Medical History Taking Using Electronic Medical Records: A Systematic Review

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ABSTRACT

Background: The relationship between digital tools and medical history taking (classically referred to as anamnesis) in clinical settings is problematic. We explored the medical history taking context, how data is managed by physicians and patients and which tools are used, particularly electronic health record, to gather, organize and record patient's medical history and related health data.

Materials and methods: Systematic review of the literature following PRISMA (Preferred Reporting Items for Systematic reviews and Meta-Analysis) guidelines, using published studies in English-language available from PubMed and Cochrane databases, using a combination of Medical Subject Headings and keywords. Our search yielded 162 citations of which 18 corresponded to our criteria and were included, regardless of study design, sample size or measurement type as a variety of perspectives and methodologies was deemed useful for an exploratory review and under a socio-technical research epistemology. The small number of publications related to the topic conditioned our analysis.

Discussion: This review shows the paucity of relevant studies in the area of interest. Even thought it was possible to evaluate context changes in history taking that relate to EHR implementation and usage. Also, multiple challenges, benefits, risks and workflow adaptations have impacts on medical history taking. A potentially useful workflow adaptation is the access to the EHR previously or during the patient encounter with him or her.

Conclusion: With the ever-increasing adoption of EHRs and its varying influence in clinical practice, physician's adaptability was strained. Multiple workflow challenges and necessary changes regarding EHR use have been identified. Improving anamnesis practice is possible through better documentation, EHR templates and tools. Yet a new

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aspect of anamnesis – Digital anamnesis – benefits from better conceptualization and integration with classic anamnesis still taught in traditional medical schools. This study points to implications for medical schools and medical education in general.

Highlights:

- Electronic Health Records implementation transformed clinical practice and redesigned workflows, improving patient safety and care within a multidisciplinary care setting.
- Some concerns surfaced concerning information privacy, quality of documentation and doctor-patient relationship, however many studies developed implemented and evaluated tools, templates and mnemonics to mitigate such distresses.
- "Digital anamnesis" is a proposed concept and refers to the process of medical history and information gathering using digital tools. This will be evermore important in the future, since technological development increasingly adds relevant features and functions to Electronic Health Record.

1. INTRODUCTION

Long before modern hospitals started, folk medicine relayed on supernatural causes and human interaction [1] for diagnosis. Since an important pilar of medicine was the knowledge of people's complaints and their past relevant experiences. In health, history taking of complaints as well as past events gave rise to anamnesis in ancient Greek medicine – a clinical process basilar to medicine. It has been used in medical care for centuries as a means to understand patients and their underlying conditions. It is estimated that only from the patient interview, a doctor with adequate communication skills could make a correct diagnosis in 76% of the times [2].

From such process, critical reasoning and causation with information gathered by a physician through asking specific questions, either to the patient or to other people who know the person, with the aim of obtaining useful evidence allows the formulation of a diagnosis or diagnosis hypotheses upon which medical care provision can be organized. Interview skills contribute significantly to problem detection, diagnostic accuracy, patient and physician satisfaction. Communication skills in general help patient adjustment to stress and illness, patient recall of information, adherence to therapy and health outcomes in general [3]. It is to be expected that even into the next millennia physicians (either humans or artificial intelligence) shall rely upon this method to practice medicine.

A dramatic increase in chronic care *versus* acute care management is observable. Human mean life expectancy rises, and populations get progressively older, chronic diseases become more prevalent. A systematic review estimated the total number of people with dementia to nearly double every 20 years, to 65.7 million in 2030 and 115.4 million in 2050 [4]. Amongst these, dementia and

age-associated progressively memory loss have become especially debilitating conditions limiting the capacity for interviewing patients.

With the appearance of Electronic Health Records (EHR), physicians gained a new tool in care giving. Being able to gather more information through means parallel with classic anamnesis, complementing and facilitating patient care.

Electronic Health Records (EHR) comprise health information of a patient showing clinical data collected from all healthcare professionals involved in the care process, including doctors, nurses, therapists and other specialists [3]. These systems also receive increasing amounts of automatically generated data, from laboratory to imaging data. Derived from a wide range of interconnected medical devices.

The widespread adoption of EHR has changed physician's workspace and brought new challenges in care giving. In addition to playing a critical role in facilitating and delivering patient care, the record serves as a medicolegal instrument and the data stored within it is used for other administrative activities, including coding and billing [5].

Several benefits have been associated with EHR use in clinical practice. Increased adherence to guidelines in preventive care, decreased paperwork for providers, improvement in overall quality, efficiency of patient care, reduction of errors, enhanced monitoring of drug therapy, better daily workflow management, easy access of clinical data, legibility of notes, improved problem and medication lists, and better preventive care documentation [6].

However, several challenges and risks also emerged, concerning professional's time management and efficiency and associated burnout risk [7]. In spite of potential hazards, EHR proficiency is now an established and necessary competency for any physician [8].

However, a significant change in context due to the introduction of digital technology created a triangular relationship among physician, patient and technology [9].

This paper aims to shed light on the chronology behind caregiving for example, if physicians view data from EHR previous to medical history taking or inversely. The context in which the usage of EHR for history taking develops and how the data is managed by physicians and patients. How conflict of information between patient and its' sources is approached and current challenges in EHR usage. In addition to tools used in EHR to gather, organize and record patient's medical history.

To examine how EHR and medical history relate, the authors conducted a systematic review of the literature following the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta Analyses) guidelines to (1) identify changes in physician care giving, with focus on medical history taking, with the use of EHR in the workspace and (2) summarize the impact of EHR on medical history taking, regarding improvements in protocol or guidelines.

2. METHODS

This project did not meet the criteria for submission to local institutional review board appreciation, since all data was published and publicly available.

2.1. LITERATURE SEARCH
We searched for relevant studies in Cochrane Libraries and PubMed databases with a specific focus on peer-reviewed journal articles, meta-analyses and observational studies. The search was restricted to articles published in English, and between 2011 and 2020. The end date for our initial and updated searches were June 15, 2020 and December 30, 2020, respectively.

2.2. SEARCH STRATEGY
The terms used in our search strategy are outlined in *Table 1*. It employed a combination of Medical Subject Headings terms and keywords, including medical students,

interns, residents and doctors; electronic health records or electronic medical records; medical history taking. Recognizing that electronic records are classified according to setting and purpose, we use EHR broadly to include any system used to collect and gather information about a patient's health in a digital or computer-based way.

Although different roles are played in EHR interaction of medical students, residents and physicians, students are progressively being exposed to clinical clerkships and extracurricular activities in which they are responsible for retrieving or entering information in EHR. Hence they were included in this review.

We also hand-searched the bibliographies of all included articles.

2.3. ELIGIBILITY
We included studies if they described perceptions, usage, competences or skills involving EHR use in clinical practice by physicians, residents or medical students. Studies in which tools or frameworks for improving EHR use during patient visitation or medical history taking were also included.

During level 1 and 2 screening we excluded studies not focusing on target population, studies not focusing components of medical history taking (e.g., focusing solely on physical examination; not retrieving information from EHR) and studies that did not approach physician's, resident's or medical student's EHR usage.

2.4. STUDY SELECTION, DATA ABSTRACTION, AND DATA ITEMS
All data was abstracted using a previously agreed upon data abstraction form. A spreadsheet was created, and each article was independently assessed (1 = include, 0 = exclude) to determine if the article was germane to our review objective.

2.5. RISK OF BIAS, SYNTHESIS OF RESULTS AND ADDITIONAL ANALYSIS
By the end of data abstraction 18 results were agreed upon. Further analysis was made for possible bias, basic findings germane to our topic, and limitations.

COMPONENT OF REVIEW TOPIC	MeSH AND KEYWORD SEARCH TERMS
Population	Medical students Residents OR interns Residency OR internship Doctors OR physicians AND
Intervention	Electronic Health Records OR Electronic Medical Records AND
Outcome	Medical History Taking
MeSH: Medical Subject Heading	

Table 1 Search terms for systematic review.

Observations were made on a spreadsheet and further ponderation was made wielding the same 18 results.

The literature matrix created by our spreadsheet catalogued relevant articles according to fields containing data source, publication date, authors, title, relevance, general observations, mention of medical history taking, population and information regarding the existence or not of specific tools regarding EHR.

3. RESULTS

Our electronic search yielded 170 citations, 162 through PubMed and Cochrane databases and 8 additional results through hand-searching potential studies reference lists, of which 18 studies met inclusion criteria for qualitative synthesis. *Figure 1* summarizes the process through which studies were excluded. During level 1 screening a total of 82 studies were excluded. 63 were found to be unrelated to topic and 19 focused solely on EHR but not on physicians, residents or medical students.

During level 2 screening 11 studies did not meet inclusion criteria, 2 of them focused on nurses, 4 were unrelated directly or indirectly to medical history taking and 5 of them didn't mention changes, impacts or modifications in workflow or clinical practice dynamic with EHR usage regarding documentation, retrieval, gathering or recording information.

Different studies designs were included as a multitude of approaches resulted in distinctive and variable views, such as systematic reviews, observational and experimental studies, policy position paper and short communications in press.

Table 2 summarizes the results, study designs, population and intervention were assessed and are presented, outcomes, risk of bias and limitations were assessed as well. Study findings were categorized and are presented divided among 4 subcategories "EHR vs Paper-based systems", "Chronology and Context", "Data management and tools" and "Challenges in use and information conflict management".

3.1. EHR VS PAPER-BASED SYSTEMS

Seven studies [10–16] compared directly or indirectly physicians and healthcare providers interaction with EHR. Some studies report longer time taken in electronic documentation than paper documentation [10, 15], while other mentioned an improvement in documentation process and overall communication between healthcare providers [12, 13, 16].
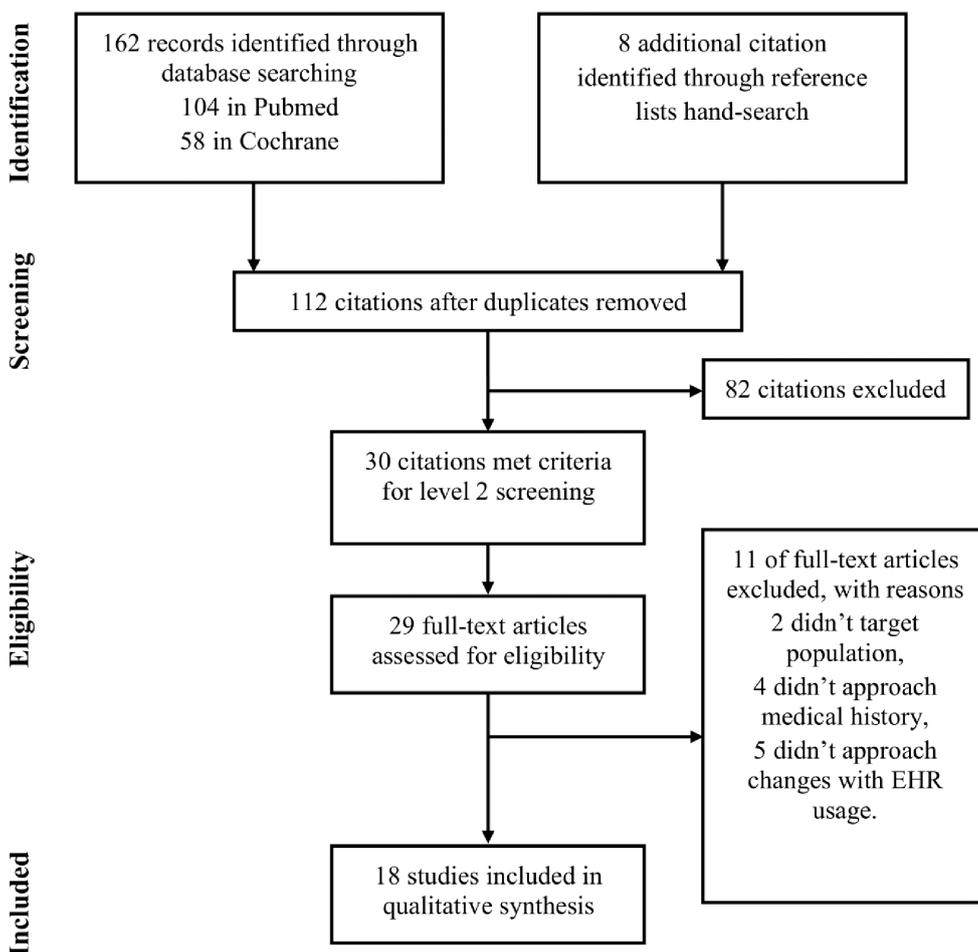

Figure 1 PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) flow diagram.

Table 2 Summarizes review results and main findings; EHR – Eletronic Health Record; SALTED – Set-up, Ask, Listen, Type, Exceptions, and Documentation; RESPECT – Review the EHR, Entrance, Say everything that you are doing, Position of the computer, Engagement position, Computer confidence, Teach, Summarize and sign-out; FHx – Family History; E&M – evaluation and management.

AUTHORS	STUDY DESIGN AND INTERVENTION	POPULATION	EHR VS PAPER-BASED SYSTEMS	CHRONOLOGY AND CONTEXT	DATA MANAGEMENT AND TOOLS	CHALLENGES IN EHR USE AND INFORMATION CONFLICT MANAGEMENT
Crawford S, Kushner I, Wells R, Monks S. 2019 [24]	Randomized controlled trial Determine time required to document in Cerner vs Sparrow.	Residents and rotating fourth-year medical students (MS4)		Training; Longer documentation.		
Losasso AA, Lamberton CE, Sammon M, Berg KT, Caruso JW, Cass J, Hojat M. 2017 [25]	Randomized Controlled trial Effects of regular clinic training on EHR vs additional one-hour EHR-communication skills training.	3rd medical students		Empathetic engagement; SALTED.		
Joukes E, de Keizer NF, de Bruijne MC, Abu-Hanna A, Cornet R. 2019 [13]	NRSI – cohort Compared perceptions before and after EHR implementation for both centers and expected benefit with perceived benefit.	All health care professionals in two university hospitals	One Paper-based, the other EHR- based, afterwards both EHR-based; Peer communication improved.		Multidisciplinary notes	
Perry JJ, Sutherland J, Symington C, Dorland K, Mansour M, Stiell IG. 2014 [15]	NRSI – cohort Compared paper documentation versus electronic medical record for non-traumatic chest pain to determine differences in time.	Physicians	Paper and EHR based systems in similar proportions; Longer documentation using EHR.			
Thaker VV, Lee F, Bottino CJ, Perry CL, Holm IA, Hirschhorn JN, Osganian SK. 2016 [21]	NRSI – cohort Records of visit notes were reviewed to extract history taking, counseling, and recording of obesity at a well-child care visit.	Physicians		Improve quality of care; Innovate engagement.	Management of chronic health conditions; Improved care EHR template improves counseling.	Automated reminders; Alert fatigue; Workflow disruption.
Arsoniadis EG, Tambyraja R, Khairat S, Jahansouz C, Scheppmann D, Kwaan MR, Hultman G, Melton GB. 2015 [23]	NRSI – observational Understand patient entered data for aspects of health history through an evaluation of the quality of patient-generated data.	Physicians				Barriers to family history; Patient-generated data.
Chi J, Bentley J, Kugler J, Chen JH. 2019 [26]	NRSI – observational Analysis of EHR interactions from third-year medical students	Medical students		Self-taught EHR skills; Extended EHR use.		Burnout; Decline of bedside medicine.

(Contd.)

AUTHORS	STUDY DESIGN AND INTERVENTION	POPULATION	EHR VS PAPER-BASED SYSTEMS	CHRONOLOGY AND CONTEXT	DATA MANAGEMENT AND TOOLS	CHALLENGES IN EHR USE AND INFORMATION CONFLICT MANAGEMENT
Doberne JW, Redd T, Lattin D, Yackel TR, Eriksson CO, Mohan V, Gold JA, Ash JS, Chiang MF. 2017 [10]	NRSI – observational Survey: (1) addressing the duration of initial medical record review (2) how well the EHR displayed various types of clinical information and (3) the severity of 6 barriers to information access.	Pediatricians	Predominantly EHR-based; EHR more time consuming; Increased data volume; Navigability.	Initial patient evaluation	Physician's training; Inpatient setting; Veracity of information impacts efficiency of care.	Barriers to EHR chart review
Holahan PJ, Lesselroth BJ, Adams K, Wang K, Church V. 2015 [27]	NRSI – observational Surveys assessed 5 technology-related perceptions and 1 outcome variable, effective technology use.	Primary care providers				Work values compatibility
Lee EH, Patel JP, Fortin AH 6th.2017 [20]	NRSI – observational Reviewed medical notes and phrases of interest were codified.	Residents and hospitalist		Increased patient-physician communication and satisfaction; Greater transparency.	General Medical Acronyms (99.1%); Medical Jargon (96.7%); Typographical Errors (49%).	Typographical errors; Medical shorthand; Time constraints.
Neri PM, Redden L, Poole S, Pozner CN, Horsky J, Raja AS, Poon E, Schiff G, Landman A. 2015 [22]	NRSI – observational Explored qualitatively how emergency physicians use electronic clinical documentation and understand their workflows.	Emergency medicine resident physicians				Preclinical years' EHR exposure
Sandoval MB, Palumbo MV, Hart V. 2017 [17]	NRSI – observational Provider's EHR utilization and perceptions and summarized relationship between the time using the EHR and the distinct aspects of the visit.	Medical and nurse students preceptors		Initially EHR review; Verbally and written summary; RESPECTS.		Mentally demanding activity; Patient–provider connection; Multitasking data entry and extraction with patient communication.
De Hoog CL, Portegijs PJ, Stoffers HE. 2014 [19]	NRSI – review paper	Primary care physicians			Link to clinical guidelines; Integration with EHR; Screening strategy;	
Hedian HF, Greene JA, Niessen TM. 2018 [11]	NRSI – review paper	Physicians	Predominantly EHR-based; Including patient-generated data; Paper notes suffer omissions, electronic suffer inaccuracies.	Flipped patient model; Triangular relationship; Computer isn't an intrusion; EHR doesn't affect physicians' empathetic ability;	Patients direct information input is beneficial; Provider bias; Templated phrases; Copy-and-paste; Physical examination templates.	Triangular relationship; Patient's medical or computer literacy; "iPatient"; Physician's computer literacy; Burnout; Should patient-generated data be trusted?

(Contd.)

AUTHORS	STUDY DESIGN AND INTERVENTION	POPULATION	EHR VS PAPER-BASED SYSTEMS	CHRONOLOGY AND CONTEXT	DATA MANAGEMENT AND TOOLS	CHALLENGES IN EHR USE AND INFORMATION CONFLICT MANAGEMENT
Janett RS, Yeracaris PP. 2020 [12]	NRSI – review paper	Primary care providers	Predominantly EHR-based; Reduction in documentation time; Higher adherence to clinical guidelines; Lower number of medication errors.	Communication, correct clinical interventions, quality improvement, and patient safety; Increased patient empowerment.	Horizontal integration; Vertical integration; Improved population health; Active outreach to patients; Advance care planning; Medication management.	Systems interoperability; Impact on clinical workflows; Threat to the physician patient relationship, to patient privacy, and to physician burnout.
Welch BM, Wiley K, Pflieger L, Achiangia R, Baker K, Hughes-Halbert C, Morrison H, Schiffman J, Doerr M. 2018 [16]	NRSI – review paper	Physicians	Predominantly EHR- based; Electronic FHx tools may provide interoperability.	Help patients gather and organize FHx	Few FHx data that assess risk for common complex diseases	Few data entries; Lack of a common disease terminology value.
Buery-Joyner SD, Dalrymple JL, Abbott JF, et al. 2015 [18]	NRSI – position paper	Medical students		Screen time; Triad interconnection.	Copy/paste; Oversized notes.	
Kuhn T, Basch P, Barr M, Yackel T; 2015 [14]	NRSI – position paper	Physicians	Predominantly EHR- based; Physicians may find the EHR is less efficient.		Defensive documentation; Excess downstream documentation; Templates and drop-down boxes; Longer notes; Documentation should be concise; Integration of patient-generated data.	Copy/paste function; Clinical care and communication; Propagate imprecise or incorrect documentation; Additional purposes to clinical documentation.

3.2. CHRONOLOGY AND CONTEXT

This section includes eleven studies that either mentioned which methodology was used in the patient encounter, chronologically if EHR data was consulted prior to patient observation or inversely, and in what context the observation and medical history taking took place in the triangular relationship amongst physician-patient-computer.

Three studies [10, 11, 17] mentioned that physicians first refer to EHR chart review of the patient before the initial approach, one of which denoted that physicians took between 2 and 10 minutes during the initial EHR review [10]. Almost every study mentioned the nature, changes or adaptations of doctor-patient relationship with EHR adoption or implementation. Henceforth stressing the relevance of the topic to clinical practice.

3.3. DATA MANAGEMENT AND TOOLS

In this section we include studies that revealed important processes in data management of EHR and medical notes, as well as EHR templates and tools used in medical history taking and documentation. Ten studies [10–14, 16, 18–21] were found to meet this criteria. Some mentioned either tools or templates that were related to classic anamnesis or patient-generated information [14, 16, 19, 21]. While most focused-on documentation length and quality of information [10, 11, 14, 16, 18, 20, 21], with special attention to functions such as "copy and paste" [10, 11, 14, 18, 22].

3.4. CHALLENGES IN USE AND INFORMATION CONFLICT

Ten studies [10–12, 14, 16, 17, 20–23] reported a variety of barriers or challenges in EHR use by physicians. These were considered to influence multiple aspects of doctor-patient relationship [11], EHR chart review [10], classic anamnesis [16, 23] and physician's professional satisfaction and burnout [11, 12, 17, 21]. One review [11] also mentioned problems relating to information conflict between EHR documentation and patient-generated information.

4. DISCUSSION

We identified eighteen studies [10–28] describing directly or indirectly many factors detailing the relation between digital health and anamnesis. As Electronic Health Records present multifaceted interface, the possibilities of influencing clinical practice, particularly focusing medical history taking and anamnesis, are as numerous as the possible tools and functionalities which can be implemented.

Multiple changes in clinical practice have been introduced by EHRs. New workflows and dynamics were created as systems progressed and gained new functions, abilities and collected large amounts of data. The latter is now better organized and ready for use than in previous paper-based records.

Some studies showed that between paper-based systems and EHR, electronic recording took longer than paper records. One study found that electronic charting for emergency department patients with non-traumatic chest pain was significantly slower than the standard paper-based system [15]. Another postulated that an increase in electronic chart review may be associated with increased data volume in EHR compared to paper systems [10]. Sometimes expectations of physicians and healthcare professionals regarding EHR usage, data quality and data reuse are not met, however one study found that the overall perception of users in the formerly paper- based center improved or remained stable [13]. Widespread consensus is that there is still room for improvement in EHR development so that it can improve into a more user-friendly and data management system. In addition to possible system improvement, EHR competency is a necessary skill [8] that is both acquirable and teachable. As studies successfully implemented a teaching method of EHR-communication skills [17, 25], being computer literate and skilled is also a major component of physician's adaptability to EHR [11, 12].

Changes in clinical practice context were made during EHR implementation, modifying the dynamic of patient-doctor relationship towards a system with three components with the addiction of technology [11].

However, studies have shown that the impact felt by the patient was more towards indifference to its effect or report neutral to positive levels of satisfaction with their care [11] and that there is no evidence that the EHR has affected physicians' ability to empathize with patients [11]. In conclusion, they did not sense a decrease in empathetic engagement from the care giver while pointing out that physicians could be potentially more aware of their past medical information. Physician's opinions are more diverse as multiple studies have shown that some are skeptical towards EHR implementation and its impact in doctor-patient relationship. They sense negative effect of EHR on the patient–provider connection [17]. Since more time is spent on documentation than with the patient [24] and physicians are required to multitask while attending to the patient [17, 22, 24].

With these changes in context setting, new workflows and dynamics have been created. Some studies show that EHR review is done first in a new-patient, leading then the professional to be more informed when first giving care [10, 17]. However there has been recorded potential personal and provider biases regarding what one could call the "virtual image of the patient". The virtual construct of a patient history based on information collected through technological means of data retrieving from EHRs done by a physician or other care provider. Possibly misidentifying or disregarding

important aspects of medical history taking and physical examination [11, 16].

As such, data management is paramount for the existence of an EHR with accurate and reliable information. This is a major concern according to physicians [22]. Regarding EHR accuracy of information, multiple studies regard "copy and paste" as a liability to stored information since it is easy to perpetuate errors without noticing. As one study stated "The pervasive use of the "copy and paste" function has negatively affected the quality of many patient records, with inaccurate or outdated information often carried forward." [18]. However, it is possible to mitigate these risks by developing EHR functions that record if data was copied and the original source [14]. In fact, EHR templates have been proven to improve care management. In one study an increase in rates of documentation of obesity was associated with the use of a standardized EHR template [21], which lead to improved nutritional and physical activity counseling.

It is also possible to improve and assess data management skills. Developing awareness and teaching methods is important so that it is progressively possible to observe an improvement in data quality. One study successfully implemented an EHR objective structured clinical examination (EHR-OSCE) for clerkships students. It showed that students perform well in EHR-related communication skills, but found skill shortages in data management [29].

Many clinical practice assistant tools emerged throughout the years. One study made a systematic review of family history tools, it showed that they improve identification of patients with high risk of disease [16]. Although it also detailed that more research is need in this topic. It stated that linking family history tools to clinical guidelines is necessary to enable recommendations for management by the family physician [19]. Another showed that direct data input by patients can be more accurate and aid in physician's medical history taking [11]. It was also more frequent to observe new information added in sexual history as patients find comfort in the nonjudgmental qualities of computer-based history taking. As it suggests that it is less likely to collect information that is viewed as taboo or stigmatized [11, 23].

As seen before conflicts of information provided by the patient and stored in EHR may arise. It is important that physicians are aware of potential errors that may afflict documentation as unsafe practices, such as copy and paste, and provider biases can influence both the collection and the recording of patient data [11]. In addition to, patient-facing technologies, may also present challenges including generating inaccurate or less granular information [23].

Challenges in use of EHR may result from patients being dependent on health or computer literacy when completing tools devised to facilitate medical history taking [11]. Care giving professionals have also been found to be dependent on computer competency [11] and training to provide care in a timely matter. One study found that residents wrote significantly longer notes than the average hospitalist. As reflective of the purpose of their notes, considering residents are encouraged to detail their thought process [20]. This is compatible with barriers to information gathering detailed in one study where pediatricians perceived inaccurate, excessive and poorly displayed information as increasing EHR chart review time [10]. As detailed in the same study "the veracity and accessibility of information in the electronic record can have a significant impact on the quality and efficiency of patient care." [10]. Solutions to those reside in physicians, residents and medical students training and increase in proficiency and computer literacy. Doctor-patient relationship may improve with EHR-communication skills training.

Our small sample size is likely to be associated with paucity of academic literature on EHRs and its effect on medical history taking. We attempted to mitigate this bias by including a variety of studies designs, searching using a broad set of Medical Subject Headings and hand-searching references lists.

5. CONCLUSION

Following a systematic review of the literature, we identified a number of studies stressing the relation between digital tools and medical history taking. In the context of increasing EHR adoption, the adaptability of the care giver is put to the test. When comparing EHR with paper-based systems, we saw that the former brings many benefits to quality of care. Physicians tend to review EHR charts prior to patient encounter. In this triadic context, patients are indifferent to EHR introduction while physicians may overcome perceived barriers with training and computer literacy improvement.

Many issues regarding documentation and data management were found to improve with progressive implementation of EHR, as new tools, templates and functions appear. We postulate that an organized and conceptualized process of Digital Medical History or, also called, *"Digital Anamnesis"* bears the potential to greatly improve the quality of information gathered. This will in turn ensure better patient safety and improve professional satisfaction through decreased workload and lesser risk of burnout. Education in this new, possible hybrid process of combining classic and digital means of obtain medical history may need to be conceived in Medical Schools and Residency/Internship programs. Future work can pursue a deeper analysis of available literature in this important field of classic and digital medical history taking and empirical work can look at educational needs of medical students and junior physicians.

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COMPETING INTERESTS

The authors have no competing interests to declare.

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