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The Impact of Work-Related Stress on Quality of Life (QoL) and Psychological Wellbeing among Day and Night Shift Workers

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ABSTRACT

This study analyzes the effects of work related stress on quality of life and psychological well-being among day and night shift workers in Telecommunication Industry. The main objectives were to identify the intensity of work related stress between day and night shift workers, along with effects of work related stress on quality of life and psychological well-being. A cross-sectional, quantitative study design was employed, using purposive sampling to gather data from 400 workers, working in day and night shift among telecommunication sector in Rawalpindi and Islamabad. Data was collected utilizing the Workplace Stress Scale (WSS) (Marlin Company & American Institute of Stress, 2001), Quality of Life Questionnaire (Mubashir et al., 2024) and Ryff`s Psychological Wellbeing Scale (Ryff & Keyes, 1995). Correlation analysis, linear regression and ANOVA were administered. Results indicated that Work related stress was negatively correlated with quality of life ($r = -0.32$, $p < .000$) and psychological wellbeing ($r = -0.30$, $p < .000$). Regression analysis showed that work related stress significantly impacts quality of life ($\beta = -.54$, $p < 0.00$) and psychological wellbeing ($\beta = -1.08$, $p < 0.00$). These results showed that higher work related stress leads to decline in quality of life and psychological wellbeing of employees. Additionally, there was no significant difference in the intensity of work related stress between day shift ($M = 18.44$) and night shift ($M = 18.52$) workers although the quality of life of night shift workers ($M = 11.51$) was observed to be lower than day shift workers ($M = 54.23$). Moreover, increased number of working hours; 12-14 ($M = 21.41$) was negatively associated with work related stress. Given the limited research on this relationship and in telecomm industry, this study focuses on empirical gap in the existing literature in Pakistan, stresses the need for the further research on this relationship and also to identify the confounding factors and specific stressors in work life.

Introduction

In modern workplace, stress has become an inevitable factor of professional life, originating from growing job demands, high workloads, and increased expectations. Work-related stress is a prevalent issue that effects employees, directly shaping their quality of life, health and overall wellbeing.

According to American Psychological Association, stress is defined as "the physiological or psychological response to internal or external stressors". Selye, (1946) classified stress into two different types: "positive stress" and "negative stress". Positive stress, known as eustress, is a favourable form of stress that occurs over a short period of time and plays a essential role in accelerating motivation, enhancing coping skills and improved performance. Alternatively, negative stress referred as distress, can lead to harmful effects as anxiety, feeling of usefulness, and physical or mental health challenges, eventually reducing performance (Bowen et al., 2014; Leung et al., 2005). Of the two, negative stress is essentially alarming due to its considerable contribution to negative health consequences. The work related stress was firstly defined by World Health Organization, as "an employee's reaction whenever they are challenged by assigned job responsibilities that do not correspond to their knowledge, skills and abilities" (WHO, 1948).

Occupational stress is when stress arises from the workplace factors, such as discrepancy between job demands and an employee`s expertise or resources. Factors such as badly managed work structures, inefficient administration, poor working conditions and extremely competitive work place cultures, are main contributors of stress in today`s work environment (Mead, 2001). Gillespie et al. (2001), explored that inauguration of new technology have increased the occupational stress. Asif, (2009) pointed out various factors contributing to workplace stress, including long shifts, strict deadlines, poor relationships with colleagues, job insecurities, and boredom.

Work related stress can display effects in physical, psychological and behavioral ways. Physical symptoms include hair loss, irregular eating habits, weight loss due to irregular sleep patterns, hypertension, headaches, muscles pain, dry mouth and throat, indigestion and diarrhea. Psychologically, stress can cause difficulty in concentration, feelings of worthlessness or depression, insomnia, and social phobia. Behavioral manifestation include being easily distracted, impulsive behaviors, aggression, burnout, increased smoking and substance use and absenteeism (Amankwah et al., 2015; Ekundayo, 2014).

Wood-Dauphinée et al., (2002) describes quality of life as "a reflecting image of a person`s overall perspective and satisfaction with different characteristics in their life, insisting on its subjective nature" (Aqtam et al., 2023). According to Grewal et al., (2006) many factors contribute to QoL such as good relationship with family and friends, satisfactory health for one`s self and loved ones, autonomy, mental health, spirituality, economic stability, and a suitable standard of living. Other aspects like enjoying social and recreational activities, feeling safe, and living in a safe and welcoming environment also play a significant role (Aqtam et al., 2023). According to Courtenay et al., many aspects are associated with individual`s quality of life, including job satisfaction, financial level, and level of racial tolerance. (Courtenay et al., 1992).

Diener et al. (2010) defines psychological well-being as a "personal evaluation of one`s life, engagement, sense of purpose and positive emotions". This definition includes broad spectrum of productive experiences, as fulfillment, contentment, and satisfaction (Diener et al., 2010). Ryff

(1989) developed a concept named as psychological well-being. She developed a foundation for well-being that includes six key aspects: Autonomy, Environmental Mastery, Positive Relationships with Others, Purpose in Life, Personal Growth, and Self-Acceptance (Ryff, 1989).

Ryff defines autonomy as incorporating qualities like independence, a sense of control, self-reliance, self-regulation and individuation. According to Ryff, environmental mastery refers to the ability to "choose or create environments suitable to his or her psychic conditions". Ryff defined positive relationships with others as identified by warmth, trust, empathy and affection. Ryff proposed that having "a clear comprehension of life`s purpose, a sense of directedness, and intentionality" are essential aspects of the "feeling that there is a purpose and meaning to life". Ryff defined personal growth as the ongoing ability to "develops one potential, to grow and expand as a person". Ryff described self-acceptance as "main factor of mental health as well as the characteristic of self-actualization, high effectiveness and maturity" (Ryff, 1989). Shift work refers to "a work schedule that falls outside the traditional day time hours, usually including evening, night, or rotating shift" (Caruso, 2013).

Several studies highlighted the importance of work-related stress and quality of life, similarly Babapour et al., (2022) explored the crucial issue of job stress among nurses and its harmful effects on their quality of life and caring behaviors. This cross- sectional study was conducted in Tabriz, Iran constituting 115 nurses from two hospitals. The researchers found a moderate level of job stress with a mean score of 2.77 (SD = 0.54). Particularly, the study exposed a significant negative correlation between Job stress and quality of life, with a correlation coefficient $r = -0.44$ ($P < 0.001$) (Babapour et al., 2022).

Recent study conducted by Suleman et al. (2018), examined the relationship between perceived occupational stress and psychological wellbeing among secondary school heads in Khyber Pakhtunkhwa, Pakistan. The research contained a sample of 402 secondary school heads. The results revealed a strong negative correlation between perceived occupational stress and psychological wellbeing (Suleman et al., 2018).

Dodia and Parashar (2020) conducted a comparative study to investigate the relationship between shift work, job stress, psychological distress and job satisfaction among employees in India. This research involved 60 participants, 30 from day shift and 30 from night shift. The results showed that night shift workers reported notably more psychological and job stress and less job satisfaction as compared to day shift workers (Dodia & Parashar, 2020).

The previously mentioned studies show that work related stress negatively effects quality of life and psychological wellbeing, particularly in shift workers. But, there is an empirical gap specifically on day and night shift telecommunication workers in Pakistan. This research is specifically important because there is a lack of comparative studies that particularly assess how stress effects day and night shift workers. Additionally, most of the existing research are conducted on health professionals, leaving a significant gap in understanding of how stress effects in different workplace settings. it aims to fill these gaps by examining diverse impact of work related stress on quality of life and psychological wellbeing of day and night shift workers.

Method

The present study focused at examining the effect of work related stress on quality of life and psychological wellbeing among day and night shift workers in telecommunication Industry. To

analyze this, data was collected through quantitative method using standardized questionnaires. Current study utilized cross sectional research design and sample was approached through Survey method.

Objectives

1. To evaluate how work related stress impacts the overall quality of life and psychological wellbeing of workers.

2. To examine the association between work related stress, quality of life and psychological wellbeing among day and night shift workers .

3. To compare the differences in work related stress levels between day and night shift employees in telecommunication sector.

Hypotheses

1. Work related stress, Quality of Life (QoL) and Psychological wellbeing are associated with each other.

2. Work related stress impacts Quality of Life (QoL) and Psychological wellbeing of day and night shift workers in telecommunication industry.

3. There is a significant difference in the intensity of work related stress between day and night shift workers.

4. An increased number of working hours is associated with elevated levels of work related stress.

Sample

This study employed a quantitative cross-sectional design. A purposive sampling technique was used to choose participants particularly from the telecommunication sector, focusing on both day and night shift employees who have encountered occupational stress. The study was conducted on 400 participants.

Inclusion Criteria

The inclusion criteria for this study require participants who are currently employed in telecommunication industry, working either in day or night shifts. The research included participants aged between 18 and 45. Moreover, individuals must be willing to participate in the study.

Exclusion Criteria

The individuals working outside the telecommunication sector or workers having shift rotations were not included in the study. Furthermore, those diagnosed with severe mental health conditions that may affect their ability to participate were excluded.

Instruments

Following are the instruments used in this study.

The Workplace Stress Scale: (Marlin Company & American Institute of Stress, 2001) in English language was administered to the participants to measure the intensity of Work related stress. The Workplace Stress Scale contains 8 concise statements that displays common workplace stressors. Each item is evaluated on a 5-point Likert Scale from "Never" to "Very Often". Scores are graded into ranges displaying varying levels of stress, from "Chilled Out" (15 or lower) to "Potentially Dangerous" (31 to 40). It`s internal consistency is strong, with Cronbach`s alpha values typically exceeding 0.80 and validity 0.60.

Quality of Life Questionnaire: (Mubashir et al., 2024) in English language was utilized to asses quality of life. It contains 15 items that assess physical health, social relationships, financial stability and environmental factors. Each item is graded on 5-point Likert scale ranging from 1 (Strongly Disagree) to 2 (Strongly Agree). It`s internal consistency is strong, with Cronbach`s alpha values typically exceeding 0.84 and validity of 0.75.

Ryff`s Psychological Wellbeing Scale: (Ryff & Keyes, 1995) 42 items version in English language was utilized in this research to measure psychological wellbeing across six dimensions: self-acceptance, environmental mastery, positive relations with others, autonomy, personal growth and purpose in life. Each dimension contains 7 items, on a 6-point Likert scale, ranging from 1 (Strongly Disagree) to 6 (Strongly Agree). This version of scale has higher internal consistency, with Cronbach`s Alpha coefficients ranging from 0.86 to 0.93 for the six subscales and validity of 0.70.

Procedure

In conducting this research, informed consent was taken. Following the consent process, questionnaires were disseminated to various call centers in day and night located in twin cities to collect data relevant to the research objectives. The questionnaire was distributed to 500 workers but 100 participants were dropped out. The questionnaires were distributed both electronically and paper-format. The distribution was coordinated with the management of each center. This study prioritized various ethical considerations to secure participant`s prosperity and research integrity. Informed consent was obtained from all participants. Each participant received a comprehensive explanation of the study`s purpose, it`s objectives, procedures, risks and benefits, making sure that they are willing to participate. The consent form also included the guarantee of confidentiality and choice to withdraw any time without any consequences.

Results

The data was analyzed using SPSS version 20. Descriptive statistics were first calculated to summarize the demographics of the sample. Correlation analysis was employed to explore the relationships between work related stress, QoL and psychological wellbeing. Regression analysis was conducted to investigate how work related stress predicts QoL and psychological wellbeing among workers. One way ANOVA were performed to compare means of stress levels between day and night shift workers and to check the association between number of working hours and work related stress.

Table 1: ***Mean, Standard Deviation, Range and Cronbach`s alpha reliability of workplace stress scale, quality of life (QoL) and psychological wellbeing (N=400)***

Variables	*N*	*M*	*SD*	Range	α
WSS	400	18.48	6.50	32	.79
QoL	400	53.85	10.88	78	.86
PWB	400	169.07	23.23	130	.82

Note: *WSS = Workplace Stress Scale; QoL = Quality of Life; PWB = Psychological Wellbeing; N = Total Number of Participants; M = Mean; SD = Standard Deviation; α = Cronbach`s alpha.*

Table 1, shows the mean and standard deviation of the data. This results indicates that the data is mildly deviated from its mean. Range has also been checked which is 32,78 and 130 respectively. The Cronbach`s alpha reliability of Workplace Stress Scale is .79 which indicates acceptable reliability. The Cronbach`s alpha reliability of Quality of Life (QOL) Questionnaire is .86 which indicates high reliability. The Cronbach`s alpha reliability of Psychological Wellbeing Scale is .82 which indicated high reliability.

Table 2: ***Socio-demographic variables of study participants (N =400)***

Variables	*N*	*%*
Age (Years)		
18-26	261	65.3
27-35	102	25.5
36-44	28	7.0
45-53	09	2.3
Gender		
Men	270	67.5
Women	130	32.5
Education		
Higher Secondary	106	26.5
Undergraduate	163	40.8
Postgraduate	131	32.8
Socioeconomic Status		
Lower Class	218	54.5
Middle Class	150	37.5
Upper Class	32	8.0
Shift		
Day	200	50
Night	200	50
Number of Working Hours		
6-8	133	33.3
9-11	233	58.3
12-14	34	8.4
Any Psychiatric or Physical Illness		
Yes	23	5.8
No	377	94.3
Family History of Physical or Psychiatric Illness		
Yes	27	6.8
No	37	93.2

Note: *% = percentage.*

Table 2, shows the frequency and demographic characteristics. There were total 400 participants. The age was split into four categories. One category included 18-26 years that have the frequency of 261 and 65.3 percentage. The last category included individuals of 45-53 years having frequency of 9 and 2.3 percentage. There were 270 males and 130 females out of total 400 participants. The education was divided into three levels. There was 106 participants and 26.5 percent in higher secondary level. In undergraduate level, there were frequency of 163 and 40.8 percentage. The postgraduate level included 131 participants having percentage of 32.8. There were three categories of socioeconomic status. The lower class has frequency of 218 and 54.5 percent. There were 150 participants and 37.5 percent in middle class. In upper class, there were 32 participants and 8.0 percentage. The total 400 participants were divided into two shifts; day and night having equal number of participants. The number of working hours was divided into three categories.

Table 3: ***Inter correlation of Work related stress, Quality of Life (QoL) and Psychological wellbeing***

Variables	***N***	***M***	***SD***	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1. WSS	400	18.48	6.50	-								
2. QoL	400	53.85	10.88	-.32**	-							
3. PWB	400	169.07	23.23	-.30**	.50**	-						
4. AUT	400	27.53	5.09	-.20**	.45**	.73**	-					
5. EM	400	27.19	5.27	-.30**	.38**	.66**	.37**	-				
6. PG	400	28.15	5.06	-.12**	.21**	.71**	.41**	.25**	-			
7. PRWO	400	28.43	5.13	-.26**	.46**	.76**	.46**	.48**	.44**	-		
8. PIL	400	28.78	5.30	-.23**	.25**	.73**	.41**	.36**	.56**	.44**	-	
9. SA	400	28.85	5.44	-.23**	.49**	.80**	.58**	.42**	.50**	.59**	.47**	-

Note: *N= Number of Participants; M= Mean; SD = Standard Deviation; WSS = Workplace Stress Scale; QoL = Quality of Life; PWB = Psychological Wellbeing; AUT = Autonomy; EM = Environmental Mastery; PG = Personal Growth; PRWO = Positive Relationship with others; PIL = Purpose in Life; SA= Self-Acceptance.*

Table 3 presents the Pearson correlation coefficients among the study variables, including Work-Related Stress (WSS), Quality of Life (QoL), Psychological Well-Being (PWB) and its subscales. Notably, WSS shows a moderate negative correlation with QoL (r = -.32, p = .000), PWB (r = -.30, p = .000), and EM (r = -.30, p = .000), implying that as stress increases, these aspects of well-being tend to decline. Overall, higher work-related stress is associated with lower Quality of Life and Psychological well-being, .

Table 4: ***Regression coefficient of Quality of Life on Work related stress***

Variables	***B***	***SE***	***t***	***p***	**CI (95%) [UL, LL]**
Constant	63.79	1.55	41.00	.000	(66.85, 60.73)
WSS	-.54	.07	-6.78	.000	(-.69, -.38)

Note: *B = Unstandardized beta; SE = Standard error; p = Significance level; CI = Confidence interval; UL = upper limit; LL = lower limit*

Table 4, presents the results of a linear regression analysis examining the relationship between work-related stress (WSS) and quality of life (QoL). The findings indicate that WSS is a significant negative predictor of QoL (p = .000). The Work Related Stress variable as a predictor is showing 10.4% of the variance in QoL, suggesting that work-related stress significantly impacts QoL.

Table 5: ***Regression coefficient of Psychological wellbeing on Work related stress.***

Variables	*B*	*SE*	*t*	*p*	CI (95%) [UL, LL]
Constant	189.18	3.34	56.63	.000	(195.75, 182.61)
WSS	-1.08	.17	-6.38	.000	(-.75, -1.4)

Note: *B = Unstandardized beta; SE = Standard error; p = Significance level; CI = Confidence interval; UL = upper limit; LL = lower limit.*

Table 5, presents the results of a linear regression analysis examining the relationship between work-related stress (WSS) and psychological well-being (PWB). The findings indicate that WSS is a significant negative predictor of PWB (p = .000).

The Work Related Stress variable as a predictor is showing 9.3% of the variance in Psychological Wellbeing, suggesting that work-related stress significantly impacts PWB.

Table 6: ***Mean Differences, Standard Deviation, and t-value among shift (N = 400) on Work related stress, Quality of Life (QoL) and Psychological wellbeing***

	Day Shift (n=200)		Night Shift (n=200)		
Variables	***M***	***SD***	***M***	***SD***	***F***
WSS	18.44	6.36	18.52	6.66	3.99
QoL	54.23	53.45	11.51	10.23	5.25
PWB	167.56	170.59	22.56	23.85	.15

Note: *n = Total number of Participants; M = Mean; SD = Standard Deviation; WSS = Workplace Stress Scale; QoL = Quality of Life; PWB = Psychological Wellbeing.*

Table 6 presents the results of One- Way ANOVA comparing day and night shift workers on work-related stress (WSS), quality of life (QoL), and psychological well-being (PWB). The findings indicate that there are no significant differences between the two groups on these variables. Work-related stress levels were nearly identical for day shift (M = 18.44, SD = 6.36) and night shift workers (M = 18.52, SD = 6.66), suggesting that shift type does not influence stress levels. Similarly, quality of life scores were slightly higher among day shift workers (M = 54.23, SD = 11.51) compared to night shift workers (M = 53.45, SD = 10.23).

Table 7: ***Mean differences on Work related stress, Quality of Life and Psychological wellbeing across number of working hours. (N=400)***

	6-8 (n=133)		9-11 (n=233)		12-14 (n=34)		
Variables	***M***	***SD***	***M***	***SD***	***M***	***SD***	***F***
WSS	18.47	6.26	18.06	6.15	21.41	8.82	3.99
QoL	55.86	10.45	53.30	10.75	49.62	12.08	5.25
PWB	169.97	23.02	168.66	23.31	168.38	24.14	.15

Note: *M = Mean; SD = Standard Deviation; p = Significance Level; WSS = Workplace Stress; QoL = Quality of Life; PWB = Psychological Wellbeing.*

Table 7 presents the results of a One-Way ANOVA examining differences in work-related stress (WSS), quality of life (QoL), and psychological well-being (PWB) across three groups of Number

of Working Hours. The findings indicate that work-related stress (WSS) significantly differs among the three groups. Individuals with 12–14 hours of working in a day (M = 21.41, SD = 8.82) reported the highest stress levels, while those with 9–11 hours of working (M = 18.06, SD = 6.15) reported the lowest stress levels. Similarly, Quality of Life (QoL) also shows significant differences across different working hours. Those with 6–8 hours of working (M = 55.86, SD = 10.45) had the highest QoL scores, whereas individuals with 12–14 hours of working (M = 49.62, SD = 12.08) had the lowest QoL scores, suggesting that more number of working hours may be associated with lower perceived quality of life. Overall, the results suggest that individuals with greater number of working hours experience greater work-related stress and lower quality of life.

Discussion

This study seeks to analyze the impact of work related stress on quality of life and psychological wellbeing of people working in telecommunication industry. A key part of this research was to compare the levels of work related stress experienced by those on day shifts versus night shift. The study was conducted on 400 participants, 200 from day shift and 200 from night shift, working in telecommunication industry.

The findings were consistent with previous researches, supporting the idea that work related stress negatively effects the quality of life (r = -.32, p = .000). Similarly, Babapour et al., 2022 conducted a study on nurses to identify the effects of work related stress on quality of life. The findings revealed the significant moderate negative correlation between work related stress and Quality of Life (Babapour et al., 2022). While many of the studies emphasize the negative impact of work related stress on quality of life, it is essential to recognize that this relationship is not always clear-cut. The Yang et al. (2009) study provided insights to this complicated relationship among teachers in China. By featuring a positive association between work related stress and Quality of Life (QoL), it proposes that work related stress can be helpful when bounded up with meaningful work and professional goals (Yang et al., 2009).

The results aligned with the previous researches that shows work related stress decreases the psychological wellbeing of employees (r = -.30, p = .000). Similarly, a study conducted by Suleman et al. (2018) investigated this relationship among teachers in Khyber Pakhtunkhwa, Pakistan. The results revealed a strong negative correlation between perceived occupational stress and psychological wellbeing (Suleman et al., 2018). Although, many of the studies emphasized that occupational stress diminish psychological wellbeing, other highlights the relieving factors such as social support. Mensah (2021) discovered that social support at work considerably reduced the adverse effects of work related stress on psychological wellbeing, specifically for women (Mensah, 2021). This aligns with Babu et al. (2016) where they found that autonomy and infrastructure improved quality of life and stress and Yang et al. (2009) where job satisfaction alleviated the role of stress.

The early hypothesis proposed that there is a significant difference in the levels of work related stress among day and night shift workers like night shift employees experience higher levels of stress as compared to day shift workers. However the study`s results did not support the hypothesis, but the results were not significant, factors like sample size and variability may have effected these findings. Yet the study had suggested that the relationship of shift work and stress is more complicated than expected. Similarly, Cannizzaro et al. (2020) emphasize the elevated physiological stress faced by security guards during night shift due to circadian rhythm disruption and high risk job activities. Consequential increase in the cortisol levels before and after the shifts

underline the biological sensitivity to work related stress in night time jobs. These findings highlight the need of considering both physiological and psychological levels of stress when evaluating the effects of shift work on work related stress (Cannizzaro et al., 2020). Dodia and Parashar, (2020) investigated the association between job stress, psychological distress and job satisfaction among day and night shift workers. Their findings displayed that night shift workers experience elevated levels of job stress, psychological distress and also the job satisfaction as compared to day shift workers. Anyway, this study contrast with current study`s result that shows no significant difference in work related stress between shift workers (Dodia & Parashar., 2020).

Lastly, this study also analyze the effect of number of working hours on work related stress. The results revealed that higher number of working hours leads to the increase in work related stress. Similarly, Hong et al. (2022) conducted a study that provided strong evidence for the findings of the current research, displaying that long working hours and occupational stress are powerful predictor of negative effects on mental health (Hong et al., 2022).

Conclusion

Conclusively, this study analyzed 400 employees working in day and night shift in telecommunication sector. Results indicated that Work related stress was negatively correlated with quality of life ($r = -0.32$, $p < .000$) and psychological wellbeing ($r = -0.30$, $p < .000$). Regression analysis showed that work related stress significantly impacts quality of life ($\beta = -.54$, $p < 0.00$) and psychological wellbeing ($\beta = -1.08$, $p < 0.00$). These results showed that higher work related stress leads to decline in quality of life and psychological wellbeing of employees. Additionally, there was no significant difference in the intensity of work related stress between day shift ($M = 18.44$) and night shift ($M = 18.52$) workers although the quality of life of night shift workers ($M = 11.51$) was observed to be lower than day shift workers ($M = 54.23$). Moreover, increased number of working hours;12-14 ($M = 21.41$) was negatively associated with work related stress.

Limitations

This study has following limitations. The reliance on self-reported measures may interject bias, such as social desirability or recall bias, possibly effecting the precision of responses. As the study investigated day and night shifts, it did not check for other confounding factors such as coping mechanism and workplace environment which could impact stress levels and wellbeing. The study concentrated solely on employees in telecommunication industry, which may restrict the generalizability of results to other sectors. This study did not completely investigate the role of technology related stress which is specifically pertinent in telecommunication sector. While comparing day and night shift workers, the study did not deeply explore the stressors specific to each shift (e.g circadian rhythm disruption for night workers).

Implications

The results of this study have various implications both theoretically and practically, specifically in the field of telecommunication industry. This study emphasizes the significance of implementing efficient stress management programs in organization. Employers should create supportive environment. The findings encourage work-life balance strategies such as flexible scheduling and acceptable rest periods to alleviate work related stress The study underlines the need for organizations to address health issues linked with job stress. The organization`s leaders should

prioritize a positive work environment by support and compensation packages. This can involve training on stress management and awareness to enhance job satisfaction. This study also highlighted the effect of long working hours on stress. To alleviate these effects, organization should introduce regular breaks and flexibility in work such as adjustable hours and remote work.

Recommendations

Future studies should integrate biosensor, biofeedback and psychophysiological tests (e.g. cortisol levels, heart rate) that can provide objective data. Future research should conduct cross cultural analysis to investigate how cultural norms and cultural practices effects the association. Research should explore how job stress effects behavioral changes over time, such as concentration difficulty and sleep disorders. Future research should compare stress levels and coping mechanism between employees in telecommunication industry and workers in other industries to explore specific stressors in specific industries.

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