

Producing financially literate medical graduates — a national need for a brighter Pakistan

Rehana Rehman,¹ Shah Jahan Katpar,² Mehwish Hussain,³ Rakhshaan Khan⁴

Abstract

Objective: To compare the awareness of financial wellness between male and female medical students.

Methods: The cross-sectional questionnaire-based survey was conducted from February to December 2011 and comprised first year medical students belonging to different medical colleges of Karachi. Students from both genders, aged 19-24 years, belonging to all ethnic groups willing to participate were included. A close-ended questionnaire evaluated aspects of financial wellness, using four-point Likert's scale: never, sometimes, mostly, and always from 0 to 4. Besides, factor analysis was performed to investigate common financial wellness among the participants.

Results: Of the total 800 students approached, complete responses were received from 736(92%); 210(28.5%) boys and 526(71.5%) girls. The mean financial wellness score of boys was 8.60 ± 3.04 and that of the girls was 7.61 ± 3.12 ($p < 0.0005$). Greater number of boys 93(44%) set both short- and long-term financial goals compared to 180(36%) girls ($p = 0.03$). Besides, 218(42%) girls confined themselves to the budget compared to 81(39%) boys ($p > 0.05$). More boys 71(34%) were spendthrift ($p < 0.0001$) and 57(27%) preferred to keep their savings in bank accounts compared to the girls ($p < 0.0001$). Overall, boys were better in financial security wellness compared to the girls ($p = 0.001$).

Conclusion: Male medical students exhibited awareness of financial wellness better than girls.

Keywords: Financial wellness, Financial literacy, Wellness wheel, Medical students, Pakistan. (JPMA 65: 847; 2015)

Introduction

The concept of health does not mean absence of disease; rather it is described as a state of wellbeing with respect to awareness and adjustments required to cope well with the situations.¹ Awareness about wellness is based on an attempt to identify all the measures and steps that could be taken for provision of optimal health and perfect functioning of body with heart, mind and soul together.² If areas of one's wellness are under-developed or neglected, the 'wheel' gets off-balance, thus it is imperative to identify the disturbances and find out ways to correct them to maintain the equilibrium.³

The medical students studying at their respective institutes in Pakistan come from different parts of the country with different ethnicities, genders, socioeconomic statuses, cultural and educational backgrounds and, in addition, also have different marital statuses and financial backgrounds.^{3,4} At this stage of adulthood they present with visible physical and

psychological changes in addition to different demands from friends, education system, parents and society etc. This is also a vulnerable time period for them which tends to show mental strains, thereby affecting behaviours and subsequently calls for lifestyle modifications.⁵

Financial wellness (FW) is the capability to identify the importance of planning short- and long-term financial goals.⁶ The knowledge and skill required to utilise financial resources is defined as financial literacy (FL) which comprises awareness of two basic concepts of financial security and care towards expenses.^{7,8} The resources, financial support system and FL in western countries differ from Asian countries and so does the concept of FW awareness.⁹ Since awareness of FW and FL is an important constituent of wellness for medical students, we planned the current study to compare FW awareness between male and female medical students of Karachi. This study is in continuation of wellness surveys conducted by the authors in our region focused on FW dimensions.^{1-3,6,10,11}

Subjects and Methods

The cross-sectional questionnaire-based survey was conducted from February to December 2011 and comprised first year medical students belonging to different medical colleges of Karachi. Students from both genders, aged 19-24 years, belonging to all ethnic groups

.....
¹Department of Biological and Biomedical Sciences, Aga Khan University, Karachi, ²Oral & Maxillofacial Surgery & Dental Educationists, Institute of Dentistry, Liaquat University of Medical & Health Sciences, Jamshoro, ³Department of Biostatistics, Dow University of Health Sciences, Karachi, ⁴Public Health Physician, Karachi.

Correspondence: Rehana Rehman. Email: drrehana7@gmail.com

willing to participate were included. The subjects were randomly selected from three government and five private medical colleges. After approval from the Research and Ethical review committee of Bahria University Medical and Dental College, Karachi, a close-ended questionnaire was pretested and verified for error on a group of 50 students. The reliability of the questionnaire was tested by measuring the related Cronbach's Alpha with 81% consistency is student responses. Afterwards, the questionnaire was used to evaluate aspects of financial wellness, using four-point Likert's scale: never, sometimes, mostly, and always from 0 to 4. The questionnaire was tailored on the basis of Wellness wheel.¹² Besides, factor analysis was performed to investigate common financial wellness among the participants.

The students were asked if they were able to make short- and long-term financial goals, had knowledge to make and follow a given financial budget; and are they used to keeping their savings in a bank account.

Data was analysed using Predictive Analysis Software (PASW 18). Descriptive presentations of variables were executed in terms of frequencies and percentages for categorical variable and mean \pm standard deviation for the measurement of variables. Chi-square test of association was run to assess association between each opinion with gender, Furthermore, total score of FW was obtained while adding response of each item. Besides, for

factor analysis Kaiser-Meyer-Olkin (KMO) measure of sampling accuracy and Bartlett's test of sphericity were computed. From Eigen values criterion, common factors were extracted with loadings more than 0.30. Mann-Whitney U test compared different FW scores between genders. Results were considered significant when $p < 0.05$.

Results

Of the total 800 students approached, complete responses were received from 736(92%); 210(28.5%) boys and 526(71.5%) girls. The overall mean age was 19 ± 2 years. Besides, 450(61%) were studying in private-sector institutes, while 286(39%) were in public-sector institutes. The mean financial wellness score of boys was 8.60 ± 3.04 and that of the girls was 7.61 ± 3.12 ($p < 0.0005$). Greater number of boys 93(44%) set both short- and long-term financial goals compared to 180(36%) girls ($p = 0.03$). Besides, 218(42%) girls confined themselves to the budget compared to 81(39%) boys ($p > 0.05$). More boys 71(34%) were spendthrift ($p < 0.0001$) and 57(27%) preferred to keep their savings in bank accounts compared to the girls ($p < 0.0001$). Overall, boys were better in financial security wellness compared to the girls ($p = 0.001$) (Table-1).

Factor analysis was performed for extracting common factors (Table-2). The KMO measure was 0.624 and Bartlett's test of accuracy computed was significant ($p < 0.001$). Eigen value was more than 1 for two factors

Table-1: Comparison of Financial dimensions of wellness in male/female medical students.

		Male	Female	Total	P value
I make both short & long term financial goals	Always	93 (0.44)	189 (0.36)	282 (0.38)	0.031
	Usually	62 (0.30)	155 (0.29)	217 (0.30)	
	Sometimes	36 (0.17)	94 (0.18)	130 (0.18)	
	Never	19 (0.09)	88 (0.17)	107 (0.14)	
I budget my spending each month	Always	77 (0.37)	214 (0.41)	291 (0.40)	0.706
	Usually	48 (0.23)	121 (0.23)	169 (0.23)	
	Sometimes	43 (0.20)	93 (0.18)	136 (0.18)	
	Never	42 (0.20)	98 (0.18)	140 (0.19)	
I restrict myself to given budget	Always	81 (0.39)	218 (0.42)	299 (0.41)	0.265
	Usually	47 (0.22)	126 (0.24)	173 (0.23)	
	Sometimes	47 (0.22)	85 (0.16)	132 (0.18)	
	Never	35 (0.17)	97 (0.18)	132 (0.18)	
I spend whatever I have	Always	71 (0.34)	119 (0.23)	190 (0.26)	<0.0001
	Usually	52 (0.25)	101 (0.19)	153 (0.21)	
	Sometimes	48 (0.23)	125 (0.24)	173 (0.23)	
	Never	39 (0.18)	181 (0.34)	220 (0.30)	
I keep my savings in bank account.	Always	57 (0.27)	84 (0.16)	141 (0.19)	<0.0001
	Usually	29 (0.14)	46 (0.09)	75 (0.10)	
	Sometimes	19 (0.09)	37 (0.07)	56 (0.08)	
	Never	105 (0.50)	359 (0.68)	464 (0.63)	

Values are numbers, percentages in parenthesis, variables compared by chi square test.

Table-2: Comparison of Financial Wellness Scores obtained by Factor Analysis.

		Financial Security	Care towards Expenses
Financial Wellness Items	Financial goals	0.795	
	Bank account	0.357	
	Restrict to budget		0.699
	Making budget		0.598
	Spend without thrift		-0.313
Gender	Male	3.27 ± 1.77	5.33 ± 2.02
	Female	2.57 ± 1.75	5.04 ± 2.12
	P Value	<0.0001	0.228

which were extracted. Factor 1 clustered 'making financial goals' and 'keeping savings in bank account', thus it was named 'Financial Security Wellness'. It was significantly better in male students ($p < 0.0001$). Factor 2 was named 'Care Towards Expenses Wellness. Comparative analysis revealed that factor 2 was similar in both genders.

Discussion

The knowledge of available financial resources, budgeting and savings are the pillars of FW which need to be addressed in developing countries. Pakistan is the seventh most populated country in the world which, by the year 2050, is anticipated to go even up the ladder.¹³ The expansion of existing population bloom mixed with lack of FW can further produce associated burden on our economy. The budget on healthcare at the same time can be minimised by creating awareness of health-seeking behaviours in medical students to make best use of utmost potentials with self-motivation, responsibility and commitment for a successful existence.^{1,2}

On admission to a medical college, students experience a change which may be in the curriculum, mode of teaching, learning approach or method of assessment.^{14,15} The known stressors include academic pressures, parental expectations, family problems, political situation, health and food related issues, financial matters and lack of recreational and physical sports activities.¹⁶ Financial shortfalls faced by medical students are known stressors, which may also lead to burnout syndrome and subsequently may also affect their academic performance. It has been observed that students who have set targets are better planners and managers in terms of handling their finances, whereas those who have financial constraints tend to suffer. It is an observation that children of the affluent are mostly non-serious, lavish spenders and are not concerned about FW, their studies and associated issues.

Developing countries in the region, like India, Pakistan

and Bangladesh, apart from still fighting with poverty and other associated issues, still face gender bias or discrimination in different forms, with male gender getting all the perks and that this is not restricted to the provision of medical care alone, but also includes the domain of education at different levels.¹⁷⁻¹⁹ In our study, the term financial security was allocated to making short- and long-term financial goals and keeping a budget of income and expenditure. The results negated the common eastern cultural thought that girls are better in terms of managing their finances compared to the boys who were found to be better and smarter than girls at budgeting their finances. Our study highlighted the importance and awareness of FW in boys which is contradictory to better intellectual, spiritual and social wellness in female medical students of Pakistan.^{2,3,10}

Acquiring education and provision of health has always been a neglected and underdeveloped domain in Pakistan and time has come to address the issue as a national priority by all stakeholders. Reasons for this unfortunate shortcoming are multimodal, but the major aspect is related to: insufficient financial input, not being on priority list, lack of vision with poor will, poor management and the overall culture of corruption.²⁰ Awareness of FL enables medical students to understand the importance of sustaining themselves financially for short-term objectives like restricting within means, learning not to let money be the driving force of life, make a plan to pay back student loans, not getting into credit card debt and to keep something safe for the rough times. Boys cared better towards expenses, whereas girls did not have enough FL to experience FW.

The purpose of FW and FL is to provide students with the education and guidance needed to empower them to make informed financial decisions. FL studies done for Western general population show that high education achievers generally tend to have high FL, irrespective of type of education attained and level of performance shown.²¹ FW will be seamlessly integrated into the existing campus culture and will become one of the most recommended and highly regarded resources available to students. Keeping in mind the above scenario, it is important for Pakistani medical students to have knowledge about FW and hence FL during their academic careers, so that they may prevent and avoid all problems associated with academics in future and enjoy all domains of the Wellness wheel learning how to manage their money and establishing a personal budget. This awareness will facilitate them to pay off the entire balance each month, avoid interest, think long term, and set up a savings account. We should remember that FL ultimately

affects the financial well-being of a person, and therefore needs to be addressed.⁹

Our study has its limitations because in the demographics only age and gender was assessed and the economic status of parents was not taken into account. Moreover, there are no comparative national and international studies to support our topic, yet this is a unique theme which has to be addressed by healthcare providers with positive impact on wellness contributing to national economy. Overarching wellness approach that determines a self-defined balance is a journey, destination of which is a successful existence for us humans in all types of circumstances.¹⁰

We recommend that FL should be considered the need of the hour in today's fast track, computer-savvy, commercial world. All medical students should be given an insight about finance and accounts. This literacy can develop FW as a composite of Wellness wheel and will enable them to plan accordingly.

Conclusion

Boys exhibited FW better than girls in terms of making short- and long-term financial goals, budgeting of accounts and balancing income and expenditure.

References

1. Rehman R, Hussain M, Syed F, Khan R. Social wellbeing: a prospective energy for wellness in medical students. *J Postgrad Med Inst* 2014; 28: 165-71
2. Rehman R, Syed S, Hussain M, Shaikh S. Health and Spirituality "walk along" in wellness journey of medical students. *J Pak Med Assoc* 2013; 63: 495-500.
3. Naz AS, Rehman R, Hussain M. Medical students' endeavor to make use of their mental capabilities. *J Pak Med Assoc* 2013; 63: 568-72
4. Rehman R, Afzal K, Kamran A. Interactive lectures; A perspective of students and lecturers. *J Postgrad Med Inst* 2013; 27: 152-6.
5. Qidwai W, Ishaque S, Shah S, Rahim M. Adolescent Lifestyle and Behaviour: A Survey from a Developing Country. *PLoS one* 2010; 5: e12914
6. Rehman R, Katpar S, Khan R, Hussain M. Financial wellness awareness: A step closer to achieve Millennium Development Goals for Pakistan. *Pak J Med Sci* 2015; 31: 49-53.
7. Hung A, Parker AM, Joanne Y. Defining and Measuring Financial Literacy. RAND Working Paper Series WR-708. [Online] 2009 [Cited 2014 Dec 18]. Available from: URL: <http://ssrn.com/abstract=1498674> or <http://dx.doi.org/10.2139/ssrn.1498674>.
8. Houston SJ. Measuring Financial Literacy. *J Consum Aff* 2010; 44: 296-316.
9. Henning MA, Krageloh C, Moir F, Doherty I, Hawken SJ. Quality of life: international and domestic students studying medicine in New Zealand. *Perspect Med Educ* 2012; 1: 129-42.
10. Rehman R, Habib M, Fatima SS. A take on social wellbeing attributes by first year medical students. *J Pak Med Assoc* 2014; 64: 679-82.
11. Naz AS, Rehman R, Katpar SJ, Hussain M. Intellectual wellness awareness: a neglected area in medical universities of Pakistan. *J Pak Med Assoc* 2014; 64: 993-7.
12. Vander Bilt University. Wellness Resource centre. [Online] [Cited 2010 Jan]. Available from: URL: www.vanderbilt.edu/wellnesscenter/wellnesswheel.html.
13. Manzoor I, Hashmi NR, Mukhtar F. Determinants and Pattern of Health Care Services Utilization in Postgraduate Students. *J Ayub Med Coll Abbottabad* 2009; 21: 100-5.
14. Rehman R, Khan R, Akhaai MA. Hassan F. Approach of freshly inducted medical students towards learning at Bahria University Medical & Dental College. *J Pak Med Assoc* 2013; 63: 320-6.
15. Rehman R, Khan AN, Kamran A. Role of small group interactive sessions in two different curriculums based medical colleges *J Pak Med Assoc* 2012; 62: 920-3.
16. Shah M, Hasan S, Malik S, Sreeramareddy CT. Perceived Stress, Sources and Severity of Stress among medical Undergraduates in a Pakistani Medical School. *BMC Med Educ* 2010; 10: 2-8.
17. Qadir F, Khan MM, Medhin G, Prince M. Male gender preference, female gender disadvantage as risk factors for psychological morbidity in Pakistani women of childbearing age - a life course perspective. *BMC* 2011; 11: 745- 58.
18. Bangladesh Bureau of Educational Information and Statistics (BANBEIS). 2011, Enrollment by Gender in Public Universities, 2009. [Online] [Cited 2014 Dec 18]. Available from: URL: http://www.banbeis.gov.bd/webnew/index.php?option=com_content&view=article&id=465:enrolment-by-gender-in-public-universities-2009&catid=78:university-education-2010&Itemid=186.
19. Raju E. Gender Discrimination in India. *IOSR-JEF* 2014; 2: 55-65.
20. Nishtar S, Bhutta ZA, Jafar TH, Ghaffar A, Akhtar T, Bengali K, et al. Health Transitions in Pakistan 4-Health reform in Pakistan: a call to action. *Lancet* 2013; 381: 2291-7.
21. Marcolin S, Abraham A. Financial literacy research: current literature and future opportunities. In: Basu P, O'Neill G, Travaglione A (Eds.). Proceedings of the 3rd International Conference on Contemporary Business, Leura NSW. Australia: Faculty of Commerce, Charles Stuart University, 21-22 September 2006.