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ORIGINAL ARTICLE

Comparison of disability between common mental disorders and severe mental disorders using WHODAS 2.0

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KEYWORDS
Disability;
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Abstract
Introduction: Mental disorders are among the leading causes of disability worldwide. Despite the fact that severe mental disorders (SMD) are associated with high disability, the impact of common mental disorders (CMD) is not negligible. In this work, we compare the disability measured with the WHODAS 2.0 scale of both diagnostic groups at the Mental Health Nurse facility.
Material and methods: Sociodemographic data, clinical diagnosis and disability scores were collected, using the WHODAS 2.0 scale, of the patients attended by the Mental Health specialist nurse at the Infanta Elena de Valdemoro Hospital (Madrid) and disability was compared in patients with SMD and CMD, using the Student *t* test.
Results: Our study sample consisted of 133 patients. Patients with CMD showed greater disability compared to patients with SMD. It was observed that the disability associated with CMD is higher, compared to SMD, this difference being significant for the domain of work ($p < 0.001$) and participation in society ($p = 0.041$).

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Conclusions: In this study we showed that the level of disability associated with CMD was higher in certain areas compared to SMD, this difference was of special relevance for the «Work» and «Participation» domains. This may serve to adapt the interventions aimed at these people and improve their quality of life.

PALABRAS CLAVE
Discapacidad;
Funcionalidad;
Evaluación;
Trastorno mental;
WHODAS;
Enfermera de salud mental

Comparación de la discapacidad entre trastornos mentales graves y comunes usando la escala WHODAS 2.0

Resumen
Introducción: Los trastornos mentales se encuentran entre las principales causas de discapacidad a nivel mundial. Es conocido que los trastornos mentales graves (TMG) se asocian a una alta discapacidad, pero el impacto de los trastornos mentales comunes (TMC) no es desdeñable. En este trabajo comparamos la discapacidad medida con la escala WHODAS 2.0 en ambos grupos diagnósticos desde la consulta de enfermería de un Centro de Salud Mental.
Material y métodos: Se recogieron los datos sociodemográficos, el diagnóstico clínico y las puntuaciones de discapacidad de los pacientes atendidos por la enfermera especialista de Salud Mental en el Hospital Infanta Elena de Valdemoro (Madrid) y se comparó la discapacidad en pacientes con TMG y TMC, mediante el test t de Student.
Resultados: Se reclutaron un total de 133 pacientes. Los pacientes con TMC mostraron una mayor discapacidad respecto a los pacientes con TMG, siendo esta diferencia significativa para el dominio del trabajo ($p < 0{,}001$) y de participación en la sociedad ($p = 0{,}041$).
Conclusiones: En este estudio mostramos que el nivel de discapacidad asociado con el TMC fue más alto en ciertas áreas en comparación con el TMG, siendo esta diferencia especialmente relevante para los dominios «trabajo» y «participación». Esto puede servir para adecuar las intervenciones dirigidas a estas personas y podría mejorar su calidad de vida.

Introduction

Functionality and disability are two faces of the same coin, and they depend on an individual's health and the context. Disability is defined as difficulty functioning at a physical, personal or social level in one or more areas of life, such as an individual with a health problem would experience when interacting with contextual factors. On the other hand, functionality involves positive aspects of the interaction between function, activity and participation.[1] Mental disorders are included among the main causes of disability, and they represent an important proportion of the overall disease burden in the world. Thus the last data published on the Global Burden of Disease (GBD) show that mental disorders account for 7% of years of life adjusted for disability (YLAD), and 19% of the total number of years lived with disability (YLD).[2]

The World Health Organisation developed the disability assessment programme 2.0 (WHODAS 2.0), which is derived from the International Classification of Functioning, Disability and Health (ICF, 2000),[3] with the aim of describing and classifying individuals' state of health, taking into account the functions and structures of the body, activities and participation, as well as environmental factors, independently of a medical diagnosis. The systematic evaluation of degree of disability in the field of mental health would make it possible for clinicians to measure the impact of a disorder in an individual patient, deciding on the type of care and assessing the efficacy of treatment and/or any intervention.

Mental disorders may be classified according to their severity and the complexity of the resources needed to treat them, into severe mental disorders (SMD) and common mental disorders (CMD). SMD (including psychoses and personality disorders) tend to be chronic and they are associated with disability or a loss of functionality. They require care using a range of social and medical resources in the psychiatric and social care networks.[4] They are defined precisely on the basis of the disability they cause, while CMD (chiefly represented by depressive disorders and anxiety disorders) are considered to be less disabling.[5] Nevertheless, it should be underlined that CMD stand out in terms of the global burden of the disease. Thus at world level in 2015 the GBD calculated that 7 of the 25 main causes of AVD were mental disorders. Depressive disorders came in second place and anxiety disorders were ninth.[6] At European level the ESEMeD study found that 7 of the 10 disorders with the greatest impact in terms of loss of occupational activity were CMD (panic disorder, post-traumatic stress disorder, major depressive episodes, dysthymia, specific phobias, social phobia and agoraphobia).[7]

In spite of the importance of this subject, few works have compared the impact on functionality of both groups of disorders. This work aims to study disability as measured using the WHODAS 2.0 scale in a group of patients being followed-up by a specialist Mental Health nurse. We compare disability in patients with SMD and CMD. We hypothesize that individuals with CMD will have a level of disability that is comparable to those with SMD.

Material and methods

Design and participants

This work was carried out in the office of the specialist Mental Health nurse in the Mental Health Centre (MHC) of Infanta Elena de Valdemoro Hospital (Madrid) from December 2017 to May 2018, under actual condition of nursing practice. The detailed protocol of the study has been published.[8]

Patients with SMD and CMD are referred to our MHC for nursing follow-up. While the first type of patients are referred in the context of the care continuity programme, the second type are seen individually or in groups for relaxation training.

Patients with any psychiatric diagnosis were included. The inclusion criteria were: (a) adults (18–65 years) and (b) consent to take part, while the exclusion criteria were: (1) cognitive disorder, (2) patients at a time of clinical perturbation that would affect their collaboration, or those at risk of suicide, and (3) illiteracy or a language barrier.

Evaluation

The following data were recorded for all of the participants: 1) sociodemographic variables, 2) CIE10[9] diagnosis, and 3) disability measured using the WHODAS 2.0 scale.[3]

Having been previously trained for this purpose, the assessor evaluated patient functionality using the WHODAS 2.0 scale. This scale measures the difficulty which an individual had in performing everyday activities during a 30 day period. It consists of 36 questions in Likert format, divided into six domains: 1. Cognition: comprehension and communication; 2. Mobility: mobility and movement; 3. Personal care: care of their own hygiene, and the possibility of dressing, eating and remaining alone; 4. Relationships: interaction with other people; 5. Everyday activities: domestic tasks, free time, work and school, and 6. Participation: taking part in community activities and in society. The final score varies from 0 to 100, where higher scores indicate greater disability. Furthermore, for patients who are not in work the scores in domain 5 corresponding to work are not added to the final score, giving two overall scores.[1]

Data analysis

The SPSS 23 package was used for statistical analysis. The number of cases and percentages were used to describe the sample for qualitative variables, while the quantitative variables were described using averages and standard deviations. Sociodemographic variables and disability scores (overall and according to domain) were compared according to the diagnosis of the patient (SMD or CMD), using the Chi-squared or Student t-test, as applicable.

Ethical questions

This study was performed according to the Helsinki Declaration, and it was approved by the ethics committee of *Hospital Universitario Fundación Jiménez Díaz*. All of the participants signed an informed consent document after being informed by the assessor. Data protection was ensured in a similar way to previous studies by the research group.[10]

Results

The sample was composed of 133 patients, 39.1% with SMD and 60.9% with CMD (descriptive details are given in Table 1).

Table 2 shows the comparison of the WHODAS 2.0 scale for patients with SMD and CMD. The lack of differences in the total scores of both groups stands out, with higher levels of disability in CMD cases in the domains of work and participation.

The domains affected the most for individuals with SMD were cognition (38.75) and everyday activities (41.15), to a similar degree as the individuals with CMD, whose scores were 37.47 and 41.73, respectively. On the other hand, the domains with the fewest difficulties for the SMD group were personal care (16.54) and work (17.17), while for those with CMD they were mobility (28.62) and personal care (16.91).

Discussion

In this work we analyse the differences in disability levels between patients with SMD and CMD. We found that the sample was quite functional, with WHODAS scores that do not express a high level of disability (with values around 30–40). Our chief finding is that patients with SMD and CMD had similar levels of disability, and that patients with CMD even had higher scores in the domains of ''work'' and ''participation''.

Our results are similar to those of studies such as the European ESEMeD or the one by Cotrena et al., which show comparable levels of disability for bipolar disorder and depression,[7,11] or studies like the one by Olariu et al., which find high levels of disability in cases of generalized anxiety disorder or depression.[12] On the contrary, population-based studies such as the one by Sjonnesen et al. found that individuals with schizophrenia had slightly higher levels of disability, followed by those with generalized anxiety disorder, bipolar disorder and major depressive disorder.[13]

A possible explanation for the counterintuitive finding that the patients with CMD in our sample had higher scores than those with SMD is that the latter have undergone a more chronic form of evolution, with a longer follow-up in the MHC, so that they are therefore more stable and aware, while the patients with CMD in general have visited recently in an acute episode. The results may also be distorted by the subjective evaluation of functionality and quality of life in individuals with a mental illness and affective disorders

Table 1 Sociodemographic characteristics of the sample.

Variable	n	%	Average ± SD
Sex			
Male	43	32.3	
Female	90	67.7	
Age			43.48 ± 13.86
Country of birth			
Spain	118	88.7	
Morocco	4	3.0	
Poland	2	1.5	
Rumania	2	1.5	
Argentina	1	0.8	
Colombia	1	0.8	
Cuba	1	0.8	
Dominican Republic	1	0.8	
Ecuador	1	0.8	
Peru	1	0.8	
Uruguay	1	0.8	
Marital status			
Married/living together for more than 6 months	68	51.1	
Single	44	33.1	
Separated/divorced	17	12.8	
Widowed	4	3.0	
Home life			
With their own family	38	28.6	
With their original family	33	24.8	
With other family members	18	13.5	
Alone	13	9.8	
Other situations	31	23.3	
Occupation			
In work/housewife/student	70	52.6	
Unemployed without benefit	13	9.8	
Unemployed with benefit	10	7.5	
Permanently disabled	26	19.5	
Temporarily disabled	11	8.3	
Retired	3	2.3	
Diagnosis			
Anxiety disorder	36	27.1	
Adaptive disorder	34	25.6	
Schizophrenia	16	12.0	
Bipolar disorder	11	8.3	
Personality disorder	9	6.8	
Unspecified psychotic disorder	7	5.3	
Schizoaffective disorder	6	4.5	
Dysthymia	4	3.0	
Obsessive-compulsive disorder	3	2.3	
Schizophreniform disorder	2	1.5	
Alcohol abuse	1	0.8	
Impulse control disorder	1	0.8	
Delirium	1	0.8	
Eating behaviour disorder	1	0.8	
Attention deficit and hyperactivity disorder	1	0.8	
Grouped diagnosis			
Common mental disorder (CMD)	81	60.9	
Severe mental disorder (SMD)	52	39.1	
Total	133	100	

Table 2 Scores of the total sample and comparison between SMD and CMD for the WHODAS questionnaire and its domains.

	Total (n = 133)	SMD (n = 52)	CMD (n = 81)		Gl statistics	*p*
Female, n (%)	90 (67.7)	25 (48.1)	65 (80.2)	$X^2 = 14.98$	1	<0.001
Age (average ± SD)	43.48 ± 13.86	44.67 ± 14.75	42.72 ± 13.31	t = 0.78	100.74	0.439
In work, n (%)	70 (52.6)	12 (23.1)	58 (71.6)	$X^2 = 29.92$	1	<0.001
Home life, n (%)	120 (90.2)	43 (82.7)	77 (95.1)	$X^2 = 5.49$	1	0.023
Partner, n (%)	68 (51.1)	13 (25)	55 (67.9)	$X^2 = 23.33$	1	<0.001
–						
WHODAS (average ± SD)						
1. Cognition	37.97 ± 21.86	38.75 ± 25.49	37.47 ± 19.32	t = 0.31	87.92	0.766
2. Mobility	28.20 ± 26.11	27.52 ± 26.93	28.63 ± 25.73	t = −0.23	105.26	0.815
3. Personal care	16.77 ± 19.56	16.54 ± 16.20	16.91 ± 21.54	t = −0.11	127.66	0.909
4. Relationships	29.82 ± 25.21	28.04 ± 25.14	30.97 ± 25.35	t = −0.65	109.57	0.516
5.1. Everyday activities	41.50 ± 30.64	41.15 ± 33.23	41.73 ± 29.06	t = −0.10	98.26	0.919
5.2. Work	29.22 ± 38.10	17.17 ± 32.17	36.95 ± 39.75	t = −3.01	131.00	<0.001
6. Participation	43.30 ± 19.75	38.78 ± 20.12	46.19 ± 19.07	t = −2.12	104.63	0.041
Total (no work)	34.68 ± 17.41	33.26 ± 18.23	35.59 ± 16.92	t = −0.74	102.94	0.461
Total (in work)	33.96 ± 17.04	31.13 ± 16.64	35.77 ± 17.15	t = −1.55	111.30	0.120

in particular. Moreover, many patients may find it hard to report on their disabilities due to lack of understanding of their disease. The WHODAS 2.0 scores should therefore be contextualized to make it possible to interpret them.

Regarding the domains which are affected the most, a European study determined that the ones in which many people experience limitations are those of work and emotional repercussions (in the domain of participation),[14] and these results are similar to ours. Although participation in society is considered to be a domain that is strongly associated with the symptoms of schizophrenia,[15] we found that the greatest difficulties in this domain corresponded to the patients with CMD.

This study is mainly of use due to its clinical applicability. In the ''functional recovery'' model, disability has to be evaluated to detect how it evolves throughout follow-up in mental health departments. This work corresponds to nursing personnel, and it makes it possible to design holistic interventions that improve the quality of life for patients and their families, as well as interventions for rehabilitation.

This study is unique, as to date no study has analysed the profile of patients seen by Mental Health Nurses in terms of their disabilities. The chief strength of our study is that we reflect patients' situation in a clinical setting, while the majority of previous studies are population-based. This study is also an innovation in that no previous studies have compared patients with CMD and SMD in this context.

In spite of the interest of this study, we should also point out its limitations. On the one hand it took place in a single department, without preliminary calculation of the necessary size of sample, and the results cannot be extrapolated. On the other hand, key variables were not taken into account, such as family support, socioeconomic level, the intensity of symptoms, the type of intervention or adherence to treatment. Nor do we include a control group from the general population.

Conclusion

The level of disability associated with CMD was higher in certain areas than it was for SMD, and this difference was especially relevant for the domains of ''work'' and ''participation''. To date the WHODAS domains which are affected the most in certain mental disorders have been described, although they have never been studied in association with visits to Mental Health nursing, and nor have these disabilities been compared between SMD and CMD.

Conflict of interests

The authors have no conflict of interests to declare.

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