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EVOLVING SOAP TO SUIT EVOLVING HEALTH CARE

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ABSTRACT

Aim & Objectives: A subjective, Objective Assessment and Plan (SOAP) note has a major significance in healthcare, but there is no set format for documentation. This study systematically analyses current SOAP documentation practices followed by clinical pharmacy interns in a south Indian hospital. The SOAP formats/forms in use were reviewed, the gaps were observed and changes were suggested.

Methods: A prospective Observational study was conducted in Multispecialty Hospital from June to September 2024 . A specialized data collection form was formulated and SOAP forms used in the Pulmonology, Cardiology, Neurology and Nephrology departments were reviewed and compared with any specific patient needs unfulfilled or gaps prevailing if any that could impact patient care outcomes were noted down. The forms were updated with department specific needs & the gaps were bridged. New SOAP note formats were formulated and compared with the old ones. The clinicians in charge of the departments reviewed the same and ethical committee clearance obtained for use.

Results: In the existing SOAP form, in **Subjective data**, BMI was Missing in 100% of the Cases, Height/Weight in 60%, Lifestyle Data in 10%, and Symptoms in 40%, Duration of the illness in 80%, Family History in 20%, and Allergies in 46%, Medication History in 34%, and Symptoms in 18% of cases.

Under Objective Data details missing were Cardiac Auscultation data in 20%, Blood Gas in 66%, SPO2 in 64%, CBC in 20%, RR in 100%, CBC in 16%, EEG in 100%, Fluid Status in 60%, Abdominal Examination in 50%, Urea Level in 20%.

More details on the non pharmacological therapy and followup details were added to the plan section as they were missing in the old SOAP form.

Conclusion: Even if the professional misses a point, the format or the form should remind him of the needs/essential data in a particular department. There are department specific needs that are to be addressed in detail. Customisation to every individual patient needs is the right approach and that has to start from department specific needs and a 360 degree approach to cover all details major or minor. Gaps were there in the form or format as well as in filling and collecting detailed information that were vital and the new forms proved to be more informative for the healthcare team compared to the old ones and a comparative study in more patients can prove this observation statistically.

KEYWORDS: SOAP, Cardiology, Pulmonology, Nephrology, Neurology.

INTRODUCTION

The Subjective, Objective, Assessment and Plan (SOAP) Note is an Acronym Representing a Widely Used Method of Documentation for Healthcare Providers. The SOAP Note is a Way for Healthcare Workers to Document in a Structured and Organized Way. The Structure of Documentation is a Checklist that Serves as a Cognitive Aid and a Potential Index to Retrieve Information for Learning from The Record. The SOAP Note Helps Guide Healthcare Workers Use their Clinical Reasoning to Assess, Diagnose, and Treat a Patient Based on the Information Provided by them.[1]

Clinical Documentation (CD) is the Creation of a Digital or Analog Record Detailing a Medical Treatment, Medical Trial or Clinical Test. Clinical Documents Must be Accurate, Timely, and Reflect Specific Services Provided to a Patient. Paper or Digital Documentation is Often Accompanied by Supporting Electronic Files as Electronically Stored Information, Such as Magnetic Resonance Imaging Scans and X-Rays (Medical Imaging), Electrocardiograms (EKGs), and Monitoring Records.[2]

Documenting and Reporting Serves Multifaceted Purposes Crucial for Effective Healthcare Delivery and Accountability which includes Communication, Planning Client Care, Auditing Health Agencies, Research, Education, Legal Documentation, Health Care Analysis.[3] Also the Electronic (Digital) Collection of Medical Information about a Person that is Stored on a Computer[4] helps plan and refer the details if needed in future.

The purpose of SOAP notes can Be Understood as a Complete Record of Patient Encounters that Allows the Automation and Streamlining of the Workflow in Health Care Settings and Increases Safety Through Evidence-Based Decision Support, Quality Management, and Outcomes Reporting. SOAPIE (Subjective, Objective, Assessment, Plan, Implement, Evaluate) charting is a comprehensive framework for collecting and organizing information about patients that addresses the patient's experience and technical details about treatment. The term SOAPIE is an acronym that describes each section of the chart including implementation and evaluation also. The objective of this study is to develop Subjective; Objective Assessment and Plan (SOAP) notes have a major significance in healthcare the efficiency in problem identification and documentation had improved with New SOAP the SOAP form can be used as an effective tool for patient therapeutic records and communicating the same to fellow healthcare providers.

MATERIALS AND METHODS

Study Type: A prospective - Observational Study.

Study Population: 200 Patient Data collected from Pulmonology, Cardiology, Neurology and Nephrology departments

Study Criteria

Random selection of filled in SOAP forms in use in the departments were done and the completeness was analysed. SOAP forms of patients with mental disability or those of the special population were excluded.

Study Procedure

This observation was conducted at a tertiary care hospital from June 2024 – September 2024. SOAP completeness/gap data was collected from forms used in various departments like Pulmonology, Cardiology, Neurology and Nephrology. The parts that were in complete/ unfilled were listed. The importance of the same was discussed. Improvisation required, with respect to specific department needs and the data that were not filled were listed, added to the existing

SOAP format & a new improvised format was arrived at. The clinicians heading the respective departments assessed the same and the new SOAP formats were processed for ethical clearance and further discussions on the need for the additions or details with respect to individual departments. The new format was filled for the same patients and the differences were discussed again.

STATISTICAL ANALYSIS

The data observed was entered into MS Excel. Descriptive Statistics were used to describe the data. As its an observation to identify the gaps of unfilled areas in a given format, percentage was used to express the filled or unfilled part of the form.

RESULT

A observational study Conducted with SOAP notes of 200 patients from Pulmonology, Cardiology, Neurology and Nephrology departments of a tertiary care hospital in south India.

Table 1: Missing Components of Subjective Data.

Content		A Pulmonology % Not Filled	B Cardiology % Not Filled	C Neurology % Not Filled	D Nephrology % Not Filled
Ht/Wt		60%	48%	56%	60%
BMI		100%	100%	100%	100%
CC		20%	0%	0%	20%
History of Patient	Symptoms	40%	0%	18%	40%
	Onset	56%	40%	100%	100%
	Duration	100%	80%	56%	80%
Past History	Related	40%	80%	100%	60%
	Allergy	0%	46%	100%	100%
	Medication	70%	0%	34%	100%
Family History		100%	70%	100%	100%
Social History	Life Style	10%	20%	0%	0%

Table 2: Missing Components of Objective data.

<table>
<tr><th colspan="2" rowspan="2">Content</th><th>A</th><th>B</th><th colspan="2" rowspan="2">Content</th><th>C</th><th>D</th></tr>
<tr><th>Pulmonology % Not Filled</th><th>Cardiology % Not Filled</th><th>Neurology % Not Filled</th><th>Nephrology % Not Filled</th></tr>
<tr><td>Vital Sign</td><td>SPO2</td><td>0%</td><td>64%</td><td rowspan="3">Vital Sign</td><td>RR</td><td>100%</td><td>0%</td></tr>
<tr><td>Physical Examination</td><td>Cardiac Ausculation</td><td>20%</td><td>0%</td><td>SPO2</td><td>100%</td><td>0%</td></tr>
<tr><td></td><td>CBC</td><td>0%</td><td>20%</td><td>Fluid Status</td><td>0%</td><td>60%</td></tr>
<tr><td></td><td>Blood Gas</td><td>66%</td><td>0%</td><td>Physical Examination</td><td>Abdominal Exam</td><td>0%</td><td>50%</td></tr>
<tr><td rowspan="7">Diagnostic Results</td><td>X Ray</td><td>100%</td><td>0%</td><td></td><td>CBC</td><td>16%</td><td>30%</td></tr>
<tr><td>CT scan</td><td>100%</td><td>0%</td><td></td><td>CT</td><td>100%</td><td>80%</td></tr>
<tr><td rowspan="3">Renal Test</td><td rowspan="3">0%</td><td rowspan="3">20%</td><td rowspan="5">Diagnostic Results</td><td>MRI</td><td>100%</td><td>0%</td></tr>
<tr><td>EEG</td><td>100%</td><td>0%</td></tr>
<tr><td>Urine Level</td><td>0%</td><td>40%</td></tr>
<tr><td rowspan="2">Lipid Level</td><td rowspan="2">0%</td><td rowspan="2">36%</td><td>Urea Level</td><td>0%</td><td>20%</td></tr>
<tr><td>Scr & clcr</td><td>0%</td><td>20%</td></tr>
</table>

Table 3: Components MISSING & NEW ADDITONS required under ASSESSMENT.

Content	A			B			C			D		
	Pulmonology			Cardiology			Neurology			Nephrology		
	Filled	Not Filled	To Add	Filled	Not Filled	To Add	Filled	Not Filled	To Add	Filled	Not Filled	To Add
Diagnosis	50	0	0	50	0	0	50	0	0	50	0	0
Severity	0	0	50	0	0	50	0	0	50	0	0	50

Table: 4 Components of the Plan section that were missing in percentage.

	A	B	C	D
Content	Pulmonology % Not Filled	Cardiology % Not Filled	Neurology % Not Filled	Nephrology % Not Filled
Non Pharmacological Therapy	100%	46%	100%	70%
Counselling	34%	46%	0%	0 %

DISCUSSION

This study systematically analyses current SOAP documentation practices identified and reviewed existing SOAP forms, which revealed key gaps that impeded effective communication and patient management. This Increases the Need for Devising and Evaluating an Effective Documentation Tool That effectively covers all areas that directly or indirectly can affect or can impact the health outcomes of patients in a particular department.

Our Research study evolving the SOAP Framework is Essential to Keeping Health Care Documentation Relevant and Effective in the Face of Ongoing Advancements in Medical Technology and Patient Care Practices.

SOAP Data Collected From 50 Patients each from four departments (200 forms in total) Revealed Significant Deficiencies and Missing Information in Subjective Details in SOAP Form. In the Pulmonology Department, The old SOAP Forms had gaps in filling the Critical Assessment Criteria, Including Onset, Duration, Severity of Illness, and Patient Occupation. The Forms Also had High Rates of Missing Data Like: BMI was Missing in 100% of Cases, Height/Weight in 60%, Lifestyle Data in 10%, and Symptoms in 40% Etc..... The Cardiology Department Faced Similar Issues, With the Initial Forms Missing Key Elements Like Severity, Occupation, and Environmental Factors Etc... Missing Data Percentages Included Duration 80%, Family History 20%, and Allergies 46% Etc...

In the Neurology Department, The Forms were Deficient in Severity, Occupation, and Environmental Factors. 56% forms missing Height/Weight Data, 34% Missing Medication History, and 18% Missing Symptom Data.

The Nephrology Department's Forms Also had Notable Gaps, Such as Missing Onset, Duration, and Severity of Illness, With Chief Complaint Data Missing in 20%, Height/Weight in 60%, Allergy Details in 100%, and Non Pharmacological Therapy Data Also Missing in 100% of the forms. Some Criteria were added to Improve value addition Like Onset of Illness, Duration of Illness, Severity etc.

Under Objective Information Cardiac Auscultation data was missing in 20%, Blood Gas was missing in 66%, SPO2 was missing in 64%, CBC missing in 20%, Renal Test data missing in 20%. In Neurology Department the following were missing represented as percentages as follows, RR in 100, CBC in 16%, EEG in 100%. In Nephrology Department, Fluid Status data was missing in 60%, Abdominal Examination data was missing in 50%, CBC missing in 30%, Urea Levels missing in 20% of the forms filled.

We made some additions to the forms to suit the needs of the respective departments. Some Criteria Like, In Pulmonology Department, HR, RR, SPO2, Palpation Finding, Pulmonary Function Test, In Cardiology Department, HR, ECG, Signs of Heart Failure, Stress Test, Holter Monitoring Test, In Neurology Department, Pupils Examination, Mental Status, Reflex, ANS Examination, In Nephrology Department, RR, Edema Assessment, Flank Assessment, Skin Examination, BUN, Kidney Biopsy, were Added to Improve Patient health assessment & understanding of the scenario to improvise Care.

Major drawbacks were the unfilled parts of the existing form. Also the areas like Severity of the disease, referrals to other specialists, monitoring the implementation of the given suggestions, evaluating the implementation, making changes to the plan after initial observation of the implemented suggestions, following up for updates and keeping the plan dynamic to balance the gaps occurring on a day to day basis etc – can add more value to the services of the healthcare team and avoid any possible errors or oversight howsoever miniscule it is.

CONCLUSION

- This Study we Found Out that there has been Gaps in Filling the Existing SOAP Forms.
- The Existing SOAP Forms are Not Fitting in to The Customized Requirements of Specific Departments Like the Smoking to the Alcohol Related Data or The Past Medical History in Cardiology Patients.
- So Customized SOAP Forms have been Made to Fill the Gaps and To Incorporate Newer Data Which Will Help in Giving The Proper Patient-Oriented Management Plan. So, We Have Created Four Customized SOAP Forms For Four Departments Like SOAP (CA) For Cardiology, SOAP (NP) For Nephrology, SOAP (NU) For Neurology, SOAP (PU) For Pulmonology Departments.
- The Quality of Documentation is expected to Significantly Improve with the new SOAP forms. This New SOAP format Can be Used as an Effective Tool For Documenting Patient Therapeutic Records and Communicating the Same to Fellow Healthcare Providers Specifically For Cardiology, Nephrology, Nephrology and Pulmonology.

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