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Use of functioning-disability and dependency for case-mix and subtyping of schizophrenia

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ABSTRACT – *Background and Objectives:* To evaluate the utility of the constructs functioning and disability (F&D) and dependency for case-mix and subtyping of patients with schizophrenia by psychosocial, clinical, use of services and attention received from informal carers.

Methods: A randomly selected total of 205 people with schizophrenia, and their careers were evaluated through PANSS, DAS-sv, Objective and Subjective Burden Scale (ECFOS-II) and use of services.

Results: Two groups and Four profiles were identified according to levels of Dependency: The non-dependent group was made of two profiles: independent (I), and persons with disability in the community (DiC). The dependent group included persons with dependency in the community (DeC) and persons with dependency in hospital care (DeH). There are clinical and psychosocial differences between these profiles being the dependent the most severe. Regarding use of services, DeC use the most resources, with the exception DeH (more hospitalization resources). The DeC profile generate greater family burden in the following areas; taking medication, being accompanied to appointments, and management than the DiC, despite both groups showing a high need for support.

Conclusions: Dependency is a relevant construct for case-mix and subtyping in schizophrenia, and it is related to severity both at the social and clinical level. DeC generate more family burden than the other profiles, followed by DiC (patients with schizophrenia with disability but non-dependent).

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Introduction

In the 1990's the Council of Europe defined 'dependency' as the condition related to the loss of autonomy and the need of support from a third person due to impairment of activities of daily living, especially self-care. Laws and care services for the elderly and for people with severe disability including severe mental illness have been developed following this paradigm in many European countries[1]. In Spain the Law of Dependency was enacted in 2006 and regional Agencies of Dependency were progressively implemented. Unfortunately this legal and service development in Europe has not been accompanied by a formal definition of the construct of "functional dependency" and its relation to other constructs such as autonomy, disability and functioning. Two parallel and non-related concepts lay behind the use of this name in European health and social care. On the one side, "functional dependency" has been conceptualised as an impairment of the Activities of Daily Living model (ADLs)[2-5]. On the other, "functional dependency" has been related to the WHO model of functioning which has been described at the International Classification of Functioning (ICF)[6], even though this model does not include any reference to "dependency"[5]. This terminological confusion has led to flagrant contradictions, problems in implementation and it has casted doubts on the usability of the assessment and the construct of dependency in long-term care in countries such as Spain, France or Germany[7]. In Spain the law is related to the ICF model while the assessment instrument for eligibility benefits related to dependency is based on the ADLs model[1] and the current variability in concepts impedes comparability of care systems for dependency across countries[4].

Severe mental disorders are the population group where eligibility and care delivery problems are more evident[5]. In this group there is debate over the physical possibility of performing a task and the inability to carry it out due to the disorder, and how this inability generates a need for care on the part of the family for the patient[8]. In addition, a different conceptual model of functioning related to the burden of disease has also been applied in this population group.

No previous studies have assessed the levels of dependency of the patients with schizophrenia and the relationship with symptoms, social functioning and services use. However, some researchers have demonstrated that high levels of help from the caregivers are associated with a worse social functioning[9], more symptoms (especially negative)[10,11] and more use of services[12] of the patients that they take care.

The objective of the present study is to evaluate the degree of dependence shown by a sample of people with schizophrenia who live in community, and the relationship between the degree of dependence and sociodemographic, clinical, disability, service use, and formal and informal care variables.

Method

The DEFDEP group (DEFinition of DEPendency in mental disabilities) included a working group who carried out a panel of experts and a secondary data analysis in relation to results of the panel experts[13]. The panel used a nominal technique[14] to produce a formal definition of dependency applied to mental disorders based on the ICF model, and with an operational criterion of dependency for schizophrenia.

Formal definitions, operational criteria and subtyping

Health-related “environmental functional dependency” was defined as a state derived from a permanent or long-term health condition which limits the daily life of a person to the extent that there is a need for the aid of others, or other exceptional help to allow the person to manage their immediate environment[5].

The panel defined 4 types of groups of people with schizophrenia:

1. Independent (I): GAF score of above 70 over the last year, living alone or with a partner, working or studying.
2. Disability in the community (DiC): functional limitation without dependence: non-independent, no-dependent patients (this is a group defined by exclusion).
3. Dependency in the Community (DeC): Non-institutionalised patients (less than 330 days in residential care in the last year); GAF score in the last year less than 50, Prudo and Blum criterion of IVb.
4. Dependency in Hospital (DeH): admitted for more than 330 days in a residential-type unit with a score of less than 50 in the GAF.

Subjects

The secondary data analysis was carried out using data from the PSICOST-II study. It is a naturalistic study of administrative prevalence of a representative sample of prevalence of outpatients with schizophrenia between 18 and 65 years.

People with schizophrenia (DSM-IV criteria) who were being attended in: Mental health centre of Gava (Barcelona); Mental health centre of Loja (Granada), Mental health centre of Salamanca neighborhood (Madrid) and mental health centre of Burlada (Pamplona) were randomly selected through the administrative register. The study was approved by all Ethics Committees of participating centers. More information about the method of the study is provided in Vazquez-Polo *et al.* (2005)[15].

Description of study sample

Evaluation included 356 patients, of whom 329 cases completed the assessment. A total of 205 careers were also interviewed. No differences were found between the people who complete the evaluation and those who have not.

The predominant profile of people evaluated in the study is: men (68%), single (77%), primary education (49%), drawing a pension / benefits (62%) and living mainly with their parents (67%).

Procedure

People included in randomized sample were asked for their participation in the study. Those who signed the written voluntary informed were assessed by their psychiatrist or an expert psychologist trained in the instruments of the study. The assessment consists in two evaluations: one with the patient and the second the main career.

Evaluation instruments

Patients participating in the study were evaluated with the following questionnaires:

– CECE Questionnaire: collects sociodemographic, clinical and service-use data. It provides information regarding the intensity of formal service use including the number of admissions and stays in psychiatric and general hospital services for acute, subacute and medium and long-stay, as well as day hospitals, day centres and the number of appointments with mental health centre (MHC) professionals. It has been used in cost studies carried out by the PSICOST group[15]. The calculation of formal care services hours was carried out by adding the MHC care hours as 0.5 hours, day-hospital as 8 hours per day, day-centre and occupational therapy as 2 hours per day, and hospital and residential services as 24 hours per day of admission.

– Positive and Negative Syndrome Scale for Schizophrenia (PANSS)[16,17]. This is divided into three subscales which measure positive, negative and general symptoms. Positive and negative scales rated 7-49 and the general scale rated between 16-112. Higher scores indicate greater levels of symptoms. This scale has demonstrated high validation properties.

– General Assessment of Functioning Scale (GAF)[18] translated into Spanish in the DSM-IV (1995). This scale evaluates global functioning at the clinical and social level. Higher scores indicate better functioning on a scale of 0-100.

– Disability Assessment Scale, short version (DAS-sv)[19], evaluates disability on four subscales: personal care, occupational level, family relationships, and other social relationships. The punctuations rated in each subscale between 0-5, where higher scores indicate greater levels of disability.

– EuroQol Quality of Life Questionnaire[20,21] This is a generic instrument for measuring health-associated quality of life. It consists of two sections: in the first, the individual describes his/her health problems in five dimensions (mobility, personal care, daily activities, pain and anxiety/depression) with three levels of severity in each. In the second, the individual evaluates his or her health on a scale of 0-100, when higher punctuations indicated better quality of life. This scale has been used for several populations and the psychometric properties for the sample of schizophrenia are good.

– Objective and Subjective Family Burden Scale (ECFOS-II)[22]. This is a heteroapplied interview to evaluate the burden on principal carers of people with schizophrenia who live in the community. The validation of the scale show high psychometric properties. The interview is conducted with the family member identified as the main carer. It evaluates the help given to the patient in daily life activities (module A), prevention and avoidance of disrupted behaviours (module B), a list of economic expenses (module C), the impact on the carer's life (module D), reasons for concern for the patient (module E), the help available (module F), perceived affects on health (module H) and the global repercussions experienced at the individual and family level (module I). The scale assesses the need of support in this areas, the preoccupation for taking care and the number of hours spend in helping their career. For the objectives of this study the total number of hours that the carer dedicates to the care of the person suffering from schizophrenia is taken into account in a series of areas related to the concept of disability previously explain. The areas included were the following items of the module A: personal care, taking medications, household tasks, shopping, meal, travel, money management, time allocation, appointment accompany and management, and the help from third person with daily activities assessed in the module F. Independent people in the sample did not score on the family burden questionnaire.

– Case-mix. Two scales were used for the case-mix: The Prudo and Blum[23] (PB) classification and the Ontario levels of care scale[24]. PB classifies patients according to course, duration and intensity of care. The classification includes: Group I, only one episode of schizophrenia with an average duration of 22 weeks; Group II, only one episode of severe disorder up to one year in duration; Group III, episodes from 1 to 2.5 years; Group IVa, episodes of more than 2.5 years and which require community treatment fundamentally, and Group IVb, episodes of more than 2.5 years and which require hospital treatment along with intensive community programmes.

Ontario scale defines 5 levels of care. It was used in combination with the levels of PB for the case-mix. PB-IVb was further divided in three levels according to the Ontario scale. Ontario 3: patients with Prudo and Blum IVb and use of day-centre and/or hospital services in the last year; Ontario 4: patients with Prudo and Blum IVb and use of day-centre and/or hospital services and hospitalisations in the last year; Ontario 5: patients who have been hospitalised in the last year independent of the degree of PB-IVb.

Statistical analysis

The statistical analysis of the data was performed using the Chi2 for comparing qualitative variables with the four groups of patients. The variance analysis (ANOVA), was used for comparing quantitative variables with the four groups of patients; and the Kruskall-Wallis analysis for relating the four groups of patients with ordinal variables.

Results

Sociodemographic characteristics related by groups

Table 1 shows the comparison of sociodemographic variables in the four dependence groups. Significant differences exist between the groups with regard to the variables: educational level ($p<0.005$), sources of income ($p<0.01$) and living circumstances ($p<0.001$). We observed that the group of dependents have a higher educational level and usually work and live independently while those in the institutionalised group usually live more with the family. The DiC and dependent groups differed in that in the former there are more people who work and a higher percentage who live independently.

Patients clinical characteristics and functioning

The clinical characteristics according to groups dependence criteria are shown in table 2.The number of hospitalisations is higher in those people in the dependent group (community and hospital) ($p<0.001$). People in the DeC group along with those people in the DeH group are those who present the worst GAF scores and the most severe PANSS scores ($p<0.001$). The number of suicide attempts is higher in the DeH group despite the fact that they are admitted to institutions and are under constant supervision ($p<0.001$).

There are significant differences in the GAF general and social scores ($p<0.001$), as well as in each of the disability questionnaire subscales ($p<0.001$).

Table 1
Sample sociodemographic characteristics according to dependency profiles

	Non-Dependent				Dependent				
	Independents		Disability in the Community (DiC)		Dependent in the Community (DeC)		Dependent in Hospital (DeH)		
	N	M (SD)	N	M (SD)	N	M (SD)	N	M (SD)	p-value
AGE	3	31.6(7.0)	255	38.3(10.1)	60	36.9(9.2)	9	45.9(13.5)	0.148
	N	%	N	%	N	%	N	%	
SEX									
Man	2	66.7	165	64.7	49	81.7	6	66.7	0.093
Woman	1	33.3	90	35.3	11	18.3	3	33.3	
Total 327	3	100	255	100	60	100	9	100	
CIVIL STATUS									
Single	2	66.7	196	76.6	50	82.0	9	100	0.812
Married/Partner	1	33.3	37	14.5	8	13.1	0	0	
Divorced	0	0	20	7.8	3	4.9	0	0	
Widow/widower	0	0	3	1.2	0	0	0	0	
Total 329	3	100	256	100	61	100	9	100	
EDUCATION									
No schooling	0	0	7	2.7	0	0	2	22.2	0.004
Primary	1	33.3	124	48.4	36	59.0	2	22.2	
Secondary	1	33.3	85	33.2	23	37.7	3	33.3	
Third level	1	33.3	40	15.6	2	3.2	2	22.2	
Total 329	3	100	256	100	61	100	9	100	
SOURCE OF ECONOMIC INCOME									
Work	2	66.7	47	22.0	3	6.1	0	0	0.009
Dole	0	0	5	2.3	0	0	0	0	
Temporary disability	0	0	7	3.3	1	2.0	0	0	
Disability	1	33.3	141	65.9	45	91.9	7	77.8	
Other sources	0	0	14	6.5	0	0	2	22.2	
Total 275	3	100	214	100	49	100	9	100	
LIVING CIRCUMSTANCES									
Family of origin	0	0	176	69.0	44	72.1	0	0	0.000
Own family	1	33.3	39	15.3	9	14.8	0	0	
Alone	2	66.7	26	10.2	2	3.3	0	0	
Supervised accomodation	0	0	1	0.4	1	1.6	0	0	
Institution	0	0	0	0	3	4.9	9	100	
Other	0	0	13	5.1	2	3.3	0	0	
Total	3	100	255	100	61	100	9	100	

Table 2
Sample clinical and functioning characteristics according to dependency profiles

	Non-Dependent				Dependent				
	Independents		Disability in the Community (DiC)		Dependent in the Community (DeC)		Dependent in Hospital (DeH)		
	N	M (SD)	N	M (SD)	N	M (SD)	N	M (SD)	p-value
AGE OF ONSET	3	21.67 (2.52)	251	24.12 (7.10)	60	21.80 (7.05)	9	24.44 (8.96)	0.142
YEARS OF EVOLUTION	3	10.00 (8.54)	251	14.12 (9.08)	60	15.17 (8.60)	9	21.44 (11.11)	0.141
NUM. RELAPSES	3	0.00 (0.00)	250	0.37 (1.10)	60	0.65 (1.00)	7	0.43 (0.79)	0.056
NUM HOSPITAL	3	0.00 (0.00)	250	0.16 (0.49)	61	0.33 (0.62)	9	0.56 (0.53)	0.000
CLINICAL G.A.F	3	76.67 (5.77)	223	55.64 (13.59)	61	38.36 (8.57)	9	32.33 (12.33)	0.000
SOCIAL GAF	3	76.67 (5.77)	223	52.01 (14.83)	61	37.03 (7.42)	9	31.56 (8.01)	0.000
PANSS TOTAL	3	35.33 (0.58)	179	59.07 (17.22)	54	77.96 (19.23)	5	75.40 (21.73)	0.000
	n	%	n	%	n	%	n	%	
SUICIDE ATTEMPTS (LAST 12 MONTHS)									
0	3	100	239	96.4	58	95.1	7	87.5	0.000
1	0	0	8	3.2	3	4.9	0	0	
2	0	0	1	0.4	0	0	0	0	
3 or more	0	0	0	0	0	0	1	12.5	
Total	3	100	248	100	61	100	8	100	
PRUDO AND BLUM									
I	0	0	12	4.7	0	0	0	0	0.000
II	0	0	1	0.4	0	0	0	0	
III	0	0	10	3.9	0	0	0	0	
IVa	3	100	193	75.4	0	0	0	0	
IVb	0	0	40	15.6	61	100	9	100	
Total	3	100	256	100	61	100	9	100	
ONTARIO									
3	0	0	10	66.7	5	41.7	0	0	0.000
4	0	0	5	33.3	7	58.3	0	0	
5	0	0	0	0	0	0	9	100	
Total	0	100	15	100	12	100	9	100	
DAS PERSONAL CARE									
No disability	2	66.7	98	44.5	12	19.7	1	12.5	0.008
Min. disability	1	33.3	63	28.6	20	32.8	3	37.5	
Obvious disablity	0	0	36	16.4	13	21.3	1	12.5	
Severe disability	0	0	21	9.5	14	23.0	2	25	
Discap.m.sev.	0	0	2	0.9	2	3.3	1	12.5	
Max. disability	0	0	0	0	0	0	0	0	
Total	3	100	220	100	61	100	8	100	

Table 2 (Cont)
Sample clinical and functioning characteristics according to dependency profiles

	Non-Dependent				Dependent				
	Independents		Disability in the Community (DiC)		Dependent in the Community (DeC)		Dependent in Hospital (DeH)		
	N	M (SD)	N	M (SD)	N	M (SD)	N	M (SD)	p-value
DAS OCCUPATIONAL									
No disability	2	66.7	24	10.9	0	0	0	0	
Min. disability	1	33.3	32	14.5	2	3.3	0	0	
Obvious disability	0	0	19	8.6	1	1.6	0	0	
Severe disability	0	0	11	5	4	6.6	0	0	0.000
Discap.m.sev.	0	0	10	4.5	4	6.6	3	33.3	
Max disability	0	0	124	56.4	50	82	6	66.7	
Total	3	100	220	100	61	100	9	100	
DAS FAMILY									
No disability	3	100	43	19.9	1	1.7	0	0	
Min. disability	0	0	79	36.6	7	11.9	0	0	
Obvious disablity	0	0	53	24.5	21	35.6	0	0	
Severe disability	0	0	34	15.7	21	35.6	1	16.7	0.000
Discap.m.sev.	0	0	5	2.3	7	11.9	3	50	
Max. disability	0	0	2	0.9	2	3.4	2	33.3	
Total	3	100	216	100	59	100	6	100	
DAS OTHER ACTIVITIES									
No disability	1	33.3	26	11.8	0	0	0	0	
Min. disability.	2	66.7	56	25.5	2	3.3	1	11.1	
Obvious disablity	0	0	74	33.6	20	32.8	1	11.1	
Severe disability.	0	0	39	17.7	14	23	2	22.2	0.000
Discap.m.sev.	0	0	23	10.5	21	34.4	4	44.4	
Max. disability	0	0	2	0.9	4	6.6	1	11.1	
Total	3	100	220	100	61	100	9	100	

Description of service use

Table 3 shows the average use of clinic and hospital services and the daily activities in each of the dependence groups. Persons with DeC in the sample are attended on more occasions by the clinic psychiatrist than the rest of the groups ($p<0.05$). On the other hand, independent people are those that are visited least by the MHC social worker, even with respect to residential patients ($p<0.05$). People in the DeC group show a higher use of day-hospital services ($p<0.05$). With respect to hospitalisation services, there are significant differences in the use of medium and long-stay and residential services, as was expected there is greater use in the DeH group ($p<0.001$).

Table 3
Service use according to dependence profile

	Non-Dependent						Dependent						
	Independents			Disability in the Community (DiC)			Dependent in the Community (DeC)			Dependent in Hospital (DeH)			
	n	M	(SD)	n	M	(SD)	n	M	(SD)	n	M	(SD)	p-value
CLINIC SERVICES (O) contacts													
Psychiatry	3	4.33	0.58	251	5.64	7.1	61	7.38	5.8	8	4.13	3.83	0.049
Psychologist	3	0	0	250	0.87	5.06	61	0.18	1.41	8	0	0	0.520
Nursing	3	0.67	1.15	250	6.36	8.32	61	8.98	10.22	8	2.25	3.88	0.090
Social worker	3	2.33	3.21	250	1.25	3.66	61	2.2	3.78	8	2.5	4.07	0.023
Group therapy	3	0	0	250	0.72	4.74	61	1.1	4.88	8	0	0	0.815
Family doctor	3	4	6.93	243	3.40	8.43	61	2.25	5.87	8	1.62	4.21	0.113
Medical specialist	3	0.33	0.58	241	0.27	1.03	61	0.38	2.11	8	0.25	0.71	0.515
Emergency	3	0	0	239	0.001	0.002	61	0.001	0.002	8	0.001	0.001	0.830
DAY SERVICES (D) length of stay													
Day hospital	3	0	0	238	2.1	16.31	61	16.03	53.98	8	0	0	0.028
Day centre	3	0	0	238	0.10	1.32	61	0	0	8	0	0	0.895
Occupational therapy	3	0	0	238	12.81	51.91	61	30.37	83.41	8	0	0	0.215
RESIDENTIAL SERVICES (R) length of stay													
Acute	3	0	0	250	3.72	15.70	61	16.00	51.93	9	3.77	8.07	0.084
Long stay	3	0	0	250	0	0	61	8.39	48.69	9	116.89	175.77	0.000
Supervised accomodation	3	0	0	237	1.54	23.70	61	11.96	65.53	8	0	0	0.239
Residence	3	0	0	238	0.88	1.36	61	0	0	8	222.00	162.96	0.000

Family burden characteristics

In the evaluation of family burden we find that the daily life activities where the highest number of patients receives most informal help are: household tasks (44.9%), time-allocation (43.7%), money management (30.8%) and personal care (30.3%). The results show that 68% of the families evaluated have another person available to assist the principal carer in looking after the person with mental illness. It should be pointed out that 22% of those people with schizophrenia have a second carer available who invests more than 21 hours in caring for them. These secondary carers dedicate time to limiting inappropriate behaviour (in 37% of cases), the consequences of aggressive behaviour (in 22% of cases) and to the consequences of inappropriate behaviour (in 21% of cases). Another point that should be highlighted is that more than 6% of sample patients need more than 21 hours of help per week from family members to deal with problematic behaviour. Table 4 shows module items "A" and "F" of the ECFOS-II. In DeH group the scores are low as they have been admitted and receive attention mainly from formal services. Although significant differences appear in the taking of medication ($p<0.001$), being accompanied to appointments ($p<0.01$) and management ($p<0.001$), distribution by percentage is not very different between the three profiles (DiC, Dec, DeH) which indicates to us that the hours of help received from family members in the groups is similar. There are no significant differences between the dependence groups in any of the items of prevention and avoidance of disrupted behaviours.

Hours of care received by the patients

Table 5 shows the care hours (formal, informal and total) in each of the dependence groups. It should be noted that more than 40% of the DiC profile receive more than 21h/week of informal care (from unpaid carers or family members); which is even greater in the DeC group (55%); despite no significant differences were found ($p = 0.71$). With respect to the hours of formal support, significant differences were found with a high degree of care on the part of health services and social/health services in the DeH group(87.5% receive more than 21 h/week) The percentage of people of each group that receives a total support (formal and informal) up to 21h/weeks is 46.8% in the DiC profile, 72.5% in the DeC-group and 100% in the DeH group.

Discussion

The criteria established by the consensus group show four groups with differential characteristics. Level of global functioning (GAF, living alone and working/studying), years of evolution of the illness and services needed are discriminative variables that could be of use in the evaluation of the degree of dependence in people with schizophrenia. Although one of the biggest problems of this classification is the low number of cases in the extreme groups (independents and DeH). The independence group is lower in our sample comparing with longitudinal studies of prognosis that found around 20% of good outcome[25,26].

The clinical profile of dependent people (DeC or DeH) is very severe at the level of symptoms, admissions and number of suicides. The results indicate to us that the people who are assigned to the group of dependents (DeC or DeH) are those who obtain the lowest scores in the social GAF and in the total which indicates people with severe problems in social relationships and community integration[27].

Table 4
Sample functioning characteristics (ECFOS) according to dependence profiles: Daily Life Activities

	Non-Dependent		Dependent				
	Disability in the Community (DiC)		Dependent in the Community (DeC)		Dependent in Hospital (DeH)		
	N	%	N	%	N	%	p-value
PRINCIPAL CARER SUPPORT IN DAILY LIFE ACTIVITIES (ECFOS Items A1c-A10c)							
PERSONAL HYGIENE item A1c							
< 1	130	80.8	28	70.0	4	100	0.448
1-7	26	16.2	11	27.5	0	0	
8-14	2	1.2	1	2.5	0	0	
15-21	2	1.2	0	0	0	0	
>21	1	0.6	0	0	0	0	
Total 205	161	100	40	100	4	100	
TAKING MEDICATION item A2c							
< 1	139	86.4	33	82.5	3	75.0	0.001
1-7	18	11.3	5	12.5	0	0	
8-14	1	0.6	0	0	1	25.0	
15-21	2	1.2	0	0	0	0	
>21	1	0.6	2	5.0	0	0	
Total 205	161	100	40	100	4	100	
HOUSEHOLD TASKS item A3c							
< 1	102	63.4	24	60.0	3	75.0	0.237
1-7	37	22.9	12	30.0	0	0	
8-14	7	4.3	1	2.5	0	0	
15-21	8	5.0	0	0	0	0	
>21	7	4.3	3	7.5	1	25.0	
Total 205	161	100	40	100	4	100	
SHOPPING item A4c							
< 1	127	78.9	33	82.5	2	50.0	0.651
1-7	28	17.4	4	10	2	50.0	
8-14	2	1.2	1	2.5	0	0	
15-21	2	1.2	1	2.5	0	0	
>21	2	1.2	1	2.5	0	0	
Total 205	161	100	40	100	4	100	
MEALS item A5c							
< 1	145	90.1	34	85.0	4	100	0.528
1-7	11	6.8	5	12.5	0	0	
8-14	4	2.5	1	2.5	0	0	
15-21	1	0.6	0	0	0	0	
>21	0	0	0	0	0	0	
Total 205	161	100	40	100	4	100	

Table 4 (Cont)
Sample functioning characteristics (ECFOS) according to dependence profiles: Daily Life Activities

	Non-Dependent		Dependent				
	Disability in the Community (DiC)		Dependent in the Community (DeC)		Dependent in Hospital (DeH)		
	N	%	N	%	N	%	p-value
TRAVEL item A6c							
< 1	147	91.4	30	75.0	3	75.0	
1-7	11	6.9	9	22.5	1	25.0	
8-14	1	0.6	0	0	0	0	0.104
15-21	1	0.6	0	0	0	0	
>21	1	0.6	1	2.5	0	0	
Total 205	161	100	40	100	4	100	
MONEY MANAGEMENT item A7c							
< 1	128	79.5	31	77.5	4	100	
1-7	26	16.2	9	22.5	0	0	
8-14	5	3.1	0	0	0	0	0.685
15-21	2	1.2	0	0	0	0	
>21	0	0	0	0	0	0	
Total 205	161	100	40	100	4	100	
TIME ALLOCATION item A8c							
< 1	127	78.8	27	67.5	4	100	
1-7	26	16.2	10	24.5	0	0	
8-14	1	0.6	1	2.5	0	0	0.146
15-21	7	4.3	0	0	0	0	
>21	0	0	2	5.0	0	0	
Total 205	161	100	40	100	4	100	
APPOINTMENT ACCOMPANIMENT item A9c							
< 1	143	88.8	34	85.0	2	50.0	
1-7	14	8.7	4	10.0	1	25.0	
8-14	3	1.9	0	0	0	0	0.009
15-21	1	0.6	1	2.5	1	25.0	
>21	0	0	1	2.5	0	0	
Total 205	161	100	40	100	4	100	
MANAGEMENT item A10c							
< 1	145	90.1	35	87.5	2	50.0	
1-7	15	9.3	4	10.0	2	50.0	
8-14	1	0.6	0	0	0	0	0.000
15-21	0	0	1	2.5	0	0	
>21	0	0	0	0	0	0	
Total 205	161	100	40	100	4	100	

Table 4 (Cont)
Sample functioning characteristics (ECFOS) according to dependence profiles: Daily Life Activities

	Non-Dependent		Dependent				
	Disability in the Community (DiC)		Dependent in the Community (DeC)		Dependent in Hospital (DeH)		
	N	%	N	%	N	%	p-value
HELP FROM THIRD PERSONS WITH DAILY LIFE ACTIVITIES item F2							
< 1	50	41.4	11	42.3	0	0	
1-7	18	14.9	4	15.3	2	100	
8-14	7	5.8	2	7.7	0	0	0.005
15-21	19	15.7	3	11.5	0	0	
>21	27	22.3	6	23.1	0	0	
Total 149	121	100	26	100	2	100	

Table 5
Hours of formal care (services) plus informal (family) to cover daily life activities

	Disability in the Community (DiC)						Dependent in the Community (DeC)						Dependent in Hospital (DeH)					
	H. INFORMAL-E		H. FORMAL		H. TOTAL-E		H. INFORMAL-E		H. FORMAL		H. TOTAL-E		H. INFORMAL-E		H. FORMAL		H. TOTAL-E	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
HOURS OF CARE PER WEEK																		
< 1	25	15.8	177	79.7	23	14.9	4	10.0	37	60.7	2	5.0	0	0	0	0	0	0
1-7	37	23.4	17	7.7	22	14.3	9	22.5	5	8.2	2	5.0	1	0.25	0	0	0	0
8-14	20	12.7	14	6.3	22	14.3	1	2.5	4	6.6	4	10.0	2	0.50	1	12.5	0	0
15-21	12	7.6	7	3.2	15	9.7	4	10.0	3	4.9	3	7.5	1	0.25	0	0	0	0
> 21	64	40.5	7	3.2	72	46.8	22	55.0	12	19.7	29	72.5	0	0	7	87.5	4	100
Total	158	100	222	100	154	100	40	100	40	100	40	100	4	100	8	100	4	100

* Hours of informal care from ECFOS and according to experts (H. Informal-E), Kruskal-Wallis p = 0.71. Hours of formal care from service use (H. Formal), Kruskal-Wallis p = 0.000. Total hours of care according to experts, calculated by adding formal and informal (H. Total-E), Kruskal-Wallis p = 0.114.

With respect to disability it can also be observed that there is a greater percentage of people that belong to the dependent group (DeC or DeH) who obtain the highest disability scores in all. In the occupational DAS it can be seen that the group of independents does not have disability problems in this area; nevertheless, more than 50% of people who belong to the other three groups do.With respect to the family DAS, we observe that the sample of residential patients have severe family problems, and this may be the reason why they are admitted to hospital or residential services[28]. The results provide evidence that dependent people in the sample are those who present the greatest problems in psychosocial functioning, and those people in the group of independents stand out due to their level of integration in community social activities. It seems that dependence is determined by symptoms and by disability, and by the relation between the two variables[29].

In the evaluation of family burden in carers we find that the families are covering the patient's basic needs in various aspects of daily life activities. The independent and DeH groups show the lowest family burden, because they do not require the care or because they are disconnected from their families. However, in the comparison between the DiC and the DeC profiles we can observe that informal support is high in both groups and higher in the latter. Considering that these groups are the more prevalent of our sample, it is important in mental health planning to bear in mind the total number of hours which informal carers dedicate to supporting patients in daily life activities as these are the main providers of care and social network[30]. In both groups more than 40% of patients require more than 21 hours of care per week. This generates high levels of family burden as the carer dedicates many hours to the supervision or care of the ill person[9] and, in addition, the family burden levels are higher depending on the presence of symptoms and disability on the part of the patient[31-33]. The basic difference between the DiC and DeC groups is shown by the number of hours of health resources. As such, we could say that dependent people not only receive a high level of support from their families but also receive high levels of support from established formal services[34].

It is important to use uncomplicated indicators which complement the information to assess the degree of functional dependence in specific areas such as psychiatry or neurology[35].

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