

Study to Estimate Prevalence of Fatigue Among Middle Aged Individuals

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ABSTRACT

Background: Fatigue is a ubiquitous symptom that appear to be both, a hallmark of illness and a normal physiological consequence of exertion, inadequate rest or inadequate diet and can therefore be understood as ranging from mild complaints frequently seen in the community to severe disabling fatigue. Fatigue is not only associated with most acute and chronic illnesses, but also with normal, healthy functioning and everyday life. It has a negative impact on emotional, social, occupational functioning causing serious disruption in the overall quality of life and is associated with adverse health outcomes such as mortality, morbidity and disability among middle aged adults.

Aim: This study aimed to determine the prevalence of fatigue among middle aged individuals.

Method: A cross sectional study was conducted among community dwelling individuals residing in Ahmedabad city. A survey of 300 individuals, both male and female, having the age group between 36 to 55 years, was conducted using Fatigue Severity Scale. The responses were submitted through google forms. Ethical clearance has been taken.

Result: The data examination was performed with Microsoft Excel 2019. Out of 300 individuals, 43% were men and 57% were females. The percentage prevalence of self-reported fatigue in study population was 70.66%.

Conclusion: Fatigue is a concerning public health issue that require development and implementation of effective interventions.

Keywords: fatigue, middle age

INTRODUCTION

Fatigue is defined as an overwhelming, debilitating, and sustained feeling of exhaustion that impairs one's ability to function and perform daily activities^[1].

Fatigue is a ubiquitous symptom, presenting a challenge to identify its precise aetiology. It is not only attributed to acute and chronic conditions but can also be a part of healthy functioning and daily life. While fatigue is commonly experienced as a symptom frequently accompanying various medical conditions referred to as "pathological fatigue"^[2], it may also be regarded as a normal physiological

consequence of certain situations such as exertion, insufficient rest, or inadequate nutrition and is often referred to as "non-pathological fatigue"^[3].

The prevalence of fatigue in primary care settings varies between 2.72% and 75.7%^[4]. A number of studies on fatigue in society as a whole were undertaken; it was found that the estimated prevalence of fatigue in the US workforce was 37.9%^[5], but went as high as 81.8% in China^[6].

Fatigue is a prevalent and complex phenomenon that affects people of all ages and can have a substantial impact on their

daily functioning and general well-being. There are numerous reasons for fatigue, including medical conditions such as anaemia, thyroid disorders, heart disease, and diabetes [7]. Lack of sleep, sleep disorders, a lack of regular exercise, a sedentary lifestyle, and an unsuitable diet are all lifestyle-related factors. The third cause could be work-related, such as shift work, unemployment, or workplace stress [8].

It has an influence not only on physical well-being but also on emotional, social, and professional performance, resulting in disturbances in the overall quality of life. Fatigue may result in diminished motivation, impaired cognitive function, difficulty with memory and concentration, mood disorders, and reduced social involvement. Such effects can impair people's ability to carry out daily tasks, maintain fulfilling relationships, and meet professional obligations. Furthermore, the effects of fatigue on middle-aged adults persist beyond their immediate impact on everyday life. Persistent fatigue has been linked to negative health consequences such as increased death rates, higher morbidity risks, and higher disability levels in middle-aged people, according to research [9].

One of the most extensively used scales for surveying fatigue severity is the Fatigue Severity Scale (FSS) developed by Krupp et al. [10], which is a multifaceted approach that offers a more nuanced assessment of exhaustion and its impact on numerous facets of an individual's life.

Fatigue is especially important among middle-aged people since it is a vital life stage marked by various responsibilities such as professional demands, family responsibilities, and potentially age-related changes in health and well-being. And, since there have been very few studies on this age group, the current study aims to investigate the prevalence of fatigue among middle-aged individuals.

MATERIALS & METHODS

A cross-sectional observational study was conducted among individuals residing in the community in Ahmedabad, Gujarat, India. A sum of 300 responses were acquired using the purposeful sampling approach, with subjects having an age group between 36 and 55 years [11] old and being included based on inclusion and exclusion criteria. Approval from the institutional ethical panel was attained.

Data was collected via an online questionnaire created with Google Forms, and analysis was carried out using Microsoft Excel 2019. Data was collected over a one-month period, from December 1 to December 31, 2022.

The study included both male and female participants aged 36 to 55 years. Individuals with a recent surgical history, a psychological complaint or difficulty understanding, a cardiovascular, neurological, or neoplastic condition, or a clinically active musculoskeletal disease were all excluded from the study.

The questionnaire was divided into two sections: the first included demographic information such as name, age, height, and gender, as well as additional questions to assure they were free of any chronic conditions. The Fatigue Severity Scale was used in the second section to determine fatigue level.

The 9- item Fatigue Severity Scale (FSS), a short and valid questionnaire (test- retest reliability $r = 0.84^{(12)}$, was employed to assess the severity of fatigue symptoms endured in the week prior, with points ranging from 1(strong disagreement with the statement) to 7(strong agreement with the statement). The evaluation of the content reveals a combination of particulars that capture various aspects of fatigue. The item " Exercise brings on my fatigue," for example, conveys the idea that engaging in exercise or physical activity may increase individuals' fatigue. The item " My motivation is lower when I'm fatigued," on the other side, illustrates the consequences of exhaustion. The rest of the particulars,

similar as " I'm easily fatigued," are directly concerned with the individual's perception of exhaustion. A total score of 36 or more indicates fatigue, and the higher the score, the higher the fatigue. The total score was deduced by averaging their individual scores.

RESULT

The results of this study showed that out of 300 participants, 43% were male and 57% were female, with a mean age of 43.67 (SD = 7.83). (Table-1)

DEMOGRAPHIC CHARACTERISTICS

Age	Male	Female	MEAN±SD
36 – 55 years	43%	57%	43.67±7.83

Table-1 Demographic profile of all participants

The data was analysed using Microsoft Excel 2019, and the results indicated that the percentage prevalence of self-reported fatigue in the study population was 70.66% (Figure-1).

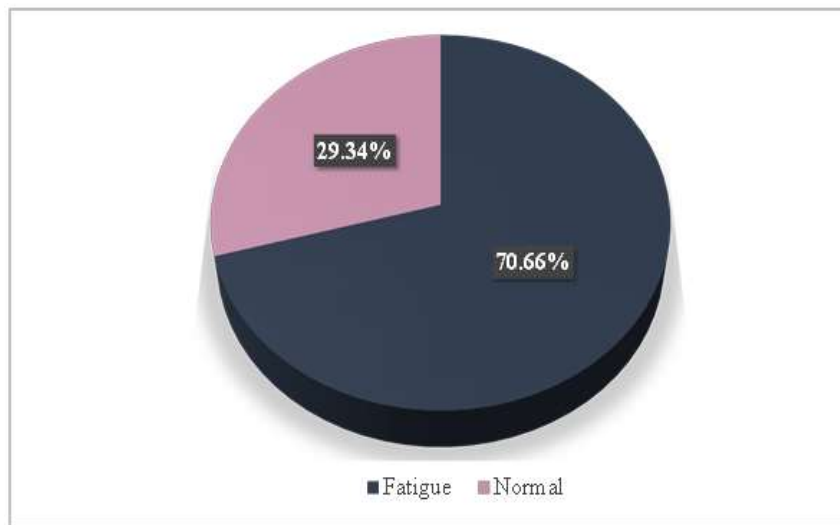


Figure-1 Percentage prevalence of fatigue among study population

Because the scale shows that the higher the score, the higher the amount of fatigue, we divided the results into three categories: no fatigue, moderate fatigue, and severe fatigue. There was no fatigue in 88 participants who scored less than 36 on the

Fatigue Severity Scale. Moderate fatigue was discovered in 171 patients with scores ranging from 36 to 49, and severe fatigue was found in 41 subjects with scores ranging from 50 to 63. (Figure-2)

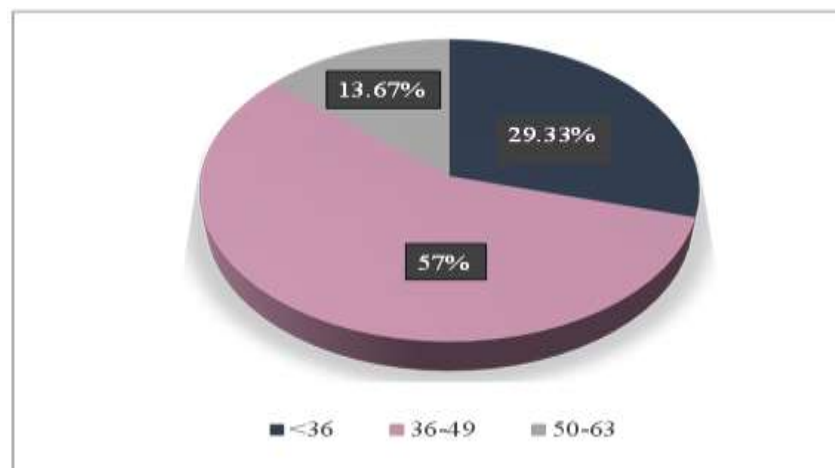


Figure-2 Fatigue Severity Scale scoring of the study population

The description of Fatigue Severity Scale is as follows (Table-2)

Fatigue Severity Scale (FSS); English (US) version

A

1. My motivation is lower when I am fatigued
2. Exercise brings on my fatigue
3. I am easily fatigued
4. Fatigue interferes with my physical functioning
5. Fatigue causes frequent problems for me
6. My fatigue prevents sustained physical functioning
7. Fatigue interferes with carrying out certain duties and responsibilities
8. Fatigue is among my three most disabling symptoms
9. Fatigue interferes with my work, family, or social life

B

1 = Completely disagree
7 = Completely agree

A=the items, B=response categories on a Likert scale of 1–7.

Table-2 Fatigue Severity Scale (FSS)

DISCUSSION

The current study sought to find out the prevalence of fatigue among Ahmedabad's middle-aged community residents. The data revealed that 70.66% of 300 individuals felt fatigue, with 57% having moderate fatigue and 13.67% having severe fatigue. We discovered that the question "Fatigue interferes with my physical functioning" caused the highest level of fatigue in the patients, whereas the question "Exercise causes my fatigue" caused the least.

Fatigue in individuals in middle age can be caused by a variety of underlying medical issues. Low back pain (570 million prevalent cases worldwide) is the leading contributor to the overall burden of musculoskeletal conditions, followed by fractures (440 million people globally), osteoarthritis (528 million people), neck pain (222 million people), amputations (180 million people), rheumatoid arthritis (18 million people), gout (54 million people), and other musculoskeletal conditions (453 million people)^[13]. In comparison to studies concentrating on specific health issues, research on fatigue in healthy individuals is

very scarce. However, there is an increasing interest in understanding fatigue in healthy people, with studies looking into factors including lifestyle, sleep patterns, and psychological characteristics that contribute to weariness.

Deema Rahme et al. (2020) observed in their study "Work Fatigue among Lebanese Community Pharmacists" that 50.12% of 435 community pharmacists had emotional work fatigue, 55.01% experienced mental work fatigue, and 54.78% experienced physical work fatigue. Furthermore, work-related stressors such as an excessive workload, frequent interruptions from phone calls or others, and a lack of competent staff were linked to high work stress^[14].

Research undertaken by industrial psychologists and associated fields, on the other hand, investigates the impact of work-related stress and overwork on fatigue in healthy individuals. Work-related stress and being overworked were the most common causes of exhaustion acknowledged by our participants, and people reported significant difficulty with fatigue interfering with normal tasks and functioning. Regardless of

the demographic investigated, lifestyle variables and stress are consistently identified as major causes of fatigue [15].

Although research on fatigue in healthy people is scarce, recognising and addressing the variables can aid in improved understanding and management of fatigue in healthy people, thereby enhancing their overall well-being and everyday functioning.

CONCLUSION

We conclude that the prevalence of fatigue among middle-aged individuals is 70.66%, with 57% experiencing moderate fatigue and 13.67% experiencing severe exhaustion. Fatigue is a major public health concern that requires research and the implementation of effective treatments. Physical therapists can help people manage their fatigue and enhance their overall quality of life by providing education, exercise prescription, energy conservation techniques, postural correction, manual treatment, relaxation techniques, and self-management strategies. While the current study has limitations due to its cross-sectional approach, descriptive character, and potential limitations of the fatigue questions used, it nonetheless provides useful insights into the prevalence and impact of fatigue in middle-aged people. Future research would improve our understanding of the risk factors, causes, and implications of fatigue in the middle-aged population by using longitudinal designs, a more thorough methodology, and enhanced assessment instruments.

Declaration by Authors

Ethical Approval: Approved

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Conflict of Interest: The authors declare no conflict of interest.

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