

## Correlation of perceived stress and psychological well-being among doctors serving at various government and private hospitals of Faisalabad

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**Objective:** To analyse the relationship between perceived stress and psychological well-being among doctors serving at various government and private hospitals in Faisalabad, Pakistan.

**Methodology:** This cross-sectional study was conducted at Government and Private Hospitals of Faisalabad. Perceived stress and psychological well-being scale were used to collect data. SPSS version 20 was used for data analysis.

**Results:** Significant negative correlation was found between perceived stress and psychological well-being among doctors ( $-.288^{**}$ ,  $p < 0.01$ ). Mean score of purpose in life (sub scale of psychological well-being) for the male doctors was 27.10 (SD = 7.627), whereas mean score in same dimension for female doctors was 29.85 (SD = 6.186). Female doctors were found to have significantly higher purpose in life scores as compared to their

male colleagues ( $p < 0.05$ ). Young doctors score on Positive relations (mean = 27.20, SD = 7.587, while 36.4% (n=59) aged 31-40 (PR mean score, 29.03, SD = 7.151) however 12.3% (n=20) aged 41-50 (mean = 31.85, SD = 6.377) and 5.6% (n=9) aged >50 (mean = 31.78, SD = 8.643,  $p < 0.05$ ). Doctors aged 41-50 and above had significantly higher score on positive relations as compared to younger doctors. Doctors aged 21-30 had least score on positive relations.

**Conclusion:** There was significant negative correlation between perceived stress and psychological well-being among doctors. Female doctors enjoyed high purpose in life as compare to their male colleagues. (Rawal Med J 202;45:886-889).

**Keywords:** Psychological well-being, stigma, perception.

## INTRODUCTION

It is a well-acknowledged fact that the job of healthcare professionals is amongst the most stressful occupations to exist.<sup>1</sup> To ignore the mental health and wellbeing of these individuals would not only put them at significant risk, but also have unforeseen adverse effects on their jobs.<sup>2</sup> Doctor's profession requires the utmost care, precision, attention, professionalism, and a great deal of optimism. Stigma to mental health is widespread amongst doctors, and many prefer to be secretive about their psychological issues rather than get proper medical assistance.<sup>3</sup> Perceived stress is the individual's perception of the severity of their respective stressors (actual stress) and the affects it has on them.<sup>4</sup> Psychological well-being is about lives going well and is combination of feeling good and functioning effectively.<sup>5</sup>

Psychological wellbeing refers to six aspects of

wellbeing and happiness: autonomy, environmental mastery, personal growth, positive relations with others, purpose in life, and self-acceptance.<sup>6</sup> Recurrent work-related stressors, unrewarding job environment, troublesome family situation, negative social interactions, unsatisfactory relationships, and pressure to maintain a strong work ethic are just few of the variables that can adversely affect a doctor's psychological well-being.<sup>7</sup> An Italian study found the rate of psychiatric morbidity among physicians to be as high as 25%.<sup>8</sup> Long-term effects of poor psychological well-being include severe physical illnesses such as cardiovascular diseases and blood sugar problems.<sup>9</sup> A study indicated that environmental mastery and autonomy increased with age however purpose in life and personal growth decreased with age, but there was no significant age difference on self-acceptance and positive relations with others.<sup>10</sup>

Another study indicated that women scored significantly higher than men on positive relations with others and personal growth.<sup>11</sup> The objective of this study was to assess the doctors' mental health in Faisalabad, Pakistan.

## METHODOLOGY

This cross-sectional study was conducted from July to December 2019 at Allied Hospital, DHQ hospital, Government General Hospital and Independent Hospital, Faisalabad. A sample of 181 doctors was selected and given appropriate questionnaires hand-delivered by the principal investigator. Out of the 181 forms, 19 were half filled. Since the identity of the subjects of these 19 questionnaires couldn't be confirmed, the forms had to be discarded.

One of the most widely used psychological instruments, Perceived Stress Scale-14 (PSS) and Psychological Well-being Scale-42 (PWB), were used to measure the perception of stress and psychological well-being of doctors. PSS-14 comprises 7 positively-stated and 7 negatively stated items. The perceived stress score was calculated by reverse coding the negatively-stated items and then sum the scores of all 14 items. The final scores range from 0 to 56. The higher scores indicate the higher levels of perceived stress. The instrument was not intended by its developers as a diagnostic tool, and hence there is no cut-off score. The RYFF Scale of Psychological Well-Being is a theoretically grounded instrument that specifically focuses on measuring multiple facets of psychological well-being. These facets include the following: self-acceptance, the establishment of quality ties to other, a sense of autonomy in thought and action, the ability to manage complex environments to suit personal needs and values, the pursuit of meaningful goals and a sense of purpose in life and continued growth and development as a person. Respondents rate on a statement on scale of 1 to 6, with 1 indicating strong disagreement and 6 indicating strong agreement. For each category, a high score indicates that the respondent has a mastery of that area in his or her life. Conversely, a low score shows that the respondent struggles to feel comfortable with that particular concept.

**Statistical Analysis:** SPSS version 20 was used for

analysis. Pearson Correlation was used to see the association of perceived stress and psychological well-being.  $p < 0.05$  was considered significant.

## RESULTS

Correlation between perceived stress and psychological well-being among 162 doctors is shown in Table 1. Significant negative correlation was found between perceived stress and psychological well-being among doctors ( $-0.288^{**}$ ,  $p < 0.01$ ). Doctor's score on six dimensions of the psychological well-being, gender wise are given in Table 2. Majority of the respondents were male doctors ( $n=87$ , 53.7%). Mean score on purpose in life (sub scale of psychological well-being) for the male doctors was 27.10 ( $SD = 7.627$ ), whereas mean score on same dimension for female doctors was 29.85 ( $SD = 6.186$ ). Female doctors were found to have significantly higher purpose in life scores as compared to their male colleagues ( $p < 0.05$ ).

**Table 1. Correlation of perceived stress and psychological well-being.**

|           |                     | Perceived Stress | Psychological well-being |
|-----------|---------------------|------------------|--------------------------|
| P. Stress | Pearson Correlation | 1                | $-.288^{**}$             |
|           | Sig. (2-tailed)     |                  | .000                     |
|           | N                   | 163              | 163                      |
| PWB       | Pearson Correlation | $-.288^{**}$     | 1                        |
|           | Sig. (2-tailed)     | .000             |                          |
|           | N                   | 163              | 163                      |

**Table 2. Psychological well-being by gender.**

| Ryff Subscale      | Gender | N  | %    | Mean   | SD     | F     | Sig.   |
|--------------------|--------|----|------|--------|--------|-------|--------|
| Autonomy           | male   | 87 | 53.7 | 26.03  | 6.186  | 0.004 | 0.952  |
|                    | female | 75 | 46.3 | 26.09  | 6.149  |       |        |
| Emotional Mastery  | male   | 87 | 53.7 | 25.55  | 5.527  | 0.383 | 0.537  |
|                    | female | 75 | 46.3 | 26.12  | 6.160  |       |        |
| Personal Growth    | male   | 87 | 53.7 | 28.51  | 7.109  | 0.799 | 0.373  |
|                    | female | 75 | 46.3 | 29.52  | 7.310  |       |        |
| Positive Relations | male   | 87 | 53.7 | 28.32  | 7.618  | 0.473 | 0.492  |
|                    | female | 75 | 46.3 | 29.13  | 7.331  |       |        |
| Purpose in Life    | male   | 87 | 53.7 | 27.10  | 7.627  | 6.221 | 0.014* |
|                    | female | 75 | 46.3 | 29.85  | 6.186  |       |        |
| Self-Acceptance    | male   | 87 | 53.7 | 28.37  | 7.648  | 0.096 | 0.756  |
|                    | female | 75 | 46.3 | 28.73  | 7.253  |       |        |
| PWB Score          | male   | 87 | 53.7 | 161.16 | 38.907 | 2.596 | 0.109  |
|                    | female | 75 | 46.3 | 170.05 | 29.897 |       |        |

**Table 3. Psychological well-being in doctors by age group.**

| Ryff Subscale      | Age (years) | N  | %    | Mean   | SD     | F     | Sig.   |
|--------------------|-------------|----|------|--------|--------|-------|--------|
| Autonomy Total     | 21-30       | 74 | 45.7 | 25.72  | 6.486  | 0.356 | 0.785  |
|                    | 31-40       | 59 | 36.4 | 26.02  | 6.407  |       |        |
|                    | 41-50       | 20 | 12.3 | 27.30  | 4.450  |       |        |
|                    | >50         | 9  | 5.6  | 26.44  | 5.247  |       |        |
| Emotional Mastery  | 21-30       | 74 | 45.7 | 25.28  | 5.456  | 0.471 | 0.703  |
|                    | 31-40       | 59 | 36.4 | 26.10  | 5.967  |       |        |
|                    | 41-50       | 20 | 12.3 | 26.30  | 5.273  |       |        |
|                    | >50         | 9  | 5.6  | 27.22  | 8.899  |       |        |
| Personal Growth    | 21-30       | 74 | 45.7 | 28.41  | 7.408  | 0.499 | 0.683  |
|                    | 31-40       | 59 | 36.4 | 29.05  | 7.800  |       |        |
|                    | 41-50       | 20 | 12.3 | 30.00  | 5.361  |       |        |
|                    | >50         | 9  | 5.6  | 30.89  | 4.781  |       |        |
| Positive Relations | 21-30       | 74 | 45.7 | 27.20  | 7.587  | 2.814 | 0.041* |
|                    | 31-40       | 59 | 36.4 | 29.03  | 7.151  |       |        |
|                    | 41-50       | 20 | 12.3 | 31.85  | 6.377  |       |        |
|                    | >50         | 9  | 5.6  | 31.78  | 8.643  |       |        |
| Purpose in Life    | 21-30       | 74 | 45.7 | 28.74  | 6.468  | 0.441 | 0.724  |
|                    | 31-40       | 59 | 36.4 | 27.76  | 7.426  |       |        |
|                    | 41-50       | 20 | 12.3 | 29.40  | 6.700  |       |        |
|                    | >50         | 9  | 5.6  | 27.11  | 10.982 |       |        |
| Self-Acceptance    | 21-30       | 74 | 45.7 | 27.34  | 7.015  | 1.714 | 0.166  |
|                    | 31-40       | 59 | 36.4 | 28.92  | 8.052  |       |        |
|                    | 41-50       | 20 | 12.3 | 31.30  | 6.783  |       |        |
|                    | >50         | 9  | 5.6  | 29.78  | 7.242  |       |        |
| PWB Score          | 21-30       | 74 | 45.7 | 163.41 | 31.094 | 0.735 | 0.533  |
|                    | 31-40       | 59 | 36.4 | 163.64 | 40.800 |       |        |
|                    | 41-50       | 20 | 12.3 | 175.95 | 26.195 |       |        |
|                    | >50         | 9  | 5.6  | 167.67 | 45.558 |       |        |

**Table 4. Psychological well-being by marital status.**

| Ryff Subscale      | Marital Status | N   | %    | Mean   | SD     | F     | Sig.  |
|--------------------|----------------|-----|------|--------|--------|-------|-------|
| Autonomy Total     | married        | 123 | 75.9 | 26.27  | 5.474  | 0.575 | 0.449 |
|                    | single         | 39  | 24.1 | 25.41  | 7.966  |       |       |
| Emotional Mastery  | married        | 123 | 75.9 | 26.05  | 5.694  | 0.826 | 0.365 |
|                    | single         | 39  | 24.1 | 25.08  | 6.209  |       |       |
| Personal Growth    | married        | 123 | 75.9 | 29.21  | 6.447  | 0.548 | 0.460 |
|                    | single         | 39  | 24.1 | 28.23  | 9.238  |       |       |
| Positive Relations | married        | 123 | 75.9 | 28.97  | 7.134  | 0.665 | 0.416 |
|                    | single         | 39  | 24.1 | 27.85  | 8.502  |       |       |
| Purpose in Life    | married        | 123 | 75.9 | 28.37  | 7.183  | 0.001 | 0.973 |
|                    | single         | 39  | 24.1 | 28.41  | 6.965  |       |       |
| Self-Acceptance    | married        | 123 | 75.9 | 28.88  | 7.078  | 1.072 | 0.302 |
|                    | single         | 39  | 24.1 | 27.46  | 8.519  |       |       |
| PWB Score          | married        | 123 | 75.9 | 166.33 | 33.700 | 0.451 | 0.503 |
|                    | single         | 39  | 24.1 | 161.97 | 39.869 |       |       |

Most of the respondents were young doctors aged 21-30 years (n=74, 45.7%) their score on positive relations (mean =27.20, SD = 7.587, while 36.4% (n=59) aged 31-40 (PR mean score, 29.03, SD = 7.151) however 12.3% (n=20) aged 41-50 (mean = 31.85, SD = 6.377) and 5.6% (n=9) aged >50 (mean = 31.78, SD = 8.643, p<0.05) (Table 3). Doctors aged 41-50 and above had significantly higher score on positive relations as compared to younger doctors. Doctors aged 21-30 had least score on positive relations. Majority of the respondents were married (n=123, 75.9%). There is no statistically significant association was found between the marital status of the doctors and their mean psychological well-being scores (F= 0.451, value=0.503). Moreover, no statistically significant association was found in other dimensions of psychological well-being with doctor's gender and age group (Table 4).

## DISCUSSION

The current study depicted the relationship between perceived stress and psychological well-being among doctors. Results indicated that correlation is significant at 0.01\*\* levels (2-tailed) which shows significant negative relationship between perceived stress and psychological wellbeing among doctors. These results similar to already reported studies.<sup>12,13,14</sup>

We found that females had altruistic behaviours and attitudes, which in turn enabled a stronger purpose in life.<sup>15</sup> High score in this domain indicates that someone has goals in life and a sense of direction, feels there is meaning to present and past life, holds beliefs that give life purpose, and has aims and objectives for living.<sup>16</sup> Since the sample was selected from only one city, the generalization power might have been affected.

## CONCLUSION

There is a significant negative correlation between perceived stress and psychological well-being among doctors. Middle age doctors are more likely to have positive relations with others than young doctors. This research shows that stress has a disastrous effect on the personal well-being of doctors.

# Author Contributions:

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**Conflict of Interest:** None declared  
Rec. Date: Jun 5, 2020 Revision Rec. Date: Jul 28, 2020 Accept Date: Oct 14, 2020

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