DAILY FOLLOW UP NOTES' ACCURACY ACCORDING TO SOAP (SUBJECTIVE, OBJECTIVE, ASSESSMENT, PLAN) FORMAT

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ABSTRACT

OBJECTIVE: To assess the accuracy of daily follow up notes in accordance with SOAP (subjective, objective, assessment, plan) format and determine the awareness of standard guidelines among the house officers and post-graduates at Ziauddin Hospital.

METHODS: A cross-sectional study conducted over a one month period. A total 460 follow up notes documented by house officers and postgraduate trainees from four departments were assessed via a preformed checklist based on the SOAP format. In addition, house officers and post graduate trainees were assessed regarding their awareness of SOAP format.

RESULTS: The most common component addressed (n=420, 91.3%) was the active complaint of the patient and variable least addressed was imaging studies (n=21, 4.6%).

The second part of the study demonstrated that 87% (n=20) of the doctors knew about the exact components of the SOAP format. This format was used by 78.3% (n=18) participants to put daily follow-up notes. The 21.7% (n=5) who do not put follow-up notes according to the SOAP format: 20% (n=5) believe it is of no use, 40% (n=9) find it time-consuming and 40% (n=9) do not do so because no one asks them to follow the SOAP format.

CONCLUSION: Level of accuracy of daily follow up notes on the basis of SOAP format at our hospital was not up to the mark. Awareness of the house officers and postgraduate trainees regarding the SOAP format was adequate; however there is a need to emphasize the importance of SOAP for every new batch of house officers and postgraduates.

KEY WORDS: Documentation (MeSH), awareness (MeSH), SOAP format (Non-MeSH), daily follow-up notes (Non-MeSH)

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INTRODUCTION

Proper documentation is essential to good clinical practice as it aids better diagnosis and the treatment that ensues for the patient. Diagnosis and treatment plan if well documented serve as an integral tool of communication between all caregivers, which decreases the margin of medical errors and is important medico-legally.[1] Documentation of daily follow up notes serves as means of communication between healthcare providers, continuity and propagation of good patient care. The golden rule of documentation is "if it isn't written down, you didn't do it".[2] Every follow up note should provide enough information for each care-giver going through a medical record which would give the particulars of the patient's active complaints, diagnosis, course of treatment and the physician's plan for further management.[2] Good notes document the facts of the situation and validate thorough work, whereas incomplete notes are open to misinterpretation and simply do not facilitate provision of quality patient care. Deficient documentation affects both the patient care and consequences associated with it.[3] Thorough and complete documentation of daily progress notes is an important source of information for other care-givers for continuity of care and also serves ethical and legal purposes.[4]

The SOAP (subjective, objective, assessment and plan) format was chosen in our study as it relates most to clinical practice and management. SOAP notes are a part of problem oriented medical records (POMR) approach most commonly used by physicians and other health care professionals.[5] There were no statistics available determining the frequency of usage of the SOAP format in different institutions worldwide. The advantages of the SOAP format are that it can be customized to any study. This, if done correctly, will fulfill the purpose of medical record keeping and adequate propagation of quality patient care.[6] It may also integrate a structure which encourages a problem solving approach to plan and provide the optimum patient care.[7] The widespread usability of the SOAP format was based on its feasibility to be adopted by one and all. The usage of SOAP format is further favored due to the precision and relevance of the follow-up notes to the propagation of medical care to the patient.

A study at St. George's University during a 4 year medical program showed

that the use of SOAP notes and discussions by the team was an effective tool of teaching, which helped students to learn medical physiology and practice of professional behaviors.[8] Basing medical record on a standardized structure can benefit the patient by improving patient outcomes and doctors' performance.[9]

In our secondary care set up, interns of different departments are responsible for documenting daily progress notes of patients in tandem with post graduate trainees who overlook the process and are essential to quality patient care. These notes not only aid in improving the quality of care but also serve as an important tool in the learning of all the trainees. Better documentation facilitates progression of valuable information about the patient to each care-giver and is integral to training. The purpose of this study was to assess the accuracy of follow-up notes in accordance with the SOAP criteria. Based on the research findings, a future management plan can be made to improve medical documentation in areas where required.

METHODS

Daily follow up notes documented by house officers and post graduates during a one month period from June to July 2014 from four departments (Surgery, Medicine, Gynecology & Obstetrics and Pediatrics) were assessed. Prior permission was taken from each head of department in written to access the files. All participants were clearly informed about the purpose and intent of the study and verbal consent was obtained from each of them. The participants were assured that their confidentiality would remain intact. The Ethics Review Committee of Ziauddin University approved this study.

There was no inclusion or exclusion criterion for the house officers or post graduates. Notes were selected according to the opportunistic sampling method. The study aimed to review the documentation of daily follow up notes according to the SOAP format. Assessment was based on whether the format of SOAP was being followed properly. There was no comparison drawn between the follow-up notes of a house officer and a post-graduate trainee. The adequacy of the notes was checked against a preformed check list which included subjective, objective, assessment and plan. After the assessment of follow ups, another performa was utilized to assess awareness of house officers and post graduate trainees with the SOAP format. House officers and post graduates were selected randomly with no even distribution amongst the two.

Data was analyzed with SPSS version 17.0. After data entry the frequency of each variable was assessed according to the proforma using SPSS.

RESULTS

A total of 460 follow-up notes, between a time periods of one month i.e. June to July 2014, were assessed (morning and evening) using a preformed checklist. According to results the most common variable addressed was patient's verbal statement about his/her symptoms 91.3% (n=420) and the least commonly addressed variable was imaging studies only 4.6% (n=21).

The complete results obtained via this checklist are listed in the Table I. The second part of the study in which twenty-three questionnaires were administered to house-officers and post-graduate trainees to assess their awareness about the SOAP format showed that 22 doctors (95.6%) out of 23 knew about the SOAP format. The exact components about the SOAP format were known to 87% (n=20). Knowledge pertinent to the exact components was assessed and the results are depicted in the Table II.

More than half of the follow up notes (n=244, 53% of the notes) were allowing any reader to understand the status of the patient. The status of the patient was incomplete in 10.7% (n=49) of the notes and in 36.3% (n=167) of the notes it was difficult to understand. In 10.4% (n=48) of the notes date, time and signature with name of doctor was mentioned, in 85.9% (n=395) it was incompletely mentioned and in 3.7% (n=17) it was not mentioned at all.

Thirteen participants (56.5%) had a teaching session regarding the SOAP format at their undergraduate level and 10 (43.5%) did not. Most, 78.3% (n=18), of the participants use SOAP format to put daily follow-up notes and 21.7% (n=5) did not. Out of the 78.3% who do, 55.6% (n=10) believed it to improve quality of patient care and 44.4% (n=8) considered it to be a good way of communicating information about patient to all care givers. The 21.7% (n=5) who did not put follow-up notes according to the SOAP format 20% (n=1) believe it to be of no use, 40% (n=2) found it time-consuming and 40% (n=2) didn't do it because no one asked them to follow the SOAP format. Majority, 91.3% (n=21), of the participants believed that SOAP should be followed by everyone and 8.7% (n=2) did not think so.

DISCUSSION

No standardized pattern for writing daily follow up notes is followed universally. However, SOAP format may be used to document the patient's active complaints, specific interventions and assess progress of the treatment plan.[5] Doctors familiarize themselves with the SOAP format during their years at medical school.

A study conducted from February to March 2008 in surgical unit III, Civil Hospital, Karachi showed documentation of daily progress notes was overall fair, whereas at our hospital it was not adequate. However, interns had overall deficient documentation of overall assessment of the patients.[4] The standard of record keeping at the government teaching hospitals of Karachi was also found inadequate.[10] Despite adequate knowledge of the SOAP format and its exact components the documentation at our hospital was not up to the mark. Internationally the SOAP format is used not only by doctors but also by pharmacists, nurses, psychiatrists, physical therapists,

TABLE I: ASSESSMENT OF FOLLOW-UP NOTES BASED ON THE SOAP FORMAT

		Complete	Missing	Incomplete	Not Required
Subjective	Short history of patient (age, co-morbids, presenting complaints)	63.7%	18%	18.3%	—
	Patient's verbal statement about his/her symptoms	91.3%	7.6%	1.1%	—
Objective	General condition of patient	70.44%	27.82%	1.74%	—
	Vitals	82.4%	11.9%	5.7%	—
	Physical examination	17.6%	79.1%	3.3%	—
	Cardiovascular examination	26.1%	70.4%	3.5%	—
	Respiratory examination	35.9%	60.2%	3.9%	—
	Abdominal examination	33.5%	65.4%	1.1%	—
	Neurological examination	19.3%	77.4%	3.3%	—
	Local examination	24.1%	75%	—	0.9%
	Laboratory investigations	54.1%	—	39.8%	6.1%
	Imaging Studies	4.6%	75.2%	1.3%	18.9%
Assessment	Comparison of patient's condition to previous follow-up	57.83%	38.04%	3.91%	0.22%
	Diagnosis & differential diagnosis	76.74%	20%	3.04%	0.22%
Plan	Continue same management	80.64%	18.7%	0.44%	0.22%
	New orders	43%	52.2%	0.9%	3.9%
	Referrals	1.9%	15.9%	2.6%	79.6%
	Discharge plan	3.3%	15%	1.7%	80%

TABLE II: AWARENESS OF HOUSE-OFFICERS AND POST-GRADUATE TRAINEES REGARDING

		Frequency	Percentage
What do you think subjective includes?	Includes vitals	2	8.7%
	Includes investigations	3	13%
	Is the verbal statement of patient about his/her symptoms last night	17	73.9%
	All of the above	1	4.3%
What do you think objective includes?	Physical & systemic examination including vitals and labs	18	78.3%
	Active complaints of patient	4	17.4%
	All of above	1	4.3%
What do you know about assessment?	Physical examination	4	17.4%
	Diagnosis & differential diagnosis	13	56.52%
	Output chartings (drains, urine output, aspirate readings)	3	13.04%
	All of above	3	13.04%
What is plan for you?	Continue same treatment	1	4.4%
	Ordering new labs and medications according to current condition of patient	22	95.6%

dieticians, occupational therapists and massage therapists.[11]

Our study established that the components most addressed in a daily follow-up note by doctors are the verbal statement of a patient, general condition of the patient, diagnosis and differential diagnosis, and 'continue same management' as part of the further management plan. Under the objective heading the component least stated was imaging studies. The house officers or post graduate trainees inserting these notes have an inadequate understanding of the imaging studies and hesitate jotting down their interpretations due to fear of being incorrect. The small number of notes that had mentioned them was copied off the reports of these imaging studies. New orders were just mentioned in less than half of the notes under the plan component of the SOAP format. This should be further improved as stating new orders can facilitate the next health care provider to either ensure the execution of such orders or modify them according to the current status of the patient. Generally, limited number of notes carried the name, time and date and signature of the doctor. This is a major hindrance to the medico-legal aspect of proper documentation resulting in poor accountability of the doctors. Inadequate documentation was quite common in all medical setups and it may be attributed to many reasons.[12] One reason cited by Masood et al is a lack of a printed template for the documentation of daily follow up notes.[4] This could be held true for our hospital also. Perhaps, inclusion of a printed template would facilitate better documentation. The retrospective audit conducted in the Medical "C" Unit of Government Lady Reading Hospital, Peshawar from January to December 2005 showed that documentation of important clinical information was poor in the hospital charts of patients admitted in tertiary care hospital. Incomplete documentation in medical records might poorly affect the quality of care.[13] Another study from same hospital showed that no change in standard of documentation was noted in five years and no steps of improvement were implemented.[14]

Our research established that overall the knowledge regarding the separate components of the SOAP format was adequate. It is imperative that all house

officers and post-graduate trainees practice correct documentation. This would serve as an integral learning tool and propel better continuity of patient care. Schillinger encourages the use of SOAP format as a teaching tool and a precise mode of communication between the student and the physician. SOAP format allows the main problem of the patient to be highlighted and brought to immediate attention of the health care provider. Thus, health care provision is efficient and also facilitates focused teaching of the medical student by the preceptor.[15]

To improve the standard of documentation house officers and post-graduate trainees should be taught the SOAP format completely at the time of induction. A study at the Royal Glamorgan Hospital with standards based on guidelines from The Royal College of Surgeons of England on quality of clinical case note entries showed that house officers should be taught proper documentation during their training period.[16] Conclusion of one more study supports a hypothesis that the precision and accuracy of a SOAP note can be improved through teaching.[17] A study conducted in a rural hospital concluded that doctor's documentation can be improved via pre-formed charts.[18] Good documentation not only facilitates optimum patient care but also serves as vital tool for legal purposes.

Vigilant auditing of all documentation should be carried out by our hospital administrators, and therefore seek to implement the SOAP format by all health care providers. A follow-up study can be conducted to assess the improvement in documentation after doctors went through a refresher course about SOAP format.

CONCLUSION

The accuracy of daily follow up notes on the basis of SOAP format at our hospital is not up to the mark. However, the desired level of documentation can be achieved by introducing preformed performas containing SOAP format to assure entry of standardized notes.

Majority of the house officers and post graduate trainees are aware of the SOAP format and incorporate it in their daily follow up notes. The usage of SOAP format should be encouraged to optimize patient care by all healthcare providers. Teaching sessions on SOAP format can further improve the accuracy and precision of the daily follow up notes.

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AUTHOR'S CONTRIBUTION

Following authors have made substantial contributions to the manuscript as under:

SA: Data acquisition Drafting the manuscript, , final approval of the version to be published.

BS: Interpretation of data, drafting the manuscript, critical revision, final approval of the version to be published.

ZM: Concept of study design, critical revision, final approval of the version to be published.

LM: Data acquisition, final approval of the version to be published.

Authors agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

CONFLICT OF INTEREST

Authors declare no conflict of interest

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