Available online at http://www.journalcra.com

International Journal of Current Research
Vol. 7, Issue, 07, pp.17848-17852, July, 2015

INTERNATIONAL JOURNAL OF CURRENT RESEARCH

ISSN: 0975-833X

RESEARCH ARTICLE

CAN ADHERENCE TO ADULT LEARNING PRINCIPLES ENSURE PERSONAL AND PROFESSIONAL DEVELOPMENT AMONG MEDICAL SCHOOL FACULTY? EXPERIENCES FROM AN INDIAN MEDICAL SCHOOL

***,[1]Reem Rachel Abraham, [2]Vinod Pallath, [2]Ciraj A. M., [3]Ramnarayan K. and [4]Asha Kamath**

[1]Department of Physiology, Melaka Manipal Medical College, Manipal Campus, Manipal University, Manipal, Karnataka, India 576 104
[2]Department of Microbiology, Melaka Manipal Medical College, Manipal Campus, Manipal University, Manipal, Karnataka, India 576 104
[3]Department of Pathology, Melaka Manipal Medical College, Manipal Campus, Manipal, University, Karnataka, India 576 104
[4]Department of Community Medicine, Kasturba Medical College, Manipal University, Manipal, Karnataka, India 576 104

ARTICLE INFO

Article History:
Received 17th April, 2015
Received in revised form
30th May, 2015
Accepted 19th June, 2015
Published online 28th July, 2015

Key words:

Professional development,
Adult learning,
India.

ABSTRACT

Introduction: Melaka Manipal Medical College (MMMC) Manipal Campus, offers Bachelor of Medicine and Bachelor of Surgery (MBBS) program in a twinning mode under the auspices of Manipal University, India. In the present study, the authors attempted to determine whether faculty members at MMMC perceive adult learning principles as a pathway for professional development. We were also interested in knowing whether any correlation existed between faculty perceptions of adult learning principles and professional development at three levels; individual, interpersonal and organizational levels.

Methods: A questionnaire comprising items focusing on five adult learning principles (Active Participation, Relevant Learning, Safe and non-threatening Environment, Constructive Feedback, Previous Experiences) was designed. A second questionnaire focusing on professional development at three levels was also designed. Faculty members (n =42) were asked to reflect on the practices outlined in both these questionnaires on a 5 point LIkert scale.

Results: Comparison of mean values of five adult learning principles revealed a high mean value for relevant learning followed by constructive feedback, previous experiences, safe environment and active participation. Correlation analysis revealed a strong correlation between active participation and three levels of professional development and also between constructive feedback and three levels of professional development.

Conclusion: The present study intends to provide a framework of professional development which is centered on a few practices based on adult learning principles. This may be helpful for medical schools that lack infrastructure and precise proposals to facilitate faculty development.

Citation: Reem Rachel Abraham, Vinod Pallath, Ciraj A. M., Ramnarayan K. and Asha Kamath, 2015. "Can adherence to adult learning principles ensure personal and professional development among medical school faculty? Experiences from an Indian medical school", *International Journal of Current Research*, 7, (7), 17848-17852.

INTRODUCTION

From an ornamental concept in the past, professional development has gained new stature in recent times as the merits of faculty development are now a criterion in awarding promotions and for being considered eligible for academic rewards (Panisko, 1979). Faculty are expected to balance teaching and the multiple roles the institution expects of them (Eitel *et al*., 2000). They are expected to be competent developers, evaluators and organizers of education (Tigelaar *et al*., 2004). While teaching and treating are considered a core responsibility emphasis and time given to participation in professional developmental activities is very nominal despite the fact it occupies the lion's share in performance appraisal and promotion scheme (Macleod and Steinert, 2009; Clark *et al*., 2004). This situation partly stems from lack of orientation, absence of adequate infrastructure and the low or no recognition for the medical educators involved in activities related to professional development.

Corresponding author:* ***Reem Rachel Abraham,*
[1]Department of Physiology, Melaka Manipal Medical College, Manipal Campus, Manipal University, Manipal, Karnataka, India 576 104.

Nevertheless we found instances where faculty members have successfully achieved their academic and research interests despite the hurdles encountered. Anecdotal responses from these teachers indicate that they were intrinsically motivated to involve themselves in these activities.

Understanding adult learning principles is essential to instill professional development (Best, Rose, 1996; Collins, 2009; Puliyel, 1999; Steinert, 2000; Steinert, 2005; Clair, Adger, 2000). It is postulated that adults will be committed to learning when the goals and objectives are considered realistic and important to them. Adult learning occurs differently from child learning wherein the former applies the rich learning experiences they had previously to the new learning context (Collins, 2009). For professional development to be successful, it must have the full support from the individual and the organization (Kemelfield, 2002). In the present study, we attempted to determine whether faculty members at MMMC perceive adult learning principles as a pathway for professional development. We were also interested in knowing whether any correlation existed between faculty perceptions of adult learning principles and professional development at three levels namely; individual, interpersonal and organizational levels.

MATERIALS AND METHODS

The setting selected was Melaka Manipal Medical College (MMMC), Manipal University, India which offers five years Bachelor of Medicine and Bachelor of Surgery (MBBS) program. MMMC, was established in 1997 under the auspices of Manipal University, India a pioneer in the private education sector for the past 50 years. In an earlier study (Abraham *et al*., 2012) we tried to measure the perceptions of faculty regarding certain practices followed at MMMC, which are based on adult learning principles. For this purpose, initially, a focus group discussion was conducted among selected faculty of MMMC, comprising of 9 faculty members belonging to lecturer, senior grade lecturer, assistant professor, associate professor and professor categories.

In the focus group discussion which was about one hour duration, the participants' perceptions regarding adult learning was discussed. Based on the data generated and a literature review, a questionnaire comprising of items focusing on adult learning principles was which had five scales: Active Participation (active participation in self-directed learning activities), (AP;3 items), Relevant Learning (learning based on the relevance/need felt) (RL; 4 items), Safe, non-threatening Environment (SE;10 items), Constructive Feedback (CF; 4 items), and Previous Experiences (learning that occurred based on previous experiences) (PE; 3 items). The questionnaire was checked for reliability and validity (by 3 external faculty who were not part of MMMC). We were interested in knowing whether any correlation existed between faculty perceptions of adult learning principles and professional development. For this purpose, another questionnaire (Table 1) focusing on professional development at three levels; individual (IL;9 items), interpersonal (IPL;6 items) and organizational level (OL; 9 items) was designed after substantial literature review and brainstorming with senior faculty of MMMC. The validated questionnaire was administered to the faculty members (n =42) and they were requested to reflect on the practices outlined in both these questionnaires (the items of both questionnaires were merged for convenience) on a 5 point scale (5=Strongly agree; 4=Agree; 3=Uncertain; 2=Disagree; 1=Strongly disagree). Junior faculty members who had not completed minimum one year of service were excluded from the study. The mean values were determined (SPSS version 16). We made an attempt to correlate faculty perceptions of adherence to adult learning principles and outcomes related to professional development (using Spearman's correlation analysis; SPSS version 16) so as to look for any possible links.

RESULTS

The response rate was 100%. Reliability of the questionnaire was found to be 0.82. Comparison of mean values of five adult learning principles revealed a high mean value for relevant learning followed by constructive feedback, previous experiences, safe environment and active participation (Table 2).

Table 1. Questionnaire focusing on five adult learning principles and three levels of professional development

		Strongly agree	Agree	Uncertain	Disagree	Strongly disagree
1.	Knowledge and skills in my specialization /subject has improved after I joined this profession (IL)					
2.	I am able to function as a role model in my profession (IL)					
3.	I contribute to achieve my institutional objectives (OL)					
4.	The conducive environment at my institution makes me continue working here (OL)					
5.	My professional activities have fetched me received grants /patents (IL)					
6.	My professional network has expanded after I joined my profession(IPL)					
7.	My communication skills have improved after I joined this profession (IPL)					
8.	In my profession I am aware of my strengths and weaknesses (IL)					
9.	At my institution, I have role models in my profession (OL)					
10.	I am able to actively participate in all my departmental activities (IPL)					
11.	I have started publishing research papers after I joined this profession (IL)					
12.	I involve myself in collaborative research work with my colleagues (IPL)					
13.	As a recognition to my professional achievements, I have received awards/fellowships (IL)					

Continue…..

14.	I continuously strive to update my knowledge in my specialization/subject (IL)
15.	I provide motivation to my peers in their professional development(IPL)
16.	I contribute towards academic and administrative activities of my institution (OL)
17.	I participate in research activities that contribute to my institution's growth (OL)
18.	I am able to involve in scholarly activities (publications, conference presentations, getting patents, grants etc) which contribute to the growth of my institution as a whole (OL)
19.	My confidence in embarking on new endeavors (academic/nonacademic) have improved after I joined this profession (IL)
20.	My students will be effective health care providers in future (OL)
21.	As a part of my profession, I involve in research studies/ clinical trials (IL)
22.	I function as a team with my colleagues in achieving the institutional goals (OL)
23.	I am an effective faculty member of my institution (OL)
24.	I am able to manage professional conflicts effectively (IPL)

IL: Individual level IPL: Interpersonal level OL: Organizational level

Table 2. Mean values of the five adult learning principles

Adult learning principles	Mean (±) SD
Active participation	3.5 (0.98)
Safe, non-threatening environment	3.5 (0.48)
Relevant Learning	4.3 (0.05)
Constructive feedback	3.6 (0.84)
Previous experiences	3.5 (0.99)

Table 3. Correlation analysis of five adult learning principles and three levels of professional development

	Active Participation		Safe non-threatening environment		Relevant Learning		Constructive Feedback		Previous Experiences	
	r	P	r	P	r	P	r	P	r	P
Individual Level	0.365	0.019*	0.249	0.11	0.279	0.07	0.349	0.02*	0.396	0.10
Interpersonal Level	0.389	0.012*	0.357	0.02*	0.175	0.273	0.487	0.001*	0.434	0.005*
Organizational Level	0.422	0.006*	0.459	0.003*	0.477	0.002*	0.352	0.02*	0.474	0.002*

*P value significant at <0.05

Correlation analysis (Table 3) revealed a strong correlation between active participation and all the three levels of professional development. Safe, non-threatening environment was observed to have a strong correlation with both interpersonal and organizational levels of professional development. Relevant learning was found to have a correlation with organizational level of professional development. A strong correlation was found between constructive feedback and all the three levels of professional development. Previous experiences had a correlation between both interpersonal and organizational levels of professional development.

DISCUSSION

It is reported that effective professional development recognizes the way adults learn (Richardson, 2003; Danielson, 2002; Garet *et al*., 2001). The findings of this study were found to have a correlation with Speck's theory of adult learning (Speck, 1996). It was encouraging to note the prevalence of strong correlation between adult learning principles and the three levels of professional development. The correlation found between active participation and individual level of professional development could be due to intrinsic motivation to attain personal development, the working environment at MMMC which offers equal distribution of academic responsibilities among the faculty and the rewards provided for the faculty for their active participation in professional development activities. The institution under the auspices of Manipal University, provides incentives such as full financial support to present a paper in international conferences. Faculty are also given credit by way of providing partial financial assistance to present papers in international conferences taking into consideration the number of papers published in indexed journals. Additionally, institution follows the Performance Assessment System (PAS) to assess faculty members' performance every year. Active participation in professional development activities are also taken into account for promotion of faculty members.

The correlation observed between active participation and interpersonal level of professional development could be attributed to the working environment suitable for departmental as well as interdepartmental collaborative work. The curricular set up at MMMC is in such a way that there is no compartmentalization of departments and an integrated

approach is followed as far as curriculum design, development and delivery is concerned. Another contributing factor is the support given by the institution (under the auspices of Manipal University) for expanding professional network. Another favoring factor for the observed correlation could be the fact that majority of the faculty (98%) at MMMC are alumni of Kasturba Medical College, one of the constituent colleges of Manipal University. Majority of the faculty knew each other even before they joined the teaching profession. This would have culminated in interpersonal level of professional development.

Schmoker reported that effective professional development is centered on the development and maintenance of collaborative environments (Schmoker, 2004). The strong correlation observed between active participation and organizational level of professional development could be again due to the conducive environment at MMMC which provides support for professional development and motivates the faculty to work towards institutional objectives. Fullan (2002) and Marzano (2003) emphasized the pivotal role of leadership in fostering professional development. At MMMC, faculty considers the management of the institution as role models in their profession.

The correlation found between safe, non-threatening environment and interpersonal level of professional development could be due to constructive feedback from colleagues and the freedom given to express and implement innovative ideas for teaching and assessment. It is worth mentioning that at MMMC, the faculty council meets every week to discuss about general issues related to academics. Thereupon, departmental matters are discussed in the weekly departmental meetings. There are interdepartmental committees for coordinating curricular as well as extracurricular activities in which there is no distinction between senior and junior faculty.

The central role of encouraging and supportive leadership in fostering professional development has been emphasized by Bland *et al*. (2000) and Simpson (2006). The correlation found between safe, non-threatening environment and organizational level of professional development could be due to the educational leadership which allows each faculty member to give one's best to the institution. Lack of unhealthy interferences from the leadership in work setting gives the freedom and flexibility to work as a team to achieve institutional goals. It was a matter of concern to observe the weak correlation between relevant learning and individual as well as interpersonal levels of professional development. This could have been due to the limited avenues available for critical reflection and transformational learning for the faculty.

It was encouraging to observe a positive correlation between constructive feedback and all the three levels of professional development. The cardinal benefits of constructive feedback on professional development have been highlighted by Steinert (2005; Steinert *et al*., 2006). The Accreditation Council for Graduate Medical Education (ACGME, 2000) has called for the professional development of future academic leaders through mentoring. The potential impact of mentoring on professional development has been reported in the literature (Steinert *et al*., 2006; Prebble *et al*., 2004). At MMMC, the newly joined faculty are mentored (informal) by a senior faculty (associate mentor) from the same department. Also, faculty are invited to attend each others lectures with an intention to give and receive constructive feedback. Annually, good teacher awards are awarded to teachers as per students' feedback. MMMC place strong emphasis to students' feedback which is considered as pivotal for professional development (Prebble *et al*., 2004). These practices/avenues for giving and receiving feedback could have contributed to the correlation between constructive feedback and individual level of professional development. Students' feedback is also used for departmental changes, which ultimately reflects in organizational development. Transparency of the educational leadership in addressing academic issues could also have contributed to the organizational level of professional development. These practices could have been the reason for the strong correlation between constructive feedback and interpersonal level of professional development.

The strong correlation between previous experiences and interpersonal as well as organizational levels of professional development could be due to the fact that majority of the faculty of MMMC are alumni of one of the constituent colleges of Manipal University (mentioned earlier) , which could have resulted in better organized efforts leading to organizational level of professional development. The weak correlation between previous experiences and individual level of professional development could be due to the fact that at MMMC, faculty exposure to avenues for experiential learning are minimal. Opportunities for critical reflection on one's professional development are less.

Conclusion

In the present study, overall, a strong correlation was observed between adult learning principles and the three levels of professional development. The development of an institution depends upon its faculty. At MMMC, each faculty member is given the freedom to be at one's best because of the strong encouragement from the educational leadership and the conducive work environment. Nevertheless, awareness regarding self-reflection and avenues for experiential learning has to be planned out. The present study intends to provide a framework of professional development which is centered on a few practices based on adult learning principles. We believe that this information shared may be helpful for medical schools that lack infrastructure and precise proposals to facilitate faculty development.

REFERENCES

Abraham RR, Pallath V, AM C, Ramnarayan K, Kamath A. Avenues for Professional Development: Faculty Perspectives from an Indian Medical School. *Kathmandu University Medical Journal,* 2012;10(3):60-65.

Accreditation Council for Graduate Medical Education (ACGME). Graduate Medical Education Directory. Medical Education Products, American Medical Association; 2000.

Best, D.L., Rose, M. Quality supervision theory and practice for clinical supervisors London: WB Saunders; 1996.

Bland, C.J., Starnaman, S., Wersal, L., Moorhead-Rosenberg, L., Zonia, S., Henry, R. Curricular change in medical schools: How to succeed. *Academic Medicine,* 2000; 75:575–94.

Clair, N., Adger, C.T. Professional development for teachers in culturally diverse schools. Eric Online Digest www.ericdigests.org/2000-3/diverse.htm

Clark, J.M., Houston, T.K., Kolodner, K., Branch, W.T., Levine, R.B., Kern, D.E. National survey of faculty development in departments of medicine of U.S. teaching hospitals. *Journal of General Internal Medicine,* 2004; 19:205–14.

Collins, J. Education Techniques for Lifelong Learning. Lifelong learning in the 21st century and beyond. *Radiographics.,* 2009; 29:613-22.

Danielson, C. Enhancing student achievement: A framework for school improvement. Alexandria VA: Association for supervision and curriculum development; 2002.

Eitel, F., Kanz, K.G., Tesche, A. Training and certification of teachers and trainers: the professionalization of medical education. *Medical Teacher,* 2000; 22: 517-26.

Fullan, M. The Change Leader. Educational Leadership 2002; 59: 16-20.

Garet, M.S., Porter, A.C., Desimone, L., Birman, B.F., Yoon, K.S. What makes professional development effective? Results from a national sample of teachers. *American Educational Research Journal,* 2001; 38: 915-45.

Kemelfield, J. Professional development for flexible learning and teaching: A comparative analysis of learnscope 2001-2002. Australasian Society for Computers in Learning in Tertiary Education (ASCILITE) 2002: 329-38.

Macleod, P.J., Steinert, Y. Peer coaching as an approach to faculty development. *Medical Teacher,* 2009; 31: 1043-44.

Marzano, R., J. What works in schools: translating research into actions. Alexandria, VA: Association for supervision and curriculum development; 2003.

Panisko, D. Faculty development for teaching in Canadian medical schools: Whither, wither or yonder? *Canadian Journal of General Internal Medicine,* 2007; 2: 30-1.

Prebble, T., Hargraves, H., Leach, L., Naidoo, K., Suddaby, G., Zepke, N. Impact of Student Support Services and Academic Development Programmes on Student Outcomes in Undergraduate Tertiary Study: A Synthesis of the Research. New Zealand: Ministry of Education; 2004.

Puliyel, M.,M., Puliyel, J.,M., Puliyel, U. Drawing on adult learning theory to teach personal and professional values. *Medical Teacher,* 1999; 21: 513-15.

Richardson, V. The dilemmas of professional development: towards high quality teaching and learning. *Phi Delta Kappa,* 2003; 84:401-6.

Schmoker, M. Tipping point: From feckless reform to substantiative instructional improvement. *Phi Delta Kappa,* 2004; 85: 424-32.

Simpson D, Marcdante K, Morzinski J, Meurer L, McLaughlin C, Lamb G, Janik T, Currey L.. Medical education fellowships – fifteen years of aligning faculty development with primary care clinician-educator roles and academic advancement at the Medical College of Wisconsin. *Academic Medicine*, 2006; 81:945–53.

Speck M. Best practice in professional development for sustained educational change. *ERS Spectrum Spring*, 1996; 33-41.

Steinert Y, Mann K, Centeno A, Dolmans D, Spencer J, Gelula M, *et al*. A systematic review of faculty development initiatives designed to improve teaching effectiveness in medical education: BEME Guide No. 8. *Medical Teacher,* 2006; 28:497–526.

Steinert Y. Faculty development in the new millennium: key challenges and future directions. *Medical Teacher,* 2000; 22: 44-50.

Steinert Y. Staff development. In: Dent JA, Harden RM, editors. A practical guide for medical teachers. Edinburgh: Elsevier Churchill Livingstone; 2005. p. 390-99.

Tigelaar DEH, Dolmans DHJM, Wolfhagen IHAP, Van Der Vleuten CPM. The development and validation of a framework for teaching competencies in higher education. *Higher Education,* 2004; 48: 253-68.

****