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PERSONALITY AND COPING STRATEGIES IN KIDNEY PATIENTS (*)

J.I. Capafóns
V. Pelechano
C.D. Sosa

Department of Personality, Assessment and Psychological Treatments
UNIVERSITY OF LA LAGUNA (Canary Islands-Spain)

INTRODUCTION

One of the recent developments in personality psychology has been called Health Psychology. Greater spaces has been devoted to the two problems of hypertension and cancer over the last 25 years. Unfortunately the results achieved in this area of knowledge have not come up to expectations, for various reasons, which in our opinion, are the following: (i) The greater number of published studies has been carried out from an "applied" stand-point and have given rise to what we have described in a previous study as "alphabet personality" (type A, B, C..... personality); (ii) The development of health psychology has come about, ignoring to some extent academic personality psychology, and thus the urgency of assistence and the seriousness of the problems treated have made one forget basic questions, and so rigour in the analysis has been lost; (iii) Contemporary bibliography in psychology (and in Health Psychology in particular) is characterized by, among other things, a lack of historical sense which has made one

forget concepts, results and procedures which could be applied widely in the field of health psychology and (iv) the special attention given to cardiovascular disorders and to cancer have made one forget the necessary attention which ought to be paid to other kinds of problems such as renal disorders which given the evolution of the average life-span of people threatens to become a serious problem in the nex few years. Moreover, when the possibility of studying the interaction between functional systems within the medical sciences represent one of the challenges which the medical researcher must face.

Given that it is not posible to find a solution to all the questions raised, in this study we will try to illustrate that the above affirmations, despite their given radical content, are not far from the truth. In this study we have proposed the following objectives: (1) To present data with respect to differential psychology of the personality of renal and non-renal patients, albeit chronic. (2) To integrate "classic" dimensional instrumentation of personality with the "new", with the aim to evaluate possible redundancies which that might bring in the study of the sindrome that we have studied; (3) To study the possible "help" that the incorporation of the "classic" instrumentation of personality can provide in the gestation of a differential psychology of illness; (4) To offer data with respect to multivaried differentiation of types of factors, a differentation which makes possible not only a description of the actual state of affairs but also, likewise, a kind of intervention at a level of possible structural change in the patients's personality and (5) despite the inconcluded nature of our research, the results will help to strengthen or weaken (and we believe, will weaken), the series of alphabet personalities which populate specialized bibliography.

METHOD

Subjects

A total of 136 chronic adult patients (table 1), with a age range between 18 and 60 years old, formed the sample of this study. They were recruited from two major state hospitals of Santa Cruz de Tenerife, Canary Islands (Spain). As you can see in the table, this sample was divided into four groups:

- Group I was formed by patients whose principal diagnosis was only hypertension.
- Group II was formed by patients with end-stage renal disease treated with dialysis.
- Group III was formed by patients who have received renal transplant.
- Group IV was formed by patients with other chronic renal disorders. From now on these patients will be referred to as "other renal patients".

TABLE 1: PATIENTS SAMPLE

GROUPS	MALES N	MALES %	FEMALES N	FEMALES %	TOTAL N	TOTAL %
I. Hypertension patients	17	12,50	13	9,56	30	22,06
II. Dialysis patients	34	25,00	18	13,24	52	38,23
III. Trasplant patients	15	11,03	9	6,62	24	17,65
IV. Patients with others chronic diseases	16	11,76	14	10,29	30	22,06
Total	82	60,29	54	39,71	136	100

Procedure

Subjects were informed as to the objective of the reseach and they were asked to participate voluntarily. Given that this study is part of a larger research project on quality of life, subjects were given a larger number of instruments than those that we shall mention later, which implied a total amount of ten hours of individual interview (along three or four sessions).

Instruments

The instruments used can be seen in the following table (2). These are:

1. "Coping strategies questionnaire". It is formed by eight rational factors designed to assess adequate versus inadequate strategies for coping with illness.

2. "Rigidity questionnaire". This version is formed by three empirical factors which measure attitudinal rigidity dimensions in the social and labour worlds.

3. "Locus of control questionnaire". It is formed by three empirical factors: The first two measure external locus of control and the third one measures internal locus of control.

4. "Motivation and performance anxiety questionnaire". It is formed by six factors: the first four mesure motivation and the last two mesure performance anxiety.

5. And finally, we have employed the "extreme motivation performance questionnaire".It is an extreme motivational instrument, formed by two empirical dimensions which capture extreme overvalue and movement away from the daily social world.

RESULTS

We are going to present some of the results we have so far obtained:

1. In the first place we have done a factor analysis with the rational scales of the coping strategies questionnaire. This analysis should be taken cautiously, because this questionnaire is still in the process of psychometric study. In spite of its provisional character, this analysis is useful in giving us an overall picture.

2. In the second place, we have studied the differences between groups of patients in the eight rational scales of coping, to which we shall refer from now on as differential analysis on the coping scales.

3. Finally, we have studied the relationship between coping strategies, personality and motivational dimensions.

Factor analysis with the rationalscales of the coping strategies questionnaire

As can be seen in the following table (3), the varimax rotation offers two factors which account for sixty seven point two percent of the variance. The first factor is formed by the following scales: Optimism, search for solutions, search for help from others, search for information and feedforward escaping. This factor accounts for the 41.88% of the variance. Therefore, it is a factor about optimism with interest in the search for perspectives that allows the patient to face the illness.

The second factor accounts for 25.38% of the variance. It clusters areas of fearfulness and distrust, exoneration and self-blaming. Therefore, it is a factor charged with fatalism and emphasis on search for responsabilities for the current situation. Its scales reflect an attitude of continous looking upon the past and when the future is considered, it appears as short and bleak.

Although these two factors are not going to be employed as such in the subsequent analysis, they will be helpful for us as a tacit guide.

TABLE 2: INSTRUMENTS

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1. **COPING STRATEGIES QUESTIONNAIRE** based on LAZARUS and FOLKMAN (1984) and extended by PELECHANO
AF1: FEARFULNESS AND DISTRUST."I get hopeless and cry only for a while"
AF2: SEARCH OF INFORMATION. "I try to talk with specialists"
AF3: SEARCH OF SOLUTIONS. "After thinking about it thoroughly,I give to myself a pair of different solutions"
AF4: OPTIMISM. "I think that after all I am lucky"
AF5: SEARCH OF HELP FROM OTHERS."I tell it to the family so that they can help me"
AF6: SELF-BLAMING. "I think that I am the main responsable for the problem"
AF7: FEEDFORWARD SCAPING. "I focus on work or in other activity to forget about the problem"
AF8: EXONERATION."I think that my family is guilty for the distress they give me".

2. **R3-RIGIDITY QUESTIONNAIRE** (PELECHANO, 1972)
R1: EXTREME AND RIGID OVERVALUE OF THE LABORAL WORLD
R2: OVERWORK SELF-DEMAND AND CONTEMPT OF OTHERS
R3: OVERVALUE OF SOCIAL NORMS AND RIGID OBSEVATION OF DUTIES

3. **LUCAM-LOCUS OF CONTROL QUESTIONNAIRE** (PELECHANO y BAGUENA, 1983)
LUCAM1: FATALISM IN PERSONAL RELATIONSHIPS
LUCAM2: SELF-EXONERATION IN FAILURES
LUCAM3:SELF-RESPONSABILITY IN PERSONAL AND LABORAL SUCCESS

4. **MAE-MOTIVATION AND PERFORMANCE ANXIETY QUESTIONNAIRE** (PELECHANO, 1975)
MAE1: TENDENCY TO "WORKHOLISM"
MAE2: INDIFFERENCE TO WORK AND SEPARATION BETWEEN PRIVATE AND LABORAL WORLD
MAE3: LABORAL SELF-DEMAND
MAE4: POSITIVE MOTIVATION TO ACTION. POSITIVE AMBITION
MAE5: INHIBITORY PERFORMANCE ANXIETY
MAE6: FACILITATING PERFORMANCE ANXIETY

5. **EME-EXTREME MOTIVATION OF PERFORMANCE** (PELECHANO, 1973)
EME1: EXTREME AND FANTASTIC OVERVALUE OF ONESELF
EME2: EXTREME AND FANTASTIC OVERVALUE OF ONE'S WORK

Differential analysis

With regard to the differential analysis, we are going to present bivaried (t-test) and multivaried analysis (discriminant analysis).

1. t-test.- Thus, let us comment on the results of the t-test (table 4): As can be seen in the table, the dialysis patients are the group which presents greater differences. These mainly appear in the fearfulness and distrust scale and in the self-blaming scale. This indicates that dialysis patients use coping skills centered around passivity. As we have just mentioned, these scales were included in the second factor of coping strategies.

TABLE 3 :FACTOR ANALYSIS (VARIMAX ROTED) OF THE RATIONAL SCALES OF THE COPING STRATEGIES QUESTIONNAIRE (N = 106)

VARIABLES	FACTOR I	FACTOR II	h^2
AF-1: Fearfulness and distrutst		.84	.81
AF-2: Search of information	.72		.63
AF-3: Search of solutions	.84		.75
AF-4: Optimism	.89		.80
AF-5: Search of help from others	.75		.57
AF-6: Self-blaming		.60	.55
AF-7: Feedforward scaping	.68		.56
AF-8: Exoneration		.83	.70
Eigenvalue	3.35	2.03	
% of accounted variance	41.88	25.38	

Note: only > .50 loading included

TABLE 4: SIGNIFICANT COMPARISONS ON T-TEST BETWEEN GROUPS. COPING SCALES

Factors	t-test confidence levels					
	D/T	D/O	D/H	T/H	T/O	O/H
AF1: Fearfulness and distrust	.001(D)	-	.001(D)	-	-	-
AF2: Search of information	-	-	-	-	-	-
AF3: Search of solutions	-	-	-	-	-	-
AF4: Optimism	-	-	-	-	-	-
AF5: Search of help from others	-	-	.005(D)	-	-	-
AF6: Self-blaming	.001(D)	.06(D)	-	.01(H)	-	-
AF7: Feedforward scaping	.07 (D)	-	.06(D)	-	-	-
AF8: Exoneration	-	-	-	-	-	-

Note: - Figures indicate significance of difference
- Differences favour: D: Dialysis patients (N = 52)
T: Transplanted patients (N = 28)
H: Hypertension patients (N = 30)
O: Other renal patients (N = 30)

2. **Discriminant analysis.**- In addition to this bivaried analysis, we have done two discriminant analysis: one contrasting the dialysis group with the hypertense group, using as predictors the scores on the rational coping scales the other contrasting the dialysis group with the group formed by both the transplant patients and the other renal patients with the same predictors.

As shown in the table **5**, the canonical discriminant function is formed by the following coping scales: "fearfulness and distrust", "search for information", "search for solutions" and "search for help from others". The group of hypertense patients tends to employ strategies centered on solving the problem (search for information and search for solution) while the dialysis group face the illness with fearfulness and distrust and search for help in other people, which implies greater passivity. Classification results, as can be seen, indicate that there are a eighty two point seven percent of patients who are well classified.

TABLE 5 :DISCRIMINANT ANALYSIS OF THE RATIONAL SCALES OF THE COPING STRATEGIES QUESTIONNAIRE. DIALYSIS (N = 52) VERSUS HYPERTENSION (N = 30)

ONE FUNCTION (r = .55)

SIGNIFICANT VARIABLES OF DISCRIMINANT FUNCTION

VARIABLES	**Favour Group:**
AFI: Fearfulness and distrust	(D)
AFII: Search of information	(H)
AFIII: Search of solutions	(H)
AFV: Search of help from others	(D)

CLASSIFICATION RESULTS

	Nº OF	PREDICTED GROUP MEMBERSHIP			
ACTUAL GROUP	CASES	DIALYSIS		HIPERTENSION	
		N	%	N	%
DIALYSIS	52	43	82.7	9	17.3
HYPERTENSION	30	9	30.0	21	70.0

% of grouped cases correctly classified: 78.0

TABLE 6 :DISCRIMINANT ANALYSIS OF THE RATIONAL SCALES OF THE COPING STRATEGIES QUESTIONNAIRE. DIALYSIS (N = 52) VERSUS OTHERS RENAL DISEASES (N = 54)

ONE FUNTION (r = .44)

SIGNIFICANT VARIABLES OF DISCRIMINAT FUNCTION

VARIABLES	**Favour Group:**
AFI: Fearfulness and distrust	(D)
AFII: Search of information	(O)
AFVI: Self-blaming	(D)
AFVII: Feedforward scaping	(D)

CLASSIFICATION RESULTS

	Nº OF	PREDICTED GROUP MEMBERSHIP			
ACTUAL GROUP	CASES	DIALYSIS		OTHERS RENAL	
		N	%	N	%
DIALYSIS	52	34	65.4	18	34.6
OTHERS RENAL DISEASES	54	15	27.8	39	72.2

% of grouped cases correctly classified: 67.78

TABLE 7: DISCRIMINANT ANALYSIS OF THE RATIONAL SCALES OF THE COPING STRATEGIES QUESTIONNAIRE AND PERSONALITY AND MOTIVATIONAL FACTORS. DIALYSIS (N = 52) VERSUS HYPER TENSION (N = 30)

ONE FUNCTION (r = .74)

SIGNIFICAT VARIABLES OF DISCRIMINANT FUNCTION

	Favour Group
R1: Extreme and rigid overvalue of the laboral world	(H)
R2: Overwork self-demand and contempt of others	(D)
AFI: Fearfulness and distrust	(D)
AFII: Search of information	(H)
AFIII: Search of solutions	(H)
AFV: Search of help from others	(D)
MAEIII: Laboral self-demand	(H)
MAE IV: Positive motivation to action. Positive ambition	(D)
MAEV: Inhibitory performance anxiety	(H)
LUCAM2: Self-exoneration in failures	(H)

CLASSIFICATION RESULTS

	Nº OF	PREDICTED GROUP MEMBERSHIP			
ACTUAL GROUP	CASES	DIALYSIS		HYPERTENSION	
		N	%	N	%
DIALYSIS	52	46	88.5	6	11.5
HYPERTENSION	30	6	20.0	24	80.0

% of grouped cases correctly classified: 85.4

In the table 6, the dialysis group is constrasted with the group formed by the transplanr renal patients and the other renal patients group. In this case, the canonical discriminant function is formed by the following scales: fearfulness and distrust, search for information, self-blaming and feedforward escaping. Again, as before, the dyalisis is characterized by a greater passivity and a lesser search for information.In this case, the percentage of the dialysis group well classified is not higher than seventy percent.

We have considered it interesting to see what happens to the mentioned classificatory power when the personality and motivational scales are taken into account.

The discriminant analysis between the dialysis and hypertense groups (table 7) presents a canonical discriminant function formed by four coping scales (the same ones as in the former discriminant analysis), plus six personality and motivational scales (two of rigidity, two of motivation, one of anxiety and one of external locus of control). The dialysis group is characterized, in this case, by passive coping strategies in addition to a personal attitude of overwork, self-demand and contempt for others, while the hypertense group is characterized by inhibitory performance anxiety.

In this case, by adding personality and motivation scales, the percentage of dyalisis patients well classified is near ninety percent.

This increment of classificatory power does not remain when we contrast the dialysis group with the group of patients with other renal disorders (table 8). Only two personality scales and three coping scales formed the canonical discriminant function and the classificatory power barely vary for the dialysis group.

Factor analysis with personality and coping factors of renal patients

Finally, we performed a factor analysis with personality and coping factors of renal patients (table 9).

This factor analysis with varimax rotation offers six factors that account for the sixty eight point four eight percent of the variance. The first factor is formed by five coping scales and by LUCAM3 (Self-responsability in personal and job success). In the second factor the rigidity scales predominate. In the third, the motivational aspects. The fourth is basically formed by the three coping scales which indicate fearfulness and distrust, self-blaming and exoneration. As for the fifth factor, it has to do with certain separation between work and the private world. Finally, the sixth one is formed by inhibitory performance anxiety and by fatum in personal relationships.

If we try to summarize these results, it seems that there are two fundamental attitudes: one attitude toward action, related to coping strategie and motivational aspects (factors 1 and 3), and an other toward passivity with a shadow of dejection (factors 4, 5 and 6) and, finally there also seems to be a rigidity component.

TABLE 8 :DISCRIMINANT ANALYSIS OF THE RATIONAL SCALES OF THE COPING STRATEGIES QUESTIONNAIRE AND PERSONALITY AND MOTIVATIONAL FACTORS. DIALYSIS (N = 52) VERSUS OTHER RENAL DISEASES (N = 54)

ONE FUNCTION (r = .48)

SIGNIFICANT VARIABLES OF DISCRIMINANT FUNCTION

	Favour Group
AFI: Fearfulness and distrust	(D)
AFII: Search of information	(H)
AFV: Search of help from others	(D)
MAE1: Tendency to "work-alcoholism"	(H)
EME1: Extreme and fantastic overvalue of oneself	(D)

CLASSIFICATION RESULTS

	Nº OF	PREDICTED GROUP MEMBERSHIP			
ACTUAL GROUP	CASES	DIALYSIS		OTHERS RENAL	
		N	%	N	%
DIALYSIS	52	35	67.3	17	32.7
OTHERS RENAL DISEASES	54	16	29.6	38	70.4

% of grouped cases correctly classified: 68.9

TABLE 9 :FACTOR ANALYSIS (VARIMAX ROTED) UPON THE RATIONAL SCALES OF THE COPING STRATEGIES QUESTIONAIRE AND PERSONALITY FACTORS

VARIABLES	FACTORS I	II	III	IV	V	VI	h^2
R1: Extreme and rigid overvalue of the laboral world	-	63	-	-	-	-	70
R2: Overwork self-deman and contempt of others	-	76	-	-	-	-	73
R3: Overvalue of social norms rigid observation of duties	-	58	-	-	-	-	59
MAE-1: Tendency to "work-holism"	-	-	75	-	-	-	72
MAE-2: Indiference to work and separation between private and laboral world	-	-	-	-	69	-	56
MAE-3: Laboral self-demand	-	-	-	-	-75	-	68
MAE-4: Positive motivation to action. Positive ambition	-	-	72	-	-	-	66
MAE-5: Inhibitory performance anxiety	-	-	-	-	-	75	76
MAE-6: Facilitating performance anxiety	-	-	63	-	-	-	58
EME-1: Extreme and fantastic overvalue of oneself	-	-	64	-	-	-	79
EME-2: Extreme and fantastic overvalue of one's work	-	-	51	-	-	-	72
LUCAM-1: Fatalism in personal relationships	-	-	-	-	-	78	72
LUCAM-2:Self-exonerations in failures (E)	-	67	-	-	-	-	65
LUCAM-3: Self-responsability in personal and laboral success	51	-	-	-	-	-	51
AF1: Fearfulness and distrus	-	-	-	72	-	-	79
AF2: Search of information	74	-	-	-	-	-	67
AF3: Search of solutions	81	-	-	-	-	-	74
AF4: Optimism	88	-	-	-	-	-	80
AF5: Search of help from others	74	-	-	-	-	-	66
AF6: Self-blaming	-	-	-	77	-	-	77
AF7: Feedforward scaping	62	-	-	-	-	-	64
AF8: Exoneration	-	-	-	55	-	-	57
Eigenvalue	3.68	2.98	2.64	1.99	1.91	1.86	
% Variance accounted	16.7	13.6	12.0	9.1	8.7	8.5	

Note: Only > .50 factorial loading included; N = 106

DISCUSSION

To conclude, an interesting aspect has to do with the problem of the alphabetic personality. Discriminant analysis results indicate that there are factor that differentiate between dialysis and hypertense groups but, at the same time, they also differentiate among the renal patients with several pathologies. The percentage of right classifications in the different groups suggest that it is difficult to defend the existence of a personality type for each patient group (hypertense, dialysis). Moreover, it seems that the types of patient reactions to illness whichever, could be explained by other variables such as treatment distress, closeness or threat of dying, presence or absence of syntomatology matched with pain. Taking together this data with the above mentioned, it could be implied that coping strategies by themselves do not seem to be psychological criteria which are good enough to elaborate adequate intervention programs, and that other variables (some "external" to psychology such as treatment distress or pain and some internal to it such as personality dimensions) should be incorporated in order to design efficient intervention programs.

Finally, we would like to emphasize the provisional character of these results, which will be corroborated or disconfirmed as a greater sample of patients are incorporated into our research project, project directed by Professor Pelechano at the University of La Laguna, Canary Islands-Spain. Likewise, in the light of these preliminary results, we would like to express our confidence in the potential usefulness of studying the role of personality dimensions and coping strategies in our search for solutions to increase the quality of life of chronic patients.

NOTES

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