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Quality of Work Life and Mental Health: Investigating the Link in a Correlational Framework

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ABSTRACT

Mental health is a critical factor in employees' overall well-being and performance, especially in high-demand industrial environments. Quality of work life, as a key organizational variable, can significantly influence psychological outcomes in the workplace. This study aimed to investigate the relationship between quality of work life and mental health among employees in a large industrial context. The statistical population included 12,500 employees of the steel industries in Isfahan in 2022, from which a sample of 348 individuals was selected through convenience sampling. The research method was descriptive-correlational. Data were collected using the Work-Related Quality of Life Scale (WRQoL-2) and the Depression, Anxiety, and Stress Scale (DASS-21). The Pearson correlation coefficient was used to analyze the data. The results indicated a statistically significant negative correlation between quality of work life and mental health components: depression ($r = -0.269$, $p < 0.001$), anxiety ($r = -0.307$, $p < 0.001$), and stress ($r = -0.299$, $p < 0.001$). These findings suggest that as employees' quality of work life improves, their levels of depression, anxiety, and stress decrease. The study emphasizes the importance of enhancing work-life quality as a strategy to improve employees' psychological well-being.

Introduction

Mental health is a fundamental pillar of human well-being and functioning, and its importance in the workplace has been increasingly recognized. Psychological problems such as depression, anxiety, and stress are among the most common challenges faced by employees in modern work environments. These conditions not only impair emotional stability and interpersonal relationships but also disrupt cognitive performance, decision-making, and job effectiveness (Karatepe et al., 2021; Farhadi et al., 2015). Employees struggling with psychological distress are more likely to exhibit absenteeism, presenteeism, low job satisfaction, burnout, and even deviant behaviors such as conflict with coworkers or neglect of duties (Carmichael et al., 2021; Kuhn, 2013). According to the World Health Organization (2004), mental health encompasses not only the absence of illness but also the presence of psychological resilience, productivity, and the ability to engage meaningfully in social and occupational life.

In this context, understanding the organizational factors that influence mental health is crucial for promoting workforce well-being. Among these factors, Quality of Work Life (QWL) stands out as a multidimensional and dynamic construct that plays a central role in shaping employees' psychological experiences. QWL refers to employees' perceptions of their work environment and includes dimensions such as fair compensation, job security, safe working conditions, career advancement opportunities, participatory decision-making, work-life balance, and organizational support (Mirkamali & Thani, 2011; Inarda, 2022). A high level of QWL has been associated with improved mental health, increased job satisfaction, reduced occupational stress, and greater emotional well-being (Saidykhan & Ceesay, 2020; González-Baltazar et al., 2018). In contrast, poor QWL can contribute to chronic fatigue, disengagement, job dissatisfaction, and the exacerbation of anxiety and depressive symptoms (Cetrano et al., 2017; Bakhshi et al., 2018).

Recent evidence suggests that promoting QWL may serve as a protective factor against psychological distress in industrial work settings. For example, Goda et al. (2023) found that higher QWL levels significantly predicted lower depression and anxiety among factory workers. Similarly, organizational environments that support autonomy, clear communication, and psychological safety have been shown to foster resilience and reduce emotional exhaustion (Karatepe et al., 2021; Zia et al., 2021). Given the complexity of mental health and the growing importance of psychosocial conditions in the workplace, QWL may serve not only as a reflection of working conditions but also as a powerful intervention point for improving employees' psychological functioning.

Despite the growing recognition of QWL's importance, there is still a need for empirical studies that examine its direct association with specific psychological indicators such as depression, anxiety, and stress—particularly within high-demand industrial sectors where mental health issues are often overlooked. In these environments, employees frequently face physical strain, emotional pressure, and limited psychological support, making them more vulnerable to mental health problems. By exploring the link between QWL and psychological well-being, especially in the context of the steel industry, this study aims to contribute valuable insights into how improving workplace quality can mitigate emotional distress and promote healthier, more sustainable workforces.

Accordingly, the present study investigates the relationship between quality of work life and mental health—including depression, anxiety, and stress—among employees in the steel industry, using a correlational framework.

Methods

This study employed a descriptive-correlational design to investigate the relationship between quality of work life and mental health among employees. The statistical population consisted of 12,500 employees working in steel industries in Isfahan in 2022. According to Knofczynski and Mundfrom (2008), a minimum of 10 to 30 participants per variable is recommended in correlational research. Therefore, to account for potential attrition and enhance statistical reliability, a total of 380 participants were initially selected using convenience sampling. After excluding 32 incomplete responses, the final sample included 348 participants.

2,1 Data Collection Procedure

The data were collected over 30 days using an online survey hosted on the Porsline platform. After receiving official approval from the heads of the industrial units, the survey link was distributed to employees via internal communication channels. Participation was voluntary and confidential. Inclusion criteria included willingness to participate, absence of psychiatric medication, and no major stressful events such as bereavement or divorce during the past 4–5 months. Failure to complete the questionnaires in full was considered an exclusion criterion.

2,1.1 Measurement Tools

Depression, Anxiety, and Stress Scale (DASS-21): Developed by Lovibond and Lovibond (1995), this questionnaire contains 21 items divided into three subscales: depression, anxiety, and stress (7 items each). Responses are rated on a 4-point Likert scale from 0 ("did not apply to me at all") to 3 ("applied to me very much"). As a short form of the original 42-item scale, each subscale score is doubled. Higher scores indicate greater severity of symptoms. The scale has demonstrated strong psychometric properties; Lovibond and Lovibond (1995) reported internal consistency coefficients of 0.89 (depression), 0.84 (anxiety), and 0.82 (stress). In the present study, Cronbach's alpha coefficients were 0.80, 0.82, and 0.82, respectively. The DASS-21 has also shown strong construct validity and concurrent validity in multiple studies (Antony et al., 1998).

Work-Related Quality of Life Scale (WRQoL-2): This 24-item instrument, developed by Easton and Van Laar (2018), measures six dimensions of work-life quality: general well-being, work-family balance, job satisfaction, control at work, working conditions, and job-related stress. Responses are rated on a 5-point Likert scale from 1 ("strongly disagree") to 5 ("strongly agree"), with three negatively worded items reverse scored. The total score ranges from 23 to 115, as the 24th item is open-ended and is not included in the scoring process (Easton & Van Laar, 2018). Scores are categorized as follows: 23–71 = low QWL, 72–82 = moderate QWL, and 83–115 = high QWL. Mazloumi et al. (2017) confirmed the face and content validity of the Persian version of the scale through expert review. The internal consistency of the overall scale was 0.92, with subscale alphas ranging from 0.63 to 0.97. In the present study, the overall Cronbach's alpha was calculated to be 0.93, indicating excellent internal consistency.

2,1.1.1 Data Analysis

Descriptive statistics (means, standard deviations) and Pearson correlation coefficients were calculated using SPSS version 23 to examine the relationships between the study variables.

Results

In the present study, the majority of participants were married (n = 289, 83%), while 59 individuals (17%) were single. Regarding educational level, 279 participants (80.2%) had a high school diploma, 41 participants (11.8%) had an associate degree, and 28 participants (8%) held a bachelor's degree or higher. The mean age of participants was 34.24 years with a standard deviation of 6.02 years.

In this section, descriptive statistics including the mean, standard deviation, minimum, and maximum scores for the study variables were analyzed. To answer the research question, Pearson correlation analysis was used. Additionally, to examine statistical assumptions, the Kolmogorov–Smirnov test was conducted to assess normality, and scatter plots were used to evaluate the linear relationship between variables.

Table 1 presents the descriptive statistics including the mean, standard deviation, and minimum and maximum values for the study variables.

Table 1: Descriptive Statistics of Study Variables

Variable	N	Mean	Standard Deviation	Minimum	Maximum
Quality of Work Life	348	79.43	15.31	36	114
Depression	348	7.42	8.78	0	21
Anxiety	348	8.69	9.76	0	21
Stress	348	6.18	8.21	0	21

As shown in Table 1, the mean score of quality of work life (independent variable) was 79.43. The mean scores for the dependent variables—depression, anxiety, and stress—were 7.42, 8.69, and 8.21, respectively.

The results of the normality assumption test for the study variables' scores are presented in Table 2.

Table 2: Kolmogorov–Smirnov Test for Normality Assumption

Variable	Skewness	Kurtosis	K-S Statistic	Sig.
Quality of Work Life	-0.33	-0.061	1.08	0.192
Depression	1.66	1.71	1.32	0.058
Anxiety	1.36	1.45	1.35	0.052
Stress	1.95	1.03	1.08	0.191

Based on the results presented in Table 2, the skewness and kurtosis values for all variables fall within the acceptable range of ±1.98, indicating normal distribution. Furthermore, the results of the Kolmogorov–Smirnov test showed that the null hypothesis of normal distribution was not rejected for any of the study variables (all p-values > 0.05). This confirms that the data are normally distributed and consistent with the assumptions required for parametric analyses.

Additionally, scatter plots were used to examine the linear relationships among variables, as shown in Figure 1.

Figure 1: Scatter Plots of the Relationship Between Study Variables

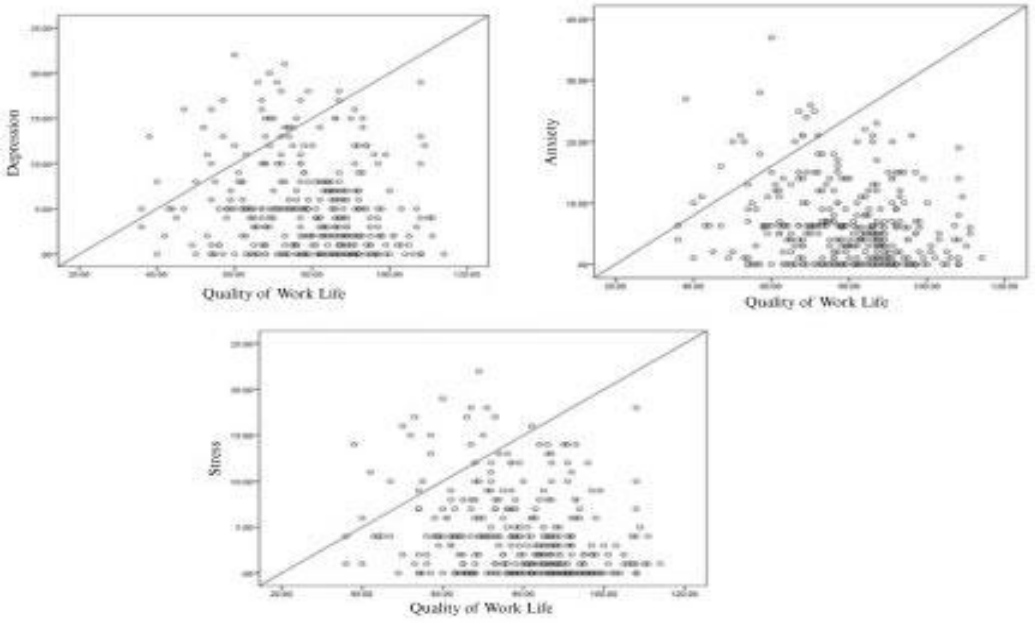

Figure 1 illustrates the linear relationship between quality of work life and the components of mental health (depression, anxiety, and stress).

To examine the relationship between quality of work life and mental health (depression, anxiety, and stress), Pearson correlation analysis was conducted, and the results are presented in Table 3.

Table 3: Pearson Correlation Results (N=348)

Variable	Depression (r)	Sig.	Anxiety (r)	Sig.	Stress (r)	Sig.
Quality of Work Life	-0.269	0.001	-0.307	0.001	-0.299	0.001

As shown in Table 3, there is a significant negative correlation between quality of work life and all three dimensions of mental health: depression ($r = -0.269$, $p < 0.001$), anxiety ($r = -0.307$, $p < 0.001$), and stress ($r = -0.299$, $p < 0.001$). These findings confirm the first research hypothesis, suggesting that as the quality of work life increases among employees, their levels of depression, anxiety, and stress decrease accordingly.

Discussion and Conclusion

The present study aimed to investigate the relationship between quality of work life and mental health, specifically focusing on depression, anxiety, and stress among employees. The results indicated that quality of work life is significantly and negatively correlated with all three mental health components. In other words, as the quality of work life improves, symptoms of depression, anxiety, and stress decrease. These findings align with previous studies, including those conducted by González-Baltazar et al. (2018), Bakhshi et al. (2018), and

Goda et al. (2023), which all highlight the protective role of work-life quality in maintaining employees' psychological well-being.

Work-life quality, as defined by Easton and Van Laar (2018), is a multidimensional construct encompassing factors such as general well-being, job satisfaction, work-family balance, working conditions, control at work, and job stress. Each of these dimensions plays a critical role in employees' mental health. For instance, poor working conditions or a lack of autonomy at work can lead to increased stress and anxiety, while job satisfaction and organizational support for work-life balance have been empirically linked to reductions in psychological distress (Zhang et al., 2016; Uzonwanne & Ijide, 2017).

The results of the current study emphasize the importance of creating and maintaining a supportive work environment. When employees experience fairness in compensation, have opportunities for professional growth, and feel a sense of security and respect in their roles, they are more likely to report higher levels of mental well-being (Easton & Van Laar, 2018; Bakhshi et al., 2018). In contrast, a lack of attention to these dimensions can contribute to emotional exhaustion, decreased motivation, and mental health issues (Zhang et al., 2016; Cetrano et al., 2017; González-Baltazar et al., 2018).

Based on these findings, it can be concluded that the quality of work life plays a fundamental role in promoting mental health among employees. Therefore, organizations need to implement strategies aimed at improving workplace conditions, promoting employee autonomy, reducing job stress, and fostering a culture of well-being. These efforts may help reduce the prevalence of depression, anxiety, and stress, ultimately enhancing both individual and organizational outcomes.

4,1 Limitations and Recommendations

Despite the valuable findings of this study, several limitations should be acknowledged. First, the use of convenience sampling limits the generalizability of the results to the broader population. Second, the study was cross-sectional, which restricts the ability to infer causality between quality of work life and mental health. Additionally, all data were collected via self-report questionnaires, which may be subject to response biases.

From a practical perspective, the findings of this study underscore the critical role of improving employees' work-life quality in promoting mental health. Organizations should invest in strategies that enhance working conditions, support work-life balance, provide mental health resources, and foster an organizational culture that prioritizes employee well-being. These interventions can reduce symptoms of depression, anxiety, and stress and ultimately improve employee performance and job satisfaction.

Future research is recommended to use longitudinal or experimental designs to better understand the causal relationships between the variables. Additionally, incorporating more diverse samples from various industries and cultural backgrounds can enhance the external validity of findings. Further studies could also explore potential mediating or moderating variables, such as coping strategies, organizational support, or job demands, to gain a more nuanced understanding of how work-life quality influences mental health.

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