

Impact of wellness indicators on intellectual dimensions of medical teachers of Karachi: Findings from cross-sectional study

Rehana Rehman,¹ Sadiqa Syed,² Mehwish Hussain,³ Tayyab Raza Fraz,⁴ Saif Ullah Shaikh⁵

Abstract

Objective: To measure impact of social, spiritual, occupational, physical, financial and emotional wellness on intellectual wellness of medical teachers.

Methods: The cross-sectional study was conducted at 8 medical universities in the Sindh province of Pakistan from January 2012 to December 2014, and comprised faculty members. Using a self-administered questionnaire, teachers' responses on physical, emotional, social, spiritual, intellectual, occupational and financial spokes of the wellness wheel that were graded on a 4-point Likert scale. Generalised linear models were executed to find the best predictive scores for intellectual wellness.

Results: Out of 300 subjects approached, 261(87%) returned the questionnaire fully completed. Of them, 86(33%) were males and 175(67%) were females. Occupational wellness followed by spiritual, financial and emotional wellness depicted significantly high correlation with IW ($p < 0.05$). Adjusted analysis revealed significant effects of spiritual, financial and occupational wellness ($p < 0.05$). Findings of Models 1 and 2 suggested that holding the effect of other wellness subscales, intellectual wellness increased up to 0.485 score and 0.245 score due to occupational and spiritual wellness ($p < 0.05$) respectively, while financial wellness was not significant ($p > 0.05$). In the final model, occupational wellness effect increased to 0.504 score and spiritual wellness effect projected to 0.273 score for intellectual wellness ($p < 0.05$).

Conclusion: Amongst all the spokes of the wellness wheel, occupational, financial, social, emotional and spiritual wellness improved mental capabilities of medical teachers to overcome the challenges for acquiring intellectual wellness. However, wellness at workplace played the major role in enhancing intellectual proficiencies.

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Introduction

Subjective well-being (SWB) is the central component in the evaluation of quality of life (QOL) of an individual, and refers to the perception of different life situations in broader psychological and social aspects.¹ Certain factors influence state of wellness, including nutrition, physical activity, stress-coping methods, good relationships, and career success. The pursuit of health, personal growth, and improved QOL relies on living a balanced life. Wellness is the search for enhanced standard of life, personal growth, and potential through positive lifestyle behaviours and attitudes.²

Wellness matters because every aspect of life revolves around it in some way or the other. Intellectual wellness (IW) means having an open mind to new opportunities or

ideas and seeking new experiences that challenge a person both mentally and socially.³ Occupational wellness (OW) indicates finding and pursuing one's favourite carrier.³ Financial wellness (FW) represents keeping a successful balance between earning and expenses.⁴ Spiritual wellness (SpW) signifies finding hope, comfort and inner peace in one's own existence; anything that gives a sense of purpose in addition to religious deeds.⁵ Social wellness (SW) involves building a support system with friends, family and others that can be tested in times of need.⁶ Environmental wellness (EnW) includes an individual's study space, sleep space, living arrangements, and work environment.⁷ Physical wellness (PW) denotes maintaining a healthy body through physical activity, a healthy diet, and adequate sleep.⁸ Emotional wellness (EmW) designates the ability to understand positive and negative emotions and to develop strategy to cope with them and to express negative emotions in a productive manner.⁹

Keeping in mind the importance of all the spokes of the wheel of wellness, the fact that medical teachers are overworked with professional activities, including teaching undergraduate and postgraduate students,

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¹Department of Biological & Biomedical Sciences Agha Khan University, Karachi, Pakistan, ²Department of Physiology, College of medicine, Princes NourahBint Abdul Rehman University, Riyadh, KSA, ³Research Department Dow University of Health Sciences, Karachi, Pakistan, ⁴Department of Statistics, University of Karachi, Karachi, Pakistan, ⁵Department of Physiology, Bahria University Medical and Dental College, Karachi, Pakistan.

Correspondence: Saif Ullah Shaikh. Email: dr.saif74@yahoo.com

conducting and supervising research and publications, mentoring / advising activities, and administration responsibilities, makes them a group that needs to be studied in wellness terms. Furthermore, they are overwhelmed by emotional demands from the institution, the students as well as the parents. The current study was planned to observe the impact of all the spokes of wellness wheel on IW of medical teachers.

Subjects and Methods

The cross-sectional study was conducted at 8 medical universities in the Sindh province of Pakistan from January 2012 to December 2014, and comprised faculty members. Approval was obtained from the ethics review committee of Bahria University Medical and Dental College, Karachi, and permission was taken from the institutional head of each of the 5 private- and 3 public-sector medical universities. Convenience sampling was used to select the study sites. Faculty members were approached and enrolled using snowball / referral sampling. Teachers who were present at the time of the visit and agreed to participate were included. Principal, Director or any faculty member in position of administrative authority were excluded because the questionnaire focussed on teaching and research activities, and their inclusion might have led to selection bias.

After verbal informed consent from each participant, data was collected using a self-administered questionnaire that took 15-20 minutes to fill. The questionnaires returned were checked on the spot.

The questionnaire comprised two parts. The first part contained personal information, including gender, age in years, type of institute, duration of employment and monthly salary. The second part comprised wellness scale that had 55 items.¹⁰ The questionnaire was further classified into seven spokes which were PW 11 items, EmW 6 items, SW 7 items, SpW 6 items, IW 8 items, OW 13 items and FW 6 items. Each spoke further contained sets of relevant items based on a 4-point Likert scale with responses 1 as no/never, 2 as sometimes, 3 as usually and 4 as yes/always.

The questionnaire was pre-tested for reliability by a pilot study on 50 teachers. Reliability of the questionnaire was measured by Cronbach's alpha which was 0.7, implying consistency in the responses.

It was hypothesized that IW is affected by other wellness dimensions, and, therefore, IW was kept as the dependent variable and the other 6 dimensions as independent variables. The responses in each dimension were added

to get a composite physical, emotional, social, spiritual, intellectual, occupational and financial wellness.

The sample size was suitable for applying regression methods while considering 5 subjects per variable approach.¹¹ Data was analysed using Stata 12. Frequencies with percentages were reported for defining personal characteristics of the subjects. Before proceeding towards inferential analysis, all wellness scores were checked for normality using Shapiro-Wilk's test and were found to be non-normal. Therefore, the correlation of IW with other subscales of the wellness wheel was computed using Spearman's correlation coefficient. Generalised linear models with logarithmic transformation were built and the best subset was detected on the basis of highly significant P values of the variables. The prediction scores for IW were obtained by unadjusted and adjusted regression models. Three approaches were used to obtain the adjusted prediction models. First model was built while taking all the significant wellness subscales as predictors. Second model contained the predictors which showed high association in the analysis of correlation. Third model included those predictors which showed significance in model 1.

Results

Of the 300 faculty members approached, 261(87%) returned the questionnaire completed; 160(%) from private universities and 101(%) from public-sector universities. Also, there were 86(33%) males and 175(67%) females. Also, 103(39.5%) of the subjects were aged <30 years and 158(60.5%) were >30 years.

In terms of reliability consistency, responses related to overall wellness, OW, IW, SpW and PW were more reliable than EmW, FW and SW subscales (Table-1).

According to the findings of correlation analysis, OW depicted highest correlation with IW. SpW and FW also had positive and moderate correlations with IW. All the wellness subscales had positive relationship

Table-1: Reliability of wellness scale and its subscales.

Scale	Cronbach's alpha	Decision
Wellness	0.828	Good internal consistency
Physical	0.639	Acceptable internal consistency
Emotional	0.456	Poor internal consistency
Social	0.349	Poor internal consistency
Spiritual	0.666	Acceptable internal consistency
Intellectual	0.713	Acceptable internal consistency
Occupational	0.755	Acceptable internal consistency
Financial	0.356	Poor internal consistency

Table-2: Predicted models for intellectual wellness.

MODEL	Scale	Coefficient	t value	p-value	Decision	R square
UNADJUSTED	Spiritual	0.413211	6.09	<0.01	highly significant	0.125
	Occupational	0.552655	11.93	<0.01	highly significant	0.354
	Financial	0.344882	5.56	<0.01	highly significant	0.106
	Physical	0.0524385	0.87	0.384	insignificant	0.002
	Emotional	0.2567976	3.39	<0.01	highly significant	0.042
	Social	0.256877649	3.5	<0.01	highly significant	0.045
MODEL 1	Emotional	-0.01475	-0.2	0.845	insignificant	0.411
	Social	0.079626	1.21	0.229	insignificant	
	Spiritual	0.244766	3.4	<0.01	highly significant	
	Occupational	0.485644	9.49	<0.01	highly significant	
MODEL 2	Financial	0.044286	0.76	0.45	insignificant	
	Spiritual	0.268429	4.63	<0.01	highly significant	0.407
	Occupational	0.489981	9.65	<0.01	highly significant	
MODEL 3	Financial	0.038431	0.67	0.505	insignificant	
	Spiritual	0.2729301	4.75	<0.01	highly significant	0.407
	Occupational	0.5047711	11.06	<0.01	highly significant	

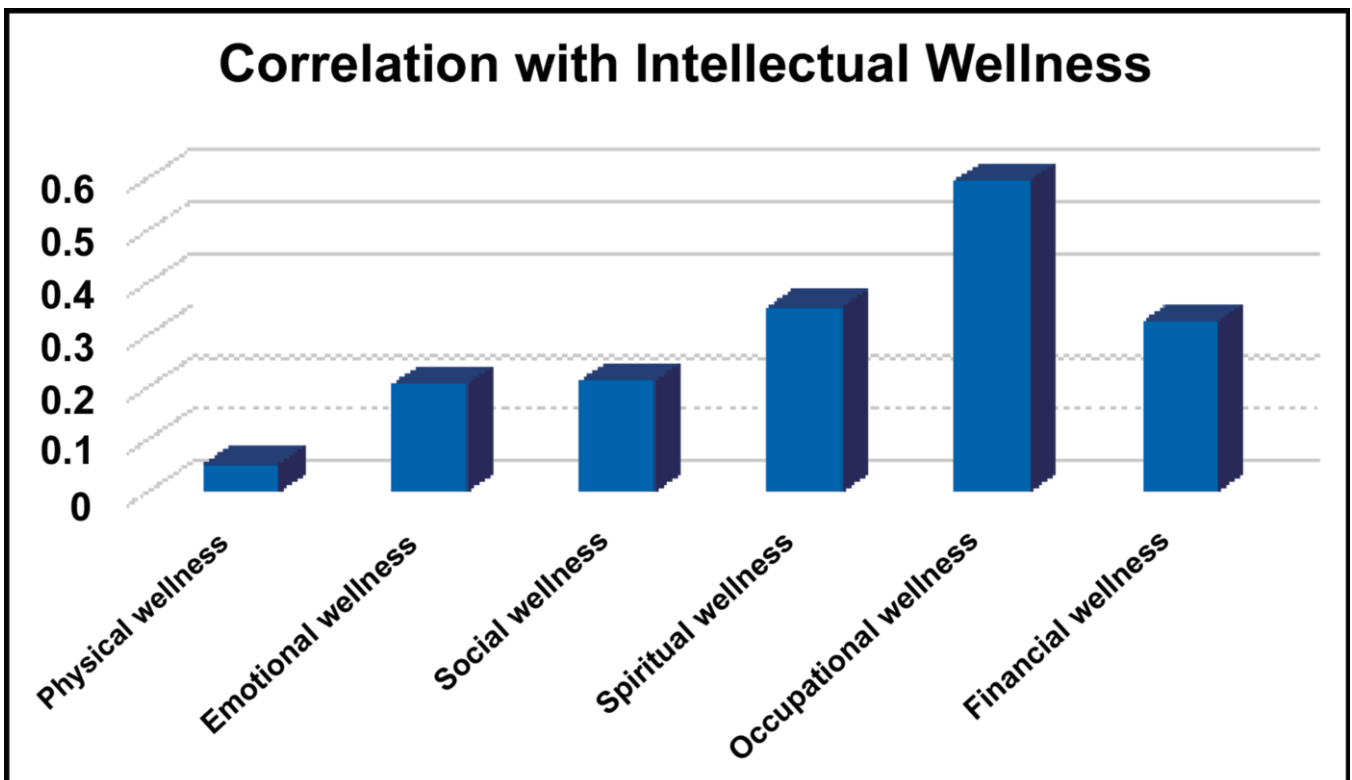


Figure: Correlation of different subscales of wellness with intellectual wellness.

with IW (Figure).

Unadjusted models, showed that an increase in SpW score increased IW by 0.413. Similarly, an increase in OW score increased IW score by 0.5526. FW had a positive impact on IW by 0.345. EmW and SW had an impact of

0.257, while PW did not produce any significant effect (Table-2)

Multivariable model kept all the significant predictors in model 1. Hence, EmW, SW, SpW, OW and FW scores were kept intact. Adjusted analysis revealed significant effects

of only SW and OW ($p < 0.05$). IW increased up to 0.485 and 0.245 due to OW and SpW respectively. Model 2 depicted significant values for OW and SpW ($p < 0.05$) and non-significant value for FW. Model 3 retained the best predictors as significant, showing OW effect going up to 0.504 and SpW up to 0.273 score for IW.

Discussion

As teachers play an important role in shaping positive health behaviours in students, they should be aware of issues concerning QOL and preventive healthcare management. Moreover, there are high levels of depression, anxiety and job dissatisfaction which raise concerns about the well-being of doctor-teachers. It is thus important to recognise the value of an individual's health in the broader aspects of various wellness dimensions. A study revealed that the overall assessment of wellness and QOL is most strongly associated with environment, psychological and social relationship domains.¹² Another research showed that the subjective well-being is positively related with physical and mental health, performance on job, interpersonal relationships and marital status.¹³ A strong association of all dimensions of wellness with IW was found in our study, but OW and SpW predominantly affected IW.

Awareness of IW is important in the sense that it is a "a positive state of well-being which enables an individual not only to be able to function normally in society and meet the demands of everyday life, but also allows them to use logical and rational reasoning as well as critical thinking."⁹ Moreover, to be able to function normally in society and meet the demands of everyday life, people in good mental health have the ability to recover effectively from illness, change or misfortune."¹⁴ This can be explained on the basis of the observation that 80% of all diseases reported at the National Institute of Health were caused by accumulated, unmanaged stress indicating lack of EW, and lack of creative, recreational activities indicating low SW.⁹ Results of our study show that emotional well-being enhanced IW which may help the individual to withstand hazards of stress and think of coping strategies to improve the intellectual capabilities.¹⁴

Although physical wellness had negligible impact on IW in the current study, impact of physical activity on health-related QOL was observed by other researchers.¹⁵ The idea of being associated with others is a universally inherent trait of human beings, emphasising the significance of social support from different individuals. SW is thus acquired in cooperation within or among groups of people.¹⁶ Moreover, it is an invisible force embedded in relationships of individuals, organisations,

communities and economic indicators which support growth of society.¹⁷ The impact of social interdependence on IW of medical teachers is supported by a study that observed the role of friends and family members and mentors to improve the academic performance and self-esteem.¹⁸ We also recognised the importance of social relationships in the form of social networks, norms and values and its implications on IW as significant association was found between IW and SW. A few studies reported that lack of social connectedness is a strong predictor for the development of cardiovascular diseases¹⁹ cognitive deterioration²⁰ and mortality²¹ than other traditional risks, but unfortunately social relationships in industrialised societies are decreasing.²²

A positive impact of SpW on IW was identified in the current study and is supported by an earlier study.²³ A study supported the positive association of religious beliefs with good mental health, leading to overall positive progress in the academic performance of medical students.²⁴ It is thus essential to promote and measure the development of SpW.

FW can be said to be 'high' when individuals have positive financial attitudes and exhibit healthy financial behaviour. The present study examined whether FW affected IW and observed a non-significant relationship between the two. Previous studies have confirmed that economic status strongly predicts happiness and overall well-being in most cultures. People are happier when they are financially secure.²⁵ Consistent with earlier studies²⁶ we found that positive financial behaviours affected IW.

Results of the current study stressed that a congenial enabling workplace environment could nurture the intellectual capabilities of medical teachers. It can be possible only with support from all representatives of the organogram in the respective institution. Further, it is expected that an ideal workplace should promote monitored supervision with rewards and recognition to foster the worker skills and fulfill job demands, and achieve health and safety in the workplace. Thus, we hope that emotional climate and the prevailing atmosphere in medical colleges will deliver professional identity and development of professionalism.

Since the study was conducted in medical universities of Karachi alone, therefore generalisation of results for medical teachers in other universities is not recommended. However, the results have emphasised the importance of an enabling workplace environment to facilitate IW of all medical teachers in different universities of Pakistan.

Conclusion

Among all the spokes of the wellness wheel, occupational, financial, social, emotional and spiritual components improved mental capabilities of medical teachers to overcome the challenges for acquiring IW. Nevertheless, wellness at workplace played the major role in enhancing intellectual proficiencies.

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Conflict of Interest: None.

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