

Statement of Topic

Healthcare information systems are critical in shaping and bettering healthcare services and different operations and processes that happen in healthcare settings. It is therefore vital for healthcare organizations to work towards embracing effective and up-to-date information systems to better realize their set goals, missions, and objectives. System theory is critical since it helps in shaping the evolution of the healthcare systems to improve patient's clinical outcomes such as safety and quality of healthcare services. This paper will analyze the roles of information systems in healthcare facilities, discuss characteristics of systems in regards to the healthcare setting and illustrate how IS in healthcare grows to improve quality of care and better meet the changing needs of patients.

DeLone, W. H., & McLean, E. R. (2016). Information systems success measurement. *Foundations and Trends® in Information Systems*, 2(1), 1-116. <http://dx.doi.org/10.1561/29000000005>

DeLone is a professor at American University in Washington D.C. in the Department of Information Technology and has written 42 publications which have been cited over 22,185 times. On the other hand, McLean chairs the Department of Computer and information systems at Georgia State University. He has written 139 articles which have been cited over 24000 times by researchers and students.

The article is relevant to my topic since it illustrates how to measure the success of an information system and this can be applied to the healthcare facility to measure the success of the hospital information systems. When writing an essay on this topic, I will cite the quote, "Information systems are not static but dynamic, reinforcing the use of a process

perspective in our model.” This illustrates how a system evolves and this is critical in the improvement of healthcare information systems.

Maes, G., & Van Hootegem, G. (2019). A systems model of organizational change. *Journal of Organizational Change Management*. <https://doi.org/10.1108/JOCM-07-2017-0268>

Maes one of the authors of the article is currently a professor in KU Leuven in Centre for Sociological Research. He has written 13 publications which have been read over 8000 times and cited over 30 times by researchers, scientists, and students. Hootegen is also a professor in KU Leuven in Centre for Sociological Research and has written over 147 publications which have been read over 57,000 times and cited over 1360 times.

This article is relevant to my topic since it explains how system theory can be used to design an effective way and model for change management in the healthcare sector. In the lifetime of healthcare facilities, several changes are made and it is critical to effectively manage these changes and a system theory proves efficient in this case. One quote I will use in this article reads, “Viewed from a meta-level, systems theory is a fitting way to conceptualize a general model of organizational change, to provide a holistic view of organizational change.” This clearly shows the effectiveness of system theory in organizational change management.

Petter, S., DeLone, W., & McLean, E. R. (2012). The past, present, and future of “IS success”. *Journal of the Association for Information Systems*, 13(5), 2.

https://www.researchgate.net/profile/Ephraim-Mclean/publication/281112908_The_Past_Present_and_Future_of_IS_Success/links/5604c77208ae8e08c08aba83/The-Past-Present-and-Future-of-IS-Success.pdf

Stacie one of the author of this article is a professor at Baylor University in the Department of Information System. She has written 73 publications which have been read over 33,263 times and cited by researchers and students over 5491 times. On the other hand, DeLone is a professor at American University in Washington D.C. in the Department of Information Technology and has written 42 publications which have been cited over 22,185 times. McLean chairs the Department of Computer and information systems at Georgia State University. He has written 139 articles which have been cited over 24000 times by researchers and students.

This article will significantly support my topic since it illustrates how the IS system grows in an organization such as healthcare. It illustrates this growth by reviewing the past of an organization, present, and future. This article also outlines different characteristics of a system which will be discussed in this topic. One quote I can use in this article records, "Another example is healthcare information systems, in which measures of success are based on factors such as mortality and healthcare outcomes, in addition to profitability." This quote illustrates how the continuous growth of IS in healthcare facilities can assist in realizing productivity.

Ross, D. S., & Venkatesh, R. (2016). Role of hospital information systems in improving healthcare quality in hospitals. *Indian journal of science and technology*, 9(26), 1-5.

Ross is a lecturer at VIT University in the school of Business and highly experienced in healthcare-related topics such as healthcare informatics. She has written several publications which have been read and cited by several researchers. On the other hand, Venkatesh is a professor at VIT University in the School of Business. He has written 11 publications that have been cited over 50 times by researchers, scientists, and students.

This article applies to my topic since it discusses the importance of information systems in bettering healthcare services in hospitals. It also discusses various characteristics of a system and this can help in understanding how healthcare systems grow. One quote I can use in this article reads, "Hospital information systems have great potential in reducing healthcare cost and in improving health outcomes." This illustrates how healthcare IS are in enhancing healthcare services and processes and bettering different healthcare services such as enhancing the roles of physicians.

Aunger, J. A., Millar, R., Greenhalgh, J., Mannion, R., Rafferty, A. M., & McLeod, H. (2020).

Why do some inter-organizational collaborations in healthcare work when others do not? A realist review. <https://doi.org/10.21203/rs.3.rs-58882/v2>

The authors of the article hold different titles from different universities including professors and lecturers. They have collaboratively produced many articles which have been used by different scholars and researchers. For instance, Justin Avery is a researcher at Health Services Management Department at Birmingham University while Greenhalgh is a sociologist and researcher at the University of Leeds in the Department of Applied Sociology.

The article is relevant to my topic since it acknowledges and reinforces the importance of system theory. It elaborates on how different organizations such as healthcare can collaborate, develop and implement an inter-organization system to easily communicate, share resources and make decisions mutually. One quote from the article reads, "Inter-organizational collaboration continues to be promoted as a cure-all for the many ills that ail

modern healthcare systems and the broader public sector.” This means that different organizations should work collaboratively to provide solutions to issues affecting them.

Holden, R. J., Carayon, P., Gurses, A. P., Hoonakker, P., Hundt, A. S., Ozok, A. A., & Rivera-Rodriguez, A. J. (2013). SEIPS 2.0: a human factors framework for studying and improving the work of healthcare professionals and patients. *Ergonomics*, 56(11), 1669-1686. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3835697/>

The article is written by different authors who are specialists in different fields such as medicine and who hold different educational affiliations. For instance, Richard Holden is an associate professor in the School of Medicine and works in close collaboration with the Department of Biomedical informatics at the Vanderbilt University. On the other hand, Hoonakker is an experienced research scientist and works as an assistant research director at the department of Quality and Productivity improvement at Wisconsin-Madison University.

The article applies to my topic since it recognizes the need to embrace a new healthcare system by redesigning the old systems in a way that provides an effective healing process to the patients. One quote from this article reads, “Within the healthcare industry, major system redesign efforts and paradigm shifts are also evident worldwide since the original Code of Medical Ethics is being replaced by a paradigm of doctor-patient partnership and actively engaged patients.” This means that patients and doctors should work collaboratively to realize a successful healing and recovery process.

Bateh, J., Castaneda, M. E., & Farah, J. E. (2013). Employee resistance to organizational change. *International Journal of Management & Information Systems (IJMIS)*, 17(2), 113-116.

https://www.researchgate.net/profile/Orlando-Rivero/publication/326412229_The_lack_of_leadership_leading_to_misguided_organizational_change/links/5b4fd95eaca27217ffa202b3/The-lack-of-leadership-leading-to-misguided-organizational-change.pdf

Justin Bateh, one of the authors has a master's degree in Business Administration and is a professor and a consultant at Florida State College in the United States. On the other hand, Castaneda was a Doctor of Education at California State University in the United States. He was an educational practitioner, coordinator, teacher, counselor, and curriculum specialist United States. James Farah is a holder of a Doctorate of Business Administration and a lawyer at Jacksonville University.

The article is relevant to my topic since it addresses various ways organization managers should use to ensure that workers are ready to embrace a new change in the organization. One quote from the article reads, "For those employees who are more concerned with relationships to facilitate their readiness and overcome resistance, they need to be convinced that certain personnel changes are necessary and will be made as respectfully and fairly as possible." This means that organization managers ought to use methods that are convincing and give workers assurance that the change being implemented will be more beneficial to their organizations. In short, they must effectively explain any change to the staff.

Mareš, J. (2018). Resistance of health personnel to changes in healthcare. *Kontakt*, 20(3), e262-e272. <https://kont.zsf.jcu.cz/pdfs/knt/2018/03/10.pdf>

Mares who is the author of this article is a professor and a doctor in philosophy in the Department of Social Science at Charles University. He has written many articles in social science which have been cited by many researchers and scholars in their works.

This article is relevant to my topic since it elaborates on how healthcare organizations face various challenges when implementing change in the organizations. One quote from the article reads, "The implementation of changes in medical facilities (changes in the healthcare system) is not an easy issue." When healthcare organizations decide to change their system into a new and advanced one, they might face a lot of resistance since some medical practitioners and patients might accept the change while others refuse to embrace the change and it is vital to effectively manage the resistance.

Haefner, J. (2014). An application of Bowen family systems theory. *Issues in mental health nursing*, 35(11), 835-841.

https://www.researchgate.net/publication/267635549_An_Application_of_Bowen_Family_Systems_Theory

The author of the article, Haefner, is a registered nurse in the United States and is a Doctor in nursing practice and PMHCNS (psychiatric and mental health clinical nurse specialist). She has advanced clinical education in nursing practice and clinical expertise in issues related to depression, stress, and anxiety among others. As well, Haefner is an assistant professor at Michigan-flint University in the Department of Nursing. Haefner has also written several articles that have been used and cited by many researchers, medical scholars, and students.

The article is relevant to my topic because it explains how family system theory can be used to address and solve various issues related to mental health such as depression. One

key quote from the article records, “The family as a whole is greater than its parts, and change that affects one member, affects all members of the family impacting balance and stability.” This means that when one member of a family is suffering from a mental problem it is important for the healthcare providers to start by bringing change to the whole family rather than to focus on a single individual to realize complete healing and recovery.

Anderson, B. R. (2016). Improving healthcare by embracing systems theory. *The Journal of thoracic and cardiovascular surgery*, 152(2), 593.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4947551/>

The author of the article, Brett Anderson holds a master's degree in Business Administration and Science and is also a holder of Doctor of Medicine. He is an assistant professor at Columbia University Medical Center in New York City. As well, he is a pediatric cardiologist at CUMC (Columbia University Medical Center) in New York-Presbyterian Children's Hospital.

The article is relevant to my topic since it shows how systems theory can be used to improve the quality of services provided by healthcare facilities and professionals. The article explains how embracing system theory in the healthcare setting can assist in reducing adverse events and enhance patient care. One statement from the article states, “Causal Analysis based on Systems Theory asserts that when errors occur, one ought not to focus solely on individual failings, but on the surroundings that allowed such events to transpire.” This means that when a patient has a problem, for instance, with his or her renal function, it might be as a result of the cardiac muscle being squeezed, the type of medicines being taken, and the type of infection that the patient is fighting among other issues. The

ANNOTATED BIBLIOGRAPHY

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system theory implies that a complete analysis of these issues must be done to identify the real cause of the problem.