



**Research Article**

**PREVALENCE OF CHRONIC FATIGUE SYNDROME (CFS) AMONG TEACHING PROFESSIONALS**

**Kavin Mozhi J<sup>1\*</sup>, Susila C<sup>2</sup> and Tamarasi B<sup>3</sup>**

<sup>1</sup>Meenakshi Academy of Higher Education and Research, Chennai

<sup>2</sup>Billroth College of Nursing, Chennai, Tamil Nadu

<sup>3</sup>Madha College of Nursing, Chennai

**ARTICLE INFO**

**Article History:**

Received 11<sup>th</sup> May, 2018

Received in revised form 7<sup>th</sup>

June, 2018 Accepted 5<sup>th</sup> July, 2018

Published online 28<sup>th</sup> August, 2018

**Key words:**

Teaching professionals with chronic fatigue syndrome, Cognitive behavioral therapy, relaxation therapy, fatigue.

**ABSTRACT**

**Objectives:** To assess the prevalence of chronic fatigue syndrome among teaching professionals. **Method:** Descriptive survey method was adopted. The study was conducted at selected 18 schools in Chennai. 680 samples who fulfilled the inclusive criteria were included in this study using non probability convenient sampling technique. Center for Disease Classification short form of symptom inventory for Chronic Fatigue Syndrome was used for data collection. **Results:** The percentage distribution of Chronic Fatigue Syndrome among teaching professionals showed 17.78% CFS cases and 82.22% non CFS cases. The reliability of the tool was measured by test and retest method. **Conclusion:** This report can provide essential information to build a strategy for development of therapeutics against chronic fatigue and chronic fatigue syndrome.

Copyright©2018 Kavin Mozhi J et al. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

**INTRODUCTION**

Fatigue is inevitable when teachers are responsible for children who don't have an "off" switch and always hope to be engaged and they are dealing with the relentless demands of crafting engaging lesson plans grading papers and communicating with parents and others. (Brian P.Gatens, 2015). Teaching when done properly, is physically, mentally and emotionally exhausting. Demanding workloads and extensive job duties in and beyond the class room have pressured teachers into a state of mental and physical exhaustion leads to fatigue.(Harvey Simon, 2012).

When fatigue accumulates for prolonged period leads to chronic fatigue illness. Teachers are bound to find themselves from time to time rather than ignore the signs that they are growing fatigued-being in bad mood, loosing the ability to pay close attention and having little patience with people. Before teachers realize it their body will have great ways to tell them that they are fatigued. They experience a sore throat, feeling sluggish, having a tough time getting out bed and restless when trying to fall asleep. (Yo Shiharu, et al. 2011) But without realizing that, they are ending up with the condition called chronic fatigue syndrome.

Chronic fatigue syndrome (CFS) is essentially very debilitating and complex disorder characterized by profound fatigue that is not improved by bed rest and that may be

worsened by physical or mental activity. Symptoms may include weakness, muscles pain, impaired memory, and/ or mental concentration and insomnia, which can affect several body system. Despite 20 years of research and over 3000 published peer reviewed papers, the etiology of CFS remains unclear. (Jason et al., 2005). Researchers have not yet identified the exact cause for CFS, and there are no definite tests to diagnose.

CFS is more prevalent among women than men (Jason, Richman et al., 1999 & Reyes et al., 2003). Persistent fatigue in CFS leads to deterioration of productive activity of the sufferer along with loss of quality of life, mental peace and happiness. It can pose a very serious threat to health (DJ. Borah, 2015).

The average prevalence of CFS was 1.2% worldwide while the most recent study (2011 year) using 143,000 subjects in the UK reported 0.19%, being 0.3% for women and 0.09% for men. In general, it was known that the prevalence of CFS is variable according to sex, age, ethnicity and social environment. Women show a higher prevalence of CFS, about 3-fold that of in men. One UK survey showed 4-folds higher prevalence in Pakistani (3.5%) than white (0.8%). The average prevalence for adolescents from three papers was 0.6% compared with 1.2% for adults (Chang-Gue Son, 2012).

One report from the United States represented that untreated chronic fatigue syndrome reduced the workforce productivity by 54% of affected individuals leading to 9.1 billion dollars of

\*Corresponding author: **Kavin Mozhi J**

Meenakshi Academy of Higher Education and Research, Chennai

total productivity loss in the US. The main characteristic of chronic fatigue syndrome is not peripheral fatigue such as decreased muscular power or endurance but central fatigue including memory loss, difficulty of concentration or decline of desire, which impairs physical well-being, psychological and social aspect, and ultimately leads to social isolation. It is known that the population complaining of fatigue is increasing due to the rapid urbanization and severe stress in competitive society. There are large differences in prevalence of chronic fatigue according to the countries or study population.

The Korean Health Insurance Review Agency reported that no data for the accurate prevalence of chronic fatigue for the general population exist because of lack of studies.

There are no real population-based studies available from India that can give a picture of actual prevalence of this condition in the population. What early studies we get from India (Goa particularly) tries to grapple with the problem of trying to find a prototype an Indian female patient suffering from CFS (with some success) (Source: Chronic fatigue in developing countries: population based survey of women in India. BMJ. 2005;330:1190.). Beyond saying that it is a condition being increasingly recognized by Indian doctors any estimation about its prevalence in our country would be pure guesswork at the present. It will not possibly be incorrect to say that serious clinical search and research on CFS has started in India in the last decade only. (DJ Borah2013)

Hence the principal investigator intended to find out the prevalence of chronic fatigue syndrome among teaching professionals in selected schools, Chennai.

**Statement of the Problem**

A study to assess the prevalence of Chronic Fatigue Syndrome among teaching professionals in selected schools, Chennai.

**Objectives of the Study**

1. To assess the prevalence of Chronic fatigue syndrome among teaching professionals.
2. To Associate selected demographic variables with Chronic fatigue syndrome among teaching professionals.

**MATERIALS AND METHODS**

**Design:** Descriptive survey method.

**Research approach:** Evaluative.

**Setting:** The study was conducted at various schools in north and central part of Chennai, Tamil Nadu, India.

**Sample size:** 680 Teaching professionals, who fulfilled the inclusive criteria were taken for study.

**Sampling technique:** Non-Probability convenient technique has adopted for the study.

**Data collection instrument:** The standardized instrument was adopted and reproduced with formal permission from the authors and compiled by the investigator with the guidance of experts and review of literature. The tools used for the present study has the following components.

**Part I-** Self reported semi structured questionnaire for demographic variables:

Age, sex, educational qualification, monthly family income, habitant, religion, marital status, types of family , number of family members, mode of transport, hereditary disease, psychiatric illness, any other illness, attendance to school, gender disadvantage, autonomy.

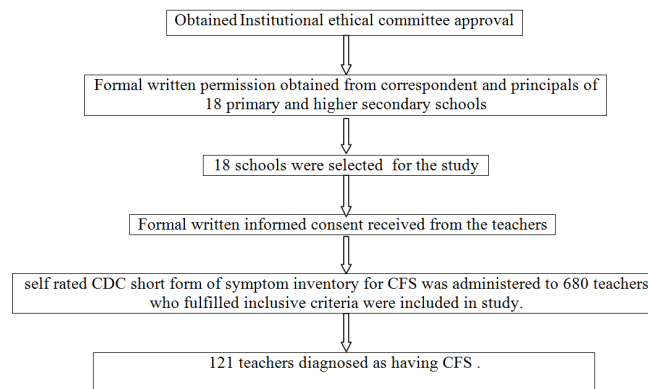
**Part II-** Center for Disease Classification short form of symptom inventory for Chronic Fatigue Syndrome It is a standardized self-reported questionnaires used in clinical evaluation of chronic fatigue syndrome (CFS). CDC short form of symptom inventory checklist developed by the US Centers for Disease Control and Prevention (CDC).

These questions are about physical symptoms that the person may have experienced during the past 6 months. The 8 case defining symptoms are post exertional fatigue, unrefreshing sleep and sleeping problem, problem remembering, concentration, muscle aches and pain, sore throat, tender lymph node and swollen glands, and head aches. Perceived frequency of each symptom was rated on a four-point scale (1 = a little of the time, 2 = some of the time, 3 = most of time, 4 = all of the time), and severity or intensity of symptoms was measured on a three-point scale (1 = mild, 2 = moderate, 3 = severe). Total score ranges from 40- 140.

Score	Interpretation
≤50%	Mild CFS
51 – 75%	Moderate CFS
>75%	Severe CFS

The reliability of fatigue severity scale and was measured by test and retest method and found the r value was 0.68 respectively

**Data Collection Procedure**



**RESULTS**

**Table 1** Frequency and Percentage distribution of level of CFS among teaching professionals

N = 680

Variable	No CFS (>50%)		Mild CFS (≤50%)		Moderate CFS (51 – 75%)		Severe CFS (>75%)	
	No.	%	No.	%	No.	%	No.	%
CDC Symptoms for CFS	559	82.2	58	8.52	63	9.26	0	0

The above table shows the frequency and percentage distribution of level of CFS among teaching professionals. With regard to severity, 58(8.52%) had mild CFS, 63(9.26%) had moderate CFS and 559 (82.2%) with no CFS whereas 0 (0%) had severe CFS.

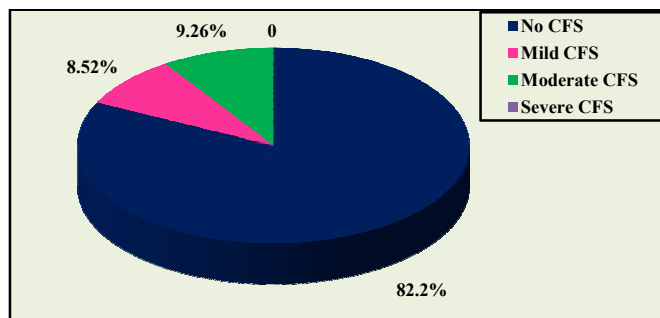


Fig 1 Percentage distribution of level of CFS among teaching professionals

Association between selected demographic variables with Chronic fatigue syndrome among teaching professionals revealed that there was a significant association with CFS and mode of transport at the level of  $p = 0.025$ .

It was found that there was highly significant association with CFS and Age at the level of  $p = 0.0001$ , significant association with marital status at the level of  $p = 0.035$ , significant association with number of family members at the level of  $p = 0.024$ , significant association with gender disadvantage at the level of  $p = 0.027$ , Autonomy and sick leave at the level of  $p = 0.026$  and  $p = 0.019$  respectively.

## CONCLUSION

The percentage distribution of Chronic Fatigue Syndrome among teaching professionals showed 17.78% CFS cases and 82.22% non CFS cases. This report can provide essential information to build a strategy for development of therapeutics against chronic fatigue syndrome.

## References

- Balachander, Pradyumna Rao, Siddharth sarkar, Shubh Mohan. Chronic fatigue syndrome: A review. *Medical Journal of Dr.Patil University*.2014; Jul-Aug;vol 7 Issue 4.
- Borah DJ., Chronic fatigue syndrome: a review. *AMJ Psychiatry*.2003; 160(2):221 -228
- Brurberg KG, Fønhus M.,(2014) Case definitions for chronic fatigue syndrome/myalgic encephalomyelitis (CFS/ME):a systematic review. *BMJ Open*. 7;4(2):e003973.
- Chang-GueSon., Review of the prevalence of chronic fatigue world wide, *The journal of korean Oriental Medicine* .2012.vol 33.No.2. 25-33
- Jason LA, Jordan KM, Richman JA, Rademaker AW, Huang C, McCready W, Frankenberry EL. A community-based study of prolonged and chronic fatigue. *Journal of Health Psychology*. 1999;4:9–26
- Karen lee Richards., (2007) Chronic fatigue syndrome - an update. *ActaClin Belg*. Jun 17:1-8.
- Meeus, BerurbergKG, Jane M, Mc Millan.,(2015) Outcomes of a 6-week cognitive-behavioral and mindfulness group intervention in primary care. *FamSyst Health*. 2016 Sep;34(3):250-9
- Williams YJ(1), Jantke RL(1), Jason LA(1).(2014) Chronic Fatigue Syndrome: Case Definitions and Diagnostic Assessment. *N Y State Psychol*. Winter;26(4):41-45.

Webserch:

<http://www.researchgate.net/publication/256649093>

<http://www.cdc.gov/cfs>

<http://education.cu-portland.edu>> blog

### How to cite this article:

Kavin Mozhi J., Susila C and Tamilarasi B (2018) 'Prevalence of Chronic Fatigue Syndrome (CFS) Among Teaching Professionals', *International Journal of Current Advanced Research*, 07(8), pp. 15009-15011.

\*\*\*\*\*