

PERCEIVED STRESS AND ADEQUACY OF SOCIAL SUPPORT: IMPLICATIONS FOR SUBJECTIVE WELL-BEING IN MARRIED DOCTORS

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ABSTRACT

Objective: To investigate how stress, social support and subjective happiness effect the lives of married doctors.

Study Design: Correlational study.

Place and Duration of Study: Different government hospitals over 4 months, from Oct 2016 to Jan 2017.

Methodology: For the current study n=200 doctors were included through purposive sampling. All those doctors who were married for more than two years and practicing full time in hospital were included. Structured questionnaires of Perceived Stress Scale, Multidimensional Perceived Social Support and Subjective Happiness Scale were administered on the participants. Attributing factors like age, gender, work experience, number of working hours were noted.

Results: Predictive effect of perceived stress and social support on subjective happiness was assessed by Hierarchical regression for both male and female doctors which showed unstandardized beta (β) as 0.31 in male doctors and 0.53 in female doctors with 95% confidence interval and p -value of 0.001. Social support, subscale family support and perceived stress were negatively correlated ($r=-0.23$, $p<0.05$) in female doctors. Whereas perceived stress was inversely correlated ($r=-0.30$, $p<0.005$) with subjective happiness among male doctors.

Conclusion: Poor social support and high perceived stress was found to be contributing distress response and resulted in decreased subjective happiness.

Keywords: Family support, Medical doctors perceived stress, Social support, Subjective happiness.

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INTRODUCTION

Doctors constitute the main workforce in hospitals and the profession of medicine is considered to be one of the most stressful professions in the world. Latest research on stress in American Psychological Association, considered work as one of the highest stressors among top causes of stress in US¹. Substantial researches has been carried out on stress among doctors and nurses in various countries i.e, UK, Europe, USA and rest of the world.

Stress is identified as one of the top most among 20th century diseases². Stress is a depressing emotional experience manifested by predictable biochemical, physiological, cognitive, and behavioral changes that are directed either toward changing the stressful event or accom-

modating to its effects³. Work-related stress is a vicious cycle followed by physiological symptoms, emotional, cognitive confusion and behavioral reactions in face of challenge due to work content or at work environment.

In last three decades, stress has turned out to be distressing factor for masses as it has immense negative impact on health⁴. The high level of dissatisfaction at work followed by poor performance is reported by medical professionals, on comparison with other professions⁵. Previous literature has some supporting evidence contributing to occupational stress among medical professionals. In a Swiss prospective study, the number of working hours were found to be associated with burnout, physiological exhaustion and occupational stress in young doctors⁶.

Another research explored sources of stress among Iranian physicians and their coping strategies. According to the results, both workplace and non-job sources of stress can impinge

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on the physician's effectiveness at work, also positive correlation between gender and coping skills have been found⁷.

Apart from Europe and Australia, other third world countries like Singapore, Iran, Bangladesh, and Saudi Arabia also have conducted studies where stress among doctors has been studied extensively. A study suggested that doctors working in a mental health institute in Singapore experience rather high levels of stress and burnout⁸.

A research conducted in India to investigate the level of stress among doctors. Results of the study indicated that postgraduate doctors aged between 26-30 years suffer more from stress than their juniors aged 20-25. The levels of stress were also higher in those who are having less sleep, whereas doctors who work only 6-10 hours daily suffer from relatively lower levels of stress⁹.

Several studies have been conducted for better understanding of work-related stress and its related factors among Pakistani doctors. A study was conducted in Pakistan to evaluate the level of satisfaction for office characteristics and occupational stress among doctors working in teaching hospitals of Karachi, Pakistan¹⁰. The results revealed that causes of stress vary with gender differences. Female doctors are under more stress due to personal factors, whereas for male doctors organizational and environmental factors are the main causes of stress.

Social support has been considered as one of the fundamental protective factors that includes social systems as a source of well-being. Social support plays a role of mediator in any stressful situation by decreasing the amount of stress. It also increases the ability of a person to deal with the difficult situations. Thus, social support prevents a person to evaluate a situation as highly stressful. Social support has been considered as the positive affect and sound mental health in response to healthy bonding with intimate relationship along with social ties and serves as provision and protection in face of challenges.

Different theoretical models on stress have elaborated on social support's implementation. The principal effect model suggested that social assertiveness as buffer between adversity and the person, regardless of the circumstances it provides people with optimistic appraisal of resources, sense of stability, and sense of self-esteem. Being resourceful at social support is considered to be linked with lower rates of depression, better adaptation at academia, and lower rates of substance use.

The conception of Happiness originated from the positive psychology, was suggested to be the balance of positive-negative emotions, overall life satisfaction and psychological state of well-being, joyfulness, and gratification.

Veenhoven suggested: "happiness is evaluated by the person as quality of his present life to be positive and symbolizes an overall meaning assigned to life"¹¹.

Subjective happiness takes both the emotions and cognitions into account. The emotional aspect constitutes optimism along with absence of self-blaming. The cognitive aspect refers to satisfaction in life. Positive assessment of oneself is instrumental among people with higher subjective happiness levels. Subjective happiness is considered as one of the most crucial provision of an excellent life¹².

This study was conducted to explore the association between appraisals of stress, support and subjective happiness among married doctors from different government hospitals. With changing time, burnout among challenging profession has accelerated so is the demand of excellence. This evolving and ever growing discipline of medicine needs monitoring on service provider and their mental health.

METHODOLOGY

It was a cross-sectional study conducted at three different hospitals of Pakistan over 4 months from October 2016 to January 2017 after receiving approval from Institution and all the ethical concerns were carefully reviewed and

taken care of. Written consent was obtained from all the participants prior to the research. The sample size was calculated using G-power calculator which turned out to be minimum 138 with confidence level of 95% and power of test 80% but considering the past literature, 200 doctors were approached using non-probability convenient sampling. Sample included 100 individuals (n=100 for both men and women). Structured questionnaires were used to collect demographic data. Practicing doctors married since last five years were included and those who were unmarried, separated and divorced were not included in the sample.

Perceived Stress Scale, Multidimensional Perceived Social Support Scale, Subjective Happiness Scale along with demographic sheet were used in this study. The Perceived Stress Scale (PSS) is a 10 item self-report stress inventory designed to measure unpredictability, uncontrollability and overload in life. It consists of a 5-point scale ranging from never (0), to almost always (4). Reverse scored items are 4, 5, 7, and 8. The scores of 17 or higher on PSS indicate higher stress level. Reliability for the perceived stress scale is 0.85¹³.

The Multidimensional Scale of Perceived Social Support is developed to measure support received by family, friends and significant others. It consists of 12 items that are further divided into three sub-scales (significant other sub-scale, family sub-scale and friend subscale). Each sub-scale contains 4 items and it is a seven-point scale ranging from very strongly disagree to very strongly agree. Its reliability is 0.85¹⁴.

The subjective happiness scale is developed by Lyubomirsky & Lepper (1999). It consists of four items. It is a seven-point scale ranging from 1 to 7. Highest score indicates higher subjective happiness. Reliability of this scale is 0.90. Subjective happiness scale has been validated in 14 studies with a total of 2732 participants¹⁵.

Prior permission was taken from the authors of all the scale in order to use them in this research. The incomplete forms are discarded and

all other forms are analyzed. The total for scales and subscales were computed. The analysis was conducted by statistics software named statistical package for social science (SPSS) 20 in which descriptive analysis, Pearson product moment correlation, independent sample t-test and hierarchical regression were performed among social support, perceived stress and subjective happiness.

RESULTS

In the sample of 200, 99 (49.5%) were females and 101 (50.5%) were male doctors (n=200). The mean age of respondents was 37.0 ± 6.3 . Among these 124 (69%) were living in nuclear family system and 76 (31%) were living in joint family system. Doctors had working experience of 9.4 ± 6.5 years. The results are given below of analysis computed for current research.

Table-I showed that there is a strong, significant, positive correlation among support from significant others, friends support, family support and subjective happiness ($p \leq 0.01$) among male doctors mention above the diagonals. This infers that support from loved ones and subjective happiness are strongly associated with one another such that increase in one variable results in the increase of the other. Further, there is a negative relationship between perceived stress and subjective happiness. The results of the female doctors showed the negative correlation in perceived stress and family support as mentioned in below the diagonal. The significant positive relationship in subscale in significant other support, friend support, social support and subjective happiness.

Table-II showed that female doctors have significantly higher scores on perceived stress as compared to male doctors. The results showed the significant difference on the level of perceived stress and social support among doctors on gender basis. Female doctors had high scores on perceived stress ($p < 0.05$) while male doctors had high scores ($p < 0.05$) on family, friend support and social support.

Table-III illustrated that perceived stress significantly ($***p < 0.001$) negatively predict

subjective happiness. The results also showed the significant other support significantly predict subjective happiness. In the end, 32% variance

significantly negatively predict subjective happiness among women. The results also showed the significant other support significant positively

Table-I: Pearson product moment correlation between perceived stress, social support and subjective happiness of male and female doctors.

| Measure | Perceived stress | Significant other support | Family support | Friend support | Total social support | Subjective happiness |
|---------------------------|------------------|---------------------------|----------------|----------------|----------------------|----------------------|
| Perceived stress | - | -0.04 | -0.16 | 0.08 | -0.04 | -0.30** |
| Significant Other support | -0.10 | - | 0.72** | 0.51** | 0.88** | 0.49** |
| Family support | -0.23* | 0.61** | - | 0.58** | 0.88** | 0.45** |
| Friend support | -0.15 | 0.69** | 0.59** | - | 0.80** | 0.31** |
| Total Social Support | -0.18 | 0.90** | 0.82** | 0.87** | - | 0.491** |
| Subjective happiness | -0.16 | 0.58** | 0.51** | 0.29** | 0.54** | - |

**p<0.01.*p<0.05. Note: Values above diagonal are for male doctors and below indicate correlation for female doctors.

Table-II: Independent sample t-test: mean difference in perceived stress, social support and subjective happiness scale of men and women doctors.

| Variables | Male n=101 (Mean ± SD) | Female n=99 (Mean ± SD) | t-test | p-value |
|---------------------------|---------------------------|----------------------------|--------|---------|
| Perceived Stress | 16.91 ± 4.36 | 18.40 ± 4.24 | -2.45 | 0.01* |
| Significant Other Support | 6.03 ± 1.09 | 5.90 ± 1.07 | 0.850 | 0.39 |
| Family Support | 6.14 ± 0.86 | 5.87 ± .80 | 2.29 | 0.02* |
| Friend Support | 5.71 ± 0.94 | 5.39 ± .84 | 2.51 | 0.01* |
| Total Social Support | 5.96 ± 0.83 | 5.72 ± .79 | 2.09 | 0.03* |
| Subjective Happiness | 5.19 ± 0.97 | 5.30 ± 1.00 | -0.824 | 0.411 |

**p<0.01.*p<0.05.

Table-III: Hierarchical regression analysis for variables predicting subjective happiness among doctors (n=200).

| Variables | Subjective Happiness | | | |
|---------------------------|----------------------|----------|----------------|---------|
| | Male Doctors | | Female Doctors | |
| | ΔR2 | (β) | ΔR2 | (β) |
| Model 1 | -0.04 | | 0.03 | |
| Age | | 0.13 | | - |
| Duration of marriage | | -0.32 | | -0.26 |
| Family System | | 0.15 | | -0.26* |
| Working hours | | -0.04 | | -0.11 |
| Model 2 | 0.05 | | 0.06 | |
| Perceived stress | | -0.31*** | | -0.03 |
| Model 3 | 0.32 | | 0.41 | |
| Significant Other support | | 0.43*** | | 0.53*** |
| Family support | | 0.02 | | 0.42*** |
| Friend support | | 0.16 | | -0.32* |
| R | 0.64 | | | 0.70 |
| R2 | 0.41 | | | 0.49 |
| F | 4.75*** | | | 6.40*** |

***p<0.001. **p<0.01. *p<0.05.

was measured for, in this regression model. Table also shows that duration of marriage, family system, working hours and friend support

and family support predict subjective happiness. In the end, it can be seen that 41% variance was measured for, in this regression figure-1 & 2.

DISCUSSION

According to study conducted in Lahore, a positive relationship was found between job-related stress and other related factors among medical students^{16,17}. The results of the t-test revealed significant gender difference on perceived stress, social support and subjective happiness in married doctors. The mean for

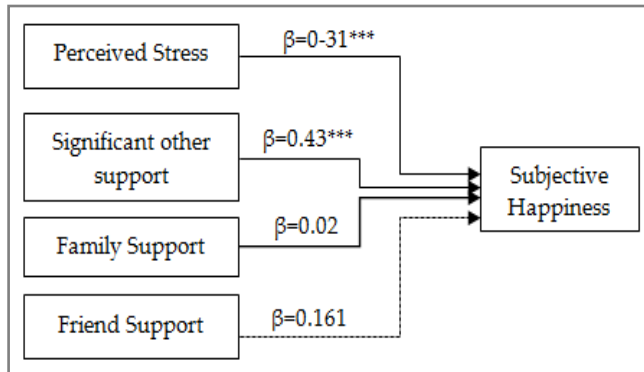


Figure-1: Hierarchical regression model. The figure showed the perceived stress and significant other support was the predictors of subjective happiness.

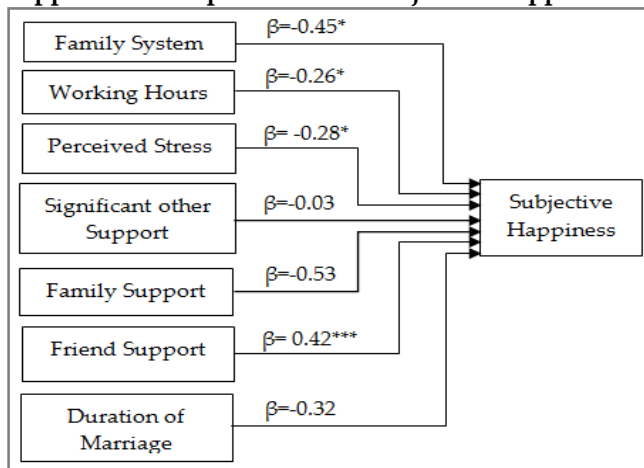


Figure-2: Hierarchical regression model. The figure showed the duration of marriage, family system, working hours, significant other support, family support and friend support were the predictors of subjective happiness.

perceived stress further indicated that women had more stress as compared to men in medical profession. Similarly, statistical difference was found among social support. The analysis further revealed that men were receiver of more social support (i.e. either from significant other, from family or either from friends) as compared to

women with same profession. Whereas, no significant differences were found on subjective happiness between both genders. The mean values of subjective happiness indicated that women exhibit more subjective happiness as compared to men.

The results of the present research support the acceptance of first hypothesis as there was a significant gender difference in stress levels among married doctors. The results of this research are braced by the study conducted in Kenya to evaluate the difference among gender on the aspect of perceived stress. Results of the analyses showed a significant difference between the stress mean scores of males and females (df=185, t=0235, p<0.05). Female students reported higher stress levels (M=42.23, SD=5.90) than males (M=40.13, SD=6.45). The findings revealed that women showed high level of stress than men and better coping by taking advice from friends¹¹⁻¹⁵.

The results revealed that subjective happiness has negative relationship with perceived stress. A research conducted in Bangalore, India found out that role of mindfulness mediate between coping strategies and perceived stress among medical intern¹⁹. The findings revealed that perceived stress had negative relationship with mindfulness with (r=-0.245, p<0.05).

Researchers conducted survey Brazil, in primary care health professionals using correlational design, whose sample consist of (doctors) physicians, nurses, nursing assistants, and community health workers and explored that mindfulness and subjective wellbeing are negatively correlated with perceived stress these finding also supports the hypotheses of the present research that perceived stress would be inversely correlated with subjective happiness and social support¹⁶⁻²⁰. Another study in USA, concluded that those who reported low perceived stress reported high social support (emotional closeness) from others. MANOVA results of the research revealed there was a significance difference in students' perceived happiness based

on stress levels, $F(16202)=2.590$, $p=0.00121$. Townsend explored the moderating role of social support with the relationship of perceived stress and life satisfaction of psychology graduate students. Results showed that there exists an inverse relationship between perceived stress scale and satisfaction with life scale (subjective happiness) with statistical significance of ($r=-0.55$, $p<0.001$). Participants satisfied with their lives tended to experience less perceived stress²².

The previous studies of last five years conducted in Brazil, USA and other developed countries supports the findings of current research. The findings of the study suggest stress and social support to be the predictor of subjective happiness. It was revealed that family support rather than perceived stress, predicts subjective happiness for female doctors^{21,22}.

In Korea, research was conducted among different medical and emergency department evaluated the relationships between stress, empathy, and social support on medical students. The findings revealed stress and social support to be a predictor of the empathy among medical students. The further analysis revealed weak negative but significant correlation between empathy and perceived stress with ($r=-0.14$, $p<0.001$)²³.

The current study also helps to understand how social support from friends and family would affect the subjective happiness of male and female doctors. International conference on Information and Management systems (2018) reported that numerous researches have been conducted on the subjective happiness, life satisfaction or well-being among doctors²⁴. Health Promotion and Education Program (USA) conducted a research on happiness, perceived stress and emotional closeness among 485 college students, convenience sampling technique was used for data collection. MANOVA assessed that perceived happiness differed significantly based on perceived emotional closeness to important others $F(16200)=5.337$, $p<0.001$ thus, results indicated students with low perceived happiness

reported high levels of stress and low levels of emotional closeness with peers, friends as well as with family members²⁵.

CONCLUSION

The results of the current research concluded that male doctors who were less stressed scored higher on subjective happiness whereas female doctors who had higher family support showed less perceived stress.

CONFLICT OF INTEREST

This study has no conflict of interest to be declared by any author.

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