**Title**: The relationship between volition and independent occupational performance in people with mental disorders

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**ABSTRACT**

Mental disorders and psychiatric institutionalization reduce the volition and limit the occupational performance of those affected. This article investigates the relationship between volition and occupational performance of people with mental disorders and analyzes the influence of sociodemographic variables on their volition. The results show that high levels of volition and regular participation in occupational therapy programs improve independence in daily occupational performance but also show that psychiatric pathology and the length of institutionalization reduce this volition.

**KEYWORDS**

Volition, independence, institutionalization

**Introduction**

According to the World Health Organization, mental disorders (MD) affect between one quarter and one third of the population (WHO, 2014). Furthermore, MD such as depression, substance use disorders and psychoses (e.g. bipolar disorder and schizophrenia) are the leading cause of years lived with disability worldwide (Whiteford et al., 2013), resulting in a large number of limitations to a person's ability to carry out daily activities.

In addition to specific illness-related factors which make the execution of daily occupational activities more difficult, motivation can also be a challenge for individuals diagnosed with MD (Abad & Sánchez, 2012; Instituto de Mayores y Servicios Sociales [IMSERSO], 2007). In occupational therapy (OT), motivation is considered a construct that has to evolve sufficiently so as to achieve a change in a person's behavior, thereby demonstrating a causal relationship between motivation and changes in function (Chaves, 2013; Froján, Alpañés, Calero, & Vargas, 2010).

The Model of Human Occupation (MOHO) is one of various models on which the current working practice of OT is founded (Lee, Taylor, Kielhofner, & Fisher, 2008). It states that motivation is one of the specific elements that can define occupational performance in people (Kielhofner, 2006). The present study is based on the principles of this model as proposed by its authors (Kielhofner & Burke, 1980).

MOHO conceptualizes individuals as having three components in constant interrelation-volition, habituation, and performance capacity, all of which are influenced by the characteristics of the environment (Kielhofner, 2008a). These four concepts are linked in a dynamic unit that constantly influences what people think, feel, and do. Consequently, according to MOHO, difficulties in independent occupational performance, triggered by the development of some pathology, are explained through direct and close relationships between these four constructs and the capacity for occupational performance (Kielhofner, 2006).

More specifically, according to this model, volition, "the motivation for occupation" (Kielhofner, 2008b), is understood as a three-stage evolutionary continuum (exploration, competence, and achievement), in which progress is made through participation in meaningful activities that facilitate the development of skills (De las Heras, Geist, Kielhofner, & Li, 2003).

According to some authors, people with MD often have similar limitations in terms of volition and overall occupational performance, particularly concerning difficulties in the performance of basic Activities of Daily Living (ADL), Instrumental Activities of Daily Living (IADL), and Social Participation (SP) (American Occupational Therapy Association, 2014; Berrueta & Bellido, 2012; Cantero & Moruno, 2006; García, de la Fuente, de la Gándara, & Mateos, 2010; IMSERSO, 2007; López et al., 2005; Recio & Castilla, 2010).

Moreover, the emergence of these types of MD can slow the life cycle of the affected person, hindering acquisition of the necessary skills for independent performance of daily occupations (Cantero & Moruno, 2006). However, numerous studies have demonstrated a relative independence of symptoms from occupational functioning of the client, meaning that the stabilization of symptoms will not imply more independent performance (Chico, 2007; Jiménez et al., 2000). At adulthood, the severity of the pathology and its consequences for occupational performance depend on the onset of the MD, manifesting itself in different ways such as difficulties in adapting to the demands of the environment or dysfunctional performance in all areas of occupation (Fernández, 2009; Giannini, 2012).

It is worth adding that the lack of economic resources, the lack of a social network and/or the presence of symptoms may necessitate institutionalization (Moruno & Talavera, 2011). Living under these circumstances may imply extended absence from participation in the community home and social settings; this has the consequence of disrupting positive habits and roles of inpatients, and generates particular patterns of behavior which, although consistent within the institution, are dysfunctional in the community. This scenario largely hinders the development of independence for the performance of ADL, IADL, and SP and, likewise, increases the need to remain for longer periods within a context of marginalization, stigmatization, and social exclusion associated with institutionalization (Cantero & Moruno, 2006).

This review of the literature has revealed that OT specifically attempts to promote volition and occupational performance, and this is especially true in the case of inpatients with MD (Ballesteros, 2011; Bellido, Sanz, & Sesé, 2010; Gómez, 2006; Pellegrini, 2012). More specifically, for clients to become active agents in their own recovery, a number of different methods are utilized including empowerment, the use of occupations that are significant to the client, the elimination of self-deprecation, development of the recovery process, the development of life projects, and shared decision-making. Throughout this process of recovery, it is important to have the guidance of the mental health worker and meetings among the people involved in the client’s treatment (Caballero, López, & Luque-Romero, 2014; Garrido, González, & Hernández, 2008; Grau, Vallés, Alarcón, & Luque, 2009; Rosillo, Hernández, & Smith, 2013; Serrano, 2014; Villagrán, Lara, & González, 2014).

However, there is scarce scientific evidence demonstrating the use of OT to strengthen volition. Therefore, the purpose of this study was to assess the influence of volition on independent occupational performance of people with MD living in an institutionalized setting. A further objective of the study was to analyze the relationship between the three stages of the volition (exploration, competence, and achievement) and the various areas of occupation that are affected (ADL, IADL, and SP). Finally, we studied the influence of three sociodemographic variables on the volition of these people: progression of the psychiatric pathology, length of institutionalization, and participation in the programs of the OT department.

Considering the above, the hypotheses for this study are: 1) greater volition, in its three stages, is associated with greater independence in ADL, IADL and SP; 2) inpatients with longer histories of pathology and greater lengths of time in an institutionalized setting, have lower levels of volition; and 3) inpatients participating in OT programs have higher levels of volition.

**Methods**

***Study Design***

This study used descriptive and correlational quantitative methodology.

 The research was carried out at the Fuente Bermeja Hospital in Burgos, Spain, in 2015, following its approval by the ethics committee at the University of Burgos Hospital. Throughout the study, ethical principles were observed and the confidentiality of information about the participants was maintained.

***Participants***

A non-probability convenience sample of participants was used, resulting in a total of 33 people. They were inpatients of a psychiatric care network at Fuente Bermeja Hospital in Burgos. The study included individuals with subacute pathology to others with chronic symptomatology, thereby encompassing a large range of limitations in independent daily occupational performance.

The criteria for inclusion were as follows: over 18 years of age, diagnosed with a MD, admitted as inpatients to a psychiatric unit, and participating in some activity at the center where they were residing. Individuals were excluded from the study if they were unable to participate in the evaluations used in this investigation.

***Data collection***

Two standardized evaluation tools were administered, one for each construct. The Volitional Questionnaire (VQ) version 4.0 was used (De las Heras et al., 2003) for the evaluation of volition, and the Spanish version of the Basic Everyday Living Skills (BELS) (Driscoll & Leff, 1993), for the level of independence in occupational performance. Additionally, inpatients completed a questionnaire prepared by the authors with the purpose of gathering sociodemographic information on the sample population. All data were gathered by the authors of the study in collaboration with hospital staff.

*Volitional Questionnaire (VQ)*

The VQ (De las Heras et al., 2003) evaluates the level of volitional development of the individual and the amount of support required, in order to increase active and spontaneous participation that is independent from their functional degree.

The VQ is comprised of two parts, a graded scale which evaluates the degree of spontaneity with which clients express their volition, and a record of the characteristics of the environment (Chern, Kielhofner, de las Heras, & Magalhaes, 1996). However, this study only used the data corresponding to the first scale. Regarding psychometric properties, the revised version 4.0 of the VQ has acceptable content validity, defining the volition construct as unique and one-dimensional (Li & Kielhofner, 2004) The internal consistency of the VQ was confirmed by Cronbach’s alpha at 0.94.

*Basic Everyday Living Skills (BELS)*

BELS (Driscoll & Leff, 1993) is a questionnaire designed to evaluate the month-long evolution of occupational performance of people with MD admitted as inpatients to a psychiatric unit. It is comprised of two scales, one designed to evaluate the degree of opportunity, and another for the level of independence in daily occupational performance (Driscoll & Leff, 1993). This study used data from the second scale. Regarding psychometric properties, this sub-scale measure of performance has an average *kappa* value for inter-observer reliability of 0.74, which is considered as substantial agreement (Jiménez et al., 2000). The internal consistency of the BELS was confirmed by Cronbach’s alpha, at 0.92.

***Data analysis***

The information gathered was analyzed with the statistical package IBM SPSS version 21 (IBM Corp., 2012). The normal distributions of data were confirmed using one-sample Kolmogorov-Smirnov tests. Hypotheses were tested using Pearson correlations and one-way ANOVAs, (p ≤ .05 demonstrate a statistically significant relationship).

**Results**

***Demographics***

The sample was comprised of 33 clients with MD; 48.5% were men and 51.5% were women, with an age range of 19 - 67 years, and mean age of 48.5 years (SD = 11.91 years)

The study participants were inpatients at Fuente Bermeja Hospital, where the average length of admission is 7 years and 10 months (SD = 13 years and 11 months; Range = 1 month - 16 years). The average age of onset of MD of the participants was 19 years and 10 months (SD = 14 years and 3 months; Range = 2 months - 49 years). It is worth nothing that 58% of the sample group usually participated in OT programs ("Usually"), 21% participated occasionally ("Occasionally"), and the remaining 21% did not utilize the OT services though they did attend other activities organized in the hospital ("Never")( Figure 1).

***Volition and independent occupational performance***

The results of the BELS showed a statistically-significant positive relationship between volition and independent occupational performance (r(33)=0.630, p<.000), as well as between each stage of volition and independence in each activity area, with the single exception of the relationship between exploration and self-care for which no statistically-significant relationship was found (Table 1). Additionally, the correlations between volition and independent occupational performance became stronger as they advanced along the continuum of the volition process, with the exception of the activities and social relationships.

***Volition and sociodemographic variables***

Results of the correlational analyses of the VQ showed a nearly statistically-significant negative relationship between onset of the MD and volition (r(33)=-0.317, p<.072), a significant negative relationship for exploration (r(33)=-0.421, p<.017), and no statistically-significant relationship for either competence (r(33)=-0.238, p<.183) and achievement (r(33)=-0.265, p<.136. These results indicate that the longer the length of the illness, the lower the volition, at least in the exploration stage.

Similarly, the results showed a negative relationship between the duration of inpatient admission and volition (r(33)=-0,426, p<.013), exploration (r(33)=-0.542, p<.001), and achievement (r(33)=-0.367, p<.035), and a nearly statistically-significant negative relationship for competence (r(33)=-0.319, p<.070). It suggests that the longer the duration of inpatient admission, the lower the volition.

***Volition and participation in occupational therapy programs***

Descriptive analyses revealed 58% of the sample group usually participated in OT programs ("Usually"), 21% participated occasionally ("Occasionally"), and the remaining 21% did not attend OT programs though they attended other hospital activities ("Never"; Figure 1). The results of the one-way ANOVAs indicated there were statistically significant differences between participation in OT department programs ("Usually", "Occasionally", and "Never") and volition (F(32,32)=6.325, p<.005), exploration (F(32,32)=4.973, p<.014), competence (F(32,32)=5.436, p<.010), and achievement (F(32,32)=5.097, p<.012). More participation in OT programs implied more volition, exploration, competence and achievement. In all cases, post-hoc tests resulted in statistically significant differences between all groups except between "Occasionally" and "Never" (Table 2).

**Discussion**

The results of the study support that greater volition results in higher levels of independent occupational performance in institutionalized inpatients with MD, both in terms of daily activities and community participation. The results support both theoretical and scientific evidence that, with OT, independence in occupational performance increases through the development of volition, and this can be specifically identified within each area of occupation (Fernández, 2009; Garrido et al., 2008; Grau et al., 2009; Rosillo et al., 2013). In fact, the VQ manual suggests that a more motivated person will make faster progress towards the achievement of established objectives (De las Heras et al., 2003).

This study also demonstrates the existence of a positive correlation between each stage of the volition cycle and each area of activity. Specifically, the results show that in the areas evaluated by BELS with the exception of activities and social relationships, the values of independent occupational performance increased with each stage of the volition cycle. This result supports the concept that the volition cycle is a continuum (De las Heras et al., 2003). However, no other research has been found that specifically addresses the relationship between volition and the area of activities and social relationships, so it is not possible to contrast this result. Similarly, the absence of studies dealing with the relationship between the exploration stage and self-care area prevents establishing a conclusion about this correlation.

This study also supports the influence of the three sociodemographic variables under study on volition and, with it, on the different stages of the volition cycle. Initially, the results support that longer histories of pathology were associated with reduced levels of personal volition in the exploration stage. These data agree with theoretical work, in which it is specified that people with longer histories of pathology present lower levels of personal volition in the volition cycle (Fernández, 2009).

Likewise, the analyses show that longer inpatient admission times progressively reduced volition in each stage of the volition cycle. This result supports the results of other authors who maintain that inpatients gradually develop dependency on the institution where they live. Dependency is due to the particular routine of the center, forced inactivity, staff attitudes towards assistance, and lack of participation in social contexts outside the center. It is a combination that creates apathy, reduces a sense of self-sufficiency, changes personal values, and slows the development of performance skills necessary for an independent life (Fernández, 2009; Grau et al., 2009; Moruno & Talavera, 2011; Rosillo et al., 2013). Additionally, the exploration stage correlates most strongly with both the duration of the pathology and the length of institutionalization. This supports that interventions may be more effective if conducted in the home, not in an institution because the institutionalization model hinders access to daily motivational components (Abad & Sánchez, 2012).

Regarding participation in OT programs, this study has demonstrated that people who usually participate in OT programs show greater levels of volition than people who participate occasionally or do not participate at all. The data show that continued treatment with OT is a key factor in the development of volition in people. OT is therefore also key to increasing independence in daily occupational performance.

***Limitations***

A non-probabilistic convenience sampling method was used, so a threat to external validity can be assumed. The small sample size may also be associated with increased sampling error. These conditions prevent generalization of the results to institutionalized people with MD.

 The limitations of the VQ and BELS scales may have also influenced the results of the study. For example, one of the items on the VQ, "carry out an activity until it is completed/achieved" (within the "achievement" stage), appears not to evaluate volition, in this case, but obedience instead, given that the clients complete the activities because the staff request it to be done. Also, in the subscale of "domestic skills" of the BELS questionnaire, some participants chose the lowest possible score for their actual performance, not for lack of skills in its completion, but rather because they were not given permission to leave the community, which would otherwise have given them the opportunity to perform these activities. Both of these circumstances could have affected the results of this study. Also, there are a number of other variables that could have affected the results but were unable to be controlled (e.g., The length of the pharmacological treatment and its side effects, the emotional status of each individual, the influence of the environment during the evaluation process, adaptation to the center routines, etc),

***Clinical implications***

The results support a relationship between volition and independent occupational performance. That relationship, in practice, improves the efficacy of OT treatments designed to increase the independence of inpatients. By doing so, a new possibility for intervention in the occupational performance in inpatients diagnosed with MD is introduced, with the specific objective of increasing the levels of personal volition and personal performance skills. By supporting choices among different activities, promoting participation in those activities and facilitating success, inpatients would be more involved in their progress towards autonomy and independence.

***Future lines of research***

The results of this study support that interventions that promote volition in people with MD increase the efficacy of interventions. Future research should include a study of intervening in the volition of people with MD living as inpatients in psychiatric care units with the objective of increasing their independence in occupational performance; this may also be applicable to wider groups of people having limitations in their daily performance.

Also, since the profession of OT uses a comprehensive approach in its practice, including consideration of physical, cognitive, affective and social aspects of the person in addition to their environment (Ballesteros, 2011), research addressing the influence of sociodemographic variables should be studied in order to understand their influence on volition, with the final goal of developing interventions which are better tailored to the characteristics and needs of each client, calling upon critical thinking and based on evidence.

**Conclusion**

The analyses have shown that volition was directly correlated with increased independence in occupational performance in inpatients with MD in an institutionalized setting. Also, volition was associated with regular participation in OT programs. The results suggest that specific interventions increasing individual volition can strengthen daily independence in occupational performance. In contrast, it is important to note that both the length and severity of the psychiatric pathology and the duration of institutionalization reduce this volition, and in consequence, increase the dependency of engagement in daily activities.

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