Script with References

Hello and welcome to Describing Communication Technologies.

Today we are going to talk about the evolution of the medical chart note and interview Dr Amy Weber, a family physician who, in addition to family practice, is working as the associate chief medical information officer for BC Mental Health and Substance Use Services. I hope you'll tune it!

Physician documentation – History - Kahan, E. (2022)

So, let's start with a brief history of the medical chart note.

According to the round table journal, medical record-keeping, commonly known as "charting," was first documented in ancient Egypt.

And during this time, surgeons would dictate case reports on papyrus scrolls.

This practice then continued with Hippocrates, the ancient Greek physician credited with founding the study of medicine. The primary purpose the case notes were to assist health care providers education

Hippocrates case histories were copied and translated for didactic use throughout Hellenistic Greece and eventually medieval Europe and the Middle East. "

There was a shift in the mid-18th century, where documentation of subjective symptoms in combination with physical exam findings allowed physicians to test their hypotheses on disease etiology as well as treatment

In the 20th century, a more standardized template evolved as private hospitals and government bodies instituted regulations. Documentation would aid in the organization of data collected. – helped to advance care and management of billing

More specifically, in the 1960's Dr Lawrence Weed, a professor of medicine and pharmacology at Yale University, developed the SOAP note:

SOAP stands for, subjective, objective, assessment, plan –

The belief was that by standardizing the format of the chart note, it would improve efficiency and reduce the time required to write and review each note

The downside however is that these notes are

- Often redundant
- And contain a large volume of information

Let's Fast forward to the 21st century and the introduction of EHRs, where there is limitless storage and a streamlined ability to share and distribute information (Gillum, 2013).

PROS of the Electronic Medical Record – Avendano et al. (2022)

EHRs have added value in terms of accessibility and portability of patient-specific information.

They allow us to better Manage longitudinal care

They Improve transparency across providers

They Aggregate and analyze data for research

And easily Accumulate information for billing.

The EHR also allows physicians to capture a more comprehensive and holistic picture of their patients, but this does not come without some consequences. The process of documenting requires more time, leading to increased time spent on the computer.

The sheer volume of information has now been magnified by the adoption of the EHR

Where previous iterations were limited by physical space for filing, the EHR is limitless

So what does this look like for physicians? Coiera et al. (2018)

EHR was designed with the primary goal of documentation but what about the other tasks of the clinical encounter?

Robertson, Robinson, & Reid, (2017) note that many physicians cite charting as one of the chief contributors to burnout and reduced satisfaction with the profession

Physician Burnout - Avendano et al. (2022)

Providers have been required to document increasingly greater volumes of due to fiscal, insurance and legal reasons, and the EHR provides the limitless capability to do so

In fact, recent studies show that physicians spend up to 35% of their time on documentation

A study conducted by Miao et al. (2024) acknowledges how approximately 63% of physicians in the United States feel burnout symptoms weekly. A notable contributing factor is the extensive time dedicated to medical documentation. This, in addition to an already overwhelming workload, long hours, high volume of patient care responsibilities, and administrative tasks

Soooo what does the future hold? I sat down with Dr Weber to discuss the role of artificial intelligence in medical documentation and more specifically, the Digital Scribe

“Digital scribes employ advances in speech recognition (SR), natural language processing, and AI to provide clinicians with tools to automatically document elements of their spoken clinical encounter.” (Coiera et al. 2018, pp. 1)

Questions for Dr Weber

Ok, so let's start with the EHR and your experience working with it. Research shows that many physicians cite charting as one of the chief contributors to burnout and reduced satisfaction with the profession (Robertson et al., 2017).

What are some of the benefits and barriers you have encountered with documentation and the EHR?

How would limiting the amount of time required for documentation with a digital scribe change your practice?

How could it change the interaction between the patient and the physician?

Do you see any potential conflicts with using artificial intelligence in medicine?

References

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