About

Nursing Research and Knowledge Enterprise was established to enhance the rigour of nursing research, promote evidence-based nursing practice and encourage scholarly inquiry among nurses in SGH.

Current Focus Areas for Nursing Research

- Nursing Care Quality and Outcomes
  - Nursing sensitive indicators such as pressure ulcers, falls, phlebitis and use of physical restraints
- Nursing Workforce
  - Well-being and impact of nurses
- Care Environment
  - Physical caregiving environment and nursing care processes
- Caregiver Wellbeing
  - Education and support for caregivers of patients
- Evidence Based Nursing
  - Informing clinical inquiries with evidence from different sources

Nursing Care Quality and Outcomes

Key Project: A Randomised Controlled Trial to Evaluate the Effectiveness of Prophylactic Dressing and Fatty Acids Oil in the Prevention of Pressure Ulcers

This study aimed to determine if the application of a prophylactic dressing or the application of a fatty acids oil spray, in addition to standard prevention strategies, would reduce the incidence of sacral pressure ulcer among high risk patients in the acute care setting. Recruitment of patients is ongoing; 447 patients have been recruited thus far. Although fewer patients in the prophylactic dressing group developed sacral ulcers, preliminary analysis indicated no statistically significant association between the treatment groups and the development of pressure ulcers ($\chi^2=0.28$, $p=0.87$).

Presentation: Preliminary Findings of a Randomized Controlled Trial to Evaluate the Effectiveness of Prophylactic Dressing and Fatty Acids Oil in the Prevention of Pressure Ulcers. SGH 21st Annual Scientific Meeting. 2015 Apr 10-11. Singapore. (Young Investigator’s Award - 3rd)

Nursing Workforce

Key Project: Retirement and Re-Employment of Older Nurses

This was a mixed-method study which aimed to identify the challenges older nurses face at work, their views about the re-employment and the factors that influence their decision to extend working life or to retire. Results indicate that older nurses wish to continue working. Financial factors and flexible working hours were identified as significant motivators in older nurses’ decision to continue working.

Presentation: Perspectives of Older Nurses in Singapore: A Survey of their Views on Retirement and Re-Employment – ANCC National Magnet Conference; 2015 Oct 7-9; USA

Care Environment
Key Project: Applied Discourse analysis and participatory action research to enhance nursing handover

The aim of the current project is to observe, analyse, evaluate and improve on the clinical handover by nurses throughout the patients’ journey in the acute care setting. This project will be the first study to contextualize research findings to the local population. This is of particular interest given Singapore’s diversity in culture and languages. By adopting a participatory action research method, results of this study will also directly help to improve the quality of nursing handover.

Caregiver Wellbeing
Key Project: Understanding factors influencing the choice of discharge destination by older patients post total lower limb replacement: A qualitative study

A qualitative study to explore the decision-making process among elderly patients transition to a community hospital post-TKR or THR surgery in Singapore was conducted. The study showed that perceived unavailability of caregivers, low level of confidence and accessibility of comprehensive community rehabilitation services were important considerations among elderly patients when choosing their discharge destinations and care.


Evidence Based Nursing
What is the Impact of Double Checking on Medication Safety, Adherence and Perceptions of Nurses?

Some evidence that it helps to detect errors. However, it is probably unethical to conduct trials given that double-checking is already standard practice. Studies reported low adherence due to organizational factors, knowledge and attitude. Some nurses deemed double-checking to be important while others spoke of increased autonomy and responsibility with single checks. Practice remains in other hospitals for high alert drugs and for pediatrics dosages. There are also increased emphasis on using procedures and technology to ‘force checks’ and reduce confirmation bias.

Is dipstick urinalysis an accurate test for screening of diabetes mellitus, renal disorders and urinary tract infections?

Dipstick testing for urinary glucose is insufficiently sensitive to be used as a screening tool for diabetes. Dipstick testing also has limited sensitivity for non-albumin protein. The results are also affected by concentration of
urine, pH level of urine and administration of agents such as iodinated radiocontrast agents. Hence the false-positive and false-negative rates limit the utility of dipstick testing. Urine dipstick alone seems useful in ruling out the presence of infection (if both nitrites and leukocyte-esterase are negative). But usefulness as a tool to detect infection remains doubtful.

Publications (names of SGH nurses are in bold)


Hooi MTA, Turner BS, Tan SB, Tham CS. Effectiveness of an Advanced Practice Nurse–Led Preoperative Telephone Assessment. Journal of Nursing Care Quality, Vol. 00, No. 00, pp. 1–6


