Original Research
Medical Journal of Islamic Republic of Iran, Vol. 25, No. 2, Aug 2011, pp. 94-98

Role and structure of morning report in children's teaching hospitals in Iran

Maliheh Kadivar[1], Nakysa Hooman[2]

Department of Nephrology, Ali-Asghar Children Hospital, Tehran University of Medical Sciences, Tehran, Iran.

Received: 29 July 2010 *Revised: 26 Jan 2011* *Accepted: 31 Jan 2011*

Abstract

Background: Morning report is an integral component of medical training programs. It is conducted as "evidence based" or "problem based". It takes an efficient time of all members of the medical team in teaching hospitals, it seems necessary to evaluate its role in the education. Because of the importance of morning report in education, we evaluated the current and ideal conditions of morning report according to the opinions of medical teams in teaching children's hospitals.

Methods: A cross- sectional descriptive study conducted in three children's teaching hospitals in Tehran in 2005. The opinion and perception of 358 participants, including faculties, residents, fellows, interns, and medical students, were collected by a questionnaire regarding the importance and structure of morning report. The data were presented as frequency and percentage.

Results: 78% of respondents expected a high educational role for morning report. Although 317(88.54%) had a regular attendance in morning report, only 34.1% were satisfied from current condition. The majority believed that faculty had better to lead the sessions, and voted for case presentation to be selected by senior resident on call, despite the prominent current leadership of the faculty. Most of the participants (88.6%) preferred complicated and unusual cases for presentation.

Current morning reports predominantly based on the presentation of the interesting or complicated cases were admitted on the previous day. A few number of cases were reintroduced after achieving the final diagnosis. In addition out-patients and those under observation in emergency room were usually ignored in the meetings.

Conclusion: Regarding the educational role of morning report, there is a far distance between the present and ideal condition. Unattractiveness of presentations and poor participation in discussion might have negative impact on achieving the goals.

Keywords: morning report, traditional method, teaching hospital, educational strategy.

Overview

What is already known on this subject?

Morning report is taking the most efficient time of all members of the medical team in teaching hospitals and has a high educational value in medical curriculum. However, its content, structure, and leadership may vary among the countries. Morning report, evaluating resident's clinical performance, is conducted as either "evidence based" or "problem oriented medical education".

What this study adds:

- The present format of morning report cannot fulfill the educational requirement of the trainees in pediatric department.
- Faculty should hold the leadership but request the senior resident on call to choose the case for presentation.
- Last night admitted difficult patient for

1. Associate Professor, Children Hospital Medical Center, Department of Neonatology, Tehran University of Medical Sciences, Tehran, Iran. Email: mkadivar@yahoo.ca

2. **(Corresponding author),** Associate Professor, Ali-Asghar Children Hospital, Department of Nephrology. Tehran University of Medical Sciences. Address: N193, Ali-Asghar Children Hospital, Vahid Dasgerdi St., Tehran, Iran. Tel: +9821 23046378, Email: nhooman@tums.ac.ir.

management or diagnosis would rather be presented.

Suggestions for further research

It seems necessary to provide some expanded studies with proper sample size and more reliable questionnaire for evaluation of morning report and comparison of the efficacy of new methods with traditional ones.

Introduction

Morning report is a prevalent and integral component of medical students, interns, and residency training programs, especially in internal medicine and pediatric fields. The components of morning report are varied from reporting new admitted patients, and reviewing recently discharged cases to teaching according to evidence based teaching [1-9] .

Evaluations of resident's clinical performance, improving the educational and leadership skills among chief residents and exchange of information among participants are among other goals for morning report. Also, morning report can be used effectively to discuss ethical, social and economical issues which are important to development of the overall professional residents [5,10,11] .

Nowadays, in developed countries, morning report is conducted as "evidence based" or "problem based". In this method, residents, interns, and medical students are encouraged to search in the internet and discover about the problems for previous night admitted patients. Whereas, in a traditional or case oriented method, being the main mode of morning report in our country, participants passively obtain information in the form of a mini lecture or anecdote [5,10] .

There are few studies regarding pediatric morning report by evaluating method of case selection [12], the advantage of post discharge follow up [4], accuracy of diagnosis [17], the level and source of dissatisfaction [13], documentation of the content [2], the effect of changes on educational content [14], and evidence-based skills [7].

Because morning report takes 1-1.5 hours of efficient time of all members of the medical team in teaching hospitals, it seems necessary to evaluate its role in the education of trainees and to query their perception of its structure in order to improve the present condition and also the educational goals. Therefore, we conducted this study to assess medical team's opinion about the role and structure of morning report in pediatric teaching hospitals.

Methods

A cross sectional study conducted in three tertiary care pediatric teaching hospitals in Tehran (Children's Hospital Medical Center, Ali-Asgar Children's Hospital, and Mofid Children's Hospital) in 2005. Morning reports were usually held 5-6 days per week for 60 minutes.

We collected the data by anonymous questionnaire with 22 questions, containing the general information, educational impact of morning report, current and ideal method of holding (the persons who select the patients, manage the morning report, and introduce the patients, time and goal of meeting, cooperation or participation in discussion, and general satisfaction of morning report). This questionnaire was designed by pediatricians and instructors of medical education who confirmed its validity. After a pilot study, the reliability was verified by an epidemiologist on the level of Cronbach's alpha more than 75%.

Coordinating with the assistant director for education in each hospital, we had a jus-

Table 1- Demographic data of participants in morning report representing as number (%).

Hospital		Scientific Position		Age (years)	
Mofid	100(27.9%)	Faculty	84(23.5%)	<24	98(26.8%)
Ali Asghar	100(27.9%)	Fellow	30(8.4%)	25-29	100(27.4%)
Medical Center	158(44.1%)	Resident	59(16.5%)	30-34	58(15.6%)
		Intern	81(22.6%)	>35	102(27.9%)
		Medical student	104(29.1%)		

tification meeting to explain the goals of the study. Then questionnaires were distributed among medical students, interns (at the end of their pediatric rotation), faculties, residents, and fellows in their hospitals. Data were presented as frequency.

Statistical Analysis

Statistical Package for the Social Sciences (SPSS software) version 15-0-1 was used for analysis. Data presented as frequency (percentage). The reliability and validity of questionnaire draft was assessed in a pilot study and Cronbach's alpha more than 0.75 was accepted.

Results

General information

358 participants (178 males, 180 females), whose demographic data were illustrated in Table 1, completed the questionnaires.

Expectations of ideal morning report

About the role of morning report in education, 283 (78%) valued high or very high and the remainders were considered as moderate to very low.

158 (44.1%) believed that both the faculty and the senior residents on call had better to select the cases for presentation, while that 128(35.8%) mentioned that the best person is only the senior resident on call, the minority of 55 (15.4%) voted for the faculty member as the right one for choosing the cases.

Most of the participants (n=317, 88.6%) preferred difficult patients in management or treatment and unusual cases admitted the previous day to be presented. 65 (18.2%) of respondents believed that all of the patients who were admitted in last 24 hours should be introduced briefly.

As a leader of morning report, 180 (50.3%) selected the faculty members, 50(14%) chose either resident or senior resident on call, and 127(35.5%) voted for both groups.

"Diagnostic approach "and "problem solving" were considered as appropriate goals for discussion by 82.1% (n=294) of the participants. 241(67.3%) of participants gave credence to the resident and intern as suitable persons for presenting in the meeting.

Current role and structure of morning report

Regarding the frequency of participating attendance at the meeting, the majority (317 cases) answered "always to sometimes" and 35 (9.77%) replied "scarcely".

Only 122(34.1%) of those taking part in the morning report were "highly satisfied", but 166(46.4%) responded that it has moderately fulfilled their educational requirement and the rest were dissatisfied.

The time of morning report seemed to be reasonable by 292(81.5%) of respondents. Although 139(38.8%) had a workarounds for new admissions before commencing the morning report, It was not a routine for the others.

The answers to this question that who currently selects patients for presentation were faculty members (n=137), the chief resident on call (n=87), and both of them (n=111). At present, the leader of meeting is faculty (n=180 (50.3%) and he/she commonly shares this duty with chief resident on call (n=157(43.9%).

Present morning reports were predominantly based on both management and diagnostic approach in 237(66.2%), discussion on the most proper diagnosis in 59 (16.5%) and 19 (5.3%) of the meetings reviewed mainly management decision making. 130 (36.3%) indicated that neither outpatients nor those admitted in the emergency room were presented. 240(67%) of respondents mentioned that the patients were sometimes reintroduced after achieving the final diagnosis.

229(66.4 %) of respondents believed that involvement of participants in the discussion about patients was in reasonable level, whereas 116 (32.4%) indicated that participates scarcely involved in debates.

Discussion

Although morning report is a ritualistic curriculum of medical teams in pediatric training program [2], there are few studies about the role, structure , method, participant satisfaction, and educational value of pedia-

tric morning reports [2,4,7,12-14]. This study shows the perception of house staffs and faculties who participate in the morning report in three main teaching children's hospitals. There were some interesting results about the present structure of morning report and its ideal condition according to their opinions.

In current survey we found that the majority of participants believed that morning report would have a high educational value, but by present condition only one third were very satisfied. In recent years it is highly questionable whether the aim, method performance, and usefulness of morning were justified. Since the accuracy of discussed subjects were not clarified, therefore most of them may not have enough scientific value. Nonetheless, they were not based on the best and the most reliable evidences [1,5]. The patient's problems were solved by pathophysiologic justification or contribution to anecdote. Even with intimidating condition of the morning report [15]] residents or interns on duty may not demonstrate their mistakes and mismanagements, in order not to be reprimanded, consequently they change the patients information while presenting.

Despite that most of the participants in our study believed that the senior resident on duty (alone or by faculty members) are authorized to select the patients for presentation, this was seldom provided and only the faculty had a right to choose them. Besides that there was no difference between the present and ideal leader, i.e. faculty of the meeting. Another survey in 175 senior faculty members showed the same attitude toward the right person for choosing the patient for presentation [18]. Resident- led morning report has shown to be less frightening and more interactive educational experience and improved the level of satisfactions of house staff [13,16].

Both diagnostic goals and patient problem solving would be the desired aims of morning report and it had been provided in more than half of the cases. Rahnavardi et al showed that their teaching hospital had a tendency toward discussing over rather more common disease than rare cases [18]. Although the time of morning report was reasonable; but the majority mentioned that the present condition had been lack of attractiveness. Additionally the participation of house staff in discussions was moderate to low. In morning report, most of the questions and answers are background inquiries with low educational value or digressed from the case. Evidence based medicine as a novel format for morning report showed more interactive, enthusiastic, provide more sophisticated questions and achieve educational goals among audience and participant [1,6,7,11]. The traditional morning report might be frustrating and less attractive [19] while the other survey from Iran reported that the highly satisfaction of the conventional method [20]. This might represent the unawareness of staff and faculty of the new method promoted in all educational fields and morning report as well. In contrast another study by Khosravi et al. showed the great disorganization, less satisfaction in morning report that demands a great change in its structure to make this valuable part of education more useful and organized [21].

The dominant represented cases in our morning reports were last night admitted inpatients, who were occasionally reintroduced after approval of final diagnosis, and rarely those who were under supervision in emergency room or outpatients of previous days.

However, this study can be useful as a primary study for evaluation of the quality and improvement of morning report. It seems necessary to expand these studies with standard and reliable questionnaire to find the deficits. In addition, comparing the educational value, the rate of satisfaction and cost effectiveness of evidence based along with traditional method and in a larger sample size can play an important role for evaluation of pediatric morning report.

Conclusion

Regarding the educational role of morning report, there is a far distance between the present and ideal condition. Unattractiveness of presentations, poor participation in dis-

cussion might have negative effect on achieving the goals.

Acknowledgement: The author would like to appreciate the deputies of education of the teaching hospitals in charge for permission to contribution of house-staff.

References

1. Amin Z, Guajardo J, Wisniewski W, Bordage G, Tekian A, Niederman LG. Morning report focus and methods over the past three decades. Acad Med 2000 Oct;75(10 Suppl):S1-5.

2. D'Alessandro DM. Documenting the educational content of morning report. Arch Pediatr Adolesc Med 1997 Nov;151(11):1151-6.

3. Fassett RG, Bollipo SJ. Morning report: an Australian experience. Med J Aust 2006 Feb 20;184(4):159-61.

4. Gerard JM, Friedman AD, Barry RC, Carney MJ, Barton LL. An analysis of morning report at a pediatric hospital. Clin Pediatr(Phila). 1997 Oct:36(10);585- 8.

5. Parrino TA, Villanueva AG. The principles and practice of morning report. JAMA 1986 Aug 8;256(6):730-3.

6. Reilly B, Lemon M. Evidence-based morning report: A popular new format in a large teaching hospital. Am J Med. 1997 Nov;103(5):419-26.

7. Schwartz A, Hupert J, Elstein A, Noronha P. Evidence-based morning report for inpatient pediatrics rotations. Acad Med 2000 Dec;75(12):1229.

8. Wartman SA. Morning report revisited: A new model reflecting medical practice of the 1990s. J Gen Intern Med 1995 May;10(5):271-2.

9. Wenger NS, Shpiner RB. An analysis of morning report: implications for internal medicine education. Ann Intern Med. 1993 Sep;119(5):395-9.

10. DeGroot LJ, Siegler M. The morning-report syndrome and medical search. N Eng J Med 1979 Dec 6;301(23):1285-7.

11. Evidence- Based Medicine Working Group. Evidence -based medicine a new approach to teaching the practice of medicine. JAMA 1992 Nov 4;268(17):2420-5.

12. Barton LL, Rice SA, Wells SJ, Friedman AD. Pediatric morning report: an appraisal. Clin Pediatr (Phila). 1997 Oct; 36(10):581-3.

13. Elliott SP, Ellis SC. A bitter pill: Attempting change in a pediatric morning report. Pediatrics. 2004 Feb;113(2):243-7.

14. D'Alessandro DM, Qian F. Do morning report format changes affect educational content? Med Educ 1999 Sep;33(9):648-654.

15. Brancati FL. A piece of my mind.Morning distort. JAMA. 1991 Sep 25; 266 (12):1627.

16. James MT, Mintz MJ, McLaughlin K. Evaluation of a multifaceted "resident-as-teacher" educational intervention to improve morning report. BMC Med Educ 2006 Mar 26;6:20.

17. Kadivar M, Morshedi M. A survey on the correlation between the initial diagnosis at morning report and the definite diagnosis at discharge in one teaching hospital in 1997. Teb Va Tazkieh 2004 Winter; -(51):58-63.

18. Rahnavardi M, Bikdeli B, Vahedi H, Alaei F, Pourmalek F, Amini A, et. al. Morning report: a survey of Iranian senior faculty attitudes. Intern Emerg Med 2008 Mar; 3(1):17-24.

19. Haghdoust AA, Jalili Z, Asadi Karami E. Morning reports in training hospitals affiliated to Kerman University of Medical Sciences in 2006. STRIDES in Development of Medical Education. 2005-2006: 2(2):88-94.

20. Moharari RS. Soleymani HA, Nejati A, Rezaeif AR, A, KhashYr P, Meysami AP. Evaluation of morning report in an emergency medicine department. EMJ 2010;27(1):0-0.

21. Khosravi A. Derkhshan A. Assessment of quality and quantity of morning report.Medical Journal of Mashhad university of Medical sciences 2001; 43 (70):45-8.