

QUALITY OF LIFE AND JOB SATISFACTION AMONG SCHOOLTEACHERS IN SAUDI ARABIA DURING THE COVID-19 PANDEMIC

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ABSTRACT

OBJECTIVE:

The 2019 coronavirus disease pandemic was one of the greatest global health threats of recent times. As many governments imposed lockdowns, schools closed and shifted their work environment and mode of instruction to online education. However, teachers' quality of life and job satisfaction during this period have not been thoroughly studied. This study aimed to investigate schoolteachers' health-related quality of life.

DESIGN:

Using convenience sampling, an online cross-sectional survey was conducted from the first week of September to the first week of October 2020.

MAIN OUTCOME MEASURES:

The main outcome measures were quality of life (mental and physical health), evaluated using the 12-item Health Survey (SF-12), and job satisfaction, assessed using the Caprara Teachers' Job Satisfaction Instrument.

RESULTS:

Significantly lower perceived physical and mental health ($p < 0.001$) was reported in teachers who were female, older, and those with health conditions, whereas job satisfaction was not associated with demographic factors.

CONCLUSION:

Saudi schoolteachers experienced suboptimal health-related quality of life levels during the pandemic. Therefore, they represent an important target group for future occupational health interventions. Enhancing teachers' occupational health should be incorporated into national sustainable health strategies.

KEYWORDS

Quality of life, Job satisfaction, SF-12, Teachers, COVID-19, Saudi Arabia

INTRODUCTION

The novel severe acute respiratory syndrome coronavirus, which causes coronavirus disease 2019 (COVID-19), is considered one of the greatest global health threats in recent history [1]. This virus spread exponentially since the first case was discovered in Wuhan, China, in December 2019, leading to a pandemic. Owing to the lack of effective pharmaceutical measures and to limit the spread of the infection, many governments implemented precautionary measures, such as case isolation and social distancing. As these measures were ineffective in controlling the pandemic, some countries imposed travel restrictions and closed schools for several months [2,3].

In Saudi Arabia, part of the government's response to the pandemic included closing all educational institutions at the beginning of March 2020. COVID-19 created unprecedented challenges and opportunities for national education systems, and teaching strategies had to unexpectedly shift to online learning [4]. Because of these unexpected changes, it is thought that the COVID-19 pandemic and its consequences on the work environment might have influenced public psychological health and quality of life. Recent international studies have reported the physical and mental health of the general population [5,6], health workers [7-9], and students [10]. However, few studies have explored schoolteachers' health-related quality of life and job satisfaction during the pandemic [11-13]. This study addressed this gap in the literature by examining teachers' levels of physical and mental health and job satisfaction. The impact of demographic factors is also investigated using Saudi public schoolteachers as the target population.

METHODS

PARTICIPANTS

This cross-sectional study was conducted during the fifth and tenth weeks of the first semester in 2020. Using convenience sampling, Saudi teachers working in public schools were invited to participate. Informed consent was obtained electronically before the study's initiation, ensuring that the participants were fully aware of the study objectives and that participation was voluntary. The protocol and informed consent forms were approved by the scientific committee at King Saud University (KSU-HE-20379, 15 January 2020).

MEASURES

Sociodemographic and work-related information

The demographic characteristics of the schoolteachers included gender, age, marital status, educational level, monthly income, work experience, and disease incidence. Marital status was categorised as single, married, divorced, or widowed. Monthly income in Saudi Riyal (SR) was categorised as $\leq 15,000$ SR and $> 15,000$ SR. To investigate health conditions, respondents were asked a simple dichotomous question about the incidence of common diseases, and a blank space was provided for any diseases not listed.

Assessment of health-related quality of life

The 12-item Short-Form Health Survey (SF-12) was used to assess the quality of life of schoolteachers. The SF-12 measures eight health concepts: general health, physical functioning, role physical, body pain, vitality, social functioning, role emotional, and mental health. These dimensions can be aggregated into a physical component summary and a mental component summary. Each summary score was calculated on a scale of 0–100, with the lowest score indicating a poor physical or mental state and the highest score indicating the best possible physical or mental health [14]. This instrument has been adapted syntactically and semantically for Arab idiosyncrasies [15,16].

Job satisfaction

Job satisfaction was assessed using two items from the Caprara Teachers' Job Satisfaction Instrument on a 5-point Likert scale ranging from strongly disagree (1) to strongly agree (5) [17]. The statements were 'I am satisfied with what I achieve at work' and 'I feel good at work'. These items were adopted because the measures showed high reliability and validity in the instrument development study and in previous studies conducted on teachers [18,19].

DATA ANALYSIS

A Statistical Package for Social Science (SPSS) version 22 (Armonk, NY, USA) was used to analyse the data. The frequencies and percentages of the participants' demographic characteristics and questionnaire items were calculated. In addition, the means and standard deviations for all questionnaire scales and subscales were determined. The relative impact of demographic variables on teachers' SF-12 and job satisfaction scales was analysed using t-tests and ANOVAs. Finally, correlations between the teachers' health-related quality of life outcomes and job satisfaction were calculated using Pearson coefficients. To control potential confounders, a stratified analysis using a multivariable technique was conducted when necessary. For all analyses, a p-value of ≤ 0.05 indicates statistical significance.

RESULTS

TABLE 1. SOCIODEMOGRAPHIC AND CLINICAL CHARACTERISTICS (N=410)

Variables	Total n (%)
Gender	
Male	138 (33.6)
Female	272 (66.4)
Age (years)	
25–34	45 (10.9)
35–44	187 (45.7)
45–54	156 (38.1)
55 or older	22 (5.3)
Marital status	
Single	32 (7.9)
Married	358 (87.2)
Divorced/widowed	20 (4.9)
Income level	
≥ 15000 SR	209 (50.9)
< 15000 SR	201 (49.1)
Educational level	
Diploma	45 (10.9)
Bachelor's	317 (77.4)
Postgraduate	48 (11.7)
Experience (years)	
≥ 10	104 (25.3)
11–19	142 (34.7)
≤ 20	164 (40)
Health condition incidence	
Diabetes	56 (13.6)
Asthma	45 (10.9)
Hypertension	43 (10.6)
Bone disease	32 (7.9)
COVID-19	23 (5.7)
Stroke	14 (3.4)
Nervous system disease	12 (3.0)
Mental disorder	8 (1.9)
Immune deficiency diseases	6 (1.5)
Renal disease	5 (1.1)

Number of health conditions	
0	229 (55.8)
1	124 (30.2)
2 or more	57 (14.0)

COVID-19, coronavirus disease 2019; SR, Saudi Riyal.

SAMPLE CHARACTERISTICS

Table 1 presents the sociodemographic and clinical characteristics of the respondents. More than half of the participants were women (66.4%). Almost half were aged between 35 and 44 years and earned 15,000 SR per month. Most participants were married and held bachelor's degrees. Approximately 40% of respondents had worked for at least 20 years. Analysis of clinical characteristics indicated that 44% of the participants had health conditions, including diabetes (13.6%), asthma (10.9%), hypertension (10.6%), bone disease (7.9%), COVID-19 (5.7%), and other health problems (10%).

TABLE 2. PHYSICAL HEALTH, MENTAL HEALTH, AND JOB SATISFACTION BY DEMOGRAPHIC AND CLINICAL CHARACTERISTICS

N=410	PCS Scale 0–100	MCS Scale 0–100	Job Satisfaction Scale 1–5
Mean (SD)	72.5 (42.9)	59.2 (21)	3.88 (.69)
Gender			
Male	80.8 (15.3)	64.1 (19.5)	3.90 (.68)
Female	68.3 (22.5)**	56.7 (21.6)**	3.87 (.70)
Age			
25–34	76.9 (19.4)	54.5 (20.2)	3.87 (.87)
35–44	76.1 (19.6)	59.3 (21.0)	3.88 (.68)
45–54	68.5 (21.0)	60.1 (21.2)	3.86 (.66)
55 or older	60.7 (30.2)**	61 (24.6)*	4.1 (.65)
Marital status			
Single	72.3 (20.6)	50.1 (20.4)	3.95 (.65)
Married	72.8 (21.1)	60.5 (21.1)	3.88 (.70)
Divorced & widowed	67.7 (23.3)	50.1 (17.3)*	3.84 (.62)
Income level			
≥ 15000 SR	74.2 (20.3)	58.5 (20.5)	3.84 (.73)
< 15000 SR	70.7 (22.0)	59.9 (21.8)	3.92 (.64)
Educational level			
Diploma	64.8 (20.0)	59.1 (19.3)	3.93 (.74)
Bachelor's	72.2 (21.8)	58.8 (21.8)	3.91 (.66)
Postgraduate	81.4 (13.8)**	61.6 (18.5)	3.64 (.78)
Experience (years)			
≥ 10	79.1 (16.8)	56.9 (19.5)	3.90 (.72)
11–20	73.3 (21.2)	60.1 (21.0)	3.85 (.68)
< 20	67.5 (21.2)**	59.8 (22.3)	3.93 (.68)
Number of diseases			
0	78.5 (16.9)	61. (21.0)	3.90
1	68.1 (22.5)	60.1 (20.8)	3.94
2 or more	57.9 (24.5)**	48.9 (20.3)*	3.66

**p<0.01, *p<0.05.

PCS, physical component summary; MCS, mental component summary; SD, standard deviation; SR, Saudi Riyal.

PHYSICAL HEALTH, MENTAL HEALTH, AND JOB SATISFACTION

Table 2 presents teachers' health-related quality of life and job satisfaction scores. A detailed description of all eight SF-12 domain scores based on teachers' characteristics is provided in the supplementary document (Appendix). Females reported significantly worse physical and mental health than male teachers ($P < 0.01$). Married teachers had better mental health than single, divorced, or widowed teachers ($P < 0.05$). Additionally, younger and less experienced teachers reported better physical health ($P < 0.01$) than older teachers. Teachers with higher education degrees perceived themselves as having better physical health ($P < 0.01$) than teachers with lower educational levels. Several health conditions were found to have significant negative associations with physical and mental health ($P < 0.01, 0.05$, respectively). No significant results were observed between job satisfaction and teacher characteristics.

TABLE 3. HEALTH AND JOB SATISFACTION CORRELATIONS

	Physical health	Job satisfaction
Mental health	.468**	.357**
Physical health		.291**

** $p < 0.01$, * $p < 0.05$

CORRELATIONS BETWEEN TEACHER HEALTH AND JOB SATISFACTION

Teachers' physical health was moderately to highly related to mental health ($r = 0.46$). Job satisfaction was moderately associated with mental and physical health ($r = 0.35$ and 0.29 , respectively) (Table 3).

DISCUSSION

This study aimed to explore Saudi public schoolteachers' perceived health-related quality of life and job satisfaction and to identify the relative impact of demographic and clinical factors on their physical and mental health. To the best of our knowledge, based on an extensive literature review, this is one of the few studies conducted on online education during the COVID-19 pandemic. The sample characteristics were similar to the sociodemographic and clinical characteristics reported in previous studies to some extent. In particular, the gender and age distributions were consistent with the overall distribution of public schoolteachers in Saudi Arabia. The disease incidence was similar to that reported in a recent national study; therefore, the study sample was representative of the Saudi Arabian population [20,21].

In the present study, the mean scores of the SF-12 subscales were lower than those of a similar study conducted among Flemish schoolteachers. For example, the following mean scores differed: 20.8 for 'role limitations due to emotional problems', 15.6 for 'social functioning', 14.8 for 'vitality', 11.5 for 'general mental health', and 10 for 'physical functioning'. The level of job satisfaction was similar between the Saudi and Flemish teachers [22]. The lower perceived physical and mental health scores among Saudi teachers might have been magnified by the pandemic in two ways. First, the shift in education towards online learning requires a longer sitting time in the office, which has been shown to negatively affect physical and mental health [23,24]. Second, a recent systematic review found that mass lockdowns were the main predictive factor for mental illness when combined with other factors linked to depression symptoms, such as sex, marital status, and living in urban areas. This was also found in the present study [25].

This study observed a significant association between demographic and clinical variables and poor perceived quality of life among Saudi schoolteachers. Female teachers reported significantly lower levels of perceived physical and mental health than did male teachers. This result aligns with previous studies, suggesting a higher prevalence of health conditions among females. Their greater responsibility for maintaining their households may be related to their lower physical and mental scores [22,26-28]. Moreover, older age and longer employment duration were significantly associated with poor health. A systematic review of the physical health of schoolteachers interpreted this association as an accumulated outcome of workload on the musculoskeletal system [25]. Finally, the incidence of health conditions strongly predicted physical and mental health in Saudi Arabia. This finding is also supported by previous findings in which health conditions,

particularly chronic diseases, are the largest threats to health status and impact individuals' daily functions and well-being [29,30].

It should be emphasised that this study has some limitations. First, the cross-sectional design limits the ability to examine causal relationships. Therefore, follow-up studies should explore whether major changes have occurred since the pandemic. Second, as a self-administered data collection tool was adopted, the results could be subject to reporting bias. Third, this a convenience sampling method was employed because of the constraints of the pandemic; therefore, the sample might not have fully represented the entire population. Finally, all the participants were from public schools in Riyadh, which limits the generalisability of this study, as teachers in other settings were not included. Nevertheless, this study has several strengths. First, this is one of the few studies to explore health-related quality of life among schoolteachers. Second, it was conducted during an exceptional period when the Saudi government imposed COVID-19 lockdowns. Furthermore, this study provides some of the first data on the quality of life and job satisfaction of teachers in Saudi Arabia. The results of this study are important in terms of occupational health and policy implications.

CONCLUSIONS

The study findings suggest that Saudi public schoolteachers reported suboptimal levels on most health-related quality of life subscales. Besides social isolation, changes in teaching processes could have affected teachers' physical and mental health, as the pandemic was an unprecedented event in Saudi Arabia. Teachers who were female, older, and those diagnosed with chronic diseases had the highest risk of lower perceived physical and mental health. Thus, a national occupational health plan should better support teacher health. In particular, females are an important target group for occupational health interventions.

AVAILABILITY OF DATA AND MATERIALS

The data generated from this study are not publicly available. The authors can provide additional data upon reasonable request.

CONFLICT OF INTERESTS

The authors declare no potential conflicts of interest concerning the research, authorship, and/or publication of this article.

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