



## S.K. Yee School of Health Sciences Research Symposium

# TECHNOLOGICAL INNOVATIONS IN HEALTHCARE EDUCATION

# Timetable of the symposium

Time	Topic	Speaker
09.00	Symposium registration	Project assistant and Student helpers
09.30	Welcome	Professor Tit Wing LO, Acting President
09.40	Symposium Opening Ceremony	Prof. Eric Chan, Dean, S. K. Yee SHS, SFU
10.00	Keynote I- From Classroom to Clinic: The Influence of Generative AI on Nursing and Healthcare	Dr Vivian Hui, Hong Kong Polytechnic University, Hong Kong
10.45	Keynote II- Digital Intelligence Empowerment of Nursing Education	Prof. Lili Zhang, Guangzhou Southern Medical University, China
11.30	Using Innovative Technology to enhance Nursing Education on disaster triage with a self-developed VR program	Prof. David Chan, Professor of Practice, S.K. Yee SHS, SFU
12.00	Advanced Healthcare Technology – A New Era of Rehabilitation, Education & Research	Dr Tiffany Choi, S. K. Yee SHS, SFU
12.30	Lunch/Networking/Poster session/Booths	Project assistant and Student helpers
1.30	The impact of Gamification in the motivation of academic reading of scientific literature in Nursing students	Prof. G. D. Smith, S. K. Yee SHS, SFU
2.00	Gamification	Dr Simon Chan, S. K. Yee SHS, SFU
2.30	Keynote III- AI in Nursing: Transforming Teaching, Clinical Practice, and Research	Prof. Gregor Stiglic, University of Maribor, Slovenia
3.30	Technology in Nursing Education: the NEP view	Prof. Roger Watson, S. K. Yee SHS, SFU
4.00	SHS Research/closing address	Prof. Lisa Low, Assoc. Dean, S. K. Yee SHS, SFU
4.15	Symposium close	

# Welcome Speech by Professor Eric CHAN, S.K. Yee Dean, S.K. Yee School of Health Sciences at SFU Research Symposium on “Technological Innovations in Healthcare Education”

13th December 2024

Distinguished Guests, Delegates, Ladies and Gentlemen, Good morning.

It is my pleasure and honour to welcome all of you to our Research Symposium on "Technological Innovations in Healthcare Education".

We organize a symposium on this topic as we see that the healthcare sector is witnessing rapid technological disruption, with advancements like telemedicine, wearable health devices, and data analytics reshaping the way care is delivered. It is imperative for healthcare education to keep pace with these changes to ensure that future healthcare professionals are equipped to leverage technology effectively in clinical practice.



In many regions, there is a growing demand for healthcare professionals due to aging populations and the increasing prevalence of chronic diseases. By integrating technological innovations into healthcare education, we can enhance training programs and produce a more competent and agile workforce.

In the rapidly evolving landscape of healthcare, the fusion of technology and education has become indispensable. Our symposium aims to promote the innovation and application of science and technology in healthcare education, improve the delivery of academic programmes, strengthen the training of nursing-related fields, which hopefully can better achieve the goal of improving patient outcome with more competent graduates.

Today, as we embark on this journey of exploration and discovery, I encourage each one of you to actively participate, engage in meaningful discussions, and share your insights and experiences, enabling us to continuously upgrade the skills and knowledge. By harnessing the power of innovation, collaboration, and continuous learning, we can empower healthcare professionals to deliver high-quality care and drive positive outcomes for patients.

I extend my heartfelt gratitude to all the speakers, organizers, and participants who have contributed to making this symposium a reality. Your dedication and passion for advancing healthcare education through technological innovation are truly commendable.

I wish that every one of you would find the Symposium inspirational and rewarding, and I wish the symposium every success.

Thank you for being a part of this special occasion.

**Professor Eric CHAN**  
**S.K. Yee Dean, S.K. Yee School of Health Sciences**  
**Saint Francis University**

# Greetings and Warm Welcome

Sincere congratulations to the Organizing Committee of the '*Technological Innovations in Healthcare Education*' for their enormous efforts and fine arrangement in hosting the one-day research symposium at the S.K. Yee School of Health Sciences at the Saint Francis University in Hong Kong. We are also indebted to the financial support from the Institutional Strategic Grant of Saint Francis University (Project no. ISG230109).



The programme today showcases a range of presentations and pulls together local and international insights and perspectives on how technology plays in healthcare and its uses to support education, training and practice of healthcare learners. Indeed, '*Technology in Healthcare Education*' is one of ten Research Theme Groups within the School. Over the recent years, there has been a focus on the development and integration of virtual reality and technological resources into the curriculum of our pre-registration nursing, physiotherapy and other healthcare students. Although still at its infancy, some teaching and research work conducted by our staff members in this area are also mentioned and we welcome your comments.

We strive to move forward in our research efforts. We welcome further collaboration and discussion with you. Sincerely wishing that you will have a very enjoyable day and get to know us.

**Lisa P.L. LOW**

**Professor cum Associate Dean (Research)**

**S.K. Yee School of Health Sciences**

**Saint Francis University**

**Hong Kong**

# Welcome Message from Committee



Professor Graeme D. Smith



Professor Meyrick Chow



Professor Roger Watson

Welcome to our 'Technological innovations in healthcare education' research symposium. Health technology is now firmly embedded with healthcare education. The translation of simulation into education has resulted in growth of simulation as an educational tool, to mirror real patients and real scenarios in the clinical environment. Simulation modalities, such as computerized high fidelity human simulators, virtual reality, artificial intelligence (AI) and gamification are increasingly being used in pre-registration healthcare education. Alongside the proliferation of simulation-based education in healthcare, simulation-based research has also seen a dramatic increase in publications in recent years, exploring the potential applications of healthcare simulation in the future. Research has already started to show the positive impact of digital teaching strategies on educators, healthcare professionals, learners and patients. The S. K. Yee School of Health Sciences, St. Francis University, is dedicated to providing the most effective and immersive learning experience to our pre-registration healthcare students. By integrating advanced simulation based technologies, based on the highest quality of research, pre-registration can best prepared to meet the healthcare needs of modern society. The symposium aims to showcase international and local perspectives of some innovative uses of digital resources in healthcare education. Our one-day symposium will include a series of high quality research presentations with a clear focus on the use of technological resources the in teaching and learning of pre-registration healthcare students. We hope the research symposium, which will also include a parallel poster session, will give you the opportunity to share and exchange ideas on the use of digital resources in higher education, providing the opportunity for making informal networks.

**Professor Graeme D. Smith, Professor Meyrick Chow and  
Professor Roger Watson  
Research Symposium '24 Planning Committee**

## Keynote

# From Classroom to Clinic: The Influence of Generative AI on Nursing and Healthcare

Dr. Vivian Hui



This presentation explores the transformative impact of generative AI (GenAI) on nursing education and clinical practice. By bridging the gap between classroom learning and real-world clinical application, Dr. Hui will go through the steps to leverage Generative AI technologies in enhancing the training of nursing students, offering personalized learning experiences and simulating clinical scenarios to improve their communication skills. In healthcare settings, GenAI supports nursing care decision-making, streamlines nursing workflows, and improves patient outcomes through automated recommendations. Dr. Hui will discuss the opportunities and challenges of integrating AI into nursing, highlighting case studies and future trends that promise to redefine the roles of nurses and healthcare professionals in an evolving AI-driven world.

# Empowering with Digital Intelligence – Creating Excellence in Nursing Programs Strategies and Practices

Prof. Lili Zhang



- Technological innovation brings new opportunities for the development of education
- A new grip on the development of the nursing education system
- Practical paths to excellence in nursing curriculum development

# Abstract of the talk: AI in Nursing: Transforming Teaching, Clinical Practice, and Research

Professor Gregor Štiglic



The integration of data from electronic health records has demonstrated significant benefits in developing screening and prediction models for type 2 diabetes mellitus. Our team collaborates with family medicine physicians, nurse practitioners, patients, and computer science experts to enhance the accessibility of these predictive models for healthcare providers. This presentation will highlight various stages of developing and implementing these models within Slovenian primary healthcare.

We will also discuss the transformative impact of artificial intelligence in nursing, focusing on its potential to revolutionize teaching, clinical practice, and research. Recent advancements in generative AI will be explored, particularly their role in improving the interpretability of prediction models and reducing documentation burdens in preventive healthcare applications. By leveraging AI, we aim to empower nursing professionals and enhance patient care through innovative educational and clinical strategies.

## Lectures

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# Using innovative technology to enhance nursing education on disaster triage with a self-developed VR program

David Chan

Technology has become an indispensable part of our lives, and its impact on healthcare education is no exception. Technology transforms how healthcare professionals are educated and trained, from interactive learning tools to improved communication & collaboration. Using innovative technology in healthcare may enhance better student learning outcomes.

Many different types of innovative technologies are used in healthcare education nowadays. It includes interactive & immersive tools (e.g. VR, AR); improved communication & collaboration (e.g. online forum, video conferencing); access to up-to-date information (e.g. online database – Medline); personalized learning tools (adaptive learning platform for tracking student progress); online learning program (e.g. online degree); AI learning system (e.g. personalized learning plan, student feedback system); wearable technology (e.g. smartwatch, fitness tracker); and 3-D printing (e.g. producing an anatomical model for teaching).

In this presentation, I will share how we used a self-developed Virtual Reality (VR) program to help our students learn doing triage during a disaster. The purpose of developing such VR on disaster triage was to help engage student learning and enrich the quality of learning experience for year-4 nursing students taking the elective subject on disaster nursing. Standardized patients were invited to act as victims with fake wounds created on their bodies. A video recording team helped do the recording and helped insert all these scenarios into a VR environment. The VR program on disaster triage was completed last year and has been used in one group of our students who did the disaster nursing subject early this year. Preliminary student feedback showed that they all enjoyed the program, and they expressed that the VR program provided an immersive environment to enhance their engagement during the disaster triage exercise. A formal study will be carried out soon to investigate students' satisfaction and self-confidence in using VR for learning and examine how VR enhances and motivates their educational experience.

## Advanced Healthcare Technology: A New Era of Rehabilitation, Education and Research

Tiffany Choi

This presentation will explore the transformative impact of advanced healthcare technologies on rehabilitation, education, and research in physiotherapy. Dr. Tiffany Choi will discuss how innovations such as telehealth, virtual reality (VR), wearable devices, robotics, and ultrasonic imaging are revolutionizing patient care by enabling personalized, data-driven interventions that enhance rehabilitation outcomes and improve patient adherence to treatment plans.

In the educational realm, the integration of simulation-based learning and digital tools creates engaging experiences that prepare future healthcare professionals for the complexities of modern practice. The presentation will also highlight the critical role of technology in research, emphasizing the importance of real-time data collection and interdisciplinary collaboration in advancing evidence-based practice.

By examining both the challenges and opportunities associated with these technological advancements, attendees will gain valuable insights into the future of rehabilitation and education, encouraging them to embrace innovations as essential components of contemporary healthcare.

## The impact of gamification in the motivation of academic reading of scientific literature in nursing students

Graeme D. Smith, Cheung KC & Sara Poon

### **Background:**

Academic reading involves reading with a specific academic and education purpose. For undergraduate students, academic reading is a crucial skill, although it is well recognized that many students may lack the analytic reading skills or motivation required for academic reading. Gamification is the application of game design and principles within a non-game context, it can provide an engaging and enjoyable approach to learning that requires students to participate in games with pre-set rules. To date, limited research attention has been given to the use of gamification to enhance academic reading proficiency in undergraduate nursing students.

### **Aim:**

The aim of this study was to examine the impact of a computer game that had been specifically designed to enhance proficiency and motivation of scientific academic reading. Then, to explore students' experience of the game for reading primary scientific literature in a second language.

### **Design:**

This was a sequential-explanatory mixed method study. Two hundred and eighty 3rd year undergraduate nursing students taking an introductory research methods course were invited to participate in the study. Using purposive sampling, a quasi-experimental design was used in the quantitative phase, a control group of students (n = 160) received face-to-face instruction on how to read an academic research paper in the traditional classroom setting. Simultaneously, another group of students in the experimental group (n = 120) played the 'reading an academic paper' game in the computer laboratory. Both groups were evaluated at the end of the exercise to test knowledge and motivation towards academic reading, using the Motivational Strategies for Learning Questionnaire (MSLQ). Then, descriptive qualitative analysis from focus group of students (n=6) who played the game.

### **Results:**

Students in the experimental group scored higher in the MSLQ and all its subscales than those in the control group, though only a statistically significant difference was found in the performance/competence subscale. Three themes were identified from the thematic analysis: (1) Scientific reading motivators across the year of study, (2) Reading scientific literature in a second language, and (3) Essential components of a sustainable scientific reading game.

### **Conclusion:**

It is hoped that using a gamification approach towards the teaching of academic reading skills will promote student understanding, engagement and enjoyment when reading research papers.



## Can Gamification Be Applied to Chinese Nursing Students? An Interpretative Phenomenological Approach

Simon T. K. CHAN; Graeme D. SMITH

### **Aim:**

This study examines the factors contributing to the low engagement rates of Chinese students with Confucian heritage culture in online learning games, with the objective to enhance both their learning experiences and educational outcomes.

### **Background:**

The integration of Gamification in higher education has been demonstrated to be an effective approach for enhancing students' academic performance, increasing motivation, and improving retention of essential concepts. However, it has been observed that Chinese nursing students exhibit low levels of engagement with online learning games despite the potential advantages associated with their use.

### **Design:**

This study utilized an interpretative phenomenological approach, an appropriate methodology for examining the essence of online learning game experiences. Additionally, it aims to uncover the underlying factors contributing to the low engagement rates observed among Chinese nursing students.

### **Methods:**

The narrative data were collected through focus group interviews. A snowball sampling strategy was employed to recruit participants. The narrative data was analyzed by coding, categorization, thematic analysis, and interpretation. The researcher's observations have been incorporated into the discussion to enhance the co-construction of knowledge.

### **Results:**

The study identified two primary themes that contribute to the low engagement levels of Chinese nursing students in online learning games: learning approaches and knowledge acquisition. The results underscore the necessity for cultural sensitivity in the implementation of Gamification within lectures directed at Chinese students influenced by a Confucian heritage culture.

### **Conclusions:**

This study provides significant insights for nursing educators and academic administrators contemplating the incorporation of Gamification into nursing curricula, particularly for students of Confucian heritage cultures. Given the distinct learning approaches and knowledge acquisition strategies Chinese students employ, online learning games may not constitute the most effective instructional design for enhancing teaching and learning outcomes in this demographic.

### **Keywords:**

- Gamification
- Nursing education
- Nursing students
- Confucian culture

## Technology in nursing education: the *NEP* view

Roger Watson

This session will review the reporting of studies in the use of technology in *Nurse Education in Practice*. The technologies will include: Computer assisted learning; Simulation; Virtual reality; Artificial intelligence; and Serious games. Evidence for the effectiveness of the use of technology in nursing education will be reviewed from a range of sources.

# Abstract for Poster Presentation

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## Navigating Uncertainty: Long-term Care Planning for Individuals with Intellectual Disabilities in Pandemic-stricken Hong Kong

YIP Alice<sup>1</sup>, MO Kitty<sup>2</sup>, FONG Fu Fai<sup>2</sup>, CHU Pui Man<sup>3</sup>, YIP Jeff<sup>4</sup>, and TSUI Zoe<sup>1</sup>

<sup>1</sup> S.K. Yee School of Health Sciences, Saint Francis University, Hong Kong, China

<sup>2</sup> Department of Social Work, Hong Kong Shue Yan University, Hong Kong, China

<sup>3</sup> Hong Chi Winifred Mary Cheung Morninghope School

<sup>4</sup> Hong Kong Institute of Paramedicine, Hong Kong, China

### **Background:**

The COVID-19 pandemic has exacerbated the challenges faced by caregivers of individuals with intellectual disabilities (ID) in Hong Kong, particularly regarding long-term care planning.

### **Objectives:**

This study explores the lived experiences and perspectives of these caregivers during this unprecedented crisis.

### **Methods:**

Employing a qualitative phenomenological approach, in-depth interviews were conducted with seven caregivers of adults with ID in Hong Kong. Participants were purposely selected based having experienced significant challenges related to long-term care during the pandemic. Data analysis was performed using Colaizzi's method of descriptive phenomenology.

### **Results:**

Four key themes emerged, illustrating the complexities of long-term care planning during the pandemic: 1) a sense of isolation and burden in navigating future planning alone, 2) difficulties in accessing and coordinating appropriate care services for their loved ones, 3) heightened family tensions surrounding future caregiving responsibilities, and 4) increased anxiety and uncertainty regarding the long-term well-being of their loved ones.

### **Conclusion:**

This study provides valuable insights into the experiences of an often-overlooked population during a time of heightened vulnerability. Findings suggest a critical need for increased support for caregivers, including respite care options, accessible information hubs. Further research with a large sample size is recommended to enhance the generalizability of these findings.

### **Keywords:**

family carers, intellectual disabilities, long-term care, COVID-19

# Abstract for Poster Presentation

## The unspoken burden: Exploring turnover intentions among junior nurses in Hong Kong

LEUNG Nga Man, CHENG Ka Ki, LAI Wing Hin Timothy, LEUNG Chin Wai, NG Chung Hing, WAT King Hin, TAM Teresa, and YIP Alice

### **Background:**

The nursing shortage in Hong Kong's healthcare system places immense pressure on new graduates to fill workplace gaps. However, junior nurses face numerous challenges during their first year, contributing to high turnover rates. This study explores the factors influencing resignation intentions among this vulnerable group.

### **Objectives:**

This study aimed to explore the perspectives of junior nurses in Hong Kong regarding their intention to leave the profession, focusing on their perceptions of nursing and their work environment.

### **Methods:**

Utilizing snowball sampling, five junior nurses participated in individual semi-structured interviews. Thematic analysis was employed to analyse the interview transcripts, ensuring ethical considerations such as informed consent was maintained throughout the study.

### **Results:**

Four key themes emerged as significant challenges faced by junior nurses: 1) heavy workload, 2) change of role and responsibility, 3) lack of support and 4) negative workplace culture.

### **Conclusion:**

The identified themes significantly impact job satisfaction and contribute to increased turnover intentions among junior nurses. Addressing these challenges, is crucial to enhance job retention and strengthen the nursing workforce in Hong Kong.

### **Keywords:**

junior nurse, new graduate nurse, challenges, job satisfaction, intention to leave, turnover intention, turnover and job retention

### **Presentation type:**

Poster presentation

## Explore the use of simulation training on final-year nursing students to prepare them for professional careers

Diana YC TSANG, Eric LS CHAN, Lisa PL LOW, Annie LF MOK & Maggie YC WONG

### **Background:**

Clinical simulation serves as a vital tool to enhance clinical skills, decision-making abilities, and confidence. It helps to bridge the gap between academic learning and real-world applications. This study is to explore the experience of using simulating real-world scenarios in preparing final-year students for their professional careers. The research aims to alert nursing educational institutions to the role in preparing individuals and facilitate seamless transitions from academia to the workplace.

### **Objective:**

To explore the impact of using simulation training on final-year students to enhance their readiness for professional careers.

### **Methods:**

A convenience sample comprising nine newly graduated nurses participated in three qualitative semi-structured focus group interviews. These interviews were audio-recorded, transcribed and analyzed using thematic content analysis.

### **Results:**

Findings indicate that simulation training can (1) consolidate and enhance nursing skills and knowledge in caring for medical and surgical patients, (2) help individuals to adapt to the work environment and atmosphere, and (3) offer valuable experience and mental preparedness for handling complicated cases.

### **Conclusion:**

The outcomes suggest that clinical simulation training proves valuable in facilitating the transition to professional careers. Further research is essential to study into the efficacy of other simulation design such as virtuality reality and its impact on student preparedness for professional career.

# Abstract for Poster Presentation

## Qualitative exploration of how breast cancer survivors live and cope after treatment

Junie Jun-ying LI, Wing-sang SIU, Miranda Man-ying WONG and Lisa Pau-le LOW

### **Background and Objective:**

Breast cancer is a common and burdensome disease with high morbidity and mortality worldwide. Despite the high incidence of breast cancer, a significant number of survivors face challenges associated with treatment, such as side effects, fear of recurrence, body image issues, and sexual dysfunction. This study explores the lives and care of breast cancer survivors' after receiving treatment, with the aim to examine how breast cancer survivors' treatment choices affected how they coped and resumed normal life after breast cancer treatment.

### **Methods:**

A qualitative descriptive research design was used to examine breast cancer survivors' experiences of coping with daily life challenges after treatment. Three participants who had received different treatments were recruited using purposive sampling. Semi-structured interviews and inductive thematic analysis were used.

### **Results:**

Our study illustrated the impacts of different treatments and major challenges faced by breast cancer survivors. The data reflected their feelings and attitudes after treatments and the support they received in coping with the difficulties of returning normal life. Three themes were generated from the data included individual breast cancer treatment and advice received; changes to life after breast cancer treatment; and support to overcome challenges.

### **Conclusion:**

Breast cancer survivors face immense challenges following different treatments. More attention should be paid to treatment-related information to provide closer relationships and support to breast cancer women when making treatment choices.

## Knowledge and Attitude towards Blood Donation in Nursing Students: a Cross-sectional Study

LAU Yuk Ting, CHAN Ying Kiu, CHAU Chun Yin, CHEUNG Sze Wing, LAM Oi Ting, LAM Yuet Yan, POON Hiu Yau, WAN Sun King Grace, HUNG Shuk Yu Maria

### **Background and Objective:**

Blood transfusion saves lives and improves health. However, there has been a global blood shortage and a significant disparity in blood donation worldwide in recent years. As future healthcare professionals who educate and promote blood donation, nursing students' knowledge and attitude are paramount to improving future motivation and engagement. This study aimed to explore Hong Kong nursing students' knowledge and attitudes toward blood donation.

### **Methods:**

This cross-sectional online survey used a well-validated Blood Donor Identity Survey (Chinese version) with approval. Before data collection in November 2023, ethical approval was sought. Descriptive statistics, independent-samples t-test or one-way ANOVA, and Pearson Chi-square test were used for data analysis.

### **Results:**

720 undergraduate nursing students were recruited, and 650 valid questionnaires were received. Among 650, 484 (74.5%) were female, and their mean age was 20.84 (SD=2.26) years. The total knowledge mean score was 9.55 (SD=1.32) out of 12, and blood donors (9.77±1.28) were higher than non-blood donors (9.46±1.33), with a significant difference ( $p=0.006$ ). Nursing students who have religion, are older, have prior experience receiving blood, know someone who has donated blood and have higher scores of identified regulations are more likely to be blood donors ( $OR>1$ ). Nursing students who had long-term medication taken and a higher amotivation score are less likely to be blood donors ( $OR<1$ ).

### **Conclusion:**

Overall, nursing students have a good knowledge of blood donation. Blood donors possess a better understanding of blood donation than non-blood donors. Strategies to improve amotivation could be considered in the future.

# Abstract for Poster Presentation

## Knowledge, attitude and practice about osteoporosis among young adults in Hong Kong

Chiu Wing Yan, Chong Chau Ha, Chu Lok Yin, Tang Chui Ying, Tang Ka Man, Wong Ka Yu, Yip Wai Man, SMITH Graeme Drummond

### **Background:**

Osteoporosis, which is globally prevalent, can lead to fractures, disability, and even death, thereby increasing the burden on health sector and the public. Most osteoporosis research neglecting early adulthood, a critical period for bone development, focusing only on older adults. The studies in Hong Kong (HK) examining the knowledge, attitudes, and practices (KAP) of young adults regarding osteoporosis have been lacking. Investigating KAP among young adults is essential for raising awareness and preventing osteoporosis progression.

### **Objectives:**

To investigate the level of knowledge, attitudes, and practices regarding young adults of osteoporosis in HK.

### **Method:**

A quantitative correlational descriptive research design study was used to examine the KAP of osteoporosis among young adults aged 18–26 in HK at Saint Francis University Hong Kong (SFU). A convenience sampling approach was used to recruit 139 first-year nursing undergraduates. A structured self-administered questionnaire and the descriptive and regression analysis were used.

### **Results:**

The findings indicated a moderate level (51.08%) of knowledge and a high level of attitude (75.21%) towards osteoporosis. It also indicated moderate level of implementing osteoprotective behaviours (64.42%) while performing harmful behaviours (51.57%). A moderated positive correlation was found between attitude and osteoprotective behaviour, with a weak positive correlation between knowledge and osteoprotective behaviour ( $p < 0.001$ ).

### **Conclusion:**

Knowledge and attitude significantly affect osteoprotective behavior. However, levels of knowledge, practices of performing osteoprotective behaviours and harmful behaviours were still at a moderate level, indicating the need for more public health initiatives to raise awareness of osteoporosis.

## The Perception of Occupational Safety Risks Among Nursing Students in Hong Kong

CHOW Chum Ming Meyrick, LAW Wing Chi, LAW Mei Yee, CHAN Nga Man, WONG Sze Ting, TANG Ka Yee, CHAN Lung Kwai Charles

### **Background:**

Nursing students are exposed to various occupational risks, including physical, psychosocial, biological and mechanical hazards, during their clinical practicum. They are particularly vulnerable to these risks during their training. However, limited information exists regarding their perceptions of occupational safety in Hong Kong.

### **Objective:**

This study aimed to explore the perceptions of occupational safety risk among nursing students in Hong Kong.

### **Methods:**

A quantitative, descriptive, and cross-sectional design was employed, utilizing convenience sampling to invite nursing students enrolled in the Bachelor of Nursing (Honours) programme at the Caritas Institute of Higher Education (CIHE) to participate in the study. Nursing students' perceptions of occupational safety risk were collected from November to December 2023 using the Occupational Risk Perception Scale for Nursing Students (ORPSNS) questionnaire that uses a Likert scale ranging from 1 to 5, with higher scores indicating higher awareness of occupational risks.

### **Results:**

A total of 307 nursing students completed the questionnaires. The occupational risk perceptions of nursing students were high, with a mean score of 4.28 (s.d. = 0.36) out of 5. Results of the independent-sample t-test indicated that junior-year (years 2 & 3) and female students had higher awareness of physical environmental risks ( $p < 0.01$ ). We found no significant differences in years of study and the gender of nursing students in the psychological and ergonomic risks subscales and the person and institution-related risks subscales.

### **Conclusion:**

The study explored occupational risk perceptions and their relationships with demographic variables among nursing students in Hong Kong. It provided practical implications and insights for enhancing education on occupational risks for nursing students in clinical environments.



# NOTES

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# Acknowledgement

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## Officiating Guests

- Prof. Tit Wing LO, Acting President
- Prof. Eric Chan, Dean, S. K. Yee SHS, SFU.
- Prof. Lisa Low, Assoc. Dean, S. K. Yee SHS, SFU.

## Keynote Speakers

- Dr Vivian Hui, Hong Kong Polytechnic University, Hong Kong
- Prof. Lili Zhang, School of Nursing, Guangzhou Southern Medical University, China
- Prof. Gregor Štiglic University of Maribor, Slovenia

## Lecturers

- Prof. David Chan, Professor of Practice, S.K. Yee SHS, SFU.
- Dr Tiffany Choi, S. K. Yee SHS, SFU.
- Prof. G. D. Smith, S. K. Yee SHS, SFU.
- Dr Simon Chan, S. K. Yee SHS, SFU.
- Prof. Roger Watson, S. K. Yee SHS, SFU.

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## Organizing Committee

- Prof. Graeme D. Smith
- Prof. Meyrick Chow
- Prof. Roger Watson