A Novel, Low-Cost Scholarly RN Fellowship for Retention, Satisfaction, and Scholarly Outcomes

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Purpose: The purpose of this study is to describe the development and implementation of a novel, low-cost, streamlined Registered Nurse (RN) Scholars Research Fellowship Program at a large hospital system with an academic medical center and multiple Magnet-designated teaching hospitals. The program was designed and evaluated with scholarly outcomes as well as retention, satisfaction, and intention-to-stay outcomes.

The generation of new nursing knowledge is valuable for improving patient care and advancing the nursing profession. Magnet-designated hospitals and research organizations value the role of nursing research, and strive for infrastructure that supports the generation of new knowledge. While there is an abundance of interest in clinical nursing research, there is often a deficit in the research skill level at the bedside. This means that a research mentor is needed to develop and promote these skills among direct-patient care nurses. Many organizations face challenges with the implementation and sustainability of nurse-driven research infrastructure. Since approximately 0.5% of all nurses in the U.S. have PhDs, there is a paucity of RNs with PhDs conducting research in the clinical setting, and there is a shortage of high-quality nursing research projects that involve clinical direct-patient-care nurses. Further, it is challenging for organizations to retain the direct-patient-care nurses who have specialized research skills and/or master's degrees.

Research fellowships have been implemented to help develop research skills among the direct-patient-care workforce. Previous research fellowships have been costly and/or time-intensive with multiple challenges to implementation success and sustainability. Mentoring can be time-intensive. Clinical nurses struggle to find time to dedicate to nursing research projects because, due to the constant challenge for hospital systems to do more with less, clinical nurses are scheduled for patient care instead of having protected time for research. Due to limited resources and time, the nursing projects are often limited in scope to a single unit or department. Thus, there is a need for a more efficient and cost-effective approach to research fellowships that allow nurses to maximize their time, streamline efforts, and make a broader impact.

Methods: A theoretical model based on an integration of Boyer's Model of Scholarship, national nursing competencies, and clinical organizational priorities was used to guide the program development, implementation, and evaluation. Program development was based on elements discussed in previous literature: Leader/mentor selection (Clinical Research Scientist RN working for the Nursing Research department and dedicating 30% effort on the program); participants (clinical, direct-patient-care RNs with master's degrees, at least 3 years experience, and have completed an RN Expert level evidence based practice project); project selection (based on organizational priorities and integrated with the work of the Clinical Research Scientist RN leader); approach (multi-site, team-based approach); curriculum (activity-based, application-focused group work sessions every two weeks instead of less frequent didactic

sessions); program cost; program outcomes (both scholarly research outcomes and RN retention, satisfaction, and intent to stay). A cohort of four RNs from diverse backgrounds (diverse in clinical specialty, location, department, and nurse characteristics) participated in the first year of the program.

Results: The four nurses represented two Magnet-designated hospital sites and four different hospital departments (neonatal intensive care, perioperative, intensive care, and intermediate/stepdown units). The group was comprised of diverse race/ethnic backgrounds: non-Hispanic Black (1), Hispanic (1), and non-Hispanic white (2). For all of the scholars in this cohort, this was the first time that they had done any of these types of scholarly activities. The results achieved by the group represent a variety of scholarly activities. First, a systematic review of the literature (N=40 articles in the final sample) was conducted using PRISMA guidelines. Results were presented to the system's Chief Nursing Officer, the Senior Director of Nursing Education and Professional Practice, and other key nursing leaders. The systematic review was also submitted for publication and presentation at a research conference. The scholars completed an Institutional Review Board (IRB) research proposal submitted for a multi-site study about RN retention. The IRB-approved research project was implemented, data was collected, and results (pending at the time of submission) will be analyzed and distributed to nursing leaders and their units throughout the network of hospitals. Additionally, a $35,000 grant application was submitted for another research project (results pending at the time of submission).

At baseline, the nurses scored low on job satisfaction and intent to stay. At the mid-point, there was an improvement in both outcomes. One nurse stated that she had planned to leave the organization to apply her master's-level education in an academic teaching role, but because of the research fellowship opportunity, she chose to remain in her current role. This represents an $65-85,000 savings for the organization by avoiding turnover costs. It is expected that the findings will be sustained and/or improved upon completion of the pilot year.

Conclusions: The RN Scholar Program achieved the same or more scholarly output as previous programs described in the literature (even with some results pending at the time of this abstract submission) with less cost to the organization and minimal time investment as compared to previously published programs.

Mentor. Choosing the Clinical Research Scientist RNs as leaders for the program was an advantage due to cost savings and improved efficiency. Because the program was integrated with the work of the nursing research scientists, it required 0.33 FTE instead of 1.0 FTE that was used by previous programs. Further, the mentors were familiar with the priorities and initiatives of the organization and were able to quickly tailor activities and programs. The mentors also had recent clinical patient care experience and diverse research experience (bench, pharmaceutical/medical industry-sponsored and investigator-initiated, academic and clinical nursing, and interprofessional projects), thus adding value to the program.

Participants. By involving only those nurses who work in direct-patient-care with master's degrees and at least three years of work experience, the program outcomes are aligned with the experience, skills, and training of the participants. This is aligned with educational best-practices to align the work expectations with the skill level of the nurse, so although the nurses are new to the specific tasks, they are not so new to research that they require extensive support from the mentor.

Multi-Site Team-Based Project Approach. By choosing a multi-site team project approach, the streamlined efforts are more aligned with the experience levels of the RN Scholars and require less mentoring hours overall. The collaborative project format is more conducive to multi-site projects with a broader impact than a single unit or single site project.

The expectation that nurses should be released from direct-patient-care time to support a high-quality, relevant individual project is unsustainable. Managers often want to be supportive but find it difficult to maintain the release of time because of the constant pressure to do more with less. With a team-based approach, nurses are able to continue working patient care shifts and still complete a project. This team-

based program creates a multi-site cohort effect, which at the mid-point of the program, we found improved scholarly outcomes, nursing satisfaction, and intent to stay.

Activity-Based Curriculum. RN Scholars have completed a master's degree program and have the didactic foundation to complete scholarly work. The program is structured around activity-focused work sessions to develop skills and produce the desired outcomes. The activity-based group meetings helped to keep the work moving forward and the team-based approach led to more scholarly work being done on a larger scale at a rapid pace. We found that this approach allowed for aligning schedules and scholar attendance at the sessions was 100%. Scholars met every two weeks for the duration of the year for 30 minutes to 1.5 hours, depending on the activity at the time.

Cost. The primary cost saving is in the mentor salary as compared to previous programs that hired a Professor Emeritus – with a difference of 0.33 FTE vs 1.0 FTE. The scholars received a $7500 bonus for successful completion of the program deliverables. The bonus is designed to promote outcomes and RN retention. It was created in alignment with the national standardized pay structure of the organization. Like other programs, the RN scholars worked additional unpaid hours to complete program deliverables. They stated that although not required, they felt that the bonus compensation and the learning experience of participating was worth the extra time investment.

Program Outcomes. By focusing on both RN retention and scholarly research, the program meets multiple organizational needs. Outcomes were both scholarly research focused (and aligned with Magnet criteria for nursing research) and RN Satisfaction/RN Retention Focused. We found that the program improved all outcomes at the midpoint of the study, and expect to find a sustained improvement upon completion of the first year.

Implications and Limitations. This program has the potential for broad applicability and widespread dissemination to hospital systems that are challenged to produce high quality clinical nursing research involving direct-patient-care nurses. Findings from this study are limited due to the sample size, particularly for the retention and satisfaction variables; however, the scholarly outcome results are substantial despite the limitations. Further research is warranted to determine the impact of the intervention on retention and satisfaction in a broader sample of nurses.

Title:
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Keywords:
direct patient care clinical nurses, research fellowship and retention

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Abstract Summary:
Less than 0.5% of all nurses have a PhD, and there is a paucity of high quality clinical nursing research being generated by nurses involved in direct patient care. A novel, low-cost, efficient research fellowship is discussed along with its effects on nurse satisfaction, intent to stay, and scholarly outcomes.

Content Outline:
1. Background and Significance of the Problem

   a. The generation of new nursing knowledge is valuable for improving patient care and advancing the nursing profession. Magnet-designated hospitals and research organizations value the role of nursing research, and strive for infrastructure that supports the generation of new knowledge. While there is an abundance of interest in clinical nursing research, there is often a deficit in the research skill level at the bedside. This means that a research mentor is needed to develop and promote these skills among direct-patient care nurses. Many organizations face challenges with the implementation and sustainability of nurse-driven research infrastructure. Since approximately 0.5% of all nurses in the U.S. have PhDs, there is a paucity of RNs with PhDs conducting research in the clinical setting, and there is a shortage of high-quality

nursing research projects that involve clinical direct-patient-care nurses. Further, it is challenging for organizations to retain the direct-patient-care nurses who have specialized research skills and/or master's degrees.

b. Research fellowships have been implemented to help develop research skills among the direct-patient-care workforce. Previous research fellowships have been costly and/or time-intensive with multiple challenges to implementation success and sustainability. Mentoring can be time-intensive. Clinical nurses struggle to find time to dedicate to nursing research projects because, due to the constant challenge for hospital systems to do more with less, clinical nurses are scheduled for patient care instead of having protected time for research. Due to limited resources and time, the nursing projects are often limited in scope to a single unit or department. Thus, there is a need for a more efficient and cost-effective approach to research fellowships that allow nurses to maximize their time, streamline efforts, and make a broader impact.

2. Purpose

The purpose of this study is to describe the development and implementation of a novel, low-cost, streamlined Registered Nurse (RN) Scholars Research Fellowship Program at a large hospital system with an academic medical center and multiple Magnet-designated teaching hospitals. The program was designed and evaluated with scholarly outcomes as well as retention, satisfaction, and intention-to-stay outcomes.

3. Methods

a. Theoretical framework - An integrated model developed by the PI and adapted from Boyer's Model of Scholarship, national nursing competencies, and clinical organizational priorities was used to guide the program development, implementation, and evaluation.
b. Program Description -
    i. Leader/mentor selection (Clinical Research Scientist RN working for the Nursing Research department and dedicating 30% effort on the program)
    ii. Participants (clinical, direct patient care RNs with master's degrees, at least 3 years experience, and have completed an RN Expert level evidence based practice project)
    iii. Project selection (based on organizational priorities and integrated with the work of the Clinical Research Scientist RN leader)
    iv. Approach (multi-site, team-based approach)
    v. Curriculum (activity-based, application-focused group work sessions every two weeks instead of less frequent didactic sessions)
    vi. Program cost
    vii. Program outcomes
        i. Scholarly research outcomes (systematic review of the literature using PRISMA guidelines and a Cochrane risk of bias assessment, writing a grant proposal, presentation of synthesis of the literature findings to leadership, submission of a manuscript for publication, submission of an abstract for a conference presentation, IRB-proposal submission, design, implementation, and analysis of a research project related to RN retention, dissemination of findings to unit/department, hospital, and key leaders), involvement in various network-level research activities (conducting focus group studies, cognitive interviewing for instrument development, etc.)
        ii. RN satisfaction and intent to stay

4. Results

The four nurses represented two Magnet-designated hospital sites and four different hospital departments (neonatal intensive care, perioperative, intensive care, and intermediate/stepdown units). The group was comprised of diverse race/ethnic backgrounds: non-Hispanic Black (1), Hispanic (1), and non-Hispanic white (2). For all of the scholars in this cohort, this was the first time that they had done any of these types

of scholarly activities. The results achieved by the group represent a variety of scholarly activities. First, a systematic review of the literature (N=40 articles in the final sample) was conducted using PRISMA guidelines. Results were presented to the system's Chief Nursing Officer, the Senior Director of Nursing Education and Professional Practice, and other key nursing leaders. The systematic review was also submitted for publication and presentation at a research conference. The scholars completed an Institutional Review Board (IRB) research proposal submitted for a multi-site study about RN retention. The IRB-approved research project was implemented, data was collected, and results (pending at the time of submission) will be analyzed and distributed to nursing leaders and their units throughout the network of hospitals. Additionally, a $35,000 grant application was submitted for another research project (results pending at the time of submission).

At baseline, the nurses scored low on job satisfaction and intent to stay. At the mid-point, there was an improvement in both outcomes. One nurse stated that she had planned to leave the organization to apply her master's-level education in an academic teaching role, but because of the research fellowship opportunity, she chose to remain in her current role. This represents an $65-85,000 savings for the organization by avoiding turnover costs. It is expected that the findings will be sustained and/or improved upon completion of the pilot year.

5. Conclusions

The RN Scholar Program achieved the same or more scholarly output as previous programs described in the literature (even with some results pending at the time of this abstract submission) with less cost to the organization and minimal time investment as compared to previously published programs.

a. Leader

Choosing a Clinical Research Scientist RN as a leader for the program was an advantage due to cost savings and improved efficiency. Because the program was integrated with the work of the research scientist, it required 0.33 FTE instead of 1.0 FTE that was used by previous programs. Further, the clinical research scientist was familiar with the priorities and initiatives of the organization and was able to quickly tailor activities and programs. The clinical research scientist also had recent clinical patient care experience and academic research experience as opposed to academic research alone, thus adding value to the program.

b. Participants

By involving only those nurses who work in direct-patient-care with master's degrees and at least three years of work experience, the program outcomes are aligned with the experience, skills, and training of the participants. This is aligned with educational best-practices to align the work expectations with the skill level of the nurse, so although the nurses are new to the specific tasks, they are not so new to research that they require extensive support from the mentor.

c. Multi-Site Team-Based Project Approach

By choosing a multi-site team project approach, the streamlined efforts are more aligned with the experience levels of the RN Scholars and require less mentoring hours overall. The collaborative project format is more conducive to multi-site projects with a broader impact than a single unit or single site project.

The expectation that nurses should be released from direct-patient-care time to support a high-quality, relevant individual project is unsustainable. Managers often want to be supportive but find it difficult to maintain the release of time because of the constant pressure to do more with less. With a team-based approach, nurses are able to continue working patient care shifts and still complete a project. This team-

based program creates a multi-site cohort effect, which at the mid-point of the program, we found improved scholarly outcomes, nursing satisfaction, and intent to stay.

d. Activity-Based Curriculum

RN Scholars have completed a master's degree program and have the didactic foundation to complete scholarly work. The program is structured around activity-focused work sessions to develop skills and produce the desired outcomes. The activity-based group meetings helped to keep the work moving forward and the team-based approach led to more scholarly work being done on a larger scale at a rapid pace. We found that this approach allowed for aligning schedules and scholar attendance at the sessions was 100%. Scholars met every two weeks for the duration of the year for 30 minutes to 1.5 hours, depending on the activity at the time.

e. Cost

The total program cost per year is $80,000 including mentor salary, supplemented time paid by the research department (up to 2 hours per nurse per week), and a bonus pay for the scholars upon completion of program objectives. The primary cost saving is in the mentor salary as compared to previous programs that hired a Professor Emeritus – with a difference of 0.33 FTE vs 1.0 FTE. The scholars received a $7500 bonus for successful completion of the program deliverables. The bonus is designed to promote outcomes and RN retention. It was created in alignment with the national standardized pay structure of the organization. Like other programs, the RN scholars worked additional unpaid hours to complete program deliverables. They stated that although not required, they felt that the bonus compensation and the learning experience of participating was worth the extra time investment.

f. Program Outcomes

By focusing on both RN retention and scholarly research, the program meets multiple organizational needs. Outcomes were both scholarly research focused (and aligned with Magnet criteria for nursing research) and RN Satisfaction/RN Retention Focused. We found that the program improved all outcomes at the midpoint of the study, and expect to find a sustained improvement upon completion of the first year.

5. Implications & Limitations

This program has the potential for broad applicability and widespread dissemination to hospital systems that are challenged to produce high quality clinical nursing research involving direct-patient-care nurses. Findings from this study are limited due to the sample size, particularly for the retention and satisfaction variables; however, the scholarly outcome results are substantial despite the limitations. Further research is warranted to determine the impact of the intervention on retention and satisfaction in a broader sample of nurses. Subsequent years can explore providing the bonus based on supporting a team of RN Scholar peers as they achieve the program and organizational goals, thus magnifying the impact of the training while keeping the mentor contribution constant.

6. Q&A

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