Revista Electrónica de Psicología Iztacala

Universidad Nacional Autónoma de México

**Vol. 18 No. 1** **Marzo de 2015**

# SOCIODEMOGRAPHIC PROFILE FROM CHRONIC FATIGUE SYNDROME IN MEXICO

Abril Berenice Macías Torres[1], Andrea Feliciano Cruz[2], Yesica Danitzel Montiel Orihuela[3] , Norma Coffin Cabrera[4], Constanza Mirlario Medina[5]
Universidad Nacional Autónoma de México
Facultad de Estudios Superiores Iztacala

## Abstract

Myalgic encephalomyelitis (ME) or chronic fatigue syndrome (CFS), also known as chronic fatigue and immune dysfunction syndrome (CFSDI), is a complex and debilitating chronic condition which has a serious impact on the lifestyle of the sufferer. A number of studies have stated the importance of demographic factors in the development of this illness. Some sociodemographic topics have been asseted in this study, such as: gender, age, ethnicity, and marital status, among others. The current study compared two samples of undergraduate students: a sample of 51 students from DePaul University who identified as Caucasian (not Latino), and a sample of 156 students of Latino origin from Universidad Nacional Autónoma de México (UNAM). Results show that women report higher levels at men; participants who have never been married reported less prone to CFS/ME; Also, in the geographical area, at Mexican sample, it was found that 40% suffered from CFS and the State of Mexico. Little research has been made in this field, being necessary.

[1] Egresada de Psicología, FESI, UNAM. Correo electrónico: abber.macias@gmail.com
[2] Egresada de Psicología, FESI, UNAM. Correo electrónico: fcandrea6@gmail.com
[3] Egresada de Psicología, FESI, UNAM. Correo electrónico: dany050692@gmail.com
[4] Profesora Titular B, TC, Carrera de Psicología. FESI, UNAM. Correo electrónico: coffin@unam.mx Responsable del proyecto.
[5] Profesora Asociado B, TC, Carrera de Médico cirujano. FESI, UNAM. Correo electrónico: cmiralrio@hotmail.com Co-Responsable del proyecto.

*Se agradece a la UNAM y a DGAPA por el Grant UNAM: PAPIME PE 304713 para la realización de éste estudio.

**Keywords:** Chronic Fatigue Syndrome, demographic data, transcultural study.

# PERFIL SOCIODEMOGRÁFICO POR SINDROME DE FATIGA CRÓNICA EN MÉXICO

Abstract

Myalgic encephalomyelitis (ME) or chronic fatigue syndrome (CFS), also known as chronic fatigue and immune dysfunction syndrome (CFSDI), is a complex and debilitating chronic condition which has a serious impact on the lifestyle of the sufferer. A number of studies have stated the importance of demographic factors in the development of this illness. Some sociodemographic topics have been asseted in this study, such as: gender, age, ethnicity, and marital status, among others. The current study compared two samples of undergraduate students: a sample of 51 students from DePaul University who identified as Caucasian (not Latino), and a sample of 156 students of Latino origin from Universidad Nacional Autónoma de México (UNAM). Results show that women report higher levels at men; participants who have never been married reported less prone to CFS/ME; Also, in the geographical area, at Mexican sample, it was found that 40% suffered from CFS and the State of Mexico. Little research has been made in this field, being necessary.

**Palabras clave:** Sindrome por fatiga crónica, dato demográfcico, studio transcultural.

Myalgic encephalomyelitis (ME) or chronic fatigue syndrome (CFS), also known as chronic fatigue and immune dysfunction syndrome (CFSDI), is a complex and debilitating chronic condition which has a serious impact on the lifestyle of the sufferer. It is characterized by restless sleep, extreme fatigue before and after physical activity lasting 24 hours or more, for a period of six months or more, concentration problems and pain muscular[1]. The main feature is the presence a persistent and unexplained fatigue that is shown after the completion of both physical and mental efforts even though these are small (Friedberg and Jason, 2002).

Fatigue is the seventh in the main common health complaints that patients discuss with their family physicians. Its main feature is that it is difficult to measure fatigue can only be perceived and described the person feels tired. As fatigue is so personal, it is often difficult for people who work in health care to identify their exact causes or proposing a remedy for it.

Acute fatigue is defined as normal people feel tired after using the muscles, fatigue occurs rapidly in areas of the body that have been working or exercising, and does not last long. Acute fatigue is normal and, moreover, is useful because it tells the body when to rest. Meanwhile, chronic fatigue, however, is not normal, the person usually feels extreme fatigue, which occurs for no apparent reason and lasts longer than a few hours or a day. It often has a cumulative effect, so that the person will feel weak and indifferent as time passes. While normal or acute fatigue resulting from work or exercise, chronic fatigue is rooted in a physical or mental condition (Research and Training Center on Independent Living, 1994)

It is for this that seeks to understand the implications of fatigue in CFS, and the details of it. As a little-known in Mexico, research regarding the sociodemographic variables of CFS are in their infancy, as it seeks to identify patterns and specificities collaborate diagnosis. But abroad already have more developed concerning; US Center for Disease Control and Prevention of Disease (CDC) conducted one of the first studies to determine the extent of the syndrome during the years of 1989-1993, another example is DePaul University in Chicago has conducted a series of studies on the general population, showing that 100,000 men, 291 of them have Chronic Fatigue Syndrome, while in women the prevalence was shown in 522 of them (ACSFCEM, 2014; Approach to syndrome chronic fatigue)[2].

In a study conducted by Cox, Blaxter, & Buckle (1987), about 30% of women reported feeling tired all the time during the previous month, compared with 18.9% of men. In turn, primary care reports show the fact that women suffer more fatigue compared to men in a ratio of 3 to 1. (Reyes et al., 1997; Wessley et al., 1997). As for community studies, the prevalence also indicates that women are at a significantly higher risk than men for developing fatigue (Jason, Jordan, et al., 1999; Steele et al., 1998).

In turn Richman, Jason, Taylor, & Jahn (2000) compared the quality of life of women with chronic fatigue syndrome with patients with MS and concluded that CFS patients

have a poor quality of life due to lack of recognition, political, academic, health system and others. In addition, another study found that women with more fluctuations in their symptoms which receive less support from their partner (Goodwin 2000).

Jason, Fennell & Taylor (2003), reported that Weiss, Helder and Antoni, stated that gender might be a factor affecting the accuracy and speed of diagnosis, this bias because physicians and patient education usually reported experiencing immediate diagnosis in some patients men, while in women it was difficult, stressful and frustrating. Matsumoto in 1996 declaring that gender is related to several variables associated with fatigue and ethnicity; such as the biological and psychological differences, ecological and political, such as the livelihood and culture, but also mentions that contexts sociodemographic factors may not cause effects on fatigue, but a combination of them with ethnicity.

Concerning to age, the Survey of Health and Lifestyle, Cox et al., (1987), found the presence of fatigue from any source, distributed similarly in all ages. In contrast, another study examining fatigue caused by a medical condition, provided this higher rate among older age groups (Lawrie and Pelosi, 1995).

The CDC, during the period 1989-1993, found that out of 100,000 Americans over 18 who receive medical care, an average of 4 to 8.7 of them suffer from chronic fatigue syndrome also have symptoms similar to those observed Syndrome in patients under 12 years, but to a lesser extent (ACSFCEM, 2003; Chronic Fatigue Syndrome). 3 However, most studies examining unexplained fatigue, found that the fatigue had significantly more prevalent in young adults than in older adults (Buchwald et al., 1995; Jason, Jordan, et al., 1999; Lawrie and Pelosi 1995; Lloyd et al., 1990. Steele et al, 1998), so these findings suggest that unexplained fatigue might be independent of the natural aging process.

On the other hand, socioeconomic status has always been an important factor in the levels of stress and fatigue of the people, it is considered as one of the most relevant

health status predictors. Some studies have found a higher prevalence of CFS among individuals of higher socioeconomic strata (Gunn, et al., 1993). However Jason, Jordan et al, (1999).; Lloyd et al, (1990).; Steele et al., (1998) state that there is evidence suggesting that in the lower socioeconomic strata are more common fatigue, this information was obtained through community education. Still others conclude that there is no trend in social class between individuals with CFS, Wessely, et al., (1997). So we can conclude that so far cannot be considered to socioeconomic status as a predictor of chronic fatigue syndrome.

Regarding marital status and fatigue, David et al., (1990) found that there was a significantly increased risk of fatigue among single mothers. Also, with respect to community studies, Jason, Jordan et al. (1999) found that separate couples reported high levels of fatigue, as low levels were found in those who had never married.

Also, Jason, Jordan, et al. (1999), found differences in the degree of fatigue present in three different races: Caucasians, African- Americans and Latinos, finding that the main difference among them, is that Caucasians have less fatigue compared to the other two groups. However, little research on the matter has be done. There is a great need to investigate and assess the impact of ethnicity, which is why this study focused on identifying the demographic variables of the Mexican population and it is relation to CFS symptoms.

**Methods**

Sample: The current study compared two samples of undergraduate students: a sample of 51 students from DePaul University who identified as Caucasian (not Latino), and a sample of 156 students of Latino origin from Universidad Nacional Autónoma de México (UNAM).

Measures: Both samples completed the DePaul Symptom Questionnaire (DSQ), rating the frequency and severity of 54 ME/CFS symptoms, and the Medical Outcomes Study 36-item short-form health survey (SF-36). For latin population, Coffin, et al. (2011), standardized the DSQ for Mexico.

Statistical Analysis: The frequency and severity scores of each DSQ symptom were averaged to create one score for each symptom. The 54 symptoms were grouped into seven categories, and MANOVAs were conducted on each symptom category. One-way ANOVAs were used to compare SF-36 subscale scores.

## Results

### Demographic Profile for Mexico

One major goal of this study was to obtain a demographic profile for Mexican population. Table 1 shows demographic characteristics of Mexican sample.

**Table 1. Demographic profile of CFS in Mexico**

| | (n=172)<br>M *(SD))* |
|---|---|
| *Age* | 20.24 *(2.9)* |
| *Family income (per month, in pesos)* | 27295.83 *(240528.571)* |
| | |
| *Other demographic data* | n (%) |
| *Sex (Gender)*<br>Male<br>Female | <br>74 (43)<br>95 (55.2) |
| *Geographic Zone*<br>Mexico City<br>State of Mexico | <br>70 (40.7)<br>91 (52.9) |
| *Marital status*<br>Married<br>Separated<br>Single | <br>6 (3.5)<br>3 (1.7)<br>163 (94.8) |
| *Work status*<br>Student<br>Student and worker | <br>133 (77.3)<br>33 (19.2) |
| *Type of House*<br>Own | <br>118 (68.6) |

| | |
|---|---|
| Leisured<br>Family house<br><br>Other | 18 (10.5)<br>30 (17.4)<br>5 (2.9) |
| *Educational Level* | |
| Technical studies<br>College | 117 (68.0)<br>53 (30.8) |

Table 1. Shows the demographic features from Mexico.

**Table 2. Correlation of CFS symptoms and demographic profile for Mexico.**

( n = 172)

| | Age | Geographic zone | Ocupation | Educational Level | Family income |
|---|---|---|---|---|---|
| *Fatigue (6 symptoms)* | | | | | |
| Fatigue/ Extreme tiredness | .029* | .010** | | | .014* |
| Dead, heavy feeling after starting exercise | .048* | | | | |
| Pain/next day fatigue | .011* | | | | .011* |
| Minimum exercise makes you physically tired | .000** | | | | |
| Phisically exhausted | .003** | | | | |
| Feeling unrefreshed after you wake up in the morning | .019* | | | | |
| *Sleep (4 symptoms)* | | | | | |
| Need to nap daily | | | .045* | .009** | |
| Problems falling asleep | .037* | | | | .009** |
| Problems staying asleep | | | | | .001** |
| Sleep all day and stay awake all night | .028* | .026* | | | |
| *Memory/concentration problems(5symptoms)* | | | | | |
| Mentally tired after the slightest effort | .003** | | | | |
| Difficulty paying attention for a long period of time | | | | | .023* |
| Difficult to finding the right word to say or expressing thoughts | | | | | .029* |
| Only able to focus on one thing at a atime | .043* | | | | |
| Slowness of thought | .023* | .047* | | | |
| *Pain (5 symptoms)* | | | | | |
| Pain/fatigue next day | | | | | .005** |

| | | | |
|---|---|---|---|
| Pain/joint stiffness/tenderness in more than one joint without swelling or redness | | | .009** |
| Eye pain | .001** | | |
| Headaches | .010* | | |
| Tender/ sore lymph nodes | | .020* | |
| *Nivel de actividad (2 síntomas)* | | | |
| Tiredness on máximum excercise | .001** | | |
| Worsening of fatigue after excercise | .002** | | |

Table 2. Shows correlations between demographic data and the main symptoms of CFS (Coffin, et al), which state a demographic profile for Mexican population.

**Discussion**

Gender variable in the results were similar to those found by made by Cox, Blaxter, & Buckle (1987) and Jason, Taylor, & Jahn (2000), as they state that regarding fatigue, women report higher levels at men; for their part, in this study 55% of the sample of women had CFS compared to 43% of the sample of men.

On the other hand, in the category of marital status, the data obtained in this investigation are similar to those obtained by David et al., (1990) and Jason, Jordan et al. (1999), because participants who have never been married reported less prone to CFS, which could be related to the levels of physical, psychological and social wear involving marriage in our country, as in the case of economic dependence on the spouse or children.

About geographic zone, work status, type of house and educational level variable, exploratory data are reported because there are no previous investigations. Also, in the geographical area, at Mexican sample, it was found that 40% suffered from CFS and the State of Mexico, 52% live with CFS, which could be explained by the very high rates of insecurity and the transfer time from one place to another that is greater than in the City and the State of Mexico is considered migration as sources of employment are external. Talking of work status, participants who only studied, 77% developed CFS as well as 68% of whom are homeowners and those with only technical studies.

So we can conclude that CFS/ME prevalence can be related to gender, geographic zone, work status, type of house, educational level, age, race, marital and socioeconomic status, as predictors of CFS/ME. It was found that in Mexico, students are not used to answer online questionnaires, still. However, in spite of the limitations of this study it is important to start approaching sociodemographic data, as another path to understand the CFS/ME occurrence.

REFERENCES

http://solvecfs.org/what-is-mecfs/

Asociación catalana de Afectados por el Síndrome de Fatiga Crónica. Aproximación al síndrome de fatiga crónica. Recuperado el 16 de noviembre de 2014 de: http://www.institutferran.org/documentos/aprox_sfc.pdf

Asociación catalana de Afectados por el Síndrome de Fatiga Crónica (2003). Síndrome de fatiga crónica. Recuperado el 16 de noviembre de 2014 de: http://www.institutferran.org/documentos/GuiaSFC_cast.pdf

Buchwald, D., Umali, P., Umali, J., Kith, P., Pearlman, T. & Komaroff, A. L. (1995). Chronic Fatigue Syndrome: Prevalence in a Pacific Northwest health care system. *Annals of International Medicine*. 123, 81-88.

Centro de Investigación y Entrenamiento en Vida Independiente, (1994). *Fatiga crónica.* Prevención y tratamiento. Serie A, nº 4. Universidad de Kansas.

Coffin, C. N., Jason, L., Jiménez, R. Ma. de L., Bejar, N. C., Bejar, N. F., Cedillo I. B., Miralrio, M. C. y Álvarez Z. M. (2011) "Síndrome de Fatiga Crónica. Validación de un instrumento para la población mexicana". FES Iztacala, UNAM. 1ª edición, México. ISBN 978-607-02-2778-3

Cox, B.D, Blaxter, M. & Buckle, A. (1987). *The health and lifestyle survey*. London, UK: Health Promotion Research Trust.

David, A. S., Pelosi, A., McDonald, E., Stephens, D., Ledger, D., Rathbone, R. et al. (1990). Tired, weak, or in need of rest: Fatigue among general practice attendees. *British Medical Journal*, 301, 1199-1202.

Friedberg, F. & Jason, L. (2002) *Understanding Chronic Fatigue Syndrome.* Ed. American Psychological Association.

Goodwin, S. S,. (2000) *Couples perceptions of wives CFS symptoms change, and impact on the marital ralationship. Issues Ment Healt Nurs, Jun; 21 (4):347-63.*

Gunn, W. J., Connel, D. B. & Randal, B. (1993). "Epidemiology of chronic fatigue syndrome: The Centers-for-Disease-Control study." En: B. R. Bock y J. Whelan (Eds.), Chronic fatigue syndrome (pp. 83-101). New York: Wiley & Sons.

Jason, L. A. Jordan, K. M., Richman, J. A., Rademaker, A. W.; Huang, C.; McCready, W. & Frankenberry, E. L. (1999). *A community-based study of prolonged and chronic fatigue.* Journal of Health Psychology.4:9–26.

Jason, L. A.; Fennell, P. A., & Taylor, R. R. (2003) *Handbook of Chronic Fatigue Syndrome*. John Wiley & Sons, Inc.

Lawrie, S. M. & Pelosi, A. J. (1995). *Chronic Fatigue syndrome in the community: Prevalence and associations.* British Journal of Psychiatry, 166, 793-797.

Lloyd, A. R.: Hickie, I.; Boughton, C.R.; Spencer, O.; Wakefield, D. *Prevalence of chronic fatigue syndrome in an Australian population.* Med J Aust 1990; 153: 522-528

Matsumoto, D., (1996). *Culture and psychology*. Pacific Group, CA, Brooks Cole Publishing.

Reyes, M., Gary, Jr., H., E., Dobbins, J. G. *et al.* (1997). *Descriptive epidemiology of chronic fatigue syndrome: CDC surveillance in four cities.* Morbidity and Mortality Weekly Report Surveillance Summaries. 46, 1-13.

Richman J. A., Jason L. A., Taylor R. R. & Jahn S. C. (2000). *Feminist perspectives on the social construction of chronic fatigue syndrome. Healt Care Women Int, Jun; 21 (4):347-63.*

Song, S., Jason, L., Taylor, R. (1999). *The relationship between ethnicity and fatigue in a community-based sample.* Journal of Gender, Culture and Health, 4*,* 255-268.

Steele, L., Dobbins, J. G., Fukuda, K., Reyes, M. Randall, B., Koppelman, M. et. al. (1998). The epidemiology of chronic fatigue in San Francisco. *The American Journal in Medicine*, 105, 835-905.

Wessely. S.; Chalder, T.; Hirsch, S.; Wallace, P. & Wright, D. (1997). *The prevalence and morbidity of chronic fatigue and chronic fatigue syndrome: A prospective primary care study*. American Journal of Public Health. 87:1449–1455.