IMPACT OF PAIN CHAMPION PROGRAM ON INPATIENT SURGICAL UNITS

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INTRODUCTION / AIM
The purpose of this study was to examine the effect an intensive pain management nursing mentorship program would have on 1) the nurses involved in the program; 2) nurse colleagues who were not a part of the program; 3) pain documentation; and 4) patient experiences. In a collaborative effort between PainBC and Fraser Health, 17 registered nurses from surgical inpatient units at 4 hospitals participated in a 1 year intensive mentorship education project. Intensive nursing mentorship model of care has been shown to beneficially impact pain management including increasing the knowledge and skill of the nurses who were mentored (McMillan, Tittle, Hagan, & Small, 2005), improving awareness and increasing practice of patient centered care (Holley, McMillan, Hagan, Palacios, & Rosenberg, 2005), reduced staff turnover amongst those involved in the program, improving patient satisfaction with pain control, decreasing the prevalence of pain, (Grant, Ferrell, Hanson, Sun, & Uman, 2011; Paice, Barnard, Creamer, & Omerod, 2006) and improving pain documentation (Binhas, et al., 2011). However little has been published regarding the impact of such a program on patient satisfaction/patient reported pain; and the perception on pain management from colleague nurses (i.e. nurses not participating in the program).

METHODS
This was a small pilot pre-test post-test study with multiple data sources, examining the impact of a Nurse Pain Champion program on surgical inpatient units. A year long mentorship program with 17 registered nurses, from the surgical inpatient units at 4 hospitals in Fraser Health was implemented in 2013/2014. Through 4 sources of data collection: 1) Pain Champion nurse knowledge and skill pre test and post test, 2) non Pain Champion nurse survey, 3) patient satisfaction survey and 4) chart audit we examined the changes that occur as a result of this program.

Data was collected at three time points, pre, mid and post implementation of the mentorship program.

Tools:
The Knowledge and Attitudes Survey Regarding Pain developed by Betty Ferrell, & Margo Mcaffery in 1987 and revised in 2012 was utilized for assessing the Pain Champion nurses pre and post test. To assess the perspectives of the non Pain Champion nurses, we used the Strategic and Clinical Quality Indicators in Post Operative Care, a validated and reliable tool developed by Idvall, Hamrin, Sjostrom & Unosson, (2001).

Post operative Patient Charts (Day 1 to Day 3 post surgery) were audited for: frequency pain scores were documented, frequency of pain scores at 5/10 or greater; and frequency of pain
reassessment after pain medication was provided. Patient perspective was obtained using a Patient Post-operative Pain Management Survey that was adapted from the Revised American Pain Society Patient Outcome Questionnaire (Gordon et al., 2010).

**RESULTS**

Pain Champion nurses who completed the intensive survey: 100% scored the same or improved on the Knowledge and Attitudes Survey, with 92% improving. Participants knowledge improved from pre implementation (M = 23.75, SE = 0.617) to post implementation (M=26.53, SE = 0.45), \( t (11) = -4.612, p = 0.001, r = 0.8 \). All feedback from the pain champion themselves indicated a high level of satisfaction with the project.

Pain Documentation improved across all 3 time periods, measured by the frequency of pain documentation for each shift (day and night) during the post operative period. The mean frequency of pain documentation for post operative day 1 (24 hour period) was 4.69 (pre implementation), improved to 6.67 in the middle of the project and continued with a mean of 6.6 pain documentations at the end of the 1 year project. Pain documentation on day 1 was significantly different between the 3 time periods (H(2) = 9.13, P<0.05); on night 1, (H(2) = 8.58, P<0.05) and day and night 3 (H(2) 6.740, 9.61, P<0.05. No statistical difference was found for day 2 documentation.

Nurses who were not pain champions were surveyed pre and post intervention for their assessment of the pain practices on the units. All of the surveys showed improvement over the year, although not all results reached statistical significance. The statement "After the operation nurses talk with patients about how the patients want their pain to be managed" had the largest improvement with an increase of 20% of nurses indicating that they fully or strongly agreed with this statement (p = 0.012, r=0.2).

**DISCUSSION / CONCLUSIONS**

These findings reflect the importance and value of pain education as part of a mentorship program. Through a combined funding opportunity that linked a non profit advocacy group with a provincially funded health care system, we were able to improve nursing knowledge, skills, documentation and perception of pain management. Similar to other previously reported projects, this project was well received and improved the skills and knowledge individual nurses involved in the mentorship program1.

Our hope had been that through this work we would demonstrate a significant improvement beyond just those that were being mentored. Although it appears we succeeded to some level, with improvements in pain documentation and non pain champion nurse perception of pain management on the surgical unit, we unfortunately did not find any significant change in patient

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perception or experience of pain. We suspect this is likely to the dilute nature of our project, (only 2 to 3 nurses were pain champions on each surgical unit). Our future work will be looking at ways to condense the project into a 6 month timeline, and explore opportunities for this to become an interdisciplinary project.

**OTHER AUTHORS**

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