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An Education Change Project to improve Pharmacy and Nursing Collaboration

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An Educational Change Project to improve Pharmacy and Nursing Collaboration

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The University of Texas at Tyler, School of Nursing

In Partial fulfillment of

NURS 5382: Capstone

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04/25/2021

Contents

Acknowledgement

Executive Summary

Benchmark Study

1. Rational for the project
1:1 Project Goals
2. Literature Discussion to support project.
3. Project Stakeholders
4. Proposed Outcomes
5. Evaluation Design
6. Timetable/Flowchart
7. Data Collection Method
8. Discussion of Evaluation
9. Cost/Benefits

Conclusions / Recommendations

References

Appendix

Acknowledgement

I want to take this opportunity to thank everyone who has, in one way or the other help me reach this stage of my educational journey. Thank you, Dr. Colleen Marzilli, for your continued words of encouragement throughout this course. You made what was difficult in the eyes of many as straightforward as it can be. You kept me at ease going through this course, and your understanding of student's struggles is unmatched, which also made you relatable. I would also thank Dr. Lori John for taking the time to help me understand the evidence-based process through last semester. I would also like to thank Dr. Greer for her understanding and continued support. I thank instructors such as Dr. Deborah Crumpler, Dr. Jerri Post, and Dr. Gloria, who had been very supportive and contributed immensely to my educational success. I will thank my unit Manager, Mr. Melvin Bacchus, for making this project a success. I will thank my preceptor Mr. John Olaleye who had been so supportive and understanding throughout my time with him. I thank my family especially, my wife, Mansata Gibba, without whose support I will not reach this far. I thank my brother, Momat Secka, for his continued commitment to my progress since my childhood. I thank my parents for their wisdom and support, which made me the person I am today. I thank God for being my protector and savior, who gave me the strength to keep going.

Executive Summary

Nursing and the pharmacy department play a significant role in the delivery of quality health care. The relationship between nursing and the pharmacy staff is interdependence, making it extremely important for these two departments to communicate. In the absence of effective communication, misunderstanding between nurses and pharmacists could lead to unnecessary delays in the quality of service that the patients receive. The Veterans Affairs North Texas Health Care Systems (VANTHCS) devised a Drug Policy and Procedure (DPAP) on August 14th, 2013, governing the control and utilization of drugs for both inpatients and outpatients (North Texas Health Care Systems Memorandum No. 119-01, 2013).

North Texas Health Care System drug policy and procedures established that the pharmacy should provide *stat* medication orders within 30 minutes, *now* dose medications within 60 minutes, and *routine* medications within two hours (North Texas Health Care System, 2013). The purpose of the PICOT question "In acute care nurses and pharmacy department personnel (P) how does an educational program to facilitate effective communication (I) as compared to no educational program (C) affect nurse pharmacy communication (O) within three months (T)"? is to improve communication and collaboration between nursing and pharmacy personnel, which facilitates better understanding between these two departments and enhance the quality patient care delivery. Poor collaboration and communication among health care professionals could lead to dire consequences, including disrupted and delayed care (Celio et al., 2018). Professionally, it only makes sense that nurses and the pharmacy personnel establish and maintain an open level of communication, understanding, and collaboration to improve the quality of service provided to our veterans.

1. Rationale of the project

Frustration mounted towards the nurses as patients demand their medications. Nurses repeatedly called the pharmacy to recover patients' medications, which consumed a more significant amount of their time. The pharmacy personnel should focus on providing medicine regularly to allow nurses time to work on their patients. Pharmacy personnel become angry and frustrated with the many calls they receive from nurses as follow-

Running Head: AN EDUCATIONAL CHANGE PROJECT TO IMPROVE PHARMACY AND NURSING COLLABORATION

ups. Nurses become equally frustrated that they cannot get medication to administer to their patients. Mutual communication, trust, respect, and understanding between nurses and pharmacy personnel is running thin. If this trend continues, it will further damage the working relationship between nurses and pharmacy personnel, and patients will continue to receive low-quality health care delivery.

Wilbur and Kelly (2015) noted that collaborative learning could promote skills before stereotypes fill the void. Therefore, Wilbur and Kelly suggest interprofessional education could be helpful during the orientation process in new hires for nursing and the pharmacy department. Wilbur and Kelly (2015) further shared that students in their study acknowledged how they could learn from each other, which could favorably affect patient care. Poor collaboration and communication among health care professionals could lead to dire consequences, including disrupted and delayed care (Celio et al., 2018). This information is vital to this change project. It addresses the issue of delay in care, which is one of the central concerns when the pharmacy does not deliver medications for the nurses to administer to the patients. Nurse-pharmacist collaboration can increase nursing knowledge in various pharmacotherapies, which could be vital when counseling and educating their patients (Pherson et al., 2018). Therefore, effective communication and meaningful collaboration must be established and maintained between nursing and the pharmacy department to improve the relationship between these professions and maximize patient care quality.

1:1 Project Goals

This benchmark project aims to improve communication and collaboration between nursing and pharmacy personnel, which facilitates better understanding between these two departments and enhances the quality of patient care delivery. Poor collaboration and communication among health care professionals could lead to dire consequences, including disrupted and delayed care (Celio et al., 2018). It is vital to find tangible solutions to the communication gap between these two professionals and possibly avert any potential harm that could arise if communication is not improved. Nurses and pharmacy personnel share the same goal of serving patients and heavily rely on each other to accomplish patient satisfaction. Professionally, it

Running Head: AN EDUCATIONAL CHANGE PROJECT TO IMPROVE PHARMACY AND NURSING COLLABORATION

only makes sense that nurses and the pharmacy personnel establish and maintain an open level of communication, understanding, and collaboration to improve the quality of service provided to the patients.

2. Review of Literature

The literature is from famous and highly reliable databases, including the Cochrane Database of Systematic Reviews (CDSR), Cumulative Index to Nursing and Allied Literature (CINAHL), PubMed, ProQuest, and Medline. Keywords in the literature search were, Nursing pharmacy education, professional collaboration, the outcome of interprofessional education programs, and effects of nursing and pharmacy collaboration. The initial literature search yielded six peer-reviewed studies with additional evidence relevant to the PICOT question for this paper. These studies include a scoping review of peer-reviewed literature (Lutfiyya et al., 2019); a pretest-posttest control group design study (Jung et al., 2020); a systematic review (Reeves et al., 2018); one group post-test design (Tsakitzidis et al., 2015); qualitative study (Mellor et al., 2013); and one-group pretest-posttest quasi-experimental study (Wong et al., 2017). All six studies support interprofessional education and collaboration to improve communication (Reeves et al., 2018; Wong et al., 2017; Mellor et al., 2013; Jung et al., 2020; Lutfiyya et al., 2019; Tsakitzidis et al., 2015).

Participants in interprofessional education gained better communication skills, understood other professions' roles, valued and respected other professionals (Wong et al., 2017; Mellor et al., 2013; Jung et al., 2020; Tsakitzidis et al., 2015). These studies suggest that an interprofessional educational program will improve communication between professionals and strengthen collaboration (Wong et al., 2017; Mellor et al., 2013; Jung et al., 2020; Tsakitzidis et al., 2015). While there are some positive outcomes reported on interprofessional education, these outcomes should not be generalized due to the limited sample size in some of these studies (Reeves et al., 2018; Wong et al., 2017; Jung et al., 2020; Tsakitzidis et al., 2015). Further literature search yield additional studies which support the importance of interprofessional education. These studies include systematic review (Riskiyana et al., 2018; Jackson et al., 2016); systematic review and meta-analysis (Herath et al., 2017); Qualitative approach studies (Mahler et al., 2018); quantitative randomized control trial study (Hamada et al., 2019); and a control trial study (Darlow et al., 2015). There were twelve

Running Head: AN EDUCATIONAL CHANGE PROJECT TO IMPROVE PHARMACY AND NURSING COLLABORATION

studies in this literature, which positively views the importance of interprofessional education. Inter-professional education improved knowledge, skills, and behavior of interprofessional collaborative competencies (Riskiyana et al., 2018; Darlow et al., 2015; Hamada et al., 2019). Mahler et al. (2018) revealed that students assessed interprofessional learning as positive and that it allows them to understand other professions and their perspectives better. Herath et al. (2017) concluded that developed countries had more capacities to expand education than developing countries that needed more direction to improve interprofessional programs. Jackson et al. (2016) pointed out that some studies reported a more positive attitude to interprofessional working because of the intervention. Still, the evidence of the reported outcome was weak. With such varying positive results cited on the importance of professional education, it is crucial that nursing and the pharmacy department venture into an educational program to facilitate mutual communication and improve relations for more significant patient outcomes.

3. Project Stakeholders

This evidence-based change project will tentatively occur in the Dallas Veterans Administration (VA) Hospital at 5C400 unit, a 20-bed acute care medical-surgical telemetry. The team is usually staffed with four to five registered nurses (RN) every shift, depending on staffing levels. Essential data to build a case for change will include the hospital medication policy, which stipulates the allowed time for the medication to be made available from the pharmacy to nurses. It will also be crucial to have data on the number of missing medication requests made by nurses and the number of follow-up calls to the pharmacy. These records are essential to show the delay in inpatient care resulting from untimely verification and medication delivery from the pharmacy. Data from the pharmacy about factors affecting their service delivery will provide information about areas where nurses can collaborate with the pharmacist to make their roles easier. This evidence-based change project's stakeholders will include nurses, unit managers, pharmacists, pharmacy technicians, and pharmacy supervisors. The nurse unit manager and pharmacy manager are naturally the gatekeepers.

4. Proposed Outcomes

Running Head: AN EDUCATIONAL CHANGE PROJECT TO IMPROVE PHARMACY AND NURSING COLLABORATION

The Veterans Affairs North Texas Health Care Systems (VANTHCS) devised a Drug Policy and Procedure (DPAP) on August 14th, 2013, governing the control and utilization of drugs for both inpatients and outpatients (North Texas Health Care Systems Memorandum No. 119-01, 2013). North Texas Health Care System drug policy and procedures established that the pharmacy should provide *stat* medication orders within 30 minutes, *now* dose medications within 60 minutes, and *routine* medications within two hours (North Texas Health Care System, 2013). Adherence to the agency's policy is vital to accomplishing any meaningful outcome. Melnyk and Fineout-Overholt (2019) explained that Rogers' Diffusion of Innovation Theory (2003) includes identifying innovators and early adaptors within the unit. It maintained a call to maintain open communication and dialogue through mutual respect and understanding to resolve concerns and gain confidence and cooperation from all stakeholders. The outcome includes 1. Improve communication between nurses and pharmacy personnel; 2. More collaboration between nursing and pharmacy; 3. Better working relationship between nurses and pharmacy personnel; 4. Nurses and pharmacy staff spend time in each other's departments during orientation; 5. Better understanding of each other's roles between the pharmacy staff and nursing staff; and 6. Timely verification of doctor's orders and delivery of medication to the unit for administration to the patients.

5. Evaluation Design

The project leader will evaluate the number of missing medication requests made by nurses from the pharmacy. The expectation is that missing medication requests will decrease after the implementation of the change project. Missing medication data will be collected every shift and compared to absent medication requests before the performance. A decrease will indicate success. Nurses will be encouraged to record missing amounts for one month before implementing this education program and within the project's three-month duration. These records will provide measurable outcomes on the difference before and after implementing the nursing and pharmacy education. The change project will monitor missing medication while equally examining nurse-pharmacist relations. Pretest and post-test questionnaires will be utilized to gauge nurses and pharmacy

Running Head: AN EDUCATIONAL CHANGE PROJECT TO IMPROVE PHARMACY AND NURSING COLLABORATION

perception and attitude towards interprofessional collaboration. The project leader will Compare the pretest and post-test to determine the program's level of impact on participants.

6. Timetable / Flowchart

The PICOT in Translation science I was related to fall prevention. In Translation science II it changed to nursing and pharmacy personnel interprofessional collaboration. However, during the previous semester with the Organization and Systems Leadership course, the instructor advised that the evidence was not supporting the outcome, which prompted a comprehensive search of new studies that show effects in interprofessional education. The project is now a benchmark project due to the pandemic to minimize the potential for Covid infection. The project leader discussed the Benchmark project with the unit manager who welcomed the idea. However, a formal presentation is still pending changes in Covid 19 principles.

7. Data Collection Methods

The project leader collected data through a literature search and factored the strengths and weaknesses of such programs and studies related to this specific change project. The project leader created a personal tool where nurses document all the missed medications they requested from the pharmacy, how long it took them to receive their request, follow-up calls made to the pharmacy duration of those calls. This tool also shows whether it involves a newly admitted patient or not. This tool will be valuable to identify the problem and find a solution.

8. Discussion of Evaluation

The project leader did not evaluate the Benchmark project officially. However, the unit manager welcomes the idea and suggest that the project could make a difference. They are members of the management team who are very supportive and will continue to give their input for the necessary evidence-based findings to aid in the project's approval.

9. Cost / Benefit

Running Head: AN EDUCATIONAL CHANGE PROJECT TO IMPROVE PHARMACY AND NURSING COLLABORATION

The most valuable resources for this evidence-based benchmark project are the time spent by nursing and pharmacy personnel to participate in this project successfully. This evidence-based change project requires a financial cost estimated at 700 dollars. \$500 expenditure is estimated to cover the cost of breakfast, lunch, dinner, snacks, and drinks for participants for a three-day session, including the day shift and evening shift. The remaining \$200 is estimated to cover the cost of stationery supplies such as pens writing papers. The managers need to allocate time for nursing and pharmacy personnel to participate in the program. The benefit outweighs the cost because, with a successful nurse-pharmacy collaboration, there will be better staff working relationship which facilitates understanding and respect. Timely delivery of medication will translate to adherence to company policy and patient satisfaction. A healthy work environment is an essential aspect of full-service delivery.

Conclusions /Recommendations

Nursing and the pharmacy department play a significant role in the delivery of quality health care. The relationship between nursing and the pharmacy staff is interdependence, making it extremely important for these two departments to communicate. Poor collaboration and communication among health care professionals could lead to dire consequences, including disrupted and delayed care (Celio et al., 2018). In the absence of effective communication, misunderstanding between nurses and pharmacists could lead to unnecessary delays in the quality of service that the patients receive. Given the significant role nurses and pharmacists play in any healthcare environment, it is paramount that collaboration and healthy working relationships exist. A healthy working environment could minimize stress among health care workers, but most importantly, it promotes quality service delivery for maximum patient satisfaction.

References

- Celio, J., Ninane, F., Bugnon, O., & Schneider, P. M. (2018). Pharmacist-nurse collaboration in medication adherence-enhancing intervention: A review. *Elsevier BV* 101, 1175-1192. <https://doi.org/10.1016/j.pec.2018.01.022>
- Dang, D., Melnyk, M. B., Fineout-Overholt, E., Yost, J., Cullen, L., Cvach, M., Larabee, H. J., Rycroft-Malone, J., Schultz, A. A., Stetler, B. C., & Stevens, R. K. (2019). Models to guide implementation and sustainability of the evidence-based practice. In Melnyk, B. M. & Fineout-Overholt, E. (4th ed). *Evidence-based practice in nursing and healthcare: A guide to best practice. Wolters Kluwer.* 378-427. ISBN 978-1-4963-8453-9.
- Department of Veterans Affairs (2013). North Texas Health Care System (VANTHCS) Drug policy and procedures memorandum No. 119-01. 1-23
- Jung, H., Park, H. K., Min, H. Y., & Ji, E. (2020). The effectiveness of interprofessional education programs for medical, nursing, and pharmacy students. *Korean Journal of Medical Education.* 32(2), 131-142. <https://doi.org/0000-0002-0008-2400>
- Lutfiyya, N. M., Chang, F. L., McGrath, C., Dana, C., & Lipsky, S. M. (2019). The state of the science of interprofessional collaborative practice: A scoping review of the patient health-related outcomes-based literature published between 2010 and 2018. *PLOS ONE.* 14(6): <https://doi.org/10.1371/journal.pone.0218578>
- Melnyk, B. M., & Fineout-Overholt, E. (2019). *Evidence-based practice in nursing & healthcare: A guide to best practice (4th ed.)*. Wolters Kluwer. ISBN 978-1-4963-8453-9
- Mellor, R., Cottrell, N., & Moran, M. (2013). "Just working in a team was a great experience..."- Student perspectives on the learning experiences of an interprofessional education program. *Informa UK, Ltd.* 27: 292-297. <https://doi.org/10.3109/13561820.2013.769093>

Running Head: AN EDUCATIONAL CHANGE PROJECT TO IMPROVE PHARMACY AND NURSING COLLABORATION

Pherson, E., Roth, J., Nkimbeng, M., Boyd, C., & Szanton, L. S. (2018). Ensuring safe and optimal medication use in older community residents:

Collaboration between a nurse and a pharmacist. *Elsevier Inc* 39, 554-559. <https://doi.org/10.1016/j.gerinurse.2018.03.004>

Reeves, S., Perrier, L., Goldman, J., Freeth, D., & Zwarenstein, M. (2018). Interprofessional education: Effects on professional practice and

healthcare outcomes (Review). *Cochrane Database of Systematic Reviews*: 3(CD002213), 1-

24. <https://doi.org/10.1002/14651858.CD002213.pub3>

Tsakitzidis, G., Timmermans, O., Callewaert, N., Truijen, S., Meulemans, H., & Royen, V. P. (2015). Participant evaluation of an education module

on interprofessional collaboration for students in health studies. *BMC Medical Education*. 15(188), 1-8. [https://doi.org/10.1186/s12909-015-](https://doi.org/10.1186/s12909-015-04770)

[04770](https://doi.org/10.1186/s12909-015-04770)

Wilbur, K., & Kelly, I. (2015). Interprofessional impressions among nursing and pharmacy students: A qualitative study to inform interprofessional

education initiatives. *BMC Medical Education*, 15(53), 1-8. <https://doi.10.1186/s12909-015-0337-y>

Wong, C. K. A., Wong, Y. K. F., Chan, K. L., Chan, N., Ganotice, A. F., & Ho, J. (2017). The effect of interprofessional team-based learning among

nursing students: A quasi-experimental study. *Elsevier Ltd*. 13-18. <https://dx.doi.org/1010116/j.nedt.2017.03.004>

Appendix A
Evaluation Tool

Not at all
Somewhat
Almost Completely
Completely

1. The teaching/learning resource(s) were adequate.

Not at all
Somewhat
Almost Completely
Completely

2. The content was relevant to the learning outcome.

Not at all
Somewhat
Almost Completely
Completely

3. The learning objectives were clearly stated.

Not at all
Somewhat
Almost Completely
Completely

4. Describe the roles and responsibilities of the nurse and pharmacy personnel in interprofessional collaboration.

Not at all
Somewhat
Almost Completely
Completely

5. Describe negative and positive attributes of nurses and pharmacy personnel in towards interprofessional collaboration.

Not at all
Somewhat
Almost Completely
Completely

Running Head: AN EDUCATIONAL CHANGE PROJECT TO IMPROVE PHARMACY AND NURSING COLLABORATION

6. Demonstrate the educational process for assessment, planning and implementation of learning experiences.

Not at all

Somewhat

Almost Completely

Completely

7. The length of the program was adequate.

Not at all

Somewhat

Almost Completely

Completely

8. The overall program was satisfactory.

Not at all

Somewhat

Almost Completely

Completely

