RESEARCH

BMC Women's Health



The effect of the work-family conflict, subjective socio-economic status, and physical activity on the perceived quality of life of working women in Iran: the mediating role of quality of work life



Nader Rajabi-Gilan^{1,2}, Shirin Zardoshtian^{3*}, Neda Sarabi^{2,3} and Mehdi Khezeli²

Abstract

Introduction The conflict between work and family responsibilities has created many challenges for working women in Iran. This study aimed to examine the effect of work-family conflict (WFC), subjective socio-economic status (SSS), and physical activity (PA) and quality of working life (QWL) on the quality of life (QOL) of working women in Kermanshah, Iran.

Methods This cross-sectional study was conducted with 392 working women in Kermanshah, the most populous city in western Iran. The data gathering tool was a six-part questionnaire, including demographic checklist, PA scale, a question on SSS, WFC scale, QWL questionnaire, and QOL questionnaire. Data were analyzed by SPSS and AMOS software.

Results The majority of participants (69.4%) were inactive or had low levels of PA during their leisure times. The highest positive correlation was observed between QWL and QOL (r=0.309, p-value < 0.001). The highest direct effect among the variables belonged to the SSS on QWL (β =0.41, p-value = 0.001) and QOL (β =0.20, p-value < 0.001). Furthermore, the analysis of indirect effects indicated that QWL played a mediating role between SSS and QOL (β =0.092, p-value < 0.001).

Conclusion The findings of this study revealed that variables such as SSS, PA, and QWL had significant direct effects on QOL. However, WFC had no significant effect on QOL. Moreover, QWL had a significant positive mediating role between SSS and QOL.

Keywords Quality of life, Quality of working life, Physical activity, Women, Work-family conflict

*Correspondence: Shirin Zardoshtian zardoshtian2014@gmail.com ¹Sociology Department, Faculty of Humanities and Social Sciences, University of Kurdistan, sanandaj, Iran



²Social Development and Health Promotion Research Center, Health Policy and Promotion Institute, Kermanshah University of Medical Sciences, Kermanshah, Iran
³Department of Sport Management, Faculty of Sport Science, Razi University, Kermanshah, Iran

© The Author(s) 2025. **Open Access** This article is licensed under a Creative Commons Attribution-NonCommercial-NoDerivatives 4.0 International License, which permits any non-commercial use, sharing, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if you modified the licensed material. You do not have permission under this licence to share adapted material derived from this article or parts of it. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit http://creativecommons.org/licenses/by-nc-nd/4.0/.

Introduction

Quality of life

Quality of life (QOL) as a novel approach in social and medical studies [1], is a multifaceted and dynamic concept that represents the happiness and well-being of individuals. QOL refers to how individuals evaluate various aspects of their lives, including emotional reactions to life events, preferences, and feeling of satisfaction with life, job, and personal relationships [2]. QOL can be understood in two dimensions: objective (macro) and subjective (micro). The subjective dimension of the QOL is measured based on survey instruments and interviews to assess individuals' evaluations of their life experiences in terms of satisfaction, happiness, and well-being [3]. QOL is a broad concept that can be applied to various domains and fields, one of which is the workplace in organizations.

Quality of working life

Quality of working life (QWL) is an accepted concept in human resource management and organizational development, the improvement of which leads to organizational success [4]. That is why public administration is addressing family-friendly policies and work-life balance [5]. QWL refers to the level of satisfaction, motivation, engagement, and commitment that individuals experience in the workplace, indicating the significance of individuals' work lives. The process of QWL within an organization enables employees to effectively shape the work environment, implement guidelines, and be actively involved in their work [6]. The conflict and imbalance between family responsibilities and work roles create numerous challenges for working women and their families in meeting the needs of both areas of life [7]. Today, the effective and positive role of women in various aspects of society is undeniable, while they must successfully meet both job and family expectations. These multiple roles require various factors such as time, attention, and focus, which makes it doubly difficult for women to achieve work-life balance. Studies have shown that high QWL improves performance, reduces absenteeism, burnout, and work-related injuries, and increases satisfaction with various aspects of life [8]. A study showed that employees with higher QWL are more interested in their work, more committed to the organization and have higher productivity [9]. The results of a study demonstrated that the physical environment and psychological job conditions play a significant role in predicting the QOL of working women [10].

Physical activity

One of the factors related to the QWL is exercise and physical activity (PA). PA refers to engaging in any form of bodily movement or activity in life, such as work, commuting, leisure activities, and sports activities that involve skeletal muscle contractions and increase energy expenditure [11]. A study by Ramzani Nezhad et al., (2015) showed a positive relationship between PA and QWL in employees. They found that the leisure component had the greatest impact on predicting QWL. They suggested that filling employees' free time by promoting PA can be a useful and effective way to improve QWL [12]. However, in the study by Khousravizadeh et al., (2014) no significant correlation was found between PA and QWL [11]. It has been suggested that organizations that neglect providing sports services and recreational facilities face low productivity, misconduct, low commitment, work boredom, and employee fatigue [13].

Work-family conflict

Work-family conflict (WFC) is one of the factors that significantly affects the psychological and social wellbeing, and productivity of the workforce. This refers to conflict between roles, in which job demands, especially those related to working time, prevent the effective performance of family roles as a spouse, parent, or caregiver [14]. WFC reduces human resource productivity and negatively impacts both work and family life, leading to decreased job and family satisfaction [15]. It has been found that some job demands affect individuals' work-life balance, which in turn can alter the relationship between QWL and general health indicators [16]. Empirical evidence also confirms that WFC is often a significant source of stress at workplace, leading to various negative consequences such as impaired well-being [17].

Subjective socio-economic status

Extensive research has emphasized the relationship between individuals' subjective socio-economic status (SSS) and their level of health and QOL [18]. Various studies have shown that SSS is associated with satisfaction with life and QOL in Iranian adults [19]. A study in China showed that psychological well-being is affected by SSS, and education, employment, and income were the most influential SSS variables on psychological wellbeing [20]. Although SSS can have a significant effect on quality of life, the relationship between the two is complex and multidimensional. An individual's perception of their own quality of life may also be influenced by other factors such as social values, cultural background, and life events [21].

Knowledge gap

Most of studies conducted in Iran have focused on the QWL among employees, particularly in the healthcare sector and especially among nurses [22–25]. These studies have specifically targeted working women in government organizations and aimed to provide a clear picture of the QWL and its related factors. In addition,

the search of sources shows a lack of studies in the field of QWL among employed women in western Iran, which highlights the need for research in this field. On the other hand, married working women have fewer opportunities for leisure and physical activities due to their household responsibilities and presence in the workplace. Their job duties may also cause tension and conflict in the workplace [26]. Khan and colleagues (2023) showed that WFC was higher among women compared to men, and the QOL was higher among male employees compared to female ones [27]. Therefore, this study aimed to examine the role of WFC, SSS, and PA in explaining the QOL and the mediating role of QWL among working women in Kermanshah city.

Methods

Study design and participants

This cross-sectional study was conducted with 392 working women of government offices in 2023, in Kermanshah, the most populous city in western Iran. The sample size was calculated based on the following formula.

$$n = \left(\frac{\left(\frac{Z\alpha}{2}\right)(\sigma)}{E}\right)$$

Considering the standard deviation of 10.81, reported in the study by Mehdipour et al., (2012) [28], an error (E) equal to one, and a 95% confidence interval, the final sample size was estimated to be 499 people. The response rate in the study was 87%.

To select the samples, a stratified sampling method was used, based on which a list of government organizations was initially prepared and each organization was considered as a stratum. A number of organizations were randomly selected. In the next step, the list of female employees was prepared through the manager of the organization and the desired samples were selected using a simple random method. The inclusion criteria for participation in the study were being a female, having 18 to 64 years old, being employed at the time of the study, and consent to participate in the study.

Measurements

A six part questionnaire was used to collect data. The first part included the demographic and contextual questions (age, marital status, educational level, employment history, job title, daily working hours, spouse's occupation, number of children, and chronic illnesses). The second part of questionnaire was the MacArthur scale of subjective social status which assesses current SSS using a social ladder [29, 30]. Subjective assessment of SES is a self-awareness of one's position in the social structure.

This scale assesses perception of individuals about job, education, and wealth dimensions on a 10-point ladder, in which the higher score indicated the better perception about SSS. The third part was a researcher-made scale on PA status: (leisure walks during the past week, individual and group sports under the supervision of a coach during the past week, individual and group sports without a coach during the past week, and walking for commuting to work, university, or shopping during the past week). The validity of the scale was assessed by a ten-member panel consisting of health education and promotion and physical activity experts (CVI=0.92, CVR=0.90.37). A pilot study was conducted with two objectives among 21 women working at Kermanshah University of Medical Sciences. The first objective was to examine the clarity and understandability of the questions, especially the researcher-made physical activity scale, and the second objective was to estimate the amount of time required to complete the questionnaire. The participants' responses indicated that the questions were not ambiguous. Also, the average time to answer the questions in the pilot study was 14 min, which was an appropriate time to answer the questionnaire, as we thought that working women may face time constraints due to their job responsibilities. Cronbach's alpha coefficient of PA scale was 0.736, which was acceptable. The fourth part included five questions about WFC, which is the fifth subscale of McCarthy's (2007) 24-question questionnaire with the general title of WFC Scale. The scoring was done on a 5-point Likert scale, ranging from strongly disagree (score of 1) to strongly agree (score of 5). The total score ranged between 5 and 25, in which higher scores indicate higher WFC [31]. The fifth part of questionnaire was a Quality of Working Life scale introduced by Walton (1973). This 32-item scale evaluate the QWL in eight different dimensions: adequate and fair compensation, working conditions, use of capacity at work, opportunity at work, social integration at work, constitutionalism at work, occupied space by the work in life, and social relevance and importance of work life. QWL questions are scored on a 5-point Likert scale, from very low to very high [32]. The final part of the questionnaire was the first question of the World Health Organization's QOL scale (WHOQOL-BREF-26), which is a general question about personal assessment of QOL over the last four weeks. The answers are scored as 1- very bad, 2- bad, 3- neither good nor bad, 4- good, and 5- very good, where a higher score indicates a better QOL [33]. Other studies used this single question and have confirmed its usability in measuring the QOL [34–36].

Procedures

After obtaining legal permits and providing approval from the ethics committee to the managers of the

organizations, a list of women working in the target organizations was prepared. Then, sampling was carried out based on the study protocol. The objectives of the study were explained to each participant by a female interviewer and the questionnaire was provided to them. After providing the questionnaire and obtaining informed consent, the participants were asked to return the completed questionnaire in an opaque envelope prepared by the research team within one day.

Statistical analysis

Data were analyzed using SPSS software (descriptive statistics including mean and standard deviation, number and percentage, and Pearson correlation) and AMOS software (structural equation model-SEM). The validity of the measurement model was confirmed based on the first-order confirmatory factor analysis. In this method, all the measurement error coefficients were calculated and the direct and indirect path coefficients between the latent variables in the structural model were measured. The confidence level was 95%.

Results

In the present study, 392 women working in government offices of Kermanshah city participated, with mean age and standard deviation of 39.73 ± 6.80 years. More than 64% of the respondents had a master's degree or higher. 31.7% of the respondents were single. The mean and standard deviation of women's working hours was 7.97 ± 0.837 . Chronic diseases were reported by 11.2% of the respondents. More information on demographic characteristics are provided in Table 1.

Based on descriptive analysis, 28.1% of respondents did not engage in any PA in their leisure time. Only 6.2% of the respondents reported that they engage in individual sports activities for more than 4 h under the supervision of a coach. After categorizing the scores related to the PA index, it was found that a total of 69.4% of the respondents had either no activity or low levels of PA (Table 2).

The results of the Pearson correlation matrix in Table 3 indicated that the highest correlation was found between life satisfaction and QWL (r=0.385, p-value <0.001). A significant inverse correlation was observed between the WFC and PA (r = -0.261, p-value < 0.001,) (Table 3).

Table 1 Demographic	characteristics of wome	n working in govern	nment organizations of Ke	rmanshah
		in monthing in govern	inficine organizacions or ne	i i i u i si i u i i

Variable	Subclasses	Frequency (Percentage)	Mean (Standard deviation)	Number of observations
Age	24–34 years	87 (22.2)	39.73(6.80)	392
	35–44 years	207 (52.8)		
	45–54 years	88 (22.4)		
	55 years and above	10 (2.6)		
Marital status	Single	124(31.7)	-	391
	Married	241(61.6)		
	Widow and divorced	26(6.6)		
Education	Diploma and postgraduate diploma	14(3.6)	-	388
	Bachelor's degree	124(32.0)		
	Masters and above	250(64.4)		
Work experience	Up to 10 years	169(43.6)	12.96(7.34)	388
	11 to 20 years	156(39.8)		
	21 years and above	63(16.6)		
Working hours	-	-	7.97(0.837)	379
Job titles	Unit/department manager	12(3.1)	-	385
	Unit/department deputy	22(5.7)		
	Supervisor/responsible expert	141(36.6)		
	Employee/expert of the unit	210(54.5)		
Husband's occupation	Employed in public Sector	121(49.0)	-	247
	Employed in private Sector	52(21.1)		
	Self-employed	53(21.5)		
	Unemployed/job Seeker	14(5.7)		
	Others	7(2.8)		
Number of children	1 child	92(34.8)	-	264
	2 children	107(40.5)		
	3 children	36(13.6)		
	4 and more	2(0.8)		
	l have no children	27(10.2)		
Chronic disease	Yes	43(11.2)	-	386
	No	343(88.8)		

Table 2 Physical activity status during leisure time in working women per week

	Never (no activity) N (%)	Less than 2 h (low PA) <i>N</i> (%)	2 to less than 3 h (moderate PA) <i>N</i> (%)	3 to less than 4 h (high PA) <i>N</i> (%)	More than 4 h (very high PA) <i>N</i> (%)
Leisure Walking	110 (28.1)	145 (37.0)	88 (22.4)	29 (7.4)	20 (5.1)
Individual Sports with a Coach	244 (63.0)	82 (21.2)	40 (10.3)	11 (2.8)	10 (2.6)
Group Sports with a Coach	281 (72.6)	63 (16.3)	25 (6.4)	12 (3.1)	6 (1.6)
Individual Sports without a Coach	217 (55.9)	101 (26.0)	25 (6.4)	14 (3.6)	12 (3.1)
Walking to Work, School, University, and Shopping	112 (28.6)	128 (32.7)	44 (11.2)	25 (6.4)	9 (2.3)
Overall Physical Activity Score	58 (15.3)	205 (54.1)	92 (24.3)	21 (5.4)	3 (0.8)

Table 3 Correlation matrix of the main variables in the study $(N=3)$
--

varable	Mean (SD)	QOL	SSS	PA	QWL	WFC
QOL	3.23 (0.96)	1				
SSS	6.05 (2.14)	0.278**	1			
PA	9.19 (3.46)	0.161**	0.048	1		
QWL	79.18 (14.56)	0.309**	0.374**	0.065	1	
WFC	15.83 (5.21)	0.171**	0.032	0.257**	0.148*	1

QOL: Quality of life, SSS: subjective socio-economic status, PA: Physical activity, QWL: Quality of working life; WFC: Work-family conflict

*Significant at 0.05 level

**Significant at 0.001 level

 Table 4
 Direct and indirect effects of research variables

Path	Direct coefficient	cient		Indirect coefficient		
	В	β	PValue	B	β	PValue
$SSS \rightarrow QWL$	2.98	0.41	0.001			
$WFC \rightarrow QWL$	-2.28	-0.12	0.016			
$PA \rightarrow QWL$	0.380	0.085	0.072			
$SSS \rightarrow QOL$	0.093	0.204	0.001			
$WFC \rightarrow QOL$	-0.103	-0.09	0.086			
$PA \rightarrow QOL$	0.038	0.14	0.004			
$QWOL \rightarrow QOL$	0.014	0.23	0.001			
$SSS \rightarrow QWL \rightarrow QOL$				0.042	0.092	0.001
WFC→QWL→QOL				-0.032	-0.027	0.062
$PA \rightarrow QWL \rightarrow QOL$				0.005	0.019	0.15
Model Fit: IFI = 0.98, CFI = 0	.98, RFI=0.95, NFI=0.	97, AGFI=0.93, GFI=	0.97, RMSEA = 0.062			

QOL: Quality of life, SSS: subjective socio-economic status, PA: Physical activity, QWL: Quality of working life; WFC: Work-family conflict

The results showed that the SSS had the strongest direct effect among the variables on QWL (β =0.41, *P*-value < 0.001). Furthermore, the results indicated that PA level had a non-significant direct effect on QWL (β =0.085, *P*-value > 0.05), and WFC had no significant direct effect on QOL. Examining the indirect effects also showed that QWL mediated the relationship between subjective SSS and QOL (β =0.092, *P*-value < 0.001) (Table 4) (Fig. 1).

Discussion

This study aimed to investigate the effects of WFC, SSS, and PA level on QOL, and the mediating role of QWL on these relationships in working women of the west Iran. The findings of this study revealed a significant direct effect of subjective SSS on QOL. Kim et al., (2015) found that the gap between income and social class is associated with an increase in the difference between healthrelated QOL and overall QOL. Individuals with a higher SSS had higher scores on overall QOL compared to their health-related QOL scores. In fact, assuming a certain household income, a lower SSS causes the overall QOL to be lower than the health-related QOL [37]. Ghasemi et al., (2019) showed a significant positive relationship between SSS and QOL in western Iran. Their regression models showed that SSS had a significant effect on both physical and psychological dimensions of health-related QOL [38]. Furthermore, Charati et al., (2021) found that individuals with higher income had higher QOL scores, which confirms the findings of the present study [39].



Fig. 1 Final structural equation model (SEM)

The difference in socio-economic status (SES) is associated with significant inequalities in health status [37]. This relationship has been demonstrated for several SES indicators, such as economic status and educational level, where lower economic and educational conditions are associated with lower QOL [40]. It has also been shown that an individual's SES directly and indirectly affects their health and QOL. Some research has shown that SES has a strong direct effect on QOL [41, 42]. In comparison to individuals with lower SES, those with higher SES generally experience higher QOL [43]. Having a higher socioeconomic status is likely to be associated with access to better health services, better job prospects, and superior educational institutions, as well as higher income and wealth [44]. More sustainable living conditions such as access to a clean and safe living environment, reliable transportation, and other basic needs, are also associated with higher SES [45]. All of these factors may contribute to improved physical and mental health outcomes, increased social participation, and higher levels of personal satisfaction [21].

This study showed a positive effect of PA on QOL. In line with this, Siddiqi et al., (2011) reported a positive relationship between PA and overall QOL [46]. Limbres et al., (2020) suggested that moderate-intensity PA may reduce the negative impact of parental stress on social relationships and satisfaction with the environment among working mothers during the COVID-19 pandemic [47]. Nowak et al., (2019) showed that PA within the family had the strongest positive association with QOL [48]. Sanchez et al., (2019) found that teachers who engage in sufficient physical activity had better QOL, QWL, and sleep quality [49]. Rector et al., (2019) found that adequate level of PA is positively associated with the psychological well-being in adults, and in turn, better well-being increases the likelihood of maintaining PA in the long term [50]. Sport has recreational, therapeutic, and competitive capabilities that can contribute to maintaining physical and mental performance, promoting a healthy lifestyle, satisfaction with life, and improving the individual's QOL. Marquez et al., (2020) through a systematic review of studies, have suggested that PA is one way to increase the QOL and well-being of individuals [51]. For this reason, regular exercise and PA should become a common behavior to abandon a sedentary lifestyle, prevent diseases, and overcome disabilities in society [52]. Studies in Iran have shown that women have many problems for sports, such as not having enough time, interest and motivation, financial resources, transportation, social support, and low skill level.

Regardless of infrastructure and policy issues, traditional values and religion play a much stronger role in the amount and pattern of PA in Iranian women than in men [53]. Sadeghi and colleagues (2018), showed that anthropocentric social beliefs, government approach, cultural attitudes, legal problems, and religious-customary obstacles are among the main socio-cultural obstacles to sports among Iranian women [54]. Abdolmaleki et al., (2023) have cited various cultural and social barriers, including unequal media coverage, traditional gender norms, patriarchal sports structures, limited awareness of female athletes' abilities, religious biases, and restrictions on the portrayal of women in advertising, as obstacles to the development of sports among Iranian women [55]. The results of a qualitative study showed that issues such as gender patterns in the segregation of sports disciplines, patriarchal culture in sports, media suppression of women's sports, and inequality in women's sports investment have led to gender discrimination in Iranian women's sports [56]. Saadatifard et al.'s study showed that Iranian women considered socio-cultural problems, Islamic foundations, political, economic, geographical environments, media and advertising, and sports spaces as major obstacles to recreational sports for women in Iran [57].

Another finding of this study showed that the WFC did not have a significant impact on the QOL of working women. A significant portion of previous studies had inconsistent results with the following study. For example, Dilmaghani et al. (2022) demonstrated that the WFC of nurses is associated with their QWL and affects their job satisfaction and occupational fatigue [58]. Ramadhanti et al., (2022) showed that WFC, communication patterns, and social support have a significant direct effect on the family's QOL during a pandemic [59]. Al-Hammouri et al., (2023) showed that family QOL is negatively associated with WFC and family-work conflicts [60]. In a study conducted by Yuan et al., (2022) in China, it was shown that WFC had a negative impact on life satisfaction [61]. Khateeb (2023) in a study on female nurses in India showed that there is a significant relationship between WFC and life satisfaction and family satisfaction. In both cases, time-based and strain-based conflicts had a greater negative impact on family satisfaction and overall life satisfaction compared to behavior-based conflicts [62]. A study by Md-Sidin et al., (2010) showed that WFC is related to QOL. Work and non-work quality of life are "partial" mediators between WFC and quality of life [63]. Furthermore, studies have shown that a lack of balance between personal effort and rest leads to a sense of loss of control over workload and a lack of energy for achieving personal goals and commitment. Imbalance results in fatigue, poor performance, and reduced QOL [64]. Greenhaus et al. believe that overall work-life balance contributes to the enhancement of QOL [65]. WFC directly and indirectly affects the majority of the world's population. Even individuals who are single or childless report experiencing WFC because everyone may have siblings, friends, or loved ones who function as family [66]. WFC also has indirect effects as it can affects colleagues at work [67] and families [68]. Instead of focusing on both roles (work and family) at the same time, people should learn to structure and separate roles to minimize possible conflicts [63].

One of the important results of this study was the direct and significant positive effect of QWL on the QOL of working women. Similarly, Narehan et al., (2014) reported a significant relationship between QWL and QOL. In the mentioned study, the most influential factor on QOL was the QWL, followed by job-related aspects. The other significant factors were emotional well-being, personal growth, social inclusion, and interpersonal relationships [69]. Maqsood and colleagues (2021) showed that the QWL among healthcare workers during the COVID-19 pandemic was low. Sociodemographic factors mainly determined higher QOL, while the overtime hours determined lower QWL [70]. Storman et al., (2021) showed that number of working hours per week and overall QOL were related to QWL of Polish physicians [71].

We also examined the mediating role of QWL in the relationship between WFC, SSS, and level of PA, with overall QOL. The results showed that QWL only mediated the path of SSS to QOL. In the study of Zabihi et al., (2018) the relationship between overall QOL and QWL among working women was significant. They reported that there was a significant and negative relationship between QOL and WFC, but the mediating effect of WFC between QOL and QWL was not statistically significant [7]. Additionally, Nasiripour and colleagues (2015) showed that there was no significant relationship between education, work-related factors (components of work-life quality), and WFC [72]. On the other hand, Nkulenu (2015) showed that working women experience more WFC compared to their male counterparts. However, WFC was not significantly related to with QWL, and there was no significant difference in WFC and QWL between dual-income couples and single-income individuals [73].

Implications of the study

Obtaining information about the QOL (work, etc.) in different population groups can be considered as basic information and be used in evaluations and interventions in the field of public health. Therefore, the findings of the present study can have a suitable policy outcome for developing organizational strategies to improve the QWL of working women. The results can also be used for policy-making on working women's exercise and highlight the importance of exercise in improving the QOL of working women, which is crucial for preventing various work-related health risks and burnout.

Strengths and limitations

One strength of this study is that the research team simultaneously examined QWL and QOL among working women in Iran, an area that has been less investigated. The results presented in this article also provide a significant framework for a sample of working women in Kermanshah and western Iran. However, it is suggested that measuring women's QWL and their preference for leisure-time PA should be better evaluated in further studies. The study also had some notable limitations, such as its cross-sectional nature and use of self-report data, which may cause response bias. The moderate sample size in a large geographical area in western Iran may limit the generalizability of the results, so conducting similar studies on all working women in Iran could provide a clearer picture. Future studies could include a larger sample size and involve both men and women for a comprehensive gender-based analysis. Longer work experience likely affects QWL, but because most participants in this study had less than twenty years of work experience, we cannot confirm that this did not affect our results.

Conclusion

The results of this study showed that variables such as subjective SSS, PA, and QWL had a direct and significant effect on QOL, but WFC had no significant effect on QOL. Additionally, QWL was found to have a positive and significant mediating role in the relationship between subjective SSS and overall QOL. It is suggested that future studies examine the effect of simultaneous employment of men and women on the WFC and work experience on QWL and QOL.

Abbreviations

- PA Physical activity
- QOL Quality of life
- QWL Quality of working life
- SES Socio-economic status
- SSS Subjective socio-economic status
- WFC Work-family conflict

Acknowledgements

The researchers would like to thank all the participants.

Author contributions

N.R. and SHZ. wrote the main manuscript text and NS. Prepared and Tables 1, 2 and 3. All authors reviewed the manuscript.-.

Funding

This work is financially supported by the supported by Kermanshah University of Medical Sciences and Razi University (Grant No. 4010699). The funders played no role in the study design, data collection, data analysis, interpretation or writing of the report.

Data availability

The data sets used and analyzed in this study are available from the corresponding author on reasonable request.

Declarations

Ethics approval and consent to participate

We confirm that all methods related to the human participants were performed in accordance with the Declaration of Helsinki and approved by Research Ethics Committee of Kermanshah University of Medical Sciences. This study also received ethics approval from the Research Ethics Committee of Kermanshah University of Medical Sciences (IR.KUMS.REC.1400.712). Written informed consent form was obtained from the participants.

Consent for publication

Not applicable.

Competing interests

The authors declare no competing interests.

Received: 10 February 2024 / Accepted: 23 January 2025 Published online: 01 February 2025

References

- Rajabi Gilan N, Ghasemi S, Reshadat S, Rajabi S. The relationship between Social Capital and Health-Related Quality of Life among teachers. J Zanjan Univ Med Sci Health Serv. 2013;21:88.
- Theofilou P. Quality of life: definition and measurement. Europe's J Psychol. 2013;9(1).
- Majedi S, LAHSAEIZADEH AA. Relationships between contextual variables, social capital and satisfaction from quality of life: a case study in rural areas of fars province of Iran. 2007.
- Sanagoo A, Sarokhani D, Dehkordi AH, Sayehmiri K, Jouybari L. Systematic review and meta-analysis of quality of work life in Iran (2011–2017). Int J Prev Med. 2020;11.
- Ko MC. An examination of the links between organizational social capital and employee well-being: focusing on the mediating role of quality of work life. Rev Public Personnel Adm. 2021;41(1):163–93.
- Bakhshi E, Kalantari R. Investigation of quality of work life and its relationship with job performance in health care workers. J Occup Hygiene Eng. 2017;3(4):31–7.
- Zabihi M, Mahmoudi G, Abedi G. The effect of work-family conflict mediation on the General Quality of Life and the quality of Working Life in Employed Women. Evid Based Health Policy Manage Econ. 2018;2(3):192–201.
- Kelbiso L, Belay A, Woldie M. Determinants of quality of work life among nurses working in Hawassa town public health facilities, South Ethiopia: a cross-sectional study. Nursing research and practice. 2017;2017.
- Delgoshyii B, Riahi L, Motaghi M. Relationship of quality of working life in Kashan teaching and non-teaching hospitals with knowledge management according to the top and middle manager's point of view. J Hosp. 2010;9(1–2):67–74.
- Javaid ZK, Mahmood K, Ali AA. Mediating role of mindfulness between quality of life and Workplace Stress among Working Women: quality of life and Workplace Stress among Working Women. J Workplace Behav. 2023;4(1):68–80.
- Khousravizadeh E, Khalaji H, Shavandi N. Status of physical activity, quality of work life and job stress Arak University employees. Contem Stud Sport Manage. 2014;3(6):61–72.
- 12. Nezhad RR, Deljoo SM, Mohammadi SM, Hozhabri K. The relationship between socio-economic status and physical activity with quality of life and quality of work life of people participating in sport for all programs. Hum Resource Manage Sport J. 2015;2(1):1–11.
- Adel H, Taheri F, Jamali Gharakhanlou Y, Sattarpour Iranaghi F. Role of predictability of achievement motivation, Psychological Capital, and physical activity on the quality of Work Life in teachers of exceptional schools in Markazi Province in 2018. Sci J Rehabilitation Med. 2020;9(1):25–36.
- 14. Noon M, Heery EJ. A dictionary of human resource management. Oxford University Press; 2008.

- Hamilton Skurak H, Malinen S, Näswall K, Kuntz JC. Employee wellbeing: the role of psychological detachment on the relationship between engagement and work–life conflict. Econ Ind Democr. 2021;42(1):116–41.
- 17. Ahmad A. Job, family and individual factors as predictors of work-family conflict. J Hum Resource Adult Learn. 2008;4(1):57–65.
- Gilan NR, Mohamadi J, Irankhah A, Khezeli M, Zangeneh A. Review of the effect cultural capital and subjective socioeconomic status on life satisfaction in Iran: the mediating role of health-promoting lifestyle and the moderating role of ethnicity. BMC Public Health. 2023;23(1):2563.
- Koulani M, Rajabi-Gilan N, Almasi A, Khezeli M, Shushtari ZJ, Salimi Y. Socioeconomic status and Domostic Violence Interact in Perdict of Quality of Life in Married women: a Population-based study in Westeren Iran. Journal of Family & Reproductive Health; 2023;17(1):29.
- Sun S, Chen J, Johannesson M, Kind P, Burström K. Subjective well-being and its association with subjective health status, age, sex, region, and socioeconomic characteristics in a Chinese population study. J Happiness Stud. 2016;17:833–73.
- Nutakor JA, Zhou L, Larnyo E, Addai-Danso S, Tripura D, editors. Socioeconomic status and quality of life: an Assessment of the Mediating Effect of Social Capital. Healthcare: MDPI; 2023.
- 22. Noorbakhsh Haqvardi M, Mirzaei A, Alimohammadzadeh K. Investigating the factors affecting the quality of work life of nurses and its relationship with the lifestyle of nurses in hospitals affiliated to Tabriz University of Medical Sciences during the Covid19 epidemic. Iran J Nurs Res. 2022;17(5):88–99.
- 23. Abadi F, Abadi F, Nouhi e. SURVEY FACTORS AFFECTING OF QUALITY OF WORK LIFE IN THE CLINICAL NURSES. Nurs Midwifery J. 2019;16(11):832–40.
- Mohammadi M, Mozaffari N, Dadkhah B, Etebari Asl F, Etebari Asl M. Study of Work-Related Quality of Life of Nurses in Ardabil Province hospitals. J Health Care. 2017;19(3):108–16.
- 25. Ahmadi M, Mousavi Z, Khorasani P, INDIVIDUAL AND OCCUPATIONAL COMPONENTS AFFECTING, THE QUALITY OF WORK LIFE OF NURSES IN THE COVID-19 PATIENTS CARE UNIT. Nurs Midwifery J. 2022;20(6):446–58.
- Mei-Ling C, TSENG Y-H, Ya-Mei C. CHIANG T-L. Relationship between multiple roles and leisure-time physical activities in Working-Age women. J Nurs Res. 2024; 32(1):e313.
- Khan AA, Akhlaq B, Hussain A, Akhtar Y, Work-Family, Conflicts. Psychological Well-being and quality of life among working officials: a comparative study. J Social Sci Rev. 2023;3(2):479–89.
- 28. Mehdipour A, Shetab Boushehri SN, Saemi E, Rayegan A. Relationship between the quality of working life and job involvement of Iranian physical education teachers. Stud Phys Cult Tourism. 2012;19(4).
- 29. Operario D, Adler NE, Williams DR. Subjective social status: reliability and predictive utility for global health. Psychol Health. 2004;19(2):237–46.
- Odéen M, Westerlund H, Theorell T, Leineweber C, Eriksen HR, Ursin H. Expectancies, socioeconomic status, and self-rated health: use of the simplified TOMCATS questionnaire. Int J Behav Med. 2013;20:242–51.
- Darcy C, McCarthy A. Work-Family conflict: an exploration of the differential effects of a dependent child's age on working parents. J Eur Industrial Train. 2007;31(7):530–49.
- 32. Mamaghaniyeh M, Sadeghi M, Amani S. The quality of working life among employees. Int J Hum Capital Urban Manage. 2019;4(3).
- Organization WH. WHOQOL-BREF: introduction, administration, scoring and generic version of the assessment: field trial version, December 1996. World Health Organization; 1996.
- 34. Barbosa RC, Sousa ALL. Association of self-perceived quality of life and health, physical activity and functional performance among older adults in the interior of Brazil. Revista Brasileira De Geriatria E Gerontologia. 2022;24.
- Bernard M, Braunschweig G, Fegg MJ, Borasio GD. Meaning in life and perceived quality of life in Switzerland: results of a representative survey in the German, French and Italian regions. Health Qual Life Outcomes. 2015;13:1–10.
- 36. Imbulana Arachchi J, Managi S. The role of social capital in subjective quality of life. Humanit Social Sci Commun. 2023;10(1):1–10.
- Kim J-H, Park E-C. Impact of socioeconomic status and subjective social class on overall and health-related quality of life. BMC Public Health. 2015;15(1):1–15.
- Ghasemi SR, Zangeneh A, Rajabi-Gilan N, Reshadat S, Saeidi S, Ziapour A. Health-related quality of life in informal settlements in Kermanshah, Islamic

Republic of Iran: role of poverty and perception of family socioeconomic status. East Mediterr Health J. 2019;25(11).

- Charati FG, Esmaeili R, Nasab NM, Jafari H. Occupational Violence and Its Association with the Quality of Working Life of Nurses in Intensive Care Units of Educational-Medical Centers in 2019. Iran J Psychiatry Behav Sci. 2021;15(4).
- Johansson LM, Lingfors H, Golsäter M, Kristenson M, Fransson El. Can physical activity compensate for low socioeconomic status with regard to poor self-rated health and low quality-of-life? Health Qual Life Outcomes. 2019;17:1–10.
- 41. Zhang J, Hong L, Ma G. Socioeconomic status, peer social capital, and quality of life of high school students during COVID-19: a mediation analysis. Appl Res Qual Life. 2022;17(5):3005–21.
- 42. Yang Y, Wang S, Chen L, Luo M, Xue L, Cui D, et al. Socioeconomic status, social capital, health risk behaviors, and health-related quality of life among Chinese older adults. Health Qual Life Outcomes. 2020;18(1):1–8.
- Wang J, Geng L. Effects of socioeconomic status on physical and psychological health: lifestyle as a mediator. Int J Environ Res Public Health. 2019;16(2):281.
- McMaughan DJ, Oloruntoba O, Smith ML. Socioeconomic status and access to healthcare: interrelated drivers for healthy aging. Front Public Health. 2020;8:231.
- Daniel H, Bornstein SS, Kane GC, Health. Physicians* PPCotACo. Addressing social determinants to improve patient care and promote health equity: an American College of Physicians position paper. Ann Intern Med. 2018;168(8):577–8.
- Siddiqi Z, Tiro JA, Shuval K. Understanding impediments and enablers to physical activity among African American adults: a systematic review of qualitative studies. Health Educ Res. 2011;26(6):1010–24.
- Limbers CA, McCollum C, Greenwood E. Physical activity moderates the association between parenting stress and quality of life in working mothers during the COVID-19 pandemic. Ment Health Phys Act. 2020;19:100358.
- Nowak PF, Bożek A, Blukacz M. Physical activity, sedentary behavior, and quality of life among university students. BioMed Research International. 2019;2019.
- Sanchez HM, Sanchez EGM, Barbosa MA, Guimarães EC, Porto CC. Impact of health on quality of life and quality of working life of university teachers from different areas of knowledge. Ciênc saúde Coletiva. 2019;24:4111–23.
- Rector JL, Christ SL, Friedman EM. Well-being and long-term physical activity participation in midlife adults: a latent class analysis. Ann Behav Med. 2019;53(1):53–64.
- Marquez DX, Aguiñaga S, Vásquez PM, Conroy DE, Erickson KI, Hillman C, et al. A systematic review of physical activity and quality of life and well-being. Translational Behav Med. 2020;10(5):1098–109.
- 52. de Oliveira LSSCB, Souza EC, Rodrigues RAS, Fett CA, Piva AB. The effects of physical activity on anxiety, depression, and quality of life in elderly people living in the community. Trends Psychiatry Psychother. 2019;41:36–42.
- Jahromi MK. Physical activities and sport for women in Iran. in: Benn T, Pfister G, Jawad H, editors. Muslim Women Sport. London and New York: Routledge; 2011. p. 109–24.
- Sadeghi S, Sajjadi SN, Nooshabadi HR, Farahani MJ. Social-cultural barriers of muslim women athletes: Case study of professional female athletes in Iran. J Manage Practices Humanit Social Sci. 2018;2(1):06–10.
- Abdolmaleki H, Khalili B, Zarsineh F, Sadeghi M, Fathi Z. Gender inequality in sports endorsement; identifying the obstacles to the presence of Iranian female athletes in sports advertisements. Sports Mark Stud. 2023;4(1):1–12.
- Fadaeidehcheshmeh M, Hosseininia SR, Rahmati MM, Bagheri H. Gender and discrimination: a study about female athletes. Res Sport Manage Mark. 2025; 6(1): 25-141.
- 57. Saadatifard E, Javadipour M, Honari H, Saffari M, Zareian H. The context of recreational sports for women in Iran. Annals Appl Sport Sci. 2019;7(1):83–95.
- Dilmaghani RB, Armoon B, Moghaddam LF. Work-family conflict and the professional quality of life and their sociodemographic characteristics among nurses: a cross-sectional study in Tehran, Iran. BMC Nurs. 2022;21(1):1–9.
- Ramadhanti HF, Simanjuntak M, Johan IR. The Effect of Work-Family Conflict, Communication Pattern, Social Support, and stress levels toward Family Quality of Life during the Covid-19 pandemic. J Family Sci. 2022;7(2):119–35.
- Al-Hammouri MM, Rababah JA. Work family conflict, family work conflicts and work-related quality of life: the effect of rotating versus fixed shifts. J Clin Nurs. 2023;32(15–16):4887–93.

- Khateeb FR. Caught in the Crossfire: how work-family conflict affects the lives of Married nurses in India. SEISENSE J Manage. 2023;6(1):58–73.
- 63. Md-Sidin S, Sambasivan M, Ismail I. Relationship between work-family conflict and quality of life: an investigation into the role of social support. J Managerial Psychol. 2010;25(1):58–81.
- 64. Amiresmaili M, Khodabandeh Shahraki S, Sedoughi Z, Sadeghi M. The relationship between work-family balance and quality of life of nurses Working at Teaching Hospitals of Kerman University of Medical Sciences, Iran. J Manage Med Inf School. 2014;2(1):56–47.
- Greenhaus JH, Collins KM, Shaw JD. The relation between work–family balance and quality of life. J Vocat Behav. 2003;63(3):510–31.
- Casper WJ, Weltman D, Kwesiga E. Beyond family-friendly: the construct and measurement of singles-friendly work culture. J Vocat Behav. 2007;70(3):478–501.
- O'neill JW, Harrison MM, Cleveland J, Almeida D, Stawski R, Crouter AC. Work–family climate, organizational commitment, and turnover: Multilevel contagion effects of leaders. J Vocat Behav. 2009;74(1):18–29.
- Kossek EE, Lee K-H. Work-family conflict and work-life conflict. Oxford research encyclopedia of business and management. 2017.

- Narehan H, Hairunnisa M, Norfadzillah RA, Freziamella L. The effect of quality of work life (QWL) programs on quality of life (QOL) among employees at multinational companies in Malaysia. Procedia-Social Behav Sci. 2014;112:24–34.
- Maqsood MB, Islam MA, Naqvi AA, Al Qarni A, Al-Karasneh AF, Iffat W, et al. Assessment of quality of work life (QWL) among healthcare staff of intensive care unit (ICU) and emergency unit during COVID-19 outbreak using WHOQoL-BREF. Saudi Pharm J. 2021;29(11):1348–54.
- 71. Storman M, Storman D, Maciąg J. Quality of work-life among young medical doctors in Poland. Int J Occup Saf Ergon. 2022;28(3):1611–7.
- Nasiripour AA, Pourmotahari M. The relationship between quality of Working Life and work-family conflict among nurses of Tehran University of Medical Sciences' hospitals. Hospital. 2015;13(4):145–51.
- 73. Nkulenu AO. Effect of work-family conflict on quality of work-life in Ghana. Eur J Bus Manage. 2015;7(24):52–61.

Publisher's note

Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.