

A study to assess the special school teachers' knowledge regarding sedentary life style and its impact on mental wellbeing

Lilly C.D and Anadraj Kumar

Abstract

Leading a sedentary lifestyle is becoming a significant public health issue. Sedentary lifestyle increasingly widespread in many nations despite being linked to a range of chronic health conditions. Physical activity is essential in day to day life. During COVID-19 pandemic people were forced to remain at home that made some type of sedentary life style. Post COVID-19 pandemic most people are continuing in sedentary lifestyle. Many people search for the comfort zone that leads to sedentary life style. Physical inactivity is a global problem and it is more severe in India.

The Research methodology: The study is confined to Trissur and Ernakulum district, in the state of Kerala. 30 special school teachers, from schools of mentally challenged children who met the selection criteria, were selected; Using simple random sampling technique stratified random or multistage sampling.

The study was conducted to assess the special school teachers' knowledge

¹ Ms. Lilly C.D. (Sr. Teena Davis CMC), PhD Scholar, Dept. of Rural Development, GRI, Dindigaul. (Principal, Navjeevan College of Nursing, Gayaganga, Kamalbagam, Darjeeling)

² Dr. Anadraj Kumar, Prof., Dept. of Rural Development, GRI, Dindigul.

regarding sedentary life style and its impact on mental well-being” in the state of Kerala. Special school teachers who met the inclusion criteria (n=30), were selected using stratified sampling technique. Data was collected using knowledge questionnaire and socio demographic variables for a period of 2 weeks.

Majority 60% of special school teachers had excellent level of knowledge on the impact of sedentary life style, whereas 23% of them had average level of knowledge. Rest of 10% and 6.66% had good and very good level of knowledge consecutively.

Association between level of knowledge of special school teachers with selected demographic variables. There exist a significant association between level of knowledge and gender, type of family, religion, marital status and educational status. There exist no significant association between level of knowledge and age in years, teaching experience, family income per month, occupation of spouse and place of stay.

Keywords: Knowledge, sedentary life style, mental well-being, special school teachers.

Introduction

Leading a sedentary lifestyle is becoming a significant public health issue. It is also known as Sedentary lifestyle, appear to be increasingly widespread in many nations despite being linked to a range of chronic health conditions. Mostly people like to lead an enjoying life without any physical activity. But the after effect of leading a sedentary life is far beyond our understanding. Digital world inviting the human being to a comfort zone, this comfort zone leads us to multiple complications.

Need for the study

Physical activity is essential in day to day life. During COVID-19 pandemic many of us forced to remain at home that made some type of sedentary life style. In post COVID-19 pandemic period most people continue in living in a

sedentary lifestyle, these are unlikely to be meeting the national physical activity guidelines. According to the government's 2008 Physical Activity Guidelines for Americans, adults should be getting at least 150 minutes of moderate-intensity physical activity each week. if normal healthy adults are turned into sedentary life style, then what about disabled person? They don't have self-control over them, when they are forced to remain at home eating become a hobby as nothing else to make them engaged. It is our duty to engage them in physical activity to avoid sedentary life style. It will be a great contribution to themselves, to their family and society.

Objectives of the study

To assess the demographic variable of the sample size

To assess the knowledge regarding the impact of sedentary lifestyle.

To find out the association between the knowledge and demographic variables of the participants

In Kerala, special schools have planned syllabus. It include academic as well as rehabilitation training program go hand in hand. Physical activity, preparing daily living articles and beautiful decoration out of waste materials etc. This rehabilitation made the children become more active and energetic. This study discuss about sedentary life style and its impact on mental wellbeing.

Significance of the study

Physical inactivity is a global problem and it is more severe in India as indicated, which will help in bringing higher focus on issues related to Physical activity and sedentary lifestyles and initiate discussions to derive effective solutions. Dietary and lifestyle factors play an important role in the development of non-communicable diseases, like diabetes, cardiovascular diseases and obesity. The benefits of physical activity have been well established and linked to better health outcomes, academic performance, and overall productivity. Saqib et al (2020).

The prevalence of over-weight and obesity are high among children and

adolescents. This obesity epidemic reflects the problem that children are not engaging in enough physical activity. Physical activity is a key component energy balance equation, providing a major outlet for daily caloric usage. Physical activity should be encouraged among children and adolescents. Mentally challenged children are more favouring the sedentary life style that leads to obesity and overweight. If the special school teachers are made aware of this problem the children will be motivated and this can bring down the probelm to some extent. Physical activity in childhood and adolescence will promote healthy behaviours' that helps lower the risks of several chronic diseases as well as the risk of premature death. (Bhavesh Kumar 2015)

A reduction in outdoor activities specially after the COVID-19 pandemic, parents are scared to send the children to outdoor games as well as extracurricular activities. They prefer indoor activities. A few studies conducted in India on the association between metabolic and contextual causes of obesity in children, found some relevant links among weight increase and a general reduction of physical activities, enhanced by sedentary lifestyles. As highlighted by small scale studies, realized in the 1990s and based on urban samples, the proportion of the overweight population in Indian towns and cities is large and increasing, ranging from 33 % to 51 % (R Pradeepa 2015) .

The life style of an individual is an important factor in determining most of the health and wellness state, so the life style can be defined as a way of living of individuals, families, and societies. Lifestyle is expressed in both work and leisure behavior patterns that also reflects people's self-image or self-concept. The lifestyle can be healthy or unhealthy based on your food choices, activity level and behavior. A positive lifestyle can bring you happiness, while a negative lifestyle can lead to sadness, illness and depression.

The happiness refers to three paths or pursuits: the pleasant life, the engaged life and the meaningful life. When blended together, psychologists believe that happiness can be achieved. This newfound happiness can change your attitude and inspire you to make better decisions regarding your health and behaviour. Seligman(2002)

Frequent and regular aerobic exercise has been shown to help prevent or treat serious and life-threatening chronic conditions such as high blood pressure, obesity, heart disease, Type 2 diabetes, insomnia, and depression (Borer and et al.). Endurance exercise before meals lowers blood glucose more than the same exercise after meals (Silberner& Joanne 2010).

A good life style leads to the accomplishment of happiness and wellness in life . Well-being describes our happiness, confidence, physical condition and general outlook on life. It is about feeling good, taking care of yourself and responsibilities. Well-being and healthy living go hand-in-hand. Healthy living also reflects the mental, emotional and social aspects of an individual's life. The key aspects of healthy living can be achieved through avoidance of sedentary life embracing the physical activity. Wellbeing is more than happiness and health. It's about having meaning in life and feeling that life is fulfilling and worthwhile, is an ongoing process we need to work on at all times. Everything we do, think and feel has an impact on our health and wellbeing.

Luepker et al. (1996) reported that from the Child and Adolescent Trial for Cardiovascular Health (CATCH) program. Physical activity levels for CATCH indicated that treatment students, those who received increased time for physical activity during physical education class, had higher mean scores on a self-report of physical activity compared to control group subjects. Further, treatment students participated in more vigorous physical activity found, school based intervention programs can increase students' physical activity levels.

Physical activity appears to reduce the risk for over 25 chronic conditions, in particular coronary heart disease, stroke, hypertension, breast cancer, colon cancer, type 2 diabetes, and osteoporosis. Current literature suggests that if the entire Canadian population followed current physical activity guidelines, approximately one third of deaths related to coronary heart disease, one quarter of deaths related to stroke and osteoporosis, 20% of deaths related to colon cancer, hypertension, and type 2 diabetes, and 14% of deaths related to breast cancer could be prevented. It also appears that the prevention of weight gain and the maintenance of weight loss require greater physical activity.

Macaskill,(2013)These challenges can affect the mental health and well-being of higher education students. Indeed, there is evidence that a strain on mental health is placed on students once they start at the university, and although it decreases throughout their studies. Modern medicine's thinking that the mind was "disconnected from the human body" when determining and understanding the causes of stress.

Lawrence Judge et.al (2006) Examines physical activity (PA) patterns of global leisure activity of undergraduate students in a large Midwest state university. The majority of the respondents engaged in web surfing 6 to 7 days a week. Video gaming was the least frequently performed leisure activity. Positive correlation was found between the participants' age and the frequency of weightlifting. Younger male participants were more frequently engaging in video gaming. Female participants were more likely to engage in this physical activity. More effective interventions should be implemented to promote PA among university students.

Sallis and Patrick (1994) suggest that there is substantial interest in promoting physical activity for children and adolescents in order to prevent adult diseases early in life. They suggest physical activity promotes physical and psychological health and well-being during childhood and adolescence. Participation in regular physical activity during childhood or adolescence may increase the probability that children will become active adults.

Sedentary Lifestyle at a Glance

Sedentary lifestyle is defined as a type of lifestyle where an individual does not receive regular amounts of physical activity or a state of complete inactivity. Where physical inactivity is considered the failure to meet the recommendations of the Center for Disease Control, stating that an individual should participate in a minimum of 150 minutes of moderate exercise. Most of them says that at least walk 1000 steps a day for improving health. According to World Health Organization 60 to 85% of the people are inactive. Physical inactivity is the fourth leading risk factor for global mortality.

Desk bound life style affecting rural people also due to the urbanization young adults are moving towards the cities & towns. So the elder people are left out in the rural families. More over most of the manpower activities are taken up by machineries, so they don't have any work. Because high standard of living in the cities and town, young adult are unable to support their parents in the rural. So this parents are thrown into utter poverty. Middle age people used to actively participating all kinds work in order to earn for their lively hood. In the present scenario, people are forced to sit at home. Because cultivation, agriculture farming all those hard working activities are reduced drastically. Therefore elderly people are jobless.

Even though many employment opportunities are available in the industries, these people are not trained for the above. Due to the lack of youngsters support in the agricultural farming these people are not able to take up initiatives. Middle aged people are strong and healthy, they are moved towards the sedentary life style during the COVID 19 pandemic they obviously remained in the same spontaneously. Since there is no other out let dangers of sedentary life style also come along with them. Present scenario is like this, the situation of disabled people are worse. Therefore it is an immediate need to uplift the mentally challenged people to bring out the stream line of society.

Dangers of a desk bound lifestyle

According to medline plus the following are risks of inactive lifestyle: Obesity, Heart diseases, including coronary artery disease and heart attack, High blood pressure, High cholesterol, Stroke, Metabolic syndrome, Type 2 diabetes, Certain cancers, including colon, breast, and uterine cancers, Osteoporosis and falls and Increased feelings of depression and anxiety.

A desk bound lifestyle also appears to have a negative impact on mental well-being. A state of well-being in which every individual realizes his or her own potential, can cope with the normal stresses of life, can work productively and fruitfully, is able to make a contribution to his community. Desk bound life style and lack of physical activity are more prone to develop mental disorder.

Solutions to a sedentary lifestyle

Increasing physical activity- Research has shown that physical activity, including exercise and sports, can reduce the risk of cardiovascular disease, type 2 diabetes, obesity, and early death, anxiety, depression. More active lifestyle can significantly reduce the chances of chronic health conditions, mental health disorders, and premature death.

Evidence also consistently shows that exercise can improve mental health. A 2018 study of 1,237,194 people found that those who exercised reported fewer mental health problems than those who did not. It is best to combine a variety of cardiovascular exercises, such as running or cycling, with strength-training exercises (Medical News Today). Going for at least three 30-minute runs and doing two 30-minute sessions of strength-training exercises per week enough to meet mental wellbeing.

Partaking in regular physical activity can reduce the risk of cardiovascular disease, like

- standing rather than sitting on public transport
- walking to work
- taking walks during lunch breaks
- setting reminders to stand up every 30 minutes when working at a desk
- investing in a standing desk in the workplace.
- taking a walk or standing up during tea breaks
- spending more time doing chores around the house, like gardening
- making excuses to leave the office or move around the building
- taking phone calls outside and walking around at the same time
- spending some free time being active
- taking the stairs instead of using the elevator

Prolonged sitting contribute to higher rates of anxiety and depression. Lack

of physical activity has been linked with obesity, cardiovascular disease, type 2 diabetes and even certain types of cancer and poor health. In one Australian study researchers uncovered that those who sat for 11 hours a day had a 40 % increased risk of death within three years when compared to those who sat for less than four hours. Unfortunately, many of us are at an office desk for at least eight hours, so right off the bat even our workday is contributing to our death.

Good dietary habit with fruits for breakfast, a large mixed salad for lunch and at least two vegetables of different colors for dinner, you can eat three full meals every day while staying within your target calorie range can be followed

Sedentary lifestyle and anxiety

The latest findings, which further put blame on prolonged sitting for poor health, reveal that a sedentary lifestyle is linked with anxiety and depression. The findings come from Deakin University's Center for Physical Activity and Nutrition Research. Researchers found that sitting at a desk, watching TV, looking at your phone and playing video games not only contribute to lack of physical activity, but they can raise anxiety as well.

Researchers have found a huge surge of anxiety disorders within the U.S., affecting nearly 40 million Americans (NIMH). Although there are many factors that contribute to anxiety – technology, social media, air pollution – the researchers' aim was to uncover whether or not a sedentary lifestyle, which many of us live, contributes to anxiety as well. We are seeing an increase in anxiety symptoms in our modern society, which seems to parallel the increase in sedentary behavior. These two factors were linked. Five of the studies found anxiety to be higher in those who spent the most time sitting.

Obesity is a large problem among Americans; nearly one-third of Americans are obese. Worse yet, these individuals spend many hours sitting. Obesity has also been linked to poor mental health, which can further contribute to individuals staying indoors sitting more. To combat this it's a good idea to take a walk in nature, to not only boost physical activity but improve mental health as well.

Teychenne, Costigan and Parker (2015) comments, “It is important that we understand the behavioral factors that may be linked to anxiety, in order to develop evidence-based strategies in preventing/managing this illness. Our research showed that evidence is available to suggest a positive association between sitting time and anxiety symptoms, however, the direction of this relationship still needs to be determined through longitudinal and interventional studies.”

Is sedentary lifestyle causes depression

The study above observed the link between a sedentary lifestyle and anxiety, and another recent study looked at rates of depression along with a sedentary lifestyle. The research comes from Chinese researchers who analyzed data from hundreds of thousands of participants. Their findings revealed that a sedentary lifestyle increased the risk of depression by 25 % (Lehman 2014).

Teychenne, from the sitting and anxiety study, commented on these findings: “Although it was a thorough investigation of a relatively new research area, a number of unanswered questions still remain.” Such questions involve, “whether sedentary behavior increases the risk of depression; or whether it is that those with depression are just more likely to engage in sedentary behaviors such as computer use or television viewing.”

Re-analyzed data from 193,166 participants from a variety of countries across the world was used for the study. Common sedentary behaviors included watching TV and using the computer. These behaviors were associated with a 13 % and 22% higher likelihood developing depression.

Anxiety and depression relationship

Depression can be seen as low-energy while anxiety involves high-energy, for this reason it may be hard to believe the two go hand-in-hand. A person suffering from depression may contain anxiety within them, which leads to panic attacks. Any lack of control experienced, for example, by a panic attack, can additionally contribute to depression, thus creating a cycle. Depression

sparks feelings of hopelessness, despair and anger. A person with depression may lose all motivation to carry on daily tasks. Anxiety, on the other hand, creates fear and panic, and although it may seem quite different from depression, the two conditions are treated the same.

Anxiety and depression can occur together in individuals – one study showed 85 percent of individuals with depression were also diagnosed with an anxiety disorder. It can be quite complicating when anxiety and depression occur together as symptoms of both disorders can become severely worse. Additionally, those with both disorders have higher suicide rates as well. It is clear is that there is some relationship between a sedentary lifestyle and depression. The take home, once again, is that sitting contributes to poor overall health and the best solution is increasing your physical activity

How too much sitting affects mental health

Prolonged sitting greatly impacts cardiovascular, metabolic and mental health. Psychological effects of sitting can be based on what individuals are doing while sitting. This can involve staring mindlessly at a computer screen, or watching mindless TV; both activities remove us from reality and keep us from actually engaging and connecting with the people around us. Research has linked sitting with psychological distress, depression and overall reduced well-being.

In order to prevent these effects from happening, individual should take note of sitting habits and make a conscious efforts to combat it. People having desk job, take standing breaks or walk to co-workers offices to relay messages instead of calling or e-mailing them. For retired people, it is good to take up odd-end jobs at home. The problem is obvious: we sit way too much. And the solution is even more obvious: get up! Unfortunately many of us are stressed out, tired, burnt out from being overworked and use our sitting time as a way to relax. This is not good for health and not a way for relaxing. Research suggests that only 21 % of adults are meeting the physical activity guidelines, while less than 5% perform 30 minutes of physical activity per day.

Methodology

The study focus on special school teachers as the population. They are the one who handling the mentally challenged children during the school time methodology is given below. 30 teachers from the special schools were selected as the sample. Sample was selected from the Special School in Ernakulam and Thrissur District using multistage sampling method. The sample for the study was selected by using stratified sampling method from all Special School Ernakulam and Thrissur District in Kerala.

Tool Preparation is done by discussing with the expert and referring the related books, articles. Above all according to the objective of the study many questions prepared and more appropriate one selected. The tool comprise of questions related to Socio demographic data and knowledge questionnaire on sedentary life style and its impact. The tool was modified after conducting pilot study. The question for assessing the knowledge level was a 5 point scale one contain 15 questions based on the objectives of the study.

Statistical analysis:

Statistical analysis was carried out using SPSS Version 20.0. The findings were presented in tables and figures under the following sections based on the objectives of the study. The study has the limitation that only school teachers are involved in the study, because of the concern of investigators towards the mentally challenged children and their teachers.

Data analysis findings and suggestions

Section I: Description of demographic characteristics.

Out of 30 sample 2 of them (6.66%) of teachers were belong to 20-25 years and 26-30 years whereas 8(26.6%) were from 31-35 years of age group, however 18(60%) had age above 36 years. Out of 30 sample 4 (13.3%) were male and 26 (86.6%) were female. Majority 13(43.33%) were married whereas 11(36.6%) were unmarried, however 6(20%) were single. Out of the sample, 10 were having diploma, 7 were undergraduate and 13 were post graduate. 23(76.6%) of special school teachers were Christians rest of them 7(23.33%) were Hindus.

Table 1 :Frequency and percentage distribution of special school teachers according to teaching experience N=30

Teaching experience	Frequency	percentage
1-3 years	6	20%
4-6 years	6	20%
7-9 years	3	10%
>10 years	15	50%

16(53.33%) of special school teachers had Rs. 5000-10000 monthly income, 6 (20%) and 7(23.33%) had monthly income of Rs.10001-20000 and Rs.20001-50000 respectively. One person had income above 50001. 18 (60%) were from joint family, whereas 12(40%) were from nuclear family. 16(53.33%) of special school teachers were residing in urban area, whereas 14(46.66%) of were residing in rural area.

Table 1. Mean ± SD, Maximum, Minimum and Mean percentage of overall knowledge scores of special schoolteachers. (n=30)

Variable	Mean	SD	Mean %	Minimum	Maximum
Knowledge of special school teachers	56.17	23.84	31.78%	10	75

Table 1 shows Mean, SD, Maximum, Minimum and Mean % age of overall knowledge scores of special school teachers. The mean score was 56.17 and SD was 23.84 whereas mean % age was 31.78%.

Section II: level of knowledge of special school teachers regarding impact of sedentary life style.

18(60%) of special school teachers had excellent level of knowledge whereas 7(23%) of special school teachers had average level of knowledge. Rest of them 3(10%) and 2(6.66%) had good and very good level of knowledge.

Section III. Association between level of knowledge and demographic variables.

The chi-Square value was computed to find out the association between level of knowledge of special school teachers with selected demographic variables. There exist a significant association between level of knowledge and gender, type of family, religion, marital status and educational status.

There exist no significant association between level of knowledge and age in years, teaching experience, family income per month, occupation of spouse and place of stay.

Conclusion

Sedentary lifestyle is becoming a burning health issue, being physically inactive leads to many more complication. Quiet healthy people also inviting many sickness by moving to the sedentary life style. Mobile and television made many of the elders become sedentary. In the midst of this the mentally challenged child forced remain at home in order to spent the time child is addicted to the mobile and over eating as an outcome from the above the child become over weightness and Type II diabetes. Through this study the special school teachers be act as a mentor for the children. There fore tomorrow's children will be more healthier than present scenario.

References

- Arzu, D., et al. (2006). Perceived barriers to physical activity in university students [Internet]. [cited 2022Jan9]. Available from: <https://www.researchgate.net/publication/259395751>
- Bhaves, K. (2015). Physical activity and health in adolescence. *Clin-Med London*, 2015 Jun; 15(3)pp: 267–272
- Ebrahim, et. al.(2011) "The Effect of Rural-to-Urban Migration on Obesity and Diabetes in India: A Cross-Sectional Study and for the Indian Migration Study group " *Canadian Journal of Public Health. PLoS Med.* May; 8(5): 10.1371
- Gorman, J.M. (1997). Comorbid depression and anxiety spectrum disorders. *Depress Anxiety.* 1996-1997;4(4):160-8. doi: 10.1002/(SICI)1520-

- 6394(1996)4:4<160::AID-DA2>3.0.CO;2-J. <https://pubmed.ncbi.nlm.nih.gov/9166648/>
- Health Risks of an Inactive Lifestyle. <https://medlineplus.gov/healthrisksofaninactivelifestyle.html>
- Judge, et.al .(2012). An Exploratory Study of Physical Activity Patterns of College Students at a Midwest State University in the United States. ISSN 1543-9518, <https://thesportjournal.org/article/>
- Lehman, S (2014). Sedentary lifestyle linked to depression. Healthcare and Pharma. <https://www.reuters.com/article/us-health-depression-sedentary-idUSKBN0HD2K120140918>
- Luepker, et al. (1996). Outcomes of a Field Trial to Improve Children's Dietary Patterns and Physical Activity The Child and Adolescent Trial for Cardiovascular Health (CATCH), Indiana University School of Medicine December 1996 Mar 13;275(10):pp768-76.
- NIMH. Any Anxiety Disorder. <https://www.nimh.nih.gov/health/statistics/any-anxiety-disorder>
- What are the consequences of sedentary life stype. Medical News today. <https://www.medicalnewstoday.com/articles/322910>
- Pradeepa. (2015). Prevalence of generalized & abdominal obesity in urban & rural India. IJMR , Aug; 142(2):pp 139–150.
- Seligman. (2002). Use your signature stregnths and virtues in the service of something Much larger than you are. .p,16.
- Saqib, et al. (2020). A Survey Study Regarding the Perception of Physical Activity Impact on Health Wellbeing. *Risk Management and Healthcare Policy Vols. 1 to 15; pp 2008 to 2022*
- Torrano et.al ,(2020). Mental Health and Well-Being of University Students. *A Bibliometric Mapping of the Literature Psychol. 09 June*
- Teychenne, M., Costigan, S.A. & Parker, K. (2015). The association between sedentary behaviour and risk of anxiety: a systematic review. *BMC Public Health 15, 513 (2015)*. <https://doi.org/10.1186/s12889-015-1843-x>
- Warburton. (2007). Evidence-informed physical activity guidelines for Canadian adults;. *Can.j.pub.health-Suppl 2:pp16-68*.