haemodialysis. The API study had 535 patients enrolled in three groups. Predialysis patients for the CKD-5 group (group A), prevalent 'in-centre' HD patients (group B) and all self-care haemodialysis patients (93% at home) from each participating centre were also approached (group C).

The Autonomy Preference Index (2) was used to study patient preferences for information-seeking (IS) and decision-making (DM). This tool was developed and validated originally in a group of general medical patients. This tool consists of two subscales: an eight-item information-seeking subscale and a six-item decision-making subscale. The format of the responses is on a 5-point Likert scale. Scores for both domains are linearized to range from 0–100 (percentage scores), with higher scores indicating stronger preferences for participation.

In order to examine the potential impact of patient's affect and cognitive ability on their engagement with decision-making, additional instruments analysed in the present study are the Beck Depression Inventory II (BDI) and the State and Trait Anxiety Inventory (STAI). Participants underwent cognitive assessment using the modified mini-mental state examination (3MS), and trail making tests A and B (TMTA/TMTB) scores. The scores from these instruments were considered in ordered categories for analyses: BDI (0-10, 11-15, 16-20, 21-25, 26-30, 31+), STAI (20-29, 30-39, 40-49, 50+) and 3MS (94-100, 86-93, 81-85, 76-80, ≤75).

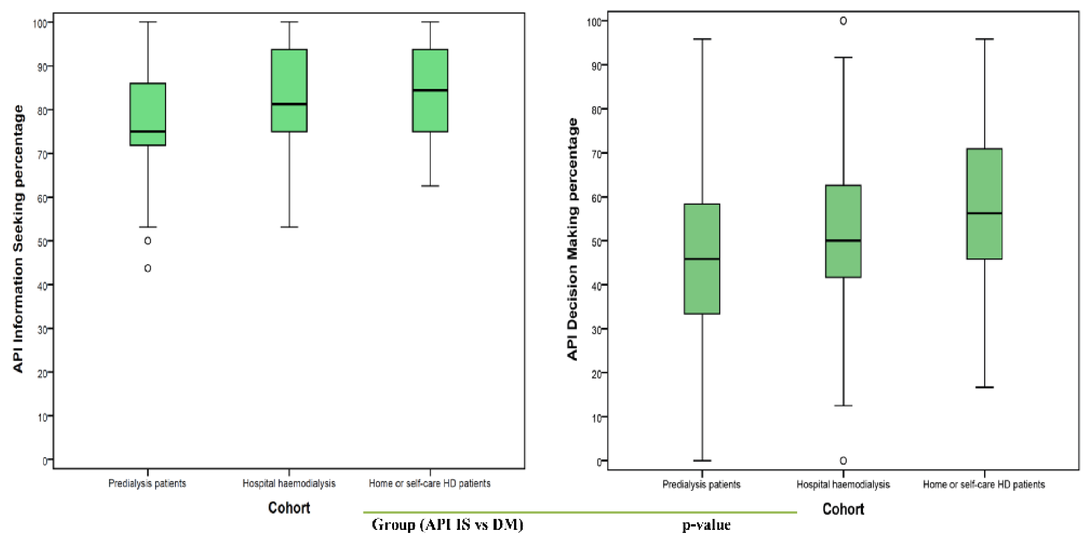
Results

API in ESRD population

The internal consistency of the items in the API, in our study population using Cronbach's alpha was satisfactory for both information-seeking (Cronbach's alpha=0.774) and decision-making (Cronbach's Alpha=0.714) subscales.

Results

Median scores for the IS and DM subscales



Group (API IS vs DM)	p-value
Overall	<0.001
Predialysis	<0.001
In-centre HD	<0.001
Self-care HD	<0.001

MULTIVARIATE LINEAR REGRESSION ANALYSIS: DECISION-MAKING SUBSCALE			
Variable		Parameter estimate (95% CI)	p-value
Education	High school	-1.71 (-4.82, 2.48)	0.53
	Post high school	~	
Group	Predialysis	-8.41 (-12.85, 3.98)	<0.001
	In-centre HD	-1.78 (-6.22, 2.65)	
	Home HD	~	
Gender	Male	-3.27 (-6.55, 0.00)	0.050
	Female	~	
Marital Status	Married or Partner	9.03 (3.08, 14.98)	0.014
	Single	5.62 (-1.28, 12.51)	
	Divorced/Separated	6.78 (-0.85, 14.42)	
	Widowed	~	
Age (per 10 years)		-3.20 (-4.49, -1.91)	<0.001
Ethnicity	White	10.43 (5.07, 15.78)	<0.001
	Non-white	~	
API (Information Seeking %)	≤75	-3.54 (-6.73, -0.35)	0.030
	>75	~	

MULTIVARIATE LOGISTIC REGRESSION ANALYSIS: INFORMATION-SEEKING SUBSCALE			
Variable		Odds ratio (95% CI)	p-value
Education	High school	1 (-)	0.032
	Post high school	1.66 (1.05, 2.65)	
Cohort	Predialysis	1 (-)	0.011
	In-centre HD	1.74 (1.13, 2.68)	
	Home HD	2.04 (1.17, 3.56)	
Age (per 10 years)		0.86 (0.74, 0.99)	0.037
BDI in 6 categories (per category increase)*		1.14 (1.00, 1.29)	0.042

Conclusions

ESRD patients prefer to receive information, but this does not always translate into active involvement in decision-making.

This may not be acceptable or appropriate for everyone and the patient may choose to determine the extent to which they seek involvement.

By identifying factors which might affect patient preference for involvement, health professionals may move away from a normative, 'one size fits all' approach, be more sensitive to individual patient's preferences and provide better patient-centred; individual-appropriate care.

Bibliography

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