

The Appraisal of Surgical Grand Rounds in a University Teaching Hospital

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Abstract

Grand rounds are traditional medical education tools in academic medical centers, but there has been little investigation to evaluate the advantages and usefulness of this ritual academic activity. We analyzed the utility and effectiveness of surgical grand rounds as a teaching modality in a university teaching hospital. All surgical grand rounds, from October 2010 to June 2012 (inclusive) conducted in the department of surgery, Sultan Qaboos University Hospital were analyzed. The evaluation was carried out by a multiple choice (single answer) type questionnaire. Each surgical grand round was assessed independently and attendees were asked to rate each indicator on a 5-point Likert-type scale. A total of 54 weekly surgical grand rounds were carried out, which included 74% local and 26% overseas speakers. The level of speakers varied from a senior faculty member to student and the themes and contents included subject reviews, updates, academic and personal experiences. The attendance and feedback were encouraging and majority of respondents' disclosed "good" educational, professional and social gains from this educational activity. Surgical grand rounds have been a consistent educational activity of our department for education and teaching of undergraduates, house staff (registrars and postgraduates) and faculty from a university teaching hospital. The overall outcome has been satisfactory. We aim to continue this educational activity and perform regular appraisals to review its benefits and effectiveness for clinical educational.

Keywords

Grand Rounds, Surgical Education, Tele-Education, University Hospital, Oman

1. Introduction

Grand rounds (GRs) are a ritual of medical education and inpatient care, containing presenting the medical

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problems and treatment of a particular patient to an audience consisting of group of medical doctors, residents, and students. GRs have a tradition in medicine, dating back to Sir William Osler's case presentations at Johns Hopkins, where real patients were wheeled into the lecture hall to be interviewed and discussed by master clinician and the iconic Surgical Grand Rounds (SGRs), where audiences, seated in an amphitheater above the operating room, actually watching a master surgeon demonstrated a new operation (Bliss, 1999). In recent years, GRs have changed from these traditional teaching methods to staid and formulatic weekly clinical didactic lectures—the very essence of passive learning (Bogdonoff, 1982; Parrino & White, 1990; Riley, 1992). Despite medical educators' enthusiasm for problem-based and interactive models of medical education, GRs are still viewed as a valuable educational activity for staff and students in many hospitals in developed countries such as United States, Canada, Australia and New Zealand (Hebert & Wright, 2003; Lewkonja & Murray, 1995; Mueller, Litin, Sowden, Habermann, & LaRusso, 2003; Parrino & White, 1990; Richmond, 1985; Tarala & Vickery, 2005).

There is considerable relevant literature regarding utility and effectiveness of GRs. McLeod and Gold from Canada (McLeod & Gold, 1990) suggested that in the 1980s, the quality and attendance at rounds had improved or stayed the same, where as Parrino and White from USA (Parrino & White, 1990) for the same decade concluded that medical grand rounds were considered important in most academic medical centers but that, generally, the popularity of rounds was felt to have decreased. In a more recent study of teaching hospitals in Calgary, Alberta, it has been reported that formal GRs accounted for more than 2000 hours per year and GRs were viewed as the main hospital-based continuing education activity (Lewkonja & Murray, 1995).

The department of surgery, Sultan Qaboos University (SQU) established regular weekly SGR as a regular educational activity in 2010. The department consists of all surgical subspecialties and SGRs were distributed equally among all the subspecialties. The objectives of SGRs were defined to exchange the research conducted by various specialty scholars, provide updates and new innovations in the diagnosis and treatment of common and complex surgical diseases for the education of faculty/residents/students and finally to enhance the social interaction among the departmental staff, junior doctors and the students. A departmental committee was ascertained to monitor the series of events and perform regular evaluation process. In recent years, there has been a greater demand accountability of academic medicine's educational programs (Murray, Gruppen, Catton, Hays, & Woolliscroft, 2000). Given that, in this study, we have collected the data about educational structure, perceived quality and effectiveness of SGRs from surgical department of a university teaching hospital in order to evaluate the value and efficacy of weekly SGRs as an educational tool for our faculty, house staff (registrars and postgraduates) and undergraduates. The outcome of this study will be used as a departmental benchmark for future continuity of SGRs and also to improve the quality of SGRs.

2. Material and Methods

Weekly SGRs conducted from October 2010-June 2012 (inclusive) in the Department of Surgery, Sultan Qaboos University (SQU), Muscat, Oman were reviewed. The SGRs included participation of all surgical sub-specialties under cover of Department of Surgery and the frequency, themes and contents, speaker's level, attendance and outcome of these SGRs for educational and professional development of undergraduates, postgraduates and faculty were reviewed.

To assess the educational, professional and social benefits of SGRs, a multiple choice (single answer) type questionnaire to create a Likert scale was developed and circulated to each attendee before start. Each attendee filled out the questionnaire only once while attending a SGR and they were asked to rate each indicator on a 5-point Likert-type scale (very good, good, fair, poor, very poor). The anonymity of the respondents' was respected.

3. Results

During 2 years, 54 weekly SGRs were carried out in the Department of Surgery, which included 41 (76%) speakers from Department of General Surgery, SQU and 13 (24%) international and regional academia. Level of the speakers varied from senior consultant to students, including one overseas elective student (Table 1). Almost all the surgical specialties had active participation in this departmental educational activity and the themes are tabulated in Table 2. The attendance of the SGRs is illustrated in Figure 1.

The respondents' of survey included faculty, house staff and 5th year students on rotation, from time to time,

Table 1. Level of overseas speakers and faculty staff involved in surgical grand rounds.

Level of speaker	No (%)
Guest speakers (including overseas academia)	9 (17%)
Overseas elective student	1 (2%)
Dept. of surgery (SQU) speakers	
Senior consultants	22 (41%)
Consultants	13 (24%)
House staff (Registrars & Postgraduates)	6 (11%)
Medical students (College of Medicine & Health Sciences, SQU)	3 (6%)
Total	54

Table 2. Themes of surgical grand rounds.

Themes	Guest speaker	SQU speaker
Surgical reviews	3	24
Updates	1	8
Academic/Ethic	2	6
Experience & Skills	2	3
Research & Innovation	2	3
Total	10	44

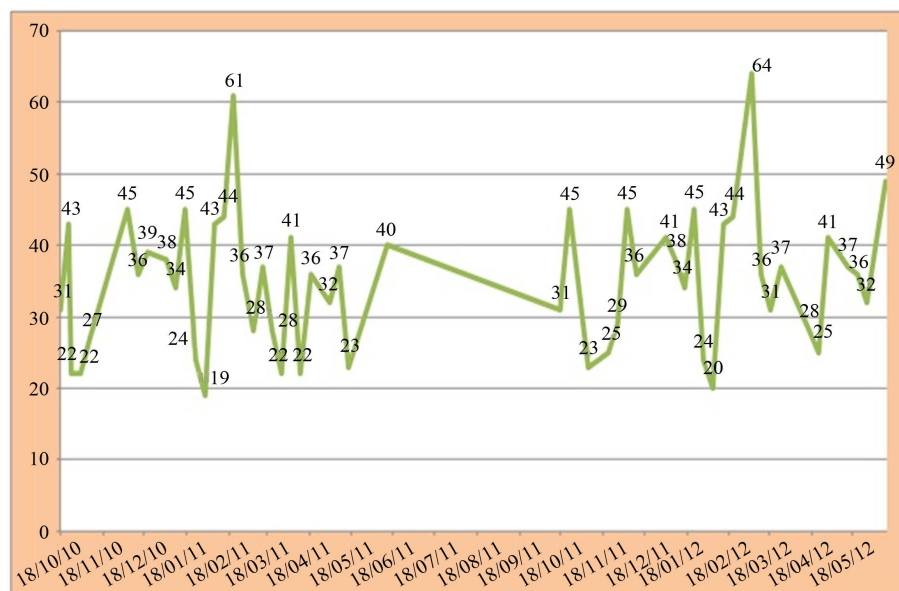
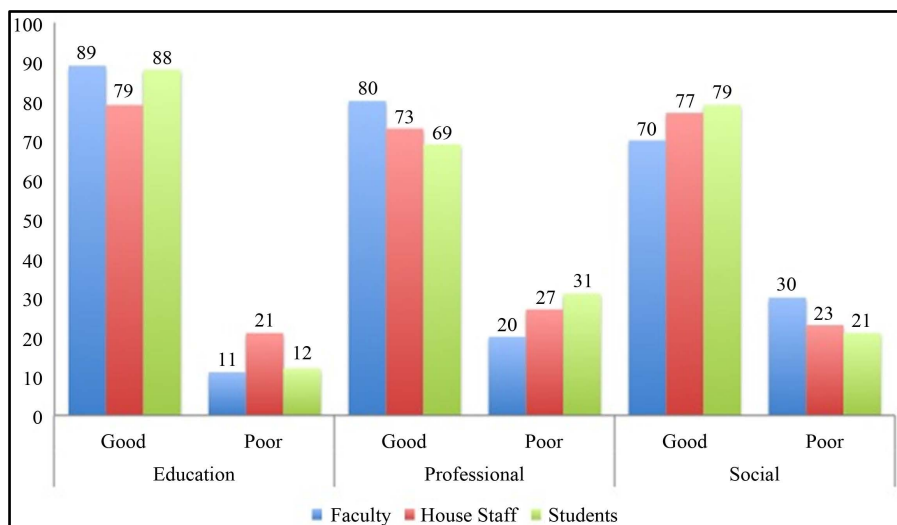


Figure 1. Attendance of faculty, house staff and undergraduates in surgical grand rounds.

in the department of surgery of College of Medicine and Health Sciences, SQU. Respondents’ evaluated their overall educational, professional and social gain during SGRs and majority of the faculty, house staff and students reported “good” outcome for each indicator (Figure 2).



Note: *Ratings of “good” are “good” and “very good” combined, ratings of “poor” and “very poor” combined. Ratings of “fair” are omitted.

Figure 2. Evaluation of SGRs: respondents’ rating of “good” and “poor” (*) when asked how beneficial (educational, professional and social) was this activity for them.

4. Discussion

Traditional grand round is still a major continuing educational and a common activity of university teaching hospitals to meet their continuing education needs (Agee et al., 2009; Bageacu, 2009; Monkhouse, 2010; Van Hoof, Monson, Majdalany, Giannotti, & Meehan, 2009). This is the first study from Arabian Peninsula to study the educational benefits and effectiveness of SGRs in a university teaching hospital.

During last 2 years, SGRs were conducted by faculty, house staff and students (Table 1) from all surgical specialties and consisted of updates, reviews, research and personal experience of the local and invited international faculty (Table 2). The themes were chosen carefully by the department academic committee as per set learning objectives for students and residents to provide maximum benefits to them. In a study by Lewkonja and colleagues in an analysis of hospital GRs in family medicine, they reported that most often the topic of GR was a choice of presenter (Lewkonja, Sosnowski, & Murray, 1996), where as in our institute, the department academic committee made the selection as per set learning objectives for postgraduates, undergraduates and house staff. The importance of this lies in the assumed logical and direct relationships between educational outcomes for the attendees.

Although GRs are still viewed as a valuable educational activity in university teaching hospitals, some have shown concerns regarding the audience apathy, deteriorating decorum, and shrinking attendance to affect GRs status as a venerable educational activity (Parrino & White, 1990; Riley, 1992). In our institute, as evident from the attendance as well as from the participation of all surgical specialties (Figure 1 & Table 1), SGRs were appreciated by students, residents and faculty. These findings are also contrary to the previously reported observations such as diminution popularity and declining clinical relevance of GRs (Hebert & Wright, 2003; Mueller, Segovis, Litin, Habermann, & Parrino, 2006). Our results and analysis show that in our institute, our house staff, faculty members and undergraduates equally valued SGRs.

GRs styles reflect institutional traditions and its themes and contents reflect the perspective of the clinical departments (McKusick, 1979). During last few years, due to increasing demand there have been expansions in the clinical departments of SQU including creation of surgical specialties, gradual increase in number of medical students per year and also establishment of a national postgraduate training body (Oman Medical Specialty Board) (“The Oman Medical Specialty Board (OMSB)”, 2014). To expose students, surgical trainees, registrars and faculty members of different specialties outside their professional silos, we adopted SGR as one of the tools for clinical education. Besides teaching, in our department, SGR at times were also used as a forum of discussion by different surgical specialists to plan a shared clinical care of their patients utilizing knowledge and experience of international and local experts.

GRs have also been thought to provide an opportunity for faculty to connect with their peers locally and internationally, letting their colleagues and trainees know what they're up to. In our SGRs, we invited overseas (international and regional) speakers from world known universities and hospitals, speakers from other departments of the SQU and also encouraged our junior staff including students to do a combined SGR with a senior faculty. These interactions helped us to create mutual respect and collegiality among students and faculty along with a possible opportunity for locals to establish an international educational and research collaboration in future.

The majority (87%) of the participants responded independently to the evaluation of each SGR to express their educational, professional and social attainments. The analysis showed a great percentage of participants reported "good" outcome (**Figure 2**), which further support our motive to continue this medical education tool in future. Furthermore, students who participated in preparation and presentation of SGRs also acquired comprehensive search and presentation skills besides attaining further confidence to present.

Our study had a good response rate and was the first study of GRs in our university hospital from Arabian Peninsula. However some limitations in this study need consideration. First, we have relied exclusively on respondents' reports to characterize GRs; some responses may have been subject to desirability bias. Second, this appraisal is from department of surgery and our results may not be applicable to the GRs in other disciplines.

5. Conclusion

In summary, our findings suggest that SGRs have been perceived as a valuable endeavor by faculty, house staff and students in our institute. Based on the results, our aim is to continue this vital education activity in future but also to preform a regular and constant review to observe the persistence of the efficacy of SGRs as effective clinical teaching tool for faculty, house staff and undergraduates.

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