

Week 8 assignment Home Submission 1

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1. BPMN drawn in this context as Business Process Model and Notation enables the enhancement of the various processes in the context of a healthcare facility due to the provision of a standard approach to modeling the various business processes. Due to BPMN, healthcare professionals can determine the paths that patients take through the healthcare system and how the process of a hospital works while clinical and administrative processes will be documented as much as possible and improved (Pufahl et al., 2022). For instance, BPMN can easily illustrate how the processes of an emergency department of a hospital in a particular patient from his admission to the time when a doctor decides to discharge him looks like with all the necessary steps and activities to be done in between and none of the flow steps to be forgotten during a very busy shift. Such standardized communication among the healthcare staff ensures that the care being delivered is standardized and passes through the recommended line of practice thus enhancing patients' hospital outcomes (Kassim et al., 2022).

2. As for the benefits brought by BPMN, the implementation of BPMN is also associated with several critical concerns, especially within the healthcare industry. First, it is hard to encompass all the processes that arise in a healthcare organization since they are usually dynamic and patient-centered, and second, BPMN sometimes cannot capture all aspects of real-time clinical decision-making (Pufahl et al., 2022). The third is the lack of familiarity of healthcare professionals, for the most part, with the BPMN language. Because BPMN stems from business and IT, it might not be as intuitive for clinicians to perform the analysis of a diagram or to draw a BPMN diagram on a piece of paper. This can lead to a lack of understanding or interchange, hence the less opportunity for BPMN to foster the enhancement of patient care processes (Kassim et al., 2022).

3. Application of BPMN in healthcare: Complexity will determine the application of BPMN in different healthcare units, in large hospitals especially those that involve several departments and other specialists in the delivery of care services, it is very probable that the BPMN diagram shall be very complex and might involve decision-making points and sequences. For instance, cardiologists and pulmonologists in large hospitals may work in different departments and need maps of who talks to whom or cases where patients are transferred between these specialists (Pufahl et al., 2022). On the other hand, general clinics might have a minimum of patient care processing models. In these environments, BPMN diagrams could be relatively less complex depicting business processes with fewer decisions possibly due to the lack of resources and workforce. Further, small clinics may not have many health facilities that they are connected to for later referrals, and thus their BPMN diagrams would not be complex (Kassim et al., 2022).

4. However, implementation of the health informatics tools with the tool BPMN should prove very useful in the healthcare environment. For example, obtaining the data in real-time from the Electronic Health Record can enhance the efficiency of diagnostic and therapeutic activities because this information is inserted in the BPMN workflow (Pufahl et al., 2022). However, incorporating a Decision Support System (DSS) into the BPMN models can enhance the patient outcome by providing the best options concerning the medical decisions to be made. This integration leads to more flexibility since it enables organizations to accommodate the emerging

needs of patients including a change in the planned clinical treatment in case of changing the results of tests (Kassim et al., 2022).

Conclusion: BPMN is an effective technique in health care systems that supports the diagramming and improvement of patient care plans. However, there are drawbacks, particularly where environments are complex and patient-specific, thereby constraining the effectiveness of health informatics tools to address these BPMN drawbacks and optimize the advantage of this notation to efficiently deliver improved patient care. Using BPMN in addition to information tools such as EHRs and DSS helps healthcare organizations to avoid the lack of sufficient documentation of work and exclude ineffective actions and delays, which leads to improved patient care (Pufahl et al., 2022; Kassim et al., 2022).

Link:

<https://modeler.camunda.io/share/39ae940a-d2f7-4ea5-9015-bc6f782f96bb>

References

- Kassim, S. A., Gartner, J.-B., Labbe, L., et al. (2022). Benefits and limitations of business process model notation in modeling patient healthcare trajectory: A scoping review. *BMJ Open*, 12, e060357. <https://doi.org/10.1136/bmjopen-2021-060357>
- Pufahl, L., Zerbato, F., & Weber, B. (2022). BPMN in healthcare: Challenges and best practices. *Information Systems*, 107, 102013. <https://doi.org/10.1016/j.is.2022.102013>