

HOW DOES COGNITIVE IMPAIRMENT AFFECT IN THE ABILITY IN OLDER PEOPLE?

Descriptive study of users of the Red Cross day center in Castellón

Abstract

Envejecer siempre ha estado asociado a un declive, tanto a nivel cognitivo como funcional. La edad se considera un factor fundamental en el deterioro cognitivo, pero características psicosociales como el nivel de estudios, también se han visto relacionadas en numerosas investigaciones.

Con este estudio se intenta demostrar la relación entre el grado de deterioro cognitivo y el funcionamiento así como las características psicosociales que pueden afectar y la percepción que tienen los propios usuarios acerca de su declive.

La muestra estaba formada por 31 personas, entre 67 y 101 años, extraída de un grupo de usuarios del Centro de Día de la Cruz Roja de Castellón. Los sujetos en dicho centro estaban clasificados por grupos (tras ser valorarlos psicológicamente) dependiendo del grado de deterioro cognitivo. Se les administraron varias pruebas neuropsicológicas en las que se intentó relacionar el grado de deterioro cognitivo (MINIMENTAL) con la funcionalidad; BECAD (Aprendizaje y aplicación de lo aprendido) y WHODAS 2.0 (percepción propia). Además, se estudiaron los factores psicosociales (edad y estudios) y las diferencias que había dependiendo del grupo al que estaban asignados en el centro. Mediante el IBM SPSS se realizaron los análisis estadísticos correspondientes (correlaciones, tablas cruzadas, etc.).

Los resultados obtenidos fueron los siguientes; primer lugar, se observó que el nivel de estudio no estaba relacionado con el grado de deterioro cognitivo. Sin embargo, la edad sí que estaba relacionada de una manera negativa (a mayor edad, mayor deterioro cognitivo). Además, se obtuvieron diferencias significativas dependiendo del grupo en los que estaban organizados en el centro. Por otra parte, se observó que los usuarios tenían poca percepción sobre ellos mismos acerca de su discapacidad. Finalmente, se demostró que el deterioro cognitivo sí está relacionado de una manera muy significativa con la capacidad de aprendizaje y autonomía de lo aprendido.

Abstract

Aging has always been associated with a decline, both cognitively and functionally. Age is considered a fundamental factor in cognitive deterioration, but psychosocial characteristics such as the level of studies have also been related in numerous investigations.

This study attempts to demonstrate the relationship between the degree of cognitive impairment and functioning as well as the psychosocial characteristics that can affect and the perception that users have about their decline.

The sample consisted of 31 people, between 67 and 101 years old, drawn from a group of users of the Day Center of the Red Cross of Castellón. Subjects in this center were classified by groups (after being evaluated psychologically) depending on the degree of cognitive impairment. They were administered several neuropsychological tests in which an attempt was made to relate the degree of cognitive deterioration (MINIMENTAL) with functionality; BECAD (Learning and application of what has been learned) and WHODAS 2.0 (own perception). In addition, the psychosocial factors (age and studies) and the differences that were depending on the group to which they were assigned in the center were studied. The corresponding statistical analyzes (correlations, cross tables, etc.) were carried out using the IBM SPSS.

The results obtained were the following; First, it was observed that the level of study was not related to the degree of cognitive impairment. However, age was related in a negative way (the older, the greater the cognitive deterioration). In addition, significant differences were obtained depending on the group in which they were organized in the center. On the other hand, it was observed that users had little perception about themselves about their disability. Finally, it was shown that cognitive impairment is related in a very significant way to the ability to learn and autonomy of what has been learned.

Bibliografía utilizada:

1. Álvarez Hernández, J., & Molina, M. (2007). Deterioro cognitivo y autonomía personal básica en personas mayores. *Anales De Psicología*, 23(2), 272-281.
2. Arbuckle, James L. "IBM SPSS Amos 19 user's guide." *Crawfordville, FL: Amos Development Corporation* 635 (2010).
3. Baltes, P. B., Freund, A. M., & Li, S. (2005). The psychological science of human aging. In M. L. Johnson (Ed.), *The Cambridge handbook of age and aging* (pp. 47–71). New York: Cambridge University Press.
4. Cieza, A., Hilfikerb, R., Chatterjic, S. et al. (2009). *The International Classification of Functioning, Disability, and Health could be used to measure functioning*. *Journal of Clinical Epidemiology*. 62 899-911.
5. Cockrell, J. R., & Folstein, M. F. (2002). Mini-mental state examination. *Principles and practice of geriatric psychiatry*, 140-141.
6. Cotanda Canelles, S., Navidad Bernat, Y., Olivas del Olmo, S., Mezquita-Guillamón, L., & Moro-Ipola, M. (2015). Relación entre funciones cognitivas y autonomía, 359-367.
7. Espósito, P., Ungaro, J., Elefante, O., & Potes, A. (2017). Validación del WHO-DAS 2.0 en español para evaluar la discapacidad por trauma encefálico por tránsito en adultos. *Revista Argentina de Salud Pública*, 8(33), 16-21
8. Eurostat. *Europe in figures. (2007). Eurostat Yearbook 2006-2007*. Luxemburgo: Naciones Unidas.

9. Folstein, M., Folstein Gary., Folstein, S., Lobo, A., Marcos G, Mc Hugh, P. and Saz, P. (2002). *MMSE examen cognoscitivo mini-mental*. Madrid (España): publicaciones de psicología aplicada.
10. Funcionamiento y la Salud (CIF) de la OMS para la evaluación de la discapacidad en pacientes con trastorno mental grave. *Norte De Salud Mental*, IX(41), 59-72.
11. Gómez Viera, N., Bonnin Rodríguez, B. M., Gómez de Molina Iglesias, M. T., Yáñez Fernández, B., & González Zaldívar, A. (2003). Caracterización clínica de pacientes con deterioro cognitivo. *Revista cubana de medicina*, 42(1), 12-17.
12. Jofré V, Sanhuesa O. Evaluación de la sobrecarga de cuidadores informales. *Ciencia y Enfermería XVI* 2010; (2): 111-20.
13. López Pérez-Díaz, Á. G. (2014). *Predictores psicológicos del funcionamiento cognitivo y de la calidad de vida en ancianos mayores de 80 años*. Universidad de Granada.
14. Luciano, J. V., Ayuso-Mateos, J. L., Aguado, J., Fernandez, A., Serrano-Blanco, A., Roca, M., & Haro, J. M. (2010). The 12-item world health organization disability assessment schedule II (WHO-DAS II): a nonparametric item response analysis. *BMC medical research methodology*, 10(1), 45.
15. Moro Ipola, M., & Mezquita Guillamón, L. (2013). Desarrollo y validación de la BECAD: un instrumento de evaluación basado en la Clasificación Internacional del Funcionamiento, de la Discapacidad y de la Salud. *Revista Española de Salud Pública*, 87(1), 11-24.
16. Moro Ipola, M., Solano Trullenque, L., Frades García, B., Salazar Fraile, J., Pena Garijo, J., & Asuero Lluesma, M. (2011). Aplicación de la Clasificación Internacional de la Discapacidad, el

17. Mueller M., Boldt, C., Grill, E. et al. (2008). *Identification of ICF categories relevant for nursing in the situation of acute and early post-acute rehabilitation*. *BMC Nursing*, 7: 3
18. Navarro, E., Calero, M., López, Á., Gómez, A., Torres, I., & Calero, M. (2008). Nivel de independencia en la vida diaria y plasticidad cognitiva en la vejez. *Escritos De Psicología*, 2(1), 74-84.
19. Organización Mundial de la Salud. (2002). *Organización Panamericana de la Salud. Clasificación Internacional del Funcionamiento, de la Discapacidad y de la Salud*. Madrid: Ministerio de Trabajo y Asuntos Sociales.
20. Pinto, B., Exeni, S., & Peñaloza, K. (2007). Factores biopsicosociales en la demencia tipo Alzheimer. *Ajayu Órgano de Difusión Científica del Departamento de Psicología UC BSP*, 5(2), 111-149.
21. Reed, G. M., Spaulding, W. D. & Bufka, L. F. (2009). *The relevance of the International Classification of Functioning, Disability and Health (icf) to mental disorders and their treatment*. *European Journal of Disability Research*. 3: 340-359
22. Schulz, Heckausen y O'Brien (1994). Control and the Disablement Process in the Elderly. *Journal of Social Behavior and personality*, 9 (5), 139-152.
23. Üstün TB, Kostanjsek N, Chatterji S, et al. *Measuring Health and Disability Manual for WHO Disability Assessment Schedule WHO-DAS 2.0*. Geneva; WHO; 2010.



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Final Degree Project, MARTA ROMERO AZNAR
 PSYCHOLOGY
 UNIVERSITAT JAUME I
 Tutor: Micaela Moro Ipola

1. THEORETICAL BASIS

The demographic growth in our country is currently adjusted to what is known as "growth in the form of an inverted pyramid", which means that the adult population living in society is increasing, while the birth rate of the population decreases. This is of great importance if we take into account data from Eurostat (2007) which indicates that Spain will be the oldest country in Europe in the year 2050 (Navarro, E., Calero, M., et al., 2008).

Aging has always been associated with a decline in all the faculties of the person, if we speak of cognitive impairment, the definition would be: "Set of decreases of different intellectual abilities that can be associated with sensory, motor and personality alterations, attributable to different etiopathogenic causes that include, not only the organic nature, but also the social one." (Gómez, N., Bonnin, B. et al., 2003). Age is considered a fundamental factor in cognitive deterioration, but on the other hand, psychosocial characteristics such as the level of studies have also been related in numerous studies.

The theoretical framework of this research focuses on the concept of disability and its relationship with learning and application in your daily life. Disability is usually associated with physical or sensory problems, through the most important and hidden part, that is, mental. (Cotanda Canelles, S., Christmas Bernat, Y., et al., 2015). According to the CIF (WHO, 2001), a disability is understood as the "consequences of deficiencies from the point of view of functional performance and activity of the individual", which encompasses limitations, restrictions, as well as deficits at the cognitive.

It is necessary to predict and detect the degree of cognitive performance because other things are related to the level of service, such as the quality of life in old age (López Pérez-Díaz, Á, 2014). Focusing on our study, the sample was taken from the Day Center of the Red Cross in Castellón. The subjects in this center were organized by groups depending on the degree of cognitive impairment. In group 1 and 2 were users with mild cognitive impairment. In groups 3 and 4, there were users with moderate cognitive impairment. And finally, groups 5, 6 and 7 had users with moderate-severe or severe cognitive impairment.

In conclusion, this study tries to demonstrate the relationship between the degree of cognitive impairment and disability, based on the groups formed in the Day Center. On the other hand, it is intended to study the individual characteristics that can affect their capacity as well as the perception that they have about their deterioration and functioning.

2. OBJECTIVES

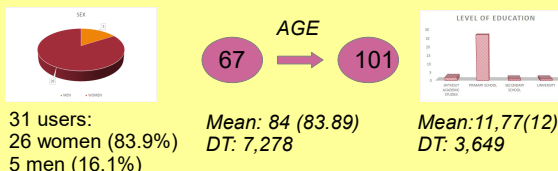
OBJECTIVES

- **Knowing the relationship between the mental state of the subjects of our sample and the learning and application of what has been learned.**
- Getting to know the degree of cognitive impairment of users, depending on the group in which they are organized according to the center.
- Knowing the degree of cognitive deterioration of our sample and check if there are significant differences according to age and educational level.
- Getting to know the degree of perception about their own abilities, comparing it with their assessment.

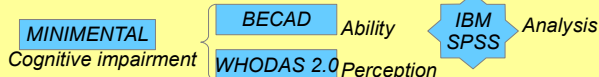
3. METHOD

SUBJECTS

The sample was taken from a group of users of the Day Center of the Red Cross in Castellón. Due to the fact that I did my external internships in this center, I selected this population since they met the necessary requirements for the study (elderly people with possible decline at the level of mental health).



EVALUATION INSTRUMENTS

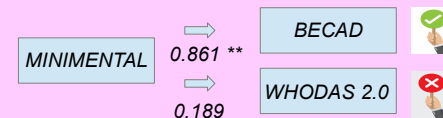


PROCESS

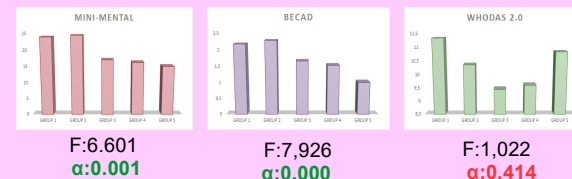
Training sessions to know how to apply the tests correctly. The supervisor of the center introduced me the participants of the study (all the information obtained was treated anonymously). Users were explained what the evaluation consisted of (through informed consent). Administration of MINI-MENTAL (15 minutes), WHO-DAS 2.0 (10 minutes) and Factor 1 of the BECAD test (learning and the application of knowledge). After obtaining all the results, the direct scores were extracted and analyzed through the SPSS.

4. RESULTS

COGNITIVE FUNCTIONS AND DISABILITY



GROUPS ACCORDING TO DETERIORATION



SOCIODEMOGRAPHIC VARIABLES

AGE	MINIMENTAL (-0.497 **) BECAD (-0.527 **)
LEVEL OF STUDIES	Did not correlate significantly with any of the administered tests

5. DISCUSSION AND CONCLUSIONS

Focusing on the specific results of our work, we have found different important data. In the first place, it was observed that the level of studies did not affect or was related to the degree of cognitive deterioration, which means that independently of this characteristic, a person can develop a greater or lesser degree of decline. However, age was related in a negative way, that is to say, we are increasing in age, our mental functions deteriorate with greater magnitude. In addition, significant differences can also be observed depending on the group (as they were organized in the center), therefore the different types of impairment of one group could be clearly discriminated against another (mild, moderate and severe cognitive impairment). On the other hand, the WHODAS II interview has shown not to be related to the other scales, this may be due to its subjective nature, this would also show the low perception that users have about themselves about their old age.

All in all, we can state that cognitive impairment is related in a very significant way to the learning ability and autonomy of what has been learned, both the expression and cognition of people with decline in mental functions are affected, this can cause discomfort on a social and psychological level, affecting the daily life of our users and, as a consequence, their self-esteem and state of mind.