

A self-assessment of Residents in Neurology Department of Shiraz Medical School

Dashti Sh, MD¹; Pedramfar P, MD²; Amini M, MD³; Sagheb MM, MD⁴

¹Member, Education Development Office, Faculty of Medicine, Shiraz University of Medical Sciences

²Assistant Professor, Neurology Department, Namazi Hospital, Shiraz University of Medical Sciences,

³Assistant Professor, Education Development Center, Shiraz University of Medical Sciences.

⁴Assistant Professor, Education Development Office Faculty of Medicine, Shiraz University of Medical Sciences

Abstract

Background and purpose: Self-assessment is an important tool for adult learner since they are aware of their learning and give valuable information for improvement of education. This study is an attempt to examine residents self-assessment as an input to evaluate the effectiveness of different education activities and setting in neurology

Methods: In this is cross-sectional study all Neurology residents of Shiraz Faculty of Medicine participated. Four questionnaires were developed; each for residents of each year based on objectives of neurology department. Content validity was examined by a group of 4 experts from education development center and office. The reliability was determined after a pilot study by Test-retest method ($r=0.9$). The returned questioner were analysed.

Results: According to the opinion of residents, among different ways of medical education, , morning report with 90% and then conferences with 50% had gained the best effective methods of teaching. However journal club and case presentation were the least effective (20-30%). Residents reported that they need Out Patient Department (OPD) education (teaching) and require the academic staffs to spend more time with them in Operation Room (OR) and emergency room (E.R). .

Conclusion: For improving students educational experience: send feedback for present academic staffs to revise the methods of education and design rotation in other wards and encourage faculties and residents to design and use log books.

Key words: INTERNAL EVALUATION, EDUCATION, NEUROLOGY DEPARTMENT.

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Introduction

Residents have to acquire a set of clinical skills to respond to health problems of the society. During their education, Residents acquire clinical skills in

setting like operation rooms, clinics, patients' bed-sides Journal club and morning report (1).

Traditional clinical educations were highly relied on apprentice model. It is obvious that clinical teachers are not able to teach all skills to students effectively (2). Today more emphasis is put on learning clinical skills and developing attitudes of

Corresponding author: Ms Esmat Noohi is a faculty member of education development center of Kerman university of medical sciences, Jomhouri Eslami Blv., Kerman, Iran
Tel: 98 913 340 7727
Email: smnouhi@yahoo.com

physicians (2).

Self-assessment is an important tool for adult learner since they are aware of their learning and give valuable information for improvement of education. A number studies have successfully used medical students and residents self-assessments as valid assessment measure. (3,4,5) The study by Campbel revealed that it is necessary to improve core competence training program so that the trainees be able to do most of procedures perfectly in the clinics.

Zubeir Amin and coworkers had designed an instrument workshop to identify the level of the competency improvement after attending to program. They found noticeable differences between current and desired outcome areas (8).

A study in North Carolina University (NCU) showed that the evaluation of faculty members by students and submission of the results to the faculty members had positive effect on improving teaching and provision of information for students.(9)

Neurology department used to be part of internal medicine since the establishment of the Shiraz University. It became a subgroup of internal medicine department 16 years ago .With progression of the education and employment of desired number of academic staffs it has become an independent department known as “neurological disease group” since May 2006.

The graduated physicians from this department during the last 15 years are 15. This department is established to train neurologists during 4 years of education with the aim of diagnosis, treatment and prevention of diseases of brain, spine muscles and peripheral and cranial neuropathy.

The following sections are related work plans of neurology department:

1. Neurology OPD.
2. Emergency room.
3. Hospital admission ward.
4. Neuro electro diagnosis.

5. Electro encephalography.

6. Intensive care unit.

This study is an attempt to examine residents self-assessment as an input to evaluate the effectiveness of different education activities and setting in neurology

Methods

In this is cross-sectional study all Neurology residents of Shiraz Faculty of Medicine participated.

Four questionnaires were developed each for residents of each year based on objectives of neurology department. Content validity was examined by a group of 4 experts from education development center and office. The reliability was determined after a pilot study by Test-retest method($r=0.9$).

First, we explained the objectives of education to all residents. and prepared questionnaires according to the level of education from 1st to 4th year; then, we asked them to answer them. We assured the residents that their opinion would be kept confidential and it has no effect on their grade or graduation process (honesty of internal evaluation is guaranteed)

The data have been gathered and analyzed.

Results

In this study 15 neurology residents participated.

It is note worthy that in the 1st year, the residents have internal medicine rotation to be familiar with the neurological diseases related to internal medicine and from the beginning of 2nd year they are involved in neurology department with the aim of diagnosis and management of all neurological problems, up to the end of 4th year.

In general the educational turnover of neurology department has gained satisfactory rating with regard to ethical criteria and respectful reaction (behavior) of the academics staffs (fig.1)

First and 2nd year residents. Since the evalua-

Fig 1. neurological residents' viewpoint on educational assesment

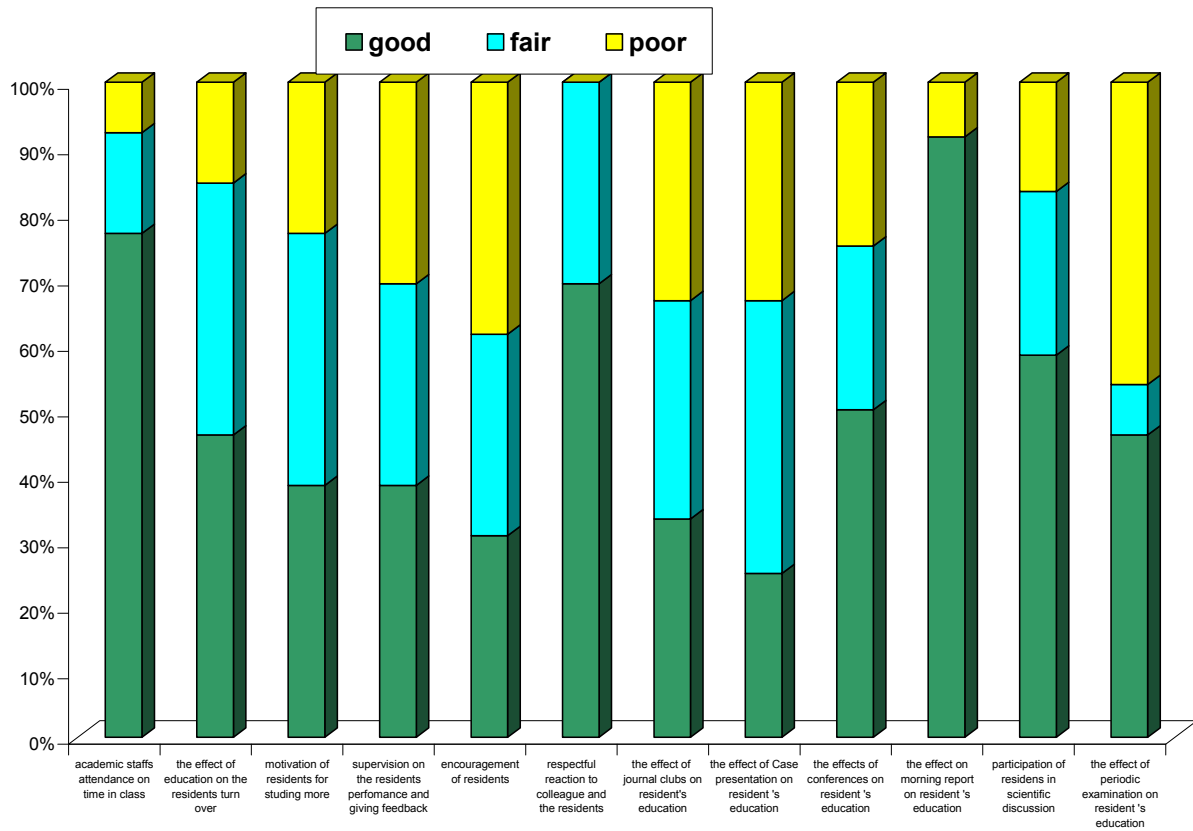


Fig 2. self assesment of second year residents of neurological department

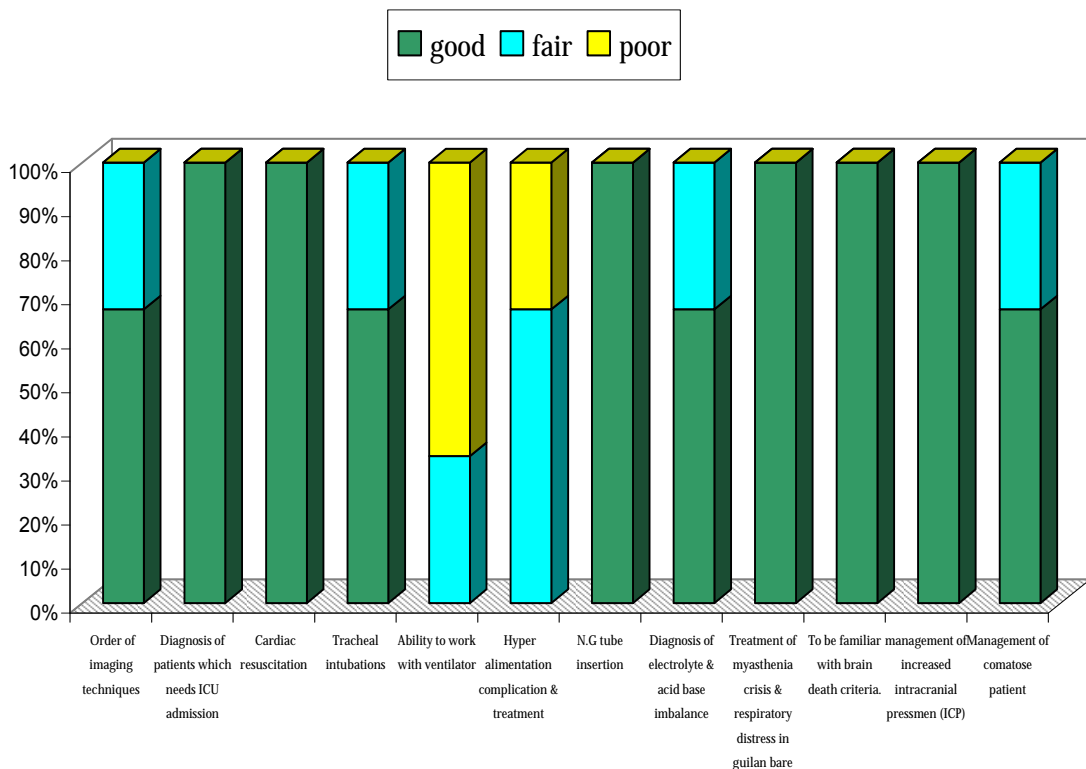


Fig 3. self assesment of third year resident of neurology department

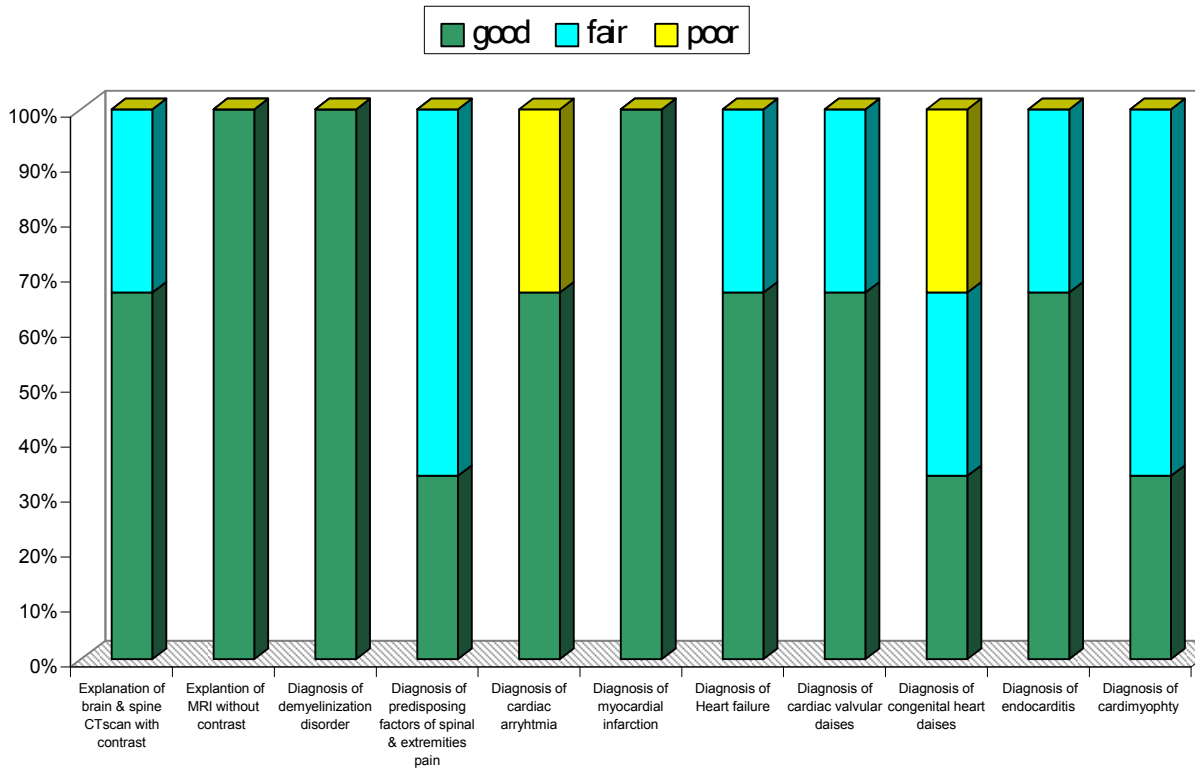
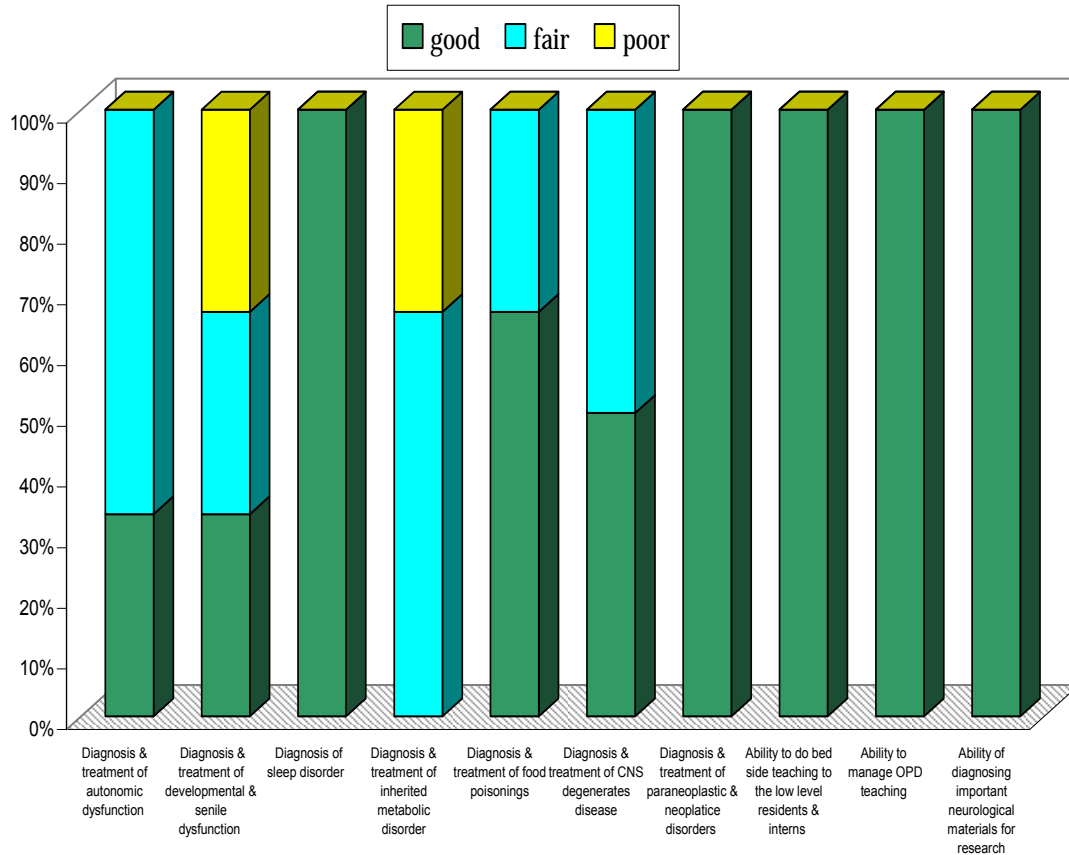


Fig 4. self assesment of fourth year residents of neurology department



tion was done 3 months after the beginning of the course, most of the 1st year residents had no idea and did not participate. But at the beginning of the 2nd year the residents were asked to answer the questionnaires. Most of them said that they had achieved the objectives (about 60%). Some objectives are obtained weakly, in other words the residents are unsatisfied with teaching in the ward of internal medicine (fig.2).

Third year residents. They gained most educational objectives but they are weak in management of myopathies, neurological complications of pregnancy and cardiac arrhythmias (fig.3)

Fourth year residents. They had problem in diagnosis, treatment of psychological problems and senile neurological deficit and neurological degenerative diseases. In addition versions of electroencephalography(EEG)/ NCV, electromyography(EMG) are the least achievements of the objective they had learned during 3 months after the beginning of the course and they hoped to learn more about it in the remaining period of the course (fig.4)..

Among various ways of training (teaching), journal club and case presentation did not have proper effect on learning of the residents because the ward, E.R. and O.P.D, are overloaded with patients and they can not participate in all of them. Besides their suggestion is to share them in lectures and discussions, but morning report and educational conferences are very beneficial and effective on their learning (90%).

Discussion

As the self assessment of the residents show, they learn more and their knowledge and functional skills improve by the end of course.

A study done in Iran universities showed that clinical training of medical students and interns are highly affected by residency program, because the residents are both teachers and trainees(10).

Other study done in Shahid Beheshti University by Ashoorion and coworkers showed significant differences between the interns' competence and the faculty members expectations about clinical skills. He concluded that there is restriction in clinical exercise and suggested curriculum revision (11).

Recommendations. 1- It is necessary that the residents have short period of rotation to other related departments at the beginning of the course (i.e. 1st or 2nd year) and then rotation to be completed on the 4th year. (Related departments are Internal medicine, neurophysiology, cardiology, I.C.U, psychiatry, neurosurgery and radiology)

2- Employment of more academic staff can help them to spend more time with residents and so training the residents will progress.

3- When the number of academic staff increases. By scattering the patients to more educational hospitals, with supervision of academic staff, the load of the ward decreases and so it will be helpful for teaching.

4- Using log book will help the residents to be aware of the educational objectives and they can follow the objectives so that they become trained in expected period.

5- Offering the results of internal evaluation to academic staff will help them to revise the method of education.

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