Journal of Multidisciplinary Healthcare

Dovepress
open access to scientific and medical research

Open Access Full Text Article

ORIGINAL RESEARCH

How to Optimize Integrated Patient Progress Notes: A Multidisciplinary Focus Group Study in Indonesia

This article was published in the following Dove Press journal:
Journal of Multidisciplinary Healthcare

Hajjul Kamil [1]
R Rachmah [1]
Elly Wardani [1]
Catrin Björvell [2]

[1]Nursing Leadership and Management Department, Faculty of Nursing, Universitas Syiah Kuala, Banda Aceh, Indonesia; [2]Department of Neurobiology, Care Sciences and Society, Karolinska Institutet, Stockholm, Sweden

Introduction: Hospitals in Indonesia are obligated to implement Integrated Patient Progress Notes (IPPNs), also known as the "Catatan Perkembangan Pasien Terintegrasi". A progress note contains the entire interaction between patients and health professionals, including physicians, nurses, pharmacists, dietitians, and physiotherapists. However, since the first launch in 2012, obstacles and problems in completing this integrated documentation remains nationwide.

Aim: The objective of this investigation was to identify health professional's perspectives on obstacles and problems using IPPNs and facilitators that may optimize their use.

Methods: Five focus group discussions (FGDs) involving 37 participants took place. All FGDs were recorded, translated, and transcribed verbatim. A thematic analysis was used to interpret the data.

Results: The thematic analysis of the material revealed three main categories for each of the two topics; Topic 1. Perceived problems hindering integrated documentation: lack of supervision, competence, workload; topic 2: perceived strategies to optimize integrated documentation: organizational support, joint practices, integrating technology with IPPN.

Conclusion: The results indicate that health professionals see the importance of using IPPNs but only if implemented with educational and organizational support and that the use of an electronic patient record may be more effective than a paper record. To continue the implementation of IPPNs, it is suggested that it is preceded by educational and organizational support.

Keywords: integrated documentation, Indonesia, patient report, safety, service quality

Introduction

Introducing care coordination as a health reform means essentializing communication and increasing interactions between health professionals. Multiprofessional communication is necessary to avoid or at least minimize misinformation, maintain coordination, and improve care management.[1] It is acknowledged that proper documentation in the patient's health-care record has larger significance than simply recording the history. The patient's health-care record is the main communication medium between health-care professionals, helping them to deliver a high quality of care. The importance of proper documentation in the health-care setting has been noted for centuries. Florence Nightingale mentioned how meticulous patient documentation is tightly linked to a high level of health-care quality. A collection of data and information that Nightingale analyzed at that time provided evidence linking cleanliness to the number of preventable deaths in health-care settings.[2]

Correspondence: Elly Wardani
Nursing Leadership and Management Department, Faculty of Nursing, Universitas Syiah Kuala, Banda Aceh, Indonesia
Email ellywardani@unsyiah.ac.id

submit your manuscript | www.dovepress.com
DovePress
http://doi.org/10.2147/JMDH.S229907

Although the importance of health-care documentation has been identified, communication problems across health-care disciplines still exist. In 2005, Joint Commission International[3] reported that 90% of unanticipated events not related to the patient's illness that resulted in death or serious physical or psychological injury to the patient were due to breakdowns in communication between health-care professionals.

It is difficult to deliver a high quality of care without a transparent, uniform system of health-care documentation; hence, this is one of the hospital accreditation criteria set out by the Hospital Accreditation Commission of Indonesia (Komisi Akreditasi Rumah Sakit [KARS]). Integrating health professionals' patient progress notes were viewed as a solution to bridge this information gap, minimizing communication barriers between health-care providers and hence decreasing unexpected or accidental events.[4] In response to this, KARS introduced the "Catatan Perkembangan Pasien Terintegrasi", referred to here as the Integrated Patient Progress Note (IPPN). This was a manifestation of a patient-centered care initiative aimed at increasing the quality of documentation in general and to minimize communication barriers between health-care providers.

IPPNs required health professionals to document patient progress notes on the same sheets in the same part of the patient's health record. The IPPNs contained chronologic documentation of the entire interaction between the patient and health professionals, including physicians, nurses, pharmacists, dietitians, and physiotherapists. KARS obligated all hospitals to implement IPPNs in 2012. Efforts that have been made to optimize its implementation include socialization programs through training provided by KARS's certified national surveyors, benchmarking of provincial hospitals against national health centers, or an assistance program whereby the surveyors assisting hospitals with the introduction of IPPNs and how to complete the form correctly.[5,6] Despite all the hard work, the implementation has been a dynamic process involving multiple health-care teams.[5,6] The aim of IPPNs was to synchronize care between providers, but the documentation still did not describe collaborative practices among health professionals. In an audit by Noorkasiani et al,[7] the completion of the IPPN documentation was shown to be poor. For example, it was found that only 60% of the nursing patient progress notes audited were clear, accurate, and concise, contrary to the recommendation of the Indonesian Ministry of Health for 85% accuracy.[8] The most frequent mistakes were improper method of error correction, which is supposed to be one line crossed out and signed; nursing notes on patient progress were unclear and lacked information; the name and signature of the provider were not written clearly; the date and hour of completion of the patient progress note were not recorded; the progress notes among the health providers were inconclusive. The progress notes from each health professional were independent of and irrelevant to other health professionals' notes.[9] These findings are contrary to the documentation procedures standardized by the World Health Organization,[10] whereby hospitals and health professionals must provide comprehensive and complete documentation.

Although these problems are known, less is known about the factors that impede the ideal patient progress documentation and solutions that would escalate the implementation of IPPNs in Indonesia. To address this gap, the aim of this study was to explore perspectives and opinions on the problems hindering effective use of IPPNs among health professionals as well as to identify possible ways to optimize the completion of collaborative patient progress notes.

Methods

This qualitative study used focus group discussions (FGD) to collect data and applied a thematic analysis as proposed by Braun and Clarke[11] to analyze the data. The study took place in a large urban hospital in Indonesia with five-star national accreditation. The hospital is a major referral center and teaching hospital. To improve the hospital's quality of care and services, the hospital made their debut toward international accreditation at the end of 2017, targeting Joint Commission International accreditation by 2020.

Participants

In order to cover as broad opinions as possible and be able to create groups where the participants were comfortable with one another, a purposeful selection of participants was performed. Participants were selected from lists provided by the human resource department. The inclusion criterion was having one or more years of work experience at the hospital. Potential participants were called by phone and asked to take part in the study. They were informed about the background and aims of the study, and anonymity of participants. Thirty-seven health professionals were selected: 8 dietitians, 8

doctors, 10 nurses, 6 pharmacists, and 5 physiotherapists. The participating nurses came from intensive care, medical, and surgical wards, and the participating doctors were specialized in neurology, internal medicine, surgery, and dermatology. Five participants were males and 32 were females; age groups were 25 to 35 years (n = 10), 35 to 45 years (n = 22), and 45 to 55 years (n = 5). Educational backgrounds varied from diploma level to specialist level. Most of the participants had a bachelor's degree (n = 27). More than half (n = 25) of the participants had 5 to 10 years of work experience in the hospital, and the rest (n = 12) had 10 years or more. All participants were informed in detail about the study and given assurance of full anonymity outside the focus group before a consent form was signed.

Data Collection

Krueger[13] describes focus groups as carefully planned discussions used to obtain perceptions on a specific area of interest in a permissive, non-threatening environment. The purpose is to have group members influence each other by responding to ideas and comments in the discussion. This is considered an effective technique for exploring the attitudes and needs of staff[14] to generate hypotheses for further investigation. The intent of focus groups is not to infer or generalize but to determine the range of and provide insights into how people perceive a situation.[13]

Five FGDs were held each lasting 35 to 60 mins. Each group consisted of one profession, with the purpose of creating a permissive, non-threatening environment. The FGDs took place during November and December 2018. The location was selected for privacy, silence, and comfortable lighting. The seating design was a semi-circle with the moderator (the principal author, HK) and the assistant (EW) at the front so that everyone would be visible to everybody else in the group. Each session was initiated by the moderator explaining the aim of the FGD, the purpose of audiotape recording, and the rule of full anonymity outside the focus group. Two key topics were used to initiate discussions: the experiences of using the IPPN and ways to improve the use of IPPNs. Other than the prepared questions, probing questions were also used to make the session alive. The sessions were audio-recorded and later transcribed verbatim by one of the authors (RR). Informants names were not used in the field notes or audiotape to establish confidentiality.

Ethical Considerations

Approval for this research study was obtained from the university's Ethics Committee (certificate number 113001180517) as well as the Research and Development Center of the hospital where the study took place.

Data Analysis

A thematic analysis as proposed by Braun and Clarke[11] were used to analyze the data from the FGD. The stages used were as follows: familiarization, initial coding, theme identification and labeling, review, and comparison. Despite these, the authors remained mindful of the possibility that new information and concepts could arise.[12] At the initial stage, all the recorded discussions were transcribed into Bahasa Indonesia. To build familiarity with the texts, the transcripts were read and re-read by two of the authors (HK and EW). Notes on early impressions were taken during this time to organize and form preliminary ideas about possible codes.

When generating codes, HK and EW code the transcripts separately using pens and highlighters. Both focused on segment of the data that captured something specific to the research question. HK and EW compared the codes that they generated for each transcript, discussed and modified them before moving on to the next text. New codes and modifications of the existing ones were generated as the process evolved. The codes were examined and collated into themes. Each theme was reviewed continuously to ensure its robustness with the codes and the dataset. Notes were taken on emerging patterns, and relationships were identified between constructs. These were beneficial to create important notes for the data analysis and to explain similar and contrasting viewpoints around each theme.

At this stage, a third member of the research group (RR) read the grouping of the data as well as codes, themes and citations from focus group participants to validate consistency with the raw data, established at earlier phases. The results of the thematic analysis were then translated into English in close cooperation with the language center of the university. Two language experts assisted the researchers during a back-translation procedure to ensure the best semantic equivalent and accuracy between Bahasa Indonesia and English. Lastly, the fourth author (CB), with extensive experience in the method, then examined all the findings. Careful consideration was given

to the possibility of new or emerging themes that might emerge during the final check and a final agreement was reached.

Results

Thirty-seven informants took part in five FGD sessions. There was general agreement among the participants that integrated documentation aimed to increase teamwork, coordination, and ease the communication between team members and that the IPPN helped the health professionals to monitor patient progress because all professionals documented their notes on the same sheets. However, they confirmed that they were still struggling to complete the integrated notes to the expected level. There was extensive understanding and acceptance of the pivotal role of integrated notes to collaborate care documentation.

The thematic analysis of the material revealed three main themes for each of the two topics that were discussed in the focus groups. The themes were not mutually exclusive because some of the statements could fit into more than one theme.

Topic 1: Perceived problems hindering integrated documentation:

Themes:

Lack of supervision

Competence

Workload

Topic 2: Perceived strategies to optimize integrated documentation:

Themes:

Organizational support

Joint practices

Integrating technology with IPPN

Perceived Problems Hindering Integrated Documentation

Lack of Supervision

Minimal organizational support and supervision were perceived as a barrier to the use of the IPPN. This issue arose in all the professional groups under study. They expected support from hospital management to ensure that the collaborative report maintained its function as a communication medium among them. There was a feeling of lack of attention from leaders on how to maximize the function of the IPPN. A pharmacist said:

> …we know that an integrated report is an advantage for us, but I don't see much attention is paid to this. We need to know more about how to fill it correctly, and anything related to it …. (Pharmacist 2)

This opinion was further expressed as:

> … the integrated sheet is very important, we realize this. I hope the top leadership would monitor and manage continual supervision on documentation, not just leave it to us …. (Doctor 5)

Competence

There was a consensus across the discussion groups that there was no coherence in the patient progress notes provided by each professional. They felt that the flow of patient care reports did not depict collaborative care. A doctor said:

> well, it is great to have the integrated report … I actually expect a nice description to what we all have done to the patients, but it does not seem to be there. To be honest, I rarely look at other professional's notes … somehow, the available information is not updated on a regular basis. (Doctor 3)

Within the doctors' group, there was an agreement that other professionals' patient documentation seemed less meaningful. This perception was supported by the other four groups of participants. The pharmacist group, for example, realized that not all of their members had a similar capability with regard to integrated patient documentation. As stated below, the root causes of this problem were the variability in educational attainment and lack of training:

> There are only a few clinical pharmacists [bachelor level] working here, and we have a large number of assistant pharmacists at diploma level … this gives us different abilities to document our work on patients … I found that our notes are not really meaningful in the integrated documentation … the cover is the integrated report but in the inside is just individual notes … it would be useful if there is continuous learning or training on practices either in-house or in the pre-clinical phase so that we know each other better [each other's work]. (Pharmacist 5)

The nurses' group, in particular, saw the competence issue much more intense than the other professionals. They strongly elaborated on how mixed educational backgrounds were an obstacle that contributed to making documented reports within the IPPN less informative. A nurse expressed it as:

> It is so hard for some nurses to write integrated notes. We have mostly diploma graduated nurses and some at bachelor level. Plus, the nurses graduated from multiple schools, a mix of polytechnic, health higher education and university … we are struggling to improve nurses critical thinking, but their confidence is not high enough to face other professionals … how can we expect that the information in there [the IPPN] would support other nurses or a consultant physician in care delivery; we can't guarantee quality if looking at the nurses conditions here. I believe they just write for administration purposes only … it is true though. (Nurse 8)

The comments reflect the influence of the level of education on documentation quality and teamwork ability. Diverse educational backgrounds are seen as a challenging factor to proper documentation, which also lead to lack of competence in building mutual relationships between professionals. Less opportunity to know and engage with each other's profession seemed to create a wall between them.

Workload

The data revealed that the health professionals were in agreement regarding the burden of responsibilities they carry in their daily duties. This leads to workload issues. There was a consensus about the extra burden of IPPNs. However, among the five groups of informants', physiotherapist and dietitian felt it the most. The imbalance number between the number of providers and the number of patients was seen as an obstacle for proper patient documentation, as a physiotherapist said:

> … what we are doing is unbelievable. There are few clinically certified providers, but we have to take care of all units in the entire hospital … it is so hard to fill in the integrated documentation while carrying a lot of work to do with the patients. (Physiotherapist 2)

In line with the physiotherapist group, the dietitians elaborated similar views with regard to limited resources and its impact on documentation. A dietitian explained:

> … we always struggle to fulfill documentation demands … we have loads of patients to visit while we have limited resources, so we have to set aside a lot of time for documentation and do it at a later time … sometimes ending up with no documentation because we are so busy. I know that is wrong, but we can't do anything so far …. (Dietitian 7)

Problems with understaffing were considered to promote difficulties in completing the integrated documentation. The time available and an increasing amount of work to be finished were also viewed as affecting delayed documentation and the quality of written reports.

Perceived Strategies to Optimize the Integrated Documentation

Participants described several important steps to decrease the perceived barriers.

Organizational Support

The notion of feeling safe and confident at work when the hospital management board provides continued support for the documentation procedure was strongly expressed by all five groups of professionals. Supervision and regular educational services were seen as pivotal factors for improvement of the documentation. An informant said:

> I believe that action is the result of education. It's a lot more comfortable to work if the hospital leadership commits to continual education as well as supervision on integrated documentation … it should be done on a regular basis; if so, I am sure our performance would be better. (Nurse 3)

This was supported by other health professionals:

> We've been taught that integrated documentation is our way to improve safety, both for patients and health providers … it feels nice if we do it right, of course we need support for the learning process. (Physiotherapist 1)

They felt that the ability to provide quality documentation would be a confidence booster at work. Informants' comments reflected the importance of educational interventions to endorse the importance of improved integrated documentation and best practices.

Joint Practices

Mutual respect, teamwork, and collaboration emerged as an important collaborative practice. Informants, regardless of their professional and educational background, described the need to engage in a respectful collaborative manner in order to pursue integrated care. The members of all five groups consented that they required to work in harmony. The need for this was stressed more strongly among the nurses group than the others. The fact that they are required to communicate with doctors and patients around the clock made their strong wish for a more collaborative environment important. Seemingly, they felt that the existing relationship was a social connection rather than a professional one. A nurse explained:

> During our education, we were reminded that nurses work in partnership with doctors and other professionals … nicely said. We work together, but it feels like we don't really engage with others … hmm … I believe we can work this out if we can manage the professional relationships. (Nurse 4)

Integrating Technology with IPPN

Participants across the five groups argued that technology would ease the documentation procedures in the IPPN. Although there was a debate among informants, particularly within the doctors' group, that technology in documentation would be another layer of burden at work, the dominant opinion supported the need for technology. The following opinion described it further:

> …. it takes so much time to write, I think that's the downside of the IPPN. So, why don't we somehow integrate the IT [Information Technology] for IPPN, just a button click and less writing and also make patient's data accessible wherever I am. We as doctors can make quick updates or any required recommendation to other care providers through an IT system …. (Doctor 2)

Technology was expected to lead to minimum writing time and maximum time with patients. All groups of health professionals voiced similar optimism that technology within the IPPN would facilitate their efficacy toward patient care. This was supported by a physiotherapist:

> …. I saw most of us spend so much time writing on the sheets. I was once imagining that one day our IPPN documentation may be paperless with technology. I feel that it would make things much easier to handle. We can [then] have more time for patient care …. (Physiotherapist 3)

Discussion

This study explored a group of health professionals' reflections on their experiences with multiprofessional patient progress documentation using the IPPN. An interesting finding in this focus group study was that the participants acknowledged the significance of integrated documentation to increase communication and collaboration among health providers. Collaboration between different health professionals was seen as necessary to deal with various health complexities that may arise when providing patient care. With the increasing complexity and demands in health care, the needs of patients far exceed the expertise of any single medical profession. A literature review by Bodenheimer and Handley[15] revealed that multiprofessional goal setting for patients with chronic diseases was increasingly being used in primary health care. The World Health Organization[16] published an Action on Interprofessional Education and Collaborative Practice with the purpose of facilitating initiatives to move toward more collaborative practices in health care. The arguments were that a collaborative practice would optimize health services and improve health results. The IPPN as part of an integrated health record is intended to harmonize teamwork across health professions and help health-care providers deliver a higher quality of patient care.

The participants also described the challenges they faced in completing seamless progress notes. A lack of supervision and differences in competence were thought to be barriers to successful implementation of the integrated documentation. This category highlighted the lack of organizational support and education given to the health professionals when documenting the care given in the IPPN. When discussing possible ways of optimizing the use of IPPN, organizational support, as well as an increase in joint practices, was mentioned. This agrees with earlier research showing that organization is the key to success in collaborative care. In a literature review, San Martín-Rodríguez et al.[17] found that organizational support, such as clear leadership and management of human resources, is pivotal to success in creating interprofessional collaboration. A focus group study in Sweden came to the same conclusion that the influence of the organization on documentation procedures is strong, and if this is not taken into consideration, an implementation will fail.[18]

Another barrier discussed in the groups was the increase in workload and that one solution for this may be to integrate technology with the IPPN. Participants suggested that manual documentation is time consuming, adding an extra burden to their work. Although technological intervention in collaborative health documentation is a contentious issue,[19] previous studies have confirmed that technology can improve quality and organizational efficiency,[20] as well as improve documentation.[21] Some have suggested that technology-based health documentation has the potential to decrease medical errors by improving access to necessary information and accurate documentation.[22] Increasing accessibility to patient information was mentioned by a participant in this study as a perceived benefit of integrating technology into the collaborative documentation. The perception of increase in workload when starting to document more is well known, and the introduction of IT has often been suggested as a way

to decrease workload and cut down in documentation time. However, there are studies with inconclusive results regarding the benefits of electronic health records when it comes to saving time for the clinician. Still, there are other benefits to electronic health records, such as improving workflow at one point that may save time at another point.[23]

The strengths and limitations of the research should be considered when interpreting the study findings. A strength of this study is the diversity of participants involved in the FGDs. Multiple professionals were included from diverse health disciplines and with a variety of expertise working in different hospital units. This provided a broader perspective on the implementation of the IPPN. However, this was somewhat reduced by participants seeming a bit reluctant to expose their personal experience with the IPPN in favor of more generic, group-centered answers. Their arguments mostly centered around what was supposed to happen rather than on what actually happened in real-life settings. Theoretical content may have dominated their opinions, subjugating their real experiences, resulting in a limitation to this study.

Conclusions

Integrated care documentation is a relatively novel initiative in Indonesia. This inaugural study has attempted to identify health professionals' perspectives of integrated progress notes using the IPPN in a hospital setting in Indonesia. The results indicate that health professionals see the importance of using IPPNs but only if implemented with educational and organizational support and that the use of an electronic patient record may be more effective than a paper record. To continue the implementation of IPPNs, it is suggested that it is preceded by educational and organizational support. Further research may be needed to construct a questionnaire based on the findings of this study and perform a survey of a large population of health professionals in Indonesia.

Abbreviations

FGD, focus group discussion; IPPN, Integrated Patient Progress Note.

Ethics Approval and Informed Consent

Ethical clearance for the research was issued by the Faculty of Nursing, University of Syiah Kuala Ethics Committee with certificate number: 113001180517, as well as permission from the Research and Development Center of the hospital where the study took place. Consent for publication is available upon request.

Data Sharing Statement

All data generated or analyzed during this study are included in this published article.

Acknowledgments

Our thanks to all health professionals involved who contributed their time and efforts in this study.

Funding

The research is part from Penelitian Unggulan Universitas (University Excellent Research) funding scheme, grant number: 276/UN11.2/PP/PNBP/SP3/2019, Universitas Syiah Kuala.

Disclosure

The authors report no conflicts of interest in this work.

References

1. Klehr J, Hafner J, Spelz LM, Steen S, Weaver K. Implementation of standardized nomenclature in the electronic medical record. *Int J Nurs Terminol Classif*. 2009;20(4):169–180. doi:10.1111/j.1744-618X.2009.01132.x
2. Nightingale F. *Notes on Hospitals*. 3rd ed. London: Longman, Greene, Longman, Roberts and Green; 1863.
3. Joint Commission International (JCI). *Patient Safety; Essentials for Health Care*. Oakbrook Terrace, IL: Joint Commission on Accreditation of Healthcare Organizations; 2005.
4. Frelita G, Situmorang TJ, Silitonga DS. *Joint Commission International Accreditation Standards for Hospitals*. 4th ed. Oakbrook Terrace, IL: Joint Commission on Accreditation of Healthcare Organizations; 2011.
5. Kemenkes RI, Komisi Akreditasi Rumah Sakit (KARS). Standar Akreditasi Rumah Sakit. Jakarta: Kementerian Kesehatan Republik Indonesia; 2011. Indonesian.
6. Komisi Akreditasi Rumah Sakit (KARS). Standar Nasional Akreditasi Rumah Sakit, Edisi 1. Jakarta: Komisi Akreditasi Rumah Sakit; 2017. Indonesian.
7. Noorkasiani N, Gustina R, Maryam S. Faktor-Faktor yang Berhubungan dengan Kelengkapan Dokumentasi Keperawatan. *Jurnal Keperawatan Indonesia*. 2015;18(1):1–8. doi:10.7454/jki.v18i1.391
8. Siswanto L, Hariyati RrT RTS, Sukihananto S. Faktor-faktor yang berhubungan dengan kelengkapan pendokumentasian asuhan keperawatan. *Jurnal Keperawatan Indonesia*. 2013;16(2):77–84. doi:10.7454/jki.v16i2.5
9. Lasmani P, Haryanti F, Lazuardi L. Evaluasi implementasi rekam medis terintegrasi di instalasi rawat inap RSUP dr. Sardjito Yogyakarta. *Jurnal Manajemen Pelayanan Kesehatan*. 2014;17(1):3–8.
10. World Health Organization. *Guidelines for Medical Records and Clinical Documentation*. Geneva: World Health Organization; 2007.
11. Braun V, Clarke V. Using thematic analysis in psychology. *Qual Res Psychol*. 2006;3(2):77–101. doi:10.1191/1478088706qp063oa

12. King N. Using templates in the thematic analysis of text. In: Cassell C, Symon G, editors. *Essential Guide to Qualitative Methods in Organizational Research*. London: Sage; 2004. 256–270.
13. Krueger R. *Focus Groups. A Practical Guide for Applied Research*. 2nd ed. Thousand Oaks, CA: Sage; 1994.
14. Kitzinger J. Qualitative research: introducing focus groups. *BMJ*. 1995;311(7000):299–302. doi:10.1136/bmj.311.7000.299
15. Bodenheimer T, Handley MA. Goal-setting for behavior change in primary care: an exploration and status report. *Patient Educ Couns*. 2009;76:174–180. doi:10.1016/j.pec.2009.06.001
16. World Health Organization. *Framework for Action on Interprofessional Education and Collaborative Practice*. Geneva: World Health Organization; 2010.
17. San Martín-Rodríguez L, Beaulieu M-D, D'Amour D, Ferrada-Videla M. The determinants of successful collaboration: a review of theoretical and empirical studies. *J Interprof Care*. 2005;19(suppl 1):132–147. doi:10.1080/13561820500082677
18. Björvell C, Wredling R, Thorell-Ekstrand I. Prerequisites and consequences of nursing documentation in patient records as perceived by a group of registered nurses. *J Clin Nurs*. 2003;12(2):206–214. doi:10.1046/j.1365-2702.2003.00723.x
19. Adler-Milstein J, DesRoches CM, Furukawa MF, et al. More than half of US hospitals have at least a basic EHR, but stage 2 criteria remain challenging for most. *Health Aff*. 2014;33(9):1664–1671. doi:10.1377/hlthaff.2014.0453
20. Buntin MB, Burke MF, Hoaglin MC, Blumenthal D. The benefits of health information technology: a review of the recent literature shows predominantly positive results. *Health Aff*. 2011;30:464–471. doi:10.1377/hlthaff.2011.0178
21. Kruse CS, Mileski M, Vijaykumar AG, Viswanathan SV, Suskandla U, Chidambaram Y. Impact of electronic health records on long-term care facilities: systematic review. *JMIR Med Inform*. 2017;5(3):e35. doi:10.2196/medinform.7958
22. Schiff GD, Bates DW. Can electronic clinical documentation help prevent diagnostic errors? *N Engl J Med*. 2010;362(12):1066–1069. doi:10.1056/NEJMp0911734
23. Baumann LA, Baker J, Elshaug AG. The impact of electronic health record systems on clinical documentation times: a systematic review. *Health Policy*. 2018;122(8):827–836. doi:10.1016/j.healthpol.2018.05.014