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COMPARISON OF COMPONENTS OF THE DEPRESSION OF HOSPITALIZED PATIENTS ADMITTED THROUGH THE EMERGENCY DEPARTMENT OR CONSULTATIONS

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SUMMARY

***Backround**: In a previous study, we investigated the risk of admission to emergency (ER) of depressed patients prior to their hospitalization in psychiatry in comparison with hospitalized patients transferred from the consultations department (Cdpt). In the present study, we compare among the same patients variables affecting the intensity of depression in each group.*

***Method**: All patients with Major depressive disorder admitted in our department through emergencies (N=146) or consultations (N=2172) between January 1, 2010 and December 31, 2012 were included in an open study. They completed the Beck Depression Inventory (BDI), analogical visual scales about stress levels (in professional, social, family, married life, over the past year and the past month), the Multidimensional Health Locus of Control and the Olson Family Adaptation and Cohesion Scale and the Ways of coping.*

***Results**: The depression (t=1.438; p=0.90) is similar in both samples. Although some variables such as gender, internality, coping mechanisms and stress factors influence the intensity of depression in both groups of patients (linear regression p<0.000, r=0.593), other factors play a role only in either one or the other group. The factors of patients' age, number of children, elements of family dynamics, couple life, and the belief in luck do influence the intensity of depression only in patients hospitalized through Cdpt (linear regression p<0.000, r=0.366). The intensity of depression of patients admitted through ER, is specifically dependent on the number of collateral factors (p=0.045, r=0.304), the number of living relatives (p=0.036, r=0.276) and the belief in the power of others (p=0.022, r=-0.16).*

***Conclusions**: Although Both samples are comparable in terms of intensity of depression, patients admitted through the Cdpt are more dependent on the quality of family relationships whereas those coming from emergencies are most influenced by their concrete social and family situation. Alongside these specific variables it remains that stress and coping mechanisms account for the largest percentage of variance of the intensity of depression.*

***Key words:** major depressive disorder – hospitalization – emergency – consultation – family - coping*

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INTRODUCTION

In a previous study (Zdanowicz et al. 1996), we found that the person who sends the patients we meet in the emergency room (ER) is primarily the general practitioner (62% of patients). For 14% of patients, it is the family and for another 13%, it is the patient himself. Only 2% of patients are sent by a specialist. This article points out an overuse of the ER by general practitioners. In fact, two thirds of patients present no immediate danger or risk factors justifying to be sent to the ER. In one third of cases we encounter patients who bypass the filter of primary care. In a subsequent paper (Dubois et al. 2013, Gigot et al. in press), we try to see if there is differences between patients hospitalized through the ER and those hospitalized through the department of consultations (Cdpt). We were able to show that if the intensity of depression is equal in both groups, less believing in luck as a health factor, the ability to distance oneself from one's problems and having better family support is correlated with a higher risk of being admitted in the emergency unit (OR=14). These findings are coherent with a study showing that the severity of symptoms is significantly linked to the decision to admit a patient, contrarily to other factors (Georges et al. 2002). They are also coherent with epidemiological studies from Bruffaerts et al. (2004) and Verhaak (1995) who pointed out a greater tendency to go to the ER when young and unemployed. Nevertheless, the role of family variables is more complex than just a determining factor for hospitalization. Indeed we know that couple fights (Whisman et al. 1999, 2012) and family conflicts (Campbel & Thomas 1986, Stark et al. 2012, Widmer & Reuben 1991) also directly impact the development, the course and severity of the depression itself. Conversely it has been shown that major depressive disorder impacts badly the couple relationship (Whisman et al. 2009) and draws much energy from the social surroundings (Coyne et al. 1987, DiBenedetti et al. 2012). In order to better understand the role of family variables, and more broadly, to identify variables related to the intensity of depression, we studied separately the correlations in each group (ER versus Cdpt).

METHODS AND POPULATION

University Hospital Centre of Mont-Godinne is the only university hospital covering a broad geographical area. There are two ways of being admitted into the psychosomatic department. Most of the time, outpatients are admitted after a consultation. In fewer cases, outpatients are admitted via the E.R. The sample in this open study consists of all patients hospitalized in our department between January 2010 and December 2012. To be included patients must have a major depressive disorder objectified by a clinician after a line inter-judge have been established. The severity of the depression was assessed by the Beck Depression Inventory. Patient received a socio-demographic questionnaire including: age, gender, do they live in couple, number of parent still alive, number of relative, number of children, do they have an active work. Patients also fulfilled analogical visual scale on wellbeing, life event on the last year and last month and VAS on the stress in professional, family, social and couple life). The Olson's Family Adaptation and Cohesion Scale (FACES III) (Olson 1982) is used to have an idea of the quality on their family life. The Multidimensional Health Locus of Control (MHLC) (Walston et al. 1987) and the Ways of Coping (Folkmans et al. 1988) are used to know how they react when face to a medical problem. The sample consists of two groups: Patients hospitalized through the ER (n=146) and those admitted following consultations (n=2172). Statistics were conducted with parametric methods, including type I and type II errors. No post-hoc test was conducted. Mean comparison were made using a student t-test. Pearson's independence test was performed on ordinal variable. We used a chi-square to compare the proportion of worker/non worker in the 2 sub group. When needed a linear regression was performed.

RESULTS

Severity of depression

The BDI results show a mean result of 29.00±13.605 for E.R. patients and 29.41±13.310 for others. The severity of depression is statistically similar in both groups (t=1.438; p=0.90).

Correlation between variables and the intensity of depression

Table 1 shows the correlations or significant differences in averages that were found between the intensity of depression and different variable for each group (patient arriving through the consultation unit, all patients arriving through the emergencies).

The last line of the table shows the adjusted correlation coefficient for a linear regression carried out taking into account, by column, all the highlighted correlations. Considering together in one linear regression model all the variables, the model explains 51.4% of the variance (R2 adjusted, p<0.000).

Table 1. Correlations, differences (means or χ^2), linear regressions for the intensity of depression

Variable	Cdpt patient	All Patient (Cdpt + ER)	ER patient
Socio demographic	Age r -0.091*** Nbr Child r 0.065** Couple mean 43.8/42.7**	Gender ♀/♂ mean Cdpt 44.6/40.7*** ER 44.4/41.0**	Nbr of parent alive r 0.279* Nbr of relative r 0.304* Work Cdpt/ER 0.7/0.04**
MHLC	CHLC r .110** I/E Ratio r -.202**	IHLC r -0.168**/-0.248**	PHLC r -0.160*
FACES III	FOAda r -0.111** FOCo r -0.164** CuCCo r -0.118** CuCAda r -0.095**		
Ways of coping		CC r 0.108**/0.170* SSS r 0.059**/0.178* EA 0.276**/0.311** PPS r -0.277**/0.356** PR r -0.287**/-0.38**	
VAS on on stress for		Well being r -0.494**/-0.298** Life event r 0.247**/0.237** Life month r 0.202**/0.165* Work r 0.283**/385** Social life r 0.356**/0.405** Couple Life r 0.285**/0.375** Family Life r 0.347**/0.35**	
Linear Regression	R2 0.134***	R2 0.351***	NS

*p<0.05; **p<0.005; ***p<0.000; NS - non significant; Cdept - consultation department; ER - Emergeny Room; CuC - current couple; FO - family of origin; CC - confronting coping; SSS - seeking social support; EA - escape avoidance; PPS - plain full problem solving; PR - positive reappraisal

DISCUSSION

If the severity of depression is significantly similar whatever the way a patient is admitted to hospitalization, some variables suggest different depressive profiles. Looking at table 1, everything seems to happen as if there were nonspecific factors common to patients arriving through the ER or Cdpt, such as life events and mechanisms of coping. These variables together with gender and Internality generate 35.1% of the intensity of depression. Alongside these nonspecific factors, there are various specific factors that differentiate the two subgroups. In patients arriving through the consultations unit, the quality of relationships in the family of origin and in the couple, and a certain degree of fatalism (CHLC) exert their influences. These factors generate 13.4% of the intensity of depression. In patients arriving from the emergency unit, the composition of the family of origin, unemployment, and a low degree of trust in others are critical. Apart from the fact that we found 2 different profiles of depression based on a common platform, it is interesting to note that certain variables, such as cohesion in the family of origin, may be involved in both risk assessment of being admitted to the emergency unit (see background) for the ER group, and partially in the intensity of depression in the Cdpt group.

CONCLUSION

Although Both samples are comparable in terms of intensity of depression, patients admitted to hospitalization through the Cdpt are more dependent on the quality of family relationships, the intensity of depression of those arriving through the emergencies is most affected by their concrete social and family situation. Alongside these specific variables it remains that stress and coping mechanisms explain the largest percentage of variance of the intensity of depression. This is an independent non-specific part of the common base gateway to hospitalization.

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