



## RESEARCH ARTICLE

### FAMILY DYSFUNCTION AND DEPRESSION IN NAVAL PERSONNEL IN THE ACTIVE SERVICE ASSIGNED TO THE NAVAL HOSPITAL OF SPECIALTIES OF VERACRUZ

<sup>1</sup>Taylor-González Luis Alfonso and <sup>2</sup>Ocampo-Ortega René

<sup>1</sup>TTE. NAV. SSN. MC. N. P. Resident of the third year of the specialty of Family Medicine,  
Graduate School of Naval Health

<sup>2</sup>TTE. FRAG. SSN.MC. PSIQ. Physician assigned to the Psychiatry Service of the Naval Hospital of Specialties of  
Veracruz. (HOSNAVESVER)

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#### ABSTRACT

**Background:** The family dysfunction is a situation that can directly affect the development of the individual by facilitating the presence of various pathologies, including depression. Taking into account that the work environment could change a subject and this in turn, to the family function, it is important to study military assets to obtain information that may be useful to the institution for its feedback. **Objective:** To identify the association between the Family Function and the depressive disorder in active military personnel in the Naval Hospital of Specialties of Veracruz. **Material and method:** Cross-sectional, analytical, observational and prospective design between the months of October 2017 and March 2018, within the Naval Hospital of Specialties of Veracruz (HOSNAVER). The population of active military members assigned to HOSNAVER, over 24 years of age, of both sexes was included. **Results:** 209 participants were studied, with prevalence for family dysfunction in 57.4% of cases and depressive disorder of 9.5%. The prevalence of family dysfunction in patients with MDD was 100%, while in the group without MDD it was 52.9%, obtaining from these an OR of 36.5 with a value of  $p < 0.05$ . **Conclusions:** There is a positive association between family dysfunction and depressive disorder.

#### INTRODUCTION

The family can be considered as the basic social cell, where the subject develops its social and emotional structure; if a family can function in such a way that its members can overcome each stage of the life cycle even with the crises that they go through during it, it is considered that there is adequate functionality, therefore we will speak of family functionality according to the degree to which a family fulfills or fails to fulfill its basic functions (Zapata-Gallardo, 2007 and Zuleima Cogollo, 2009). One of the instruments to assess family function is the FACes III model (Family Adaptability and Cohesion Evaluative Scale) validated in Spanish from its original version in English and evaluates cohesion and adaptability (Schmidt, 2010 and Ponce, 2002) together with the "Olson Circumplex Model" "Qualifying as a functional family the one with characteristics of separated flexible, united flexible, structured separate and structural structured, while a dysfunctional family is those that are flexibly entangled, chaotically linked, chaotically separated, chaotically unlinked, flexibly separated, structurally unlinked, rigidly unlinked, rigidly separated, rigidly united, rigidly entangled (Campoverde, 2015). The DSM-5 defines the depressive state as the state of disruptive dysregulation of mood, which can be

triggered by different causes ranging from the administration of drugs, drugs and even premenstrual hormonal changes, and those that have persisted with, without despite the doctor (Tortella-Feliu., 2014). Family structures are very varied, and it is not possible to categorize them individually, that is, what is functional for some families is not for others, and in this context military families can not be excluded, although the context of the definition of each of its components of functionality and the impact that military life entails on the entire family, where the absence of the military per deployment negatively affects the attachment of the children (Jarero, 2012).

In the United States, a country that stands out for its perpetual combative state with other nations has allowed itself to conduct studies not only in its military ranks, but has analyzed, as these constant "cycles of deployment" affect the family dynamics, leading to it looks at the spouse of the military for depression resulting 17.4% positive for generalized anxiety and 12.2% for depressive disorder (DD), figures that are comparable to those found in the American military that continue in combat and approximately twice the prevalence extrapolated to the general population (Verdeli, 2011). The objective of this investigation was to identify the association between the family function and the depressive disorder in active military personnel in the Naval Hospital of Specialties of Veracruz (HOSNAVESVER).

\*Corresponding author: Taylor-González Luis Alfonso

TTE. NAV. SSN. MC. N. P. Resident of the third year of the specialty of Family Medicine, Graduate School of Naval Health

## MATERIAL AND METHODS

A transversal, analytical, observational and prospective study was conducted between the months of October 2017 and March 2018, within the Naval Hospital of Specialties of Veracruz (HOSNAVESVER). The population of active military personnel assigned to HOSNAVESVER, over 24 years of age, of male and female sex; Non-collaborating subjects were excluded, with evidence of some severe associated physical disorder, with a previous diagnosis of depression, with medical treatment with drugs that can exert antidepressant action, with a diagnosis of established organic neurological affection, that do not accept to participate or do not accept a consent signature informed, with illegal drug use; Subjects with incomplete assessment instruments were eliminated. The study subjects were approached prior to or at the end of their work days within the HOSNAVESVER where, after confirming compliance with the inclusion criteria, the researcher moved with the study subject to an office assigned specifically for this research. , in order to request informed consent, diagnose depression according to the provisions of the DSM 5, apply the FACES III instrument and collect the information of the covariates for this investigation. The sample was obtained in a non-probabilistic way and for the calculation of the sample size, the application of the Chi square test was considered as a base to determine the association between the independent and dependent variable. We used the G Power v3.1 program a priori using a 95% CI (alpha error of 0.05 and beta error of 0.95) and an OR > 1.0 obtaining a sample of 82 patients. For the statistical analysis, measures of central tendency (average) and dispersion (standard deviation) were used, as well as absolute and relative values; the qualitative variables were compared by means of the Mann-Whitney U test for independent samples; On the other hand, the qualitative variables were compared by means of the X2 test or Fisher's exact test (population smaller than 30 subjects or with ≤5 patients within a square of the tetracardial table); the strength of association was determined from the calculation of odds ratio (OR) with a 95% confidence interval (95% CI), taking the statistical significance for all the mentioned cases with a value of p < 0.05.

## RESULTS

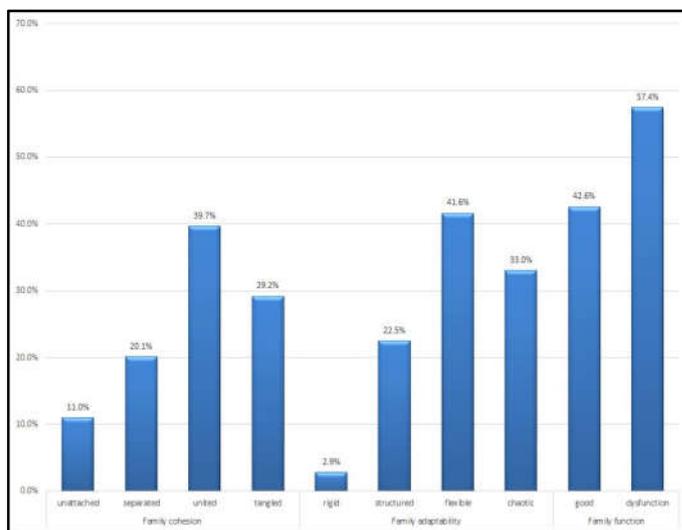
We studied 209 participants who met the selection criteria for this research, being 71 (34%) men and 138 (66%) women, mainly with an officer's rank (67%), a bachelor's degree (44%), of the Catholic religion (75.6%), married (39.7%). The prevalence of family dysfunction was 57.4%. Table 1 describes the sociodemographic characteristics of the study population. The family characteristics showed a "united" family cohesion in 39.7% of the subjects, while the "flexible" family adaptability had a 41.6% presence in the patients, being the most prevalent in the population. Figure one describes the family characteristics of the research participants. There were 20 (9.56%) patients with depressive disorder (DD) and 189 (90.43%) without depression (WO DD); the patients with DD were 6 (30%) men and 14 (70%) women, while in the WODD group, 65 (34.4%) men and 124 (65.6%) women were identified; the group with DD had an age of 34.7 (± 6.9) years, with a total family cohabitation time of 13.9 (± 10.9) years, showing predominance in the official hierarchy with 11 (55%) elements, bachelor's degree with 9 ( 45%) and Catholic religion with 15 (75%) cases; On the other hand WO DD patients were identified with age of 35.3 (± 7.2) years, with a

total family coexistence time of family cohabitation of 16.8 (± 12.0) years, with a hierarchical predominance with the official category with 129 (68.3%) elements, 83 (43.9%) with a bachelor's degree and 143 (75.7%) with a Catholic religion. The rank of captain showed an MRI of 0.1 with IC95% of 0.01 - 0.8, as well as being divorced allowed an MRI of 6.3 with 2.0 - 19.3 with a value of p < 0.05; Gender, age, years of family coexistence, schooling and religion did not show statistically significant differences. Table 2 shows the calculation of association between sociodemographic factors and depressive disorder.

Table 1. Characteristics of the study population

Characteristics of the study population		Total	Relative Value
Gender	Male	71	34.0%
	female	138	66.0%
hierarchy	Classes and marineria	62	29.7%
	Oficcers	140	67.0%
	Captains	7	3.3%
	Admirals	0	0.0%
School grade	Elementary	2	1.0%
	Secondary	27	12.9%
	High School	41	19.6%
	Bachelor's degree	92	44.0%
Religion	Postgraduate	47	22.5%
	Catholic	158	75.6%
	no catholic	25	12.0%
Civil Status	No practice	26	12.4%
	Single	73	34.9%
	Married	83	39.7%
	Widower	1	0.5%
	Concubinage	34	16.3%
	divorced	18	8.6%

Source: Research data.



Source: Research data.

Picture 1. Family characteristics of the study population

Regarding the most frequent family characteristics in the patients with DD, for the family cohesion the type "Tangled" with 9 (45%) cases and for the adaptability the type "chaotic" with 13 (65%) patients, while in the group WO DD were for family cohesion, the type "united" with 78 (41.3%) cases and for adaptability the "flexible" type in 83 (43.9%) occasions, obtaining an MRI of 0.3 for flexible families and 4.4 for chaotic families; The prevalence of family dysfunction in patients with DD was 100%, while in the group without DD it was 52.9%, obtaining from these an OR of 36.5 with a value of p < 0.05. Table 3 shows the calculation of association between family characteristics and depressive disorder.

**Table 2. Sociodemographic factors associated with depressive disorder**

	With DD	W/ODD	RM	IC95%	p
Gender					
Male	6 (30.0%)	65 (34.4%)	0.8	0.3-2.2	NS
Female	14 (70.0%)	124 (65.6%)			
Hierarchy					
Classes y marinería	8 (40.0%)	54 (28.6%)	1.6	0.6-4.3	NS
Officers	11 (55.0%)	129 (68.3%)	0.5	0.2-1.4	NS
Captains	1 (5.0%)	6 (3.2%)	0.1	0.01-0.8	0.008
Admirals	0 (0.0%)	0 (0.0%)	-	-	-
School grade					
Elementary	0 (0.0%)	2 (1.1%)	0.0	-	NS
Secondary	3 (15.0%)	24 (12.7%)	1.2	0.3-4.4	NS
High School	3 (15.0%)	38 (20.1%)	0.7	0.1-2.5	NS
University	9 (45.0%)	83 (43.9%)	1.0	0.4-2.6	NS
Postgraduate	5 (25.0%)	42 (22.2%)	1.1	0.4-3.3	NS
Religion					
Catholic	15 (75.0%)	143 (75.7%)	0.9	0.3-2.8	NS
No catholic	0 (0.0%)	25 (13.2%)	-	-	NS
No practice	5 (25.0%)	21 (11.1%)	2.6	0.8-8.0	NS
Civil Status					
Single	6 (30.0%)	67 (35.4%)	0.7	0.2-2.1	NS
Married	5 (25.0%)	78 (41.3%)	0.4	0.1-1.3	NS
Widower	0 (0.0%)	1 (0.5%)	0.0	-	NS
Concubinage	3 (15.0%)	31 (16.4%)	0.8	0.2-3.2	NS
Divorced	6 (30.0%)	12 (6.3%)	6.3	2.0-19.3	0.003

2.- Source: Research Data. Test used  $\chi^2$  o Fisher's exact test. Statisticar significance with value  $p < 0.05$ .

**Table 3. Family characteristics associated with depressive disorder**

	With DD	W/O DD	RM	IC95%	p
* Family Cohesion					
Unliked	3 (15.0%)	20 (10.6%)	1.4	0.4-5.5	NS
Separated	3 (15.0%)	39 (20.6%)	0.6	0.1-2.4	NS
Joined	5 (25.0%)	78 (41.3%)	0.4	0.2-1.3	NS
Tangled	9 (45.0%)	52 (27.5%)	2.1	0.8-5.5	NS
* Adaptabilidad Familiar					
Rigid	2 (10.0%)	4 (2.1%)	5.1	0.8-30.0	NS
Structured	1 (5.0%)	46 (24.3%)	0.1	0.02-1.2	NS
Flexible	4 (20.0%)	83 (43.9%)	0.3	0.1-0.9	0.054
Chaotic	13 (65.0%)	56 (29.6%)	4.4	1.6-11.64	0.002
* Family function					
Family Dysfunction	20 (100%)	100 (52.9%)	36.5	2.1-612.4	<0.00001*
Good Family Function	0 (0.0%)	89 (47.1%)			

3.- Source: Datos de la investigación. Test used  $\chi^2$  o Fisher's exact test. Statisticar significance with value  $p < 0.05$ . \* Software epidat 3.1 increase 0.5 each box for RM calculate.

## DISCUSSIONS

The prevalence of family dysfunction in the study participants is higher than that reported in civil patients (Zapata-Gallardo, 2007), however it is similar to that reported in Mexican military patients without obesity (54%), since those patients with obesity increase their prevalence (68%) (Vazquez Guzman, 2014); With respect to depression, the military participants in this investigation suffered from depression more frequently, doubling the prevalence registered in the civilian population that registers values in Mexico of 4.8% and being higher than that reported by troops in the United States (Verdeli, 2011 and Moreno Marín, 2004). Family dysfunction turned out to be a factor that facilitates the presence of depression, as well as having a chaotic family and being divorced, this could be presupposed based on the fact that these two elements are facilitators for family dysfunction, while having a family with flexible adaptability, is a protective element for this pathology which also seems redundant since being flexible is part of the integration of a functional family, however, although these relations seem obvious, we have to emphasize that the rest of the elements that make up the Dysfunction and good family function were not associated with depression, so we can suggest that to prevent the presence of depression, programs in the elements

of the militia that strengthen family adaptability would have to be had since both cohesion and flexibility are part of the she, waiting as a consequence of this to diminish the possibility of divorce, since a study from Moreno (Moreno Marín, 2007) a functional family tends to have adequate communication, affectivity, attention and socialization among other things, thus decreasing the likelihood of subsequently going through depression and facilitating a better quality of life (González-quevedo, 2019). We must point out that this line of research within the Mexican armed forces can be an important source of information for the management of the human resources that comprise it, since although there are data indicating that there is no association between family dysfunction and depression in Mexican adults (13) if there is information that shows that organizational stress in non-military patients is correlated with depression (14), however, based on the foregoing, we consider it necessary to study the family members of the military, since there are evidences that indicate that there may be members that generate stress data from the actions indicated to the military asset (Jarero, 2012). We should point out that having the rank of Captain was a protective factor for the development of depression, which could be explained with the premise that this degree is reached mostly by having several years of seniority within the institution, which would be in accordance with the data which indicate a negative correlation between the

level of stress and seniority in the civilian population (Acevedo, 2005). Finally, we must point out data published by Gómez *et al.* Who indicate that the family is one of the main causes of the appearance of instability and casualties within the military profession, "limiting or modifying the professional careers of the military that, in general, give each the family has an ever greater influence on military personnel, suggesting that the armed forces put the necessary means at their disposal in order to "give and maintain the family welfare of their workers, which In turn, it would have repercussions in various ways on job satisfaction, on the involvement in work and on the assumption of the specific roles that the institution demands directly from its staff and, indirectly, from their families (Eescarda, 2016).

## Conclusions

Family dysfunction, having a chaotic family and being divorced are risk factors for the development of depression in the active military assigned to the HOSNAVESVER, while having a captain's degree and having a family with flexible adaptability are protective factors for this pathology.

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## REFERENCES

- Acevedo J, Fernández-D'Pool J, Fernández P. 2005. Estrés organizacional, depresión y afrontamiento en trabajadores petroleros. *Salud los Trab [Internet]*. 13(1):7–17.
- Campoverde WS. Funcionamiento Familiar según el modelo circunplejo de Olson. [Internet]. Universidad de Cuenca; 2015. Available from: <http://dspace.ucuenca.edu.ec/bitstream/123456789/21878/1/TESIS.pdf>
- Eescarda MG, Rruiz JH, Pérez Rredondo RJ. 2016. Familia y suelo pegajoso en las fuerzas armadas españolas. *Rev Mex Sociol.* 78(2):203–28.
- González-quevedo LA, Sanabria-ferrand PA, Sc PM, Humberto TC, Psiquiatra Z. 2010. Percepción de la calidad de vida y la salud mental en oficiales de la fuerza aérea colombiana. *med.* 18(49):115–22.
- Jarero I. Ayudando a los niños y adolescentes ante el despliegue de padres de las fuerzas armadas mexicanas. *Rev Iberoam Psicotraumatología y Disociación.* 2012; 4(2):1–3.
- Marcas Vila A, Mariscal Labrador E, Muñoz Pérez MA, Olid Cobos F, Pardo Remesal MJ, Rubio Simón E, *et al.* 2000. La disfunción familiar como predisponente de la enfermedad mental. ¿Existe tal asociación? *Aten Primaria [Internet]*. (7):453–8. Available from: [http://dx.doi.org/10.1016/S0212-6567\(00\)78702-6](http://dx.doi.org/10.1016/S0212-6567(00)78702-6)
- Moreno Marín J. 2007. Función y disfunción familiar. *Form Médica Contin en Atención Primaria [Internet]*. 2007; 14(5):89–99. Available from: <http://linkinghub.elsevier.com/retrieve/pii/S1134207207740227>
- Ponce E, Gómez F, Teran M, Irigoyen A, Landgrave S. 2002. Validez de constructo del cuestionario FACES III en español (México). *Aten Primaria.*, 38(3):624–30.
- Schmidt V, Barreyro JP, Maglio AL. 2010. Escala de evaluación del funcionamiento familiar FACES III: ¿Modelo de dos o tres factores? *Escritos Psicol.*, 3(2):30–6.
- Tortella-Feliu. Los Trastornos de Ansiedad en el DSM-5. *Child Psychiatry Hum Rev Iberoam Psicopatología.* 2014; 110:62–9.
- Vazquez Guzman M. 2014. Hábitos alimentarios, actividad física y binomio ansiedad / depresión como factores de riesgo asociados con el desarrollo de obesidad en población militar. *Sanid mil.* 70(1):25–9.
- Verdeli H, Baily C, Voursora E, Belser A, Singla D, Manos G. 2011. The Case for Treating Depression in Military Spouses. *J Fam Psychol.*, 25(4):488–96.
- Wagner FA, González-forteza C, Sánchez-garcía S, García-peña C, Gallo JJ. 2012. Enfocando la depresión como problema de salud pública en México. 35(1):3–1
- Zapata-Gallardo JN, Figueroa-Gutiérrez M, Méndez-Delgado N, Miranda Lozano VM, Linares Segovia B, Carrada Bravo T, *et al.* 2007. Depresión asociada a la disfunción familiar en la adolescencia. *Bol Med Hosp Infant Mex [Internet]*. 64(5):1–301. Available from: <http://scielo.sld.cu/pdf/mgi/v15n2/mgi13299.pdf>
- Zuleima Cogollo, Edna Gomez, Oney de Arco IR. 2009. Asociación Entre Disfuncionalidad Familiar Y Síntomas Depresivos Con Importancia Clínica En Estudiantes De Cartajena, Colombia. *Rev Colomb Psiquiatr.* 38(4):1–9.

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