

Original Research Article

Exploring the holistic well-being of teachers: a preliminary investigation of a key professional group in South India

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ABSTRACT

Introduction: There are many factors with respect to occupation of teachers which can negatively impact teachers' physical, mental and social wellbeing. Stressful working conditions for teachers have increasingly become a problem in many countries. The present study is taken up to assess their physical, mental and social dimensions of health.

Methodology: It was a cross-sectional study conducted among 552 school teachers, selected by simple random sampling method. The data was entered in Microsoft excel software and analysed using SPSS software (trial version). Descriptive and inferential statistical tests were used. P value <0.05 was considered significant.

Results: Among the 552 study participants 271 (49.1%) were male teachers and 281 (50.9%) were female teachers. Majority 251 (45.5%) belonged to age group of 41-50 years followed by 155 (28.1%) belonged to age group of 51-60. The mean BMI of the study population was 26.25 ± 3.97 kg/m². The mean BMI of males was 25.77 ± 3.88 kg/m² and females was 26.71 ± 4.27 kg/m². Mean Mental Health Inventory score of males was 67.88 ± 8.91 which was higher compared to mean score of females 65.82 ± 9.20 and the difference was statistically significant. Majority 504 (91.3%) had "good social well-being", 44 (8.0%) had "better social well-being" and 4 (0.7%) had "poor social well-being".

Conclusion: Teachers physical health was more compromised compared to general population. Mental health and social well-being were good among teachers. More studies are warranted to explore the health problems of teachers.

Keywords: Teachers, Health, Physical health, Mental health, Social wellbeing, Holistic well being

INTRODUCTION

World health organization (WHO) defines 'Health' as a "state of complete physical, mental and social well-being and not merely the absence of disease or infirmity and ability to lead socially and economically productive life".¹ Health is multidimensional. The main specific dimensions are the physical, the mental and the social dimensions. The physical health implies "perfect functioning" of the body. Traditional definitions of physical health considered someone physically healthy if he or she was not suffering from any illness or sickness.² Physical health conceptualizes health biologically as a state in which every cell and every organ is functioning at optimum capacity and with perfect harmony with rest of

the body.² Good mental health is the ability to respond to many varied experiences of life with flexibility and a sense of purpose.³ Social well-being implies harmony and integration within the individual, between each individual and other members of society and between individuals and the world in which they live.³ There a number of factors determining the health of an individual. Some health-influencing elements are inherited through genes, while others develop later in life due to external or environmental influences. The major factors affecting the health are nutrition, lifestyle, sleep, stress, habits, occupation of individual and the genetic factors. For individuals to attain good health, the factors affecting health need to be studied. Occupation is one of the important factors that determine health status of an

individual. People involved in specific occupation are exposed to specific factors which determine their health status like those who work in mines, factories, construction workers, software engineers, teachers, etc. are prone to specific health problems.^{5,6} There are numerous factors in the working environment of teachers which can have impact on their physical, mental and social health. In recent years, teaching environments across numerous countries have become increasingly stressful and demanding, leading to a growing concern about teachers' well-being.⁷

Challenges such as managing difficult young children, excessive workloads, delayed salaries, additional non-teaching duties, limited support from school leadership and colleagues, interference from politics, student misbehavior, and personal or family issues can all take a toll on teachers' physical, mental, and social well-being. When teachers are affected in these ways, it can reduce the quality of their teaching-ultimately hindering student learning and their academic success.⁸

Objectives

The objective was to assess physical health of school teachers, to assess mental health of school teachers, to assess social wellbeing of school teachers.

METHODS

This cross-sectional study was conducted among government school teachers working in southern Karnataka. The study was conducted from August 2023 to February 2024. Sample size was 552.⁹ Teachers were selected by simple random sampling method for the study. Selected teachers were visited in their respective schools on a pre-fixed day and were provided with an information sheet regarding the study.

Those who agreed to participate in the study were included in the study. If the selected teacher was on leave on that particular day, they were revisited for the second time after one week and taken for study. If they were not present on the second visit, they were excluded. If the selected teacher was on long leave for more than 6 months, they were excluded.

Data was collected using a semi-structured pretested questionnaire. The details on sociodemographic factors, health complaints and chronic disease was collected. Details about the participants' mental well-being was assessed using the 'mental health inventory'.¹⁰ Details about the participants' social well-being was assessed using the Corey Lee M Keyes' scale.¹²

Ethical approval was obtained from institutional ethics committee of Mandya Institute of Medical Sciences. Data was entered into Microsoft excel sheet and analysed using SPSS (Statistical Package for Social Sciences) version 24, trial version. Descriptive statistics like percentages, mean,

standard deviation were used. Inferential statistics like student t-test for comparing means between two continuous variables, chi-square test for association between groups (categorical data) were used. The statistical significance was evaluated at 95% confidence level ($p < 0.05$).

RESULTS

Among the 552 study participants 271 (49.1%) were male teachers and 281 (50.9%) were female teachers. Majority 251 (45.5%) belonged to age group of 41-50 years followed by 155 (28.1%) belonged to age group of 51-60. Of the 552 school teachers, there were a total of 266 (48.2%) teachers who had obtained diploma/ equivalent degree. 150 (27.2%) had obtained Bachelors' degree and 136 (24.6%) had obtained Master degree. Among the 552 school teachers, 165 (29.9%) were teaching for lower primary school (LPS).

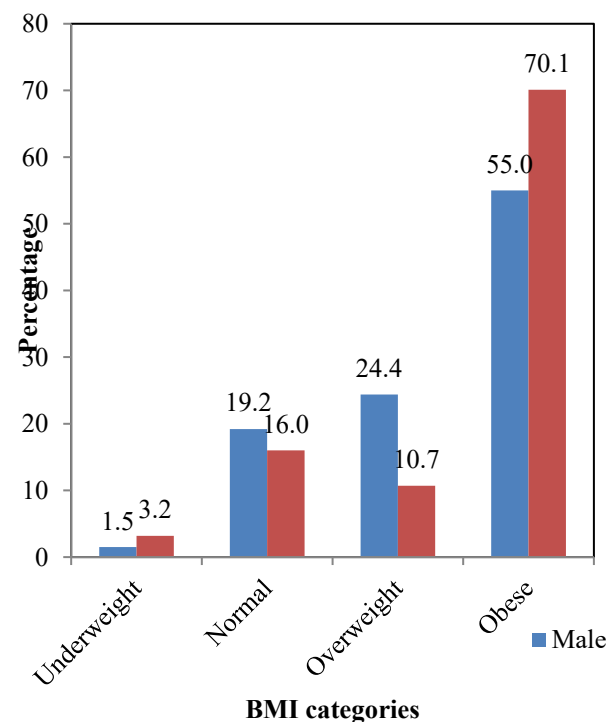


Figure 1: Distribution of male and female school teachers according to BMI (n= 552).

219 (39.6%) were teaching for higher primary school (HPS) and 168 (30.5%) were teaching for high school (HS). Among the 552 school teachers, majority 447 (81.1%) belonged to class I, followed by 88 (16.0%) belonged to class II, 14 (2.5%) class III and 2 (0.4%) belonged to class IV. Nobody belonged to class V socio economic status according to modified B G Prasad classification. Among the 552 teachers, 302 (54.7%) were doing regular physical activity. Among those doing regular physical activity, males were more i.e., 183 (33.2%) compared to females i.e., 119 (21.6%). The difference was statistically significant (Table 1). The

mean BMI of the study population was $26.25 \pm 3.97 \text{ kg/m}^2$. The mean BMI of males was $25.77 \pm 3.88 \text{ kg/m}^2$ and females was $26.71 \pm 4.27 \text{ kg/m}^2$ and the difference was not statistically significant ($p \text{ value} = 0.052$). Among 552 school teachers, 97 (17.6%) were having normal BMI, 13 (2.4%) were underweight, 96 (17.4%) were overweight and 346 (62.7%) were obese. Among 271 male teachers, 4 (1.5%) were underweight, 52 (19.2%) had Normal BMI, 66 (24.4%) were overweight and 149 (55.0%) were obese. Among 281 female teachers, 9 (3.2%) were underweight, 45 (16.0%) had normal BMI, 30 (10.7%) females were overweight and 197 (70.1%) were obese. Obesity was more among females and overweight was more among males. The difference between males and females with respect to BMI was statistically significant ($p \text{ value} < 0.001$) (Figure 1).

The mean waist circumference for males was $94.06 \pm 9.03 \text{ cm}$ and for females was $89.56 \pm 11.29 \text{ cm}$ and the difference were statistically significant ($p < 0.001$). Among 552 school teachers, 123 (22.3%) had normal waist circumference and 429 (77.7%) had increased waist circumference. The mean WHR for males was 0.94 ± 0.06 and for females was 0.86 ± 0.07 and the difference was statistically significant ($p < 0.001$). Among study participants, 74 (13.2%) were hypertensive, 102 (18.4%) were diabetic, 23 (4.2%) were hypothyroid and were on treatment. Among the study participants 184 (33.3%) had “good mental health”, 259 (46.9%) had “better mental health” and 109 (19.7%) had “poor mental health”. Mean MHI score of males was 67.88 ± 8.91 which was higher compared to mean score of females 65.82 ± 9.20 and the

difference was statistically significant. Among 552 study participants, positive affect was the most affected dimension. Mean anxiety score of males was 69.77 ± 10.44 which was higher compared to mean score of females 67.74 ± 11.41 and the difference was statistically significant. Mean depression score of males was 75.00 ± 9.25 which was higher compared to mean score of females 72.75 ± 10.00 and the difference was statistically significant. Mean positive affect score of males was 57.84 ± 10.86 and mean score of females was 56.07 ± 10.53 and the difference was not statistically significant. Positive affect was much affected compared to other domains of mental health. Mean behaviour control score of males was 70.99 ± 10.51 which was higher compared to mean score of females 68.68 ± 10.88 and the difference was statistically significant. Mean social well-being score of 552 school teachers was 86.88 ± 7.82 . Mean score of male teachers was 86.98 ± 7.86 and female teachers was 86.78 ± 7.80 and the difference was not statistically significant ($p \text{ value} = 0.766$).

Among 552 study participants, majority 504 (91.3%) had “good social well-being”, 44 (8.0%) had “better social well-being” and 4 (0.7%) had “poor social well-being”. Among 271 males, majority 250 (45.3%) had “good social well-being”, 19 (3.4%) had “better social well-being” and 2 (0.4%) had “poor social well-being”. Among 281 females, majority 254 (46.0%) had “good social well-being”, 25 (4.5%) had “better social well-being” and 2 (0.4%) had “poor social well-being”. There was no statistically significant difference between males and females with respect to social well-being.

Table 1: Distribution of male and female school teachers according to physical activity (n= 552).

Sex	Physical activity		Total
	Yes	No	
Male	183 (33.2)	88 (15.9)	271 (49.1)
Female	119 (21.5)	162 (29.4)	281 (50.9)
Total	302 (54.7)	250 (45.3)	552 (100)

$\chi^2 \text{ value} = 35.297$; $p \text{ value} < 0.001$ (Figures in the parenthesis indicate percentage)

Table 2: Distribution of school teachers according to mental health inventory (MHI) overall score, sub- scores (n=552).

Sex	Mean score				
	Overall MHI	Anxiety	Depression	Positive affect	Behaviour control
Male	67.88 ± 8.91	69.77 ± 10.44	75.00 ± 9.25	57.84 ± 10.86	70.99 ± 10.51
Female	65.82 ± 9.20	67.74 ± 11.41	72.75 ± 10.00	56.07 ± 10.53	68.68 ± 10.88
P value	0.008	0.031	0.007	0.052	0.011

Table 3: Distribution of male and female school teachers according to grading of social well-being (n=552).

Sex	Grading of social well being			Total
	Poor	Better	Good	
Male	2 (0.4)	19 (3.4)	250 (45.3)	271 (49.1)
Female	2 (0.4)	25 (4.5)	254 (46.0)	281 (50.9)
Total	4 (0.7)	44 (8.0)	504 (91.3)	552 (100)

fisher value=0.789; $p \text{ value} = 0.496$ (Figures in the parenthesis indicate percentage)

DISCUSSION

Our study population do not represent the exact general population. Comprised of only school teachers. They join the profession usually after 20 years and get retired at 60 years. Thus, those aged <20 years and >60 years were not there. 81% teachers in our study belonged to class I SES as per Prasad classification. 16% in class II, 2.5% in class III 0.4 % in class IV and none in class V. The reason for this being, they are government school teachers who get a handsome salary.

More females were there in class I, because the spouses of working females would also be working. Whereas spouse of male teachers might not be working. In our study 55% teachers were doing regular physical activity. The proportion of men doing physical activity were more than females

In INDIAB study physically active adults aged more than 20 years was 57.5%. In a study by Ariarathinam et al, the prevalence of physical activity was 50.3%.¹³ Ranjit et al and others found that those doing physical activity was found to be 54.4% and males were more active compared to females.¹⁴ In Chaitanya et al and others study prevalence of doing physical activity was 41%. The results of our study are almost similar to the above study except for the study by Chaitanya et al. This might be due to the difference in the study population, and geographic area. In our study 97 (18%) had normal BMI (18.5–22.99),¹³ (2%) were underweight (<18.5). Those overweight (23.00–24.99) were 17% and those obese (>25.00) were 63%. Mean BMI in our study was 26.25±3.97. The mean BMI was 23.2 in Swaminathan et al study. Mean BMI was 21.9 kg/m² for women and 21.8 for men in NFHS 4.

The similar results were found in study by Mahak et al, where the Asian cut off for BMI was considered, they found that 0.1% were underweight, 10% had normal BMI, 9% were overweight and 81% were obese. 22% men and 23% women were obese in Karnataka as per NFHS 4 results. The results vary with NFHS 4 as the adults irrespective of population are taken for study. Also, the BMI cut off for obesity was considered as ≥30. In our study overweight and obesity increased with increasing age.

This was similar to other studies (INDIAB, NFHS 4). The mean waist circumference for males was 94.06±9.03 and for females was 89.56±11.29. About 72.5% males and 83% females had abdominal obesity. In INDIAB study, prevalence of abdominal obesity was around 40%, which is lower than our study.¹⁵ The mean waist circumference was lower in a study done in Kerala.¹⁶ Self-reported diabetes disease was 18% and a greater number of males had disease than females. Llonc et al and others in their study on school teachers found that prevalence of diabetes was 14%. The prevalence in our study is more

compared to this. Because the before mentioned study was conducted in Maharashtra, where the prevalence is less than the national average. Thus, it might be less even in teacher population. The overall prevalence of hypertension in our study was 26%.

This was similar to studies done in Tumkur where prevalence was 29% and 20% in a study by Vyas et al.¹⁷ Change in prevalence in our study could be due to lesser number of teachers, varying number of teachers in each group and different geographical location. In our study about 33% had good mental health and about 47% had better mental health. Mental health was better in males compared to females. Kumar et al in his study on mental health of pre service teachers found that, overall mental health of teachers was better, which was similar to our study.¹⁸ In a study in Andhra regarding mental health of school teachers found that, 72% of school teachers had satisfactory mental health.¹⁹

In this study about 91% teachers had good social well-being. Ramakrishna et al and others found that 65% of adults had good social well-being.²⁰ As we could not find published studies dealing with social health of school teachers. Most of the studies discuss about stress. The studies done using Corey Lee M Keyes social well-being in general population are also very few. Thus, comparison is done with studies done on general adult population.

Though the study addresses a major occupational health problem, it is done only in government school teachers. The health and well-being among private school teachers is unexplored in this study these were the limitations of the study.

CONCLUSION

There was equal representation of males and females among the study participants. Majority of study participants were in the age group of 40-60 years. 54.7% were doing physical activity. Prevalence of obesity was 62.7%, Majority of the study participants, 46.9% had better mental health and 91.3% had good social well-being. Teachers have poor health compared to general population in some aspects. There is a need to uplift the health of teachers and provide them with basic health screening facilities and favourable working environment.

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