

Curriculum leadership in the postgraduate: Gap between current and optimal status

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Background: Identifying the strengths and weakness points is one of the effective methods to analyze current status, and prioritizing actions based on the gap between current and optimal status is necessary for short-term and long-term planning in departments and colleges. The aim of this study was to determine the gap between current and optimal status of curriculum leadership in the postgraduate courses in two Iranian universities. **Materials and Methods:** In this cross-sectional study, a sample of 212 faculty members from the two Iranian universities (one medical and one nonmedical) was randomly selected through stratified random sampling method. Data were collected by using a researcher-made questionnaire, with 55 items categorized in four areas of main dimensions in curriculum leadership. The validity of the questionnaire was determined by curriculum studies scholars, and the reliability was confirmed as the Cronbach's alpha calculated 0.969. Data were analyzed using descriptive and inferential statistics according to the variables. **Results:** There was a gap in all dimensions and roles. The maximum gap (-1.70) with the highest frequency (98%) were related to "improving the educational atmosphere" dimension. As for items, the maximum gap (-2.41) was related to "society needs and expectations and the labor market" in "curriculum development and revision" dimension. **Conclusion:** The negative gap between all dimensions of curriculum leadership implies faculty members' dissatisfaction. Curriculum leadership at universities, colleges and departments of the study in all aspects need to be improved. Hence, it is necessary for managers to make use of the viewpoints of the faculty members to decrease the gap.

Key words: Curriculum leadership, faculty members' viewpoints, postgraduate education, situation analysis

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INTRODUCTION

According to recent criticism and progressing technology, colleges are attempting to develop greater valence to improve their curricula. Curriculum improvement needs conscious and active faculty leadership.^[1] One of several common terms used to describe leadership of the college is "curriculum leadership." The educational leadership task in different and diverse literature termed as academic leadership, professional leadership, instructional leadership and curriculum leadership or the management, main focus of this task is the teaching-learning process.^[2]

Fidler notes about curricular leadership "that the head teacher has an impact on the professional work of the school, including the teaching and learning which goes on in the classrooms" (p. 30). He offers two approaches about instructional leadership, functional approach and a process approach. The functional approach includes leaders as someone who specify the school mission, administer curriculum and instruction, supervise teaching, monitor student progress and upgrade

an instructional atmosphere. The process approach considers methods that this might be performed.^[3]

Many stakeholders are as curriculum leaders for example Sparks and Hirsh identified superintendents, curriculum supervisors, principals and teachers as having a leadership role.^[4] Although defining the role of the leader is difficult, leaders have given properties that affect the activities of others. Curriculum leaders have an explicitly defined mission and purpose that is put by a group rather than the individual. They involve people as much as possible in the change process and increase continuous monitoring and revision of programs and activities. They reflect these issues on their own teaching and appraisal practices and encouraging others to do the same.^[5]

The academic department is one main place of curriculum assessment. Many recent researchers have emphasized the value of curriculum leadership and have attributed the accountability to leaders at the department level.^[6-11] For example, Hecht *et al.* say 80% of all key decisions in academic places are made at the department level (p. 117). The chairperson must be

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both manager and reform representative, both maintainer of program quality and initiator of discussions about improvement (pp. 35-36), but they do not balance these various responsibilities.^[7] Chairpersons currently receive little or no preparation or orientation for their roles, also once they accept the role of curriculum leader they are unprobably to pursue professional development.^[12]

Stark studied chairpersons of continuously planning departments about the specific curriculum leadership responsibilities and roles. Many of the activities that chairpersons reported doing least frequently are those take leadership in fields outside the institution, extending their own competence or that of faculty members in curriculum planning, and consulting or cooperating with other departments in their own campuses. These activities are usually the ones for which they report being least prepared. Activities that chairpersons reported doing most frequently are those that coordinate curriculum development rather than initiate it, evaluate it, or link it with external constituencies. These activities are also the ones for which they reported feeling best prepared.^[1]

Lack of leadership, failure to use data in curriculum decision making, lack of motivation and lack of accepted patterns for making program changes have long been recognized as obstacles to departmental curriculum renewal.^[13] This lack of the consideration match with the results of many surveys conducted from 1953 to 1997, which report that department chairpersons have a wide diversity of managerial duties, ranging from personnel administration to general relations and budgeting, but expend little of their time leading curriculum development.^[14]

However, little data has been available to guide department leaders in the key role of curriculum development that is the heart of the educational enterprise. Furthermore, the research literature on leadership and curriculum is wide but, most of these researches focus on college managers as leaders in developing effective colleges, faculty development, curriculum planning at national and local level, and educational changes.

Since, there are a few researches on curriculum leadership in medical sciences education, this study was designed to determine the gap between the current and optimal status of curriculum leadership in the postgraduate courses of two Iranian universities (one medical and one nonmedical university) and help us understand the faculty member opinions on the neglected activities.

MATERIALS AND METHODS

This study was a cross-sectional research that was conducted in 2014. The study population was all faculty members

involved in postgraduate courses. Research environment was included all departments in the two universities; a medical university and a nonmedical university in Iran. Both are considered among the first rank universities in Iran and run considerable number of postgraduate MSc and PhD programs. They were selected as a research environment according to the convenience for the researcher (cooperation of university officials) and lack of any pilot study with similar research questions.

Using a stratified random sampling with proportional allocation and by using Grjisy and Morgan table, 269 people were selected. Engagements in teaching in the postgraduate courses and willing to participate in this study were considered as the inclusion criteria.

Data were collected using a researcher-made questionnaire. The questionnaire was developed in four stages:

The first stage

The individuals were selected with purposeful sampling with management experience who were willing to cooperate. Semi-structured interviews with content analyses approach were conducted. Faculty members are sampling continued until data saturation achieved. In this process according to the research objective, data collection was done in order to define leadership, curriculum, and curriculum leadership roles determine the dimensions and items.

The second stage

All texts taken from books, articles and documents in curriculum leadership were entered in MAX.QDA (MAX Qualitative Data Analysis) software for qualitative analysis version 2007. Roles and responsibilities of curriculum leadership took place in meaningful sentences, coding, typing and classification codes in this software. Furthermore, all semi-structured interviews were recorded, typed, and entered in the MAX.QDA software completely. The sum of two parts was extracted the 726 codes.

The third stage

Based on the categorized dimensions extracted from viewpoints of faculty members and review of the literatures, questionnaire dimensions and items were compiled. The collected data were investigated during several meetings with experts. Some items were merged or deleted, and some were changed. Thus, the primary tool was developed with 55 items related to four areas of main dimensions in curriculum leadership included: "Curriculum development and revision" (items: 1-14), "curriculum implementation" (items: 15-28), "curriculum monitoring and evaluation" (items: 29-40), "educational atmosphere improvement" (items: 41-55). Responses were ranked based on a Likert scale with five scores for current status (very poor is

implemented = 1 to very good is implemented = 5) and for optimal status (not essential = 1 to very much essential = 5). The questions were allocated to individual demographic characteristics included: Sex, education, academic rank, department of affiliation, teaching experience, administrative experience, and curriculum committee membership experience.

The fourth stage

The validity of the questionnaire was determined by curriculum studies scholars and the reliability was calculated 96.9% by using the alpha Cronbach internal consistency. For this purpose, 30 Faculty members of postgraduate courses of two universities answered the questionnaires.

The questionnaires were self-administered and completed individually. In order to comply ethical research principles, all subjects completed an informed consent. Data were analyzed by using descriptive and inferential statistics with SPSS (Statistical Package for the Social Sciences) version 20. To determine the current and optimal status, items' frequency, percentages and mean scores were calculated. To determine the gap between current and optimal status paired *t*-test were used after ensuring of normality. If the gap was negative, it means the distance from optimal status, but zero or positive gap means no distance or ideal status in curriculum leadership, respectively.

RESULTS

Two hundred and thirty out of 269 faculty members (85.5%) filled the questionnaires. The incompletely filled questionnaires were excluded and in total, 212 questionnaires were included in the study. The majority of (72.6%) faculty members was male and had a PhD degree (88.7%). Considering academic rank, 11.3%, 62.7%, 19.8% and 6.1% of the participants were instructors, assistant professor, associate professor and full professors, respectively. A total of 56.1% of faculty members had over 10 years of teaching experience, and about half of them had a curriculum committee membership (56.6%) and management or deputy experience (50%).

A paired sample *t*-test was conducted to compare the current status with optimal status. There was a statistically significant difference in the current status to optimal status in all of the dimensions. The eta squared statistic indicated a large effect size [Table 1]. The largest gaps respectively were related to dimensions: "Educational atmosphere improvement," "curriculum development and revision," "curriculum implementation" and the minimum gap was related to dimension "curriculum monitoring and evaluation" ($P = 0.0001$). There was a negative gap in all of dimensions and items with high effect size ($P < 0.05$, effect size > 0.14). The minimum and maximum gaps in curriculum leadership dimensions were presented in Table 2. As for items, the largest gap (-2.41) was related to "responsiveness to the social needs and labor market expectations" from dimension "curriculum development and revision." The smallest gap (-1.02) was related to "monitor the implementation of the approved curriculum changes" in dimension "curriculum monitoring and evaluation."

Results show that a few faculty members believed that there is a positive gap or no gap between current and optimal status. Most of them believed that there is a negative gap. For example, 98% of faculty members ($n = 208$) with the highest frequency believed a negative gap in dimension "educational atmosphere improvement" [Table 3].

Comparison of gaps showed that there was a more negative gap in all of dimensions in medical university than nonmedical university. A paired sample *t*-test was conducted to compare the gap in two universities. There was a statistically significant difference in all of the dimensions except "educational atmosphere improvement" [Table 4].

DISCUSSION

This is the first report on the faculty member's perspectives about curriculum leadership in postgraduate programs in

Table 1: Comparison of the mean scores for current and optimal status and their difference (gap) in four dimensions of curriculum leadership, from the viewpoint of faculty members

Dimensionn	Status	Mean ± SD	Gap	CI 95%		t	Significant	Effect size
				Lowest	Highest			
Curriculum development and revision	Current	2.65±0.67	-1.70	-1.70	-1.82	-28.64	0.0001	0.79
	Optimal	4.35±0.49						
Implementation of curriculum	Current	2.83±0.72	-1.52	-1.52	-1.64	-25.28	0.0001	0.75
	Optimal	4.35±0.51						
Monitoring and evaluating the curriculum	Current	2.85±0.74	-1.41	-1.41	-1.54	-21.08	0.0001	0.68
	Optimal	4.26±0.63						
Improving the educational atmosphere	Current	2.68±0.75	-1.70	-1.70	-1.83	-27.12	0.0001	0.78
	Optimal	4.38±0.55						

SD = Standard deviation; CI = Confidence interval

Table 2: The highest and lowest mean score on the current and optimal status and the gap in four dimensions of curriculum leadership, from the viewpoint of faculty members

Dimension	Curriculum leadership roles	Current status (1-5)	Optimal status (1-5)	Gap
Curriculum development and revision	Responsiveness to the social needs and labor market expectations	2.09	4.50	-2.41
	Coordinating different lessons content in course	3.17	4.34	-1.15
Implementation of curriculum	Pilot implementation in changes before generalizing	2.02	4.09	-2.07
	Preparing faculty members for lesson plans for each session and the entire lesson	3.19	4.29	-1.10
Monitoring and evaluating the curriculum	Encouraging faculty members for careful performance of tasks	2.49	4.45	-1.96
	Monitor the implementation of the approved curriculum changes	3.13	4.15	-1.02
Improving the educational atmosphere	Allocation of financial and spiritual rewards for participants in the curriculum	2.08	4.16	-2.08
	Create a free space for educational interaction between faculty members and students	3.24	4.41	-1.17

Table 3: Relative frequency of reported gap between current and optimum status in the four-dimension of curriculum leadership from the viewpoint of faculty members

Dimension	Negative gap	Positive gap	No gap
	% (n)	% (n)	% (n)
Curriculum development and revision	95.8 (203)	2.8 (6)	1.4 (3)
Implementation of curriculum	95.3 (202)	3.3 (7)	1.4 (3)
Monitoring and evaluating the curriculum	90.5 (192)	5.2 (11)	4.3 (9)
Improving the educational atmosphere	98 (208)	2 (4)	0
Mean	94.5	3.3	2.2

Table 4: Comparison of gaps in medical and nonmedical universities in four-dimensions of curriculum leadership, from the viewpoint of faculty members

Dimension	Gap		t	Significant	Effect size
	Nonmedical university	Medical university			
Curriculum development and revision	-1.50±0.77	-1.97±0.90	4.10	<0.0005	0.07
Implementation of curriculum	-1.42±0.93	-1.69±0.92	2.06	0.04	0.02
Monitoring and evaluating the curriculum	-1.19±0.96	-1.59±0.96	3.02	0.003	0.04
Improving the educational atmosphere	-1.62±0.86	-1.80±0.86	1.23	0.21	0.01

Iran. The results showed that there is a negative gap between the current and optimal status and this negative evaluation observed in all of dimensions and roles that imply faculty members' dissatisfaction.

Academic department is the key locus of curriculum leadership and has ascribed the responsibility to department-level.^[6-11] However, there is little direct, active leadership from the senior management group.^[15] They have small

and superficial knowledge of curriculum management tasks and curriculum leadership roles.^[16] Management team have a wide variety of managerial duties, ranging from personnel to general relations and budgeting, but expend little of their time leading curriculum development.^[14] Not only chairpersons currently receive little or no preparation or orientation for their roles, but, they are improbable to follow professional development once they accept the job of curriculum leadership.^[1] Thus, it was suggested the need for a new field of curriculum leadership at the junction of educational administration and curriculum studies because curriculum theory and theories could be used as lenses to inquire the available curriculum leadership.^[17]

The maximum gaps respectively were related to dimensions "educational atmosphere improvement, curriculum development and revision, curriculum implementation" and the minimum gap were related to dimension "curriculum monitoring and evaluation." Several studies emphasize curriculum leadership role in educational atmosphere improvement.^[18,19] In this study, the maximum gap was related to "allocation of financial and spiritual rewards for curriculum participation." Faculty member participation in curriculum is effective^[20] if conditions were to facilitate collaboration among faculty members in curriculum planning. Faculty members believed that curriculum planning is valuable and challenging, but it is time-consuming. In return, they rarely receive benefits for curriculum planning.^[18]

Developing the curriculum is the first step of curriculum planning process. Several studies emphasize curriculum leadership role in curriculum development or revision.^[5,18,21-23] In this study, the maximum gap was related to the role "responsiveness to the social needs and labor market expectations." Need assessment to determine the curriculum needs is essential^[24] and community is its major source. The way to answer this need is searching for ways to collect feedback from employers and graduates.^[25]

Therefore, regular communication and consultation with them is essential.

Several curriculum leaders focus unduly on the written curriculum, neglecting the taught curriculum and the supported curriculum. An excellent written curriculum will have little impact if it is not taught well and not supported with appropriate materials.^[24] Several studies emphasize curriculum leadership role in curriculum implementation.^[5,18,21,24] Many factors affect the successful implementation. In this study, the maximum gap was related to the role "pilot implementation in changes before generalizing." Setting priorities and formulating curriculum change continues to be an important role of any successful leader.^[24]

Monitoring and evaluation are the most important processes in the curriculum. Several studies emphasize curriculum leadership role in monitoring and evaluation.^[5,18,19,21,24] In this study, the maximum gap was related to the role "encouraging faculty members for careful performance of tasks." No program can be significantly improved without assessment of both faculty members and instructional programs.^[24] Studies have shown that the most important barrier to the effective implementation of the curriculum is the lack of agreement on the criteria for teaching evaluation and the difficulty of gathering information about the process and outcomes of teaching, reward and the presence of this wrong attitude that any expert in the area is automatically a good teacher.^[26-28]

Motivation and positive mood are essential factors for active participation of faculty in the curriculum. Motivated teachers require less supervision and accept their teaching goals as personal goals, they have sense of confidence and enjoy teaching. They are honest, and committed to education.^[29] Any discussion of supervision, staff development, and teacher motivation would not be complete without noting the work Abraham Maslow. Maslow's need hierarchy is arranged in pyramidal form with physiological needs being at the bottom of the pyramid and self-actualization being at the top. Maslow's taxonomy specifies that needs at the lower levels of the hierarchy are to be reasonably satisfied before one is interested in needs at the next higher level.^[24] Hence any reward, promotion and tenure of key positions should indicate the importance of teaching and curriculum.^[18]

In this study, comparison of gaps in two universities showed that there was a more negative gap in all of dimensions in medical university than nonmedical university. The maximum gap was related to dimension "curriculum development and revision." This could be due, in medical universities, receive a focused curriculum from ministry of the health and medical education and they can change only 10-20% of it, but in nonmedical universities

curriculum development authority has been delegated to the universities.

Among the study's strengths points and opportunities, the novelty of this area in Iran, to review faculty perspectives that have experience, ability, and expertise in matters of curriculum, curriculum revision and innovation, the population, that is, professors of two big universities as representatives from the Ministry of Science and Ministry of Health, focus on postgraduate in order to clarify its importance as a realm that is growing and needs more attention and investment.

The novelty of this study is first, the tool was designed based on the conceptual integration of "curriculum" and "leadership." Second, the tool is designed in such a way that to be used both by medical and nonmedical universities. Also considering two aspects of the current and optimal status and checking interval, giving different weights to different roles and scopes of the questionnaire is possible.

The limitations of this study can be stated as follows, we did not find a similar comprehensive and rigorous study in the country. Also, we had to accumulate many roles so as to adjust them to the respondents' time and patience. Moreover, many of faculty members were not familiar to principles and standards of the curriculum, and finally, the field of our study was limited to postgraduates in two universities.

Researchers have suggested that all managers need to become more familiar with the roles and functions of curriculum leadership and to develop it in faculty members. Also, curriculum leaders must use effective interpersonal skills and establish atmospheres that build consensus, empower others and promote open and clear communication patterns. They must motivate colleagues to attain goals and encourage discussion, collaboration, shared decision-making and problem-solving and are also concerned with curriculum implementation. They must help faculty members to better understand the philosophies and intent of curriculum documents, and to provide assistance in implementing curriculum and resource materials. Also, they should be assisted to model appropriate behaviors and practices in curriculum delivery. These characteristics are by no means definitive. Definitions of leadership and curriculum are diverse, and there is no one right way to be a curriculum leader.

CONCLUSION

The results showed that there is a negative gap between the current and optimal status on curriculum leadership in postgraduate. This negative evaluation observed in

all of dimensions and items that imply faculty members' dissatisfaction. Curriculum leadership in the studied universities needs to be upgraded and improved in all aspects. Accordingly, it is critical that managers assess faculty member's expectations and views to promote curriculum leadership. Curriculum leaders should ensure that reward and promotion systems and recruitment indices support faculty partnership in curriculum.

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AUTHOR'S CONTRIBUTION

All authors have contributed in designing and conducting the study. All authors have assisted in preparation of the first draft of the manuscript or revising it critically for important intellectual content. All authors have read and approved the content of the manuscript and confirmed the accuracy or integrity of any part of the work.

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