



## Seminar B

# Application in Telemedicine - Public Health Care System



### Professor Eric K.P. LEE

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Dr. Lee finished medical school and graduated from the University of Hong Kong in 2007. He practiced in family medicine in Hong Kong for more than 10 years and he obtained his specialist qualification in Hong Kong 2016. He had a master degree in mental health from CUHK in year 2014 and another Master degree in Evidence-Based Health Care from the University of Oxford in year 2020. Dr Lee started to work as a clinical assistant professor since 2016 in the Chinese University of Hong Kong. His research interest included hypertension, mindfulness, burnout in medical professional and medical systems.



### Professor Kelvin K.F. TSOI

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*Associate Professor, JC School of Public Health and Primary Care, The Chinese University of Hong Kong*

Dr. Kelvin Tsoi is an Epidemiologist and a Data Scientist. He received his Bachelor degree in Statistics and Doctoral degree in Medical Sciences in the Chinese University of Hong Kong. His research focus is on Digital Health, which is the application of real-time mobile or social digital data for improving public health or reducing future disease burden. The application of Artificial Intelligent on Big Data research is also his interest. His recent research covers digital dementia screening and machine learning on blood pressure variability. He has published over 50 full scientific articles in the foremost journals.

#### The service model and outcome of the tele-BP follow-up pilot study

Hypertension is the most common chronic condition in primary care setting. It poses an enormous burden to public health care system, as the majority (> 80%) hypertensive patients are treated in government-funded general outpatient clinics (GOPCs). Meanwhile, telemedicine has the potential in transforming the current medical service delivery model and reducing public health burden. Can this service model be smoothly introduced to Hong Kong public-funded primary health care system? The SATE-HT Trial is a Tele-BP pilot study in examining the safety, feasibility, and acceptability of using telemedicine to replace face-to-face physician consultations in GOPCs.

In this session, you will obtain more information about this Tele-BP pilot study:

1. The brand-new Tele-BP service model in GOPCs: with the use of a validated and locally developed Chinese blood pressure management app and online platform
2. Feasibility and acceptability of Tele-BP service model
3. Self-efficacy and compliance of people receiving telemonitoring
4. Preliminary study findings



### Ms. Mandy M.Y. MAK

*Clinical Stream Coordinator, Allied Health, New Territories West Cluster; Cluster Coordinator of Physiotherapy and Department Manager, Physiotherapy Department, Tuen Mun Hospital, Hospital Authority*

Ms. MAK is a registered physiotherapist graduated with a Professional Diploma in Physiotherapy and Postgraduate Diploma in Health Care in the Hong Kong Polytechnic University in 1992 and 1999 respectively. She obtained the Professional Development Diploma in Acupuncture for Physiotherapists in the Hong Kong Baptist University in 2009. She then received the Master degree of Primary Health Care in the University of Western Sydney in 2011.

Ms. MAK is currently the clinical stream coordinator of Allied Health in NTWC. She is also the cluster coordinator of Physiotherapy and the department manager of the Physiotherapy Department of Tuen Mun Hospital.

Experience Sharing from NTWC Allied Health (AH) of two telecare pilot programs: 1. Telecare Service model in Elderly Fall Prevention Program; 2. Meal Replacement Program for Overweight with or without Pre-Diabetes.

The implementation of telecare in NTWC AH was catalyzed to cope with the service gap during the Covid-19 pandemic. The development of telecare service of NTWC AH was based on three objectives, namely to provide continuous patient support, creation of virtual space and health care equity. Two pilot programs were conducted in primary health and chronic disease management service. (1) A hybrid mode of elderly fall prevention program with a telephone screening and two onsite consultations, and (2) a hybrid mode of the meal replacement program for overweight adult with or without pre-DM with 12-week ZOOM and onsite consultations, were piloted in Tin Shui Wai Community Health center and Dietetic Out-patient Clinic of Tin Shui Wai Hospital, respectively. The pre and post program clinical outcomes and patient feedback were compared. Moreover, the clinical outcomes of the pilot service models were compared with the conventional models.

For the elderly fall prevention program, the elderly with low and medium fall risk received the hybrid mode of service with significant improvement in most of the selected fall related physical outcomes, fall rate reduction, and fall prevention literacy. Some fall related outcomes did not have significant difference between the pilot and conventional group at the 6-months of the program.

For the meal replacement program, there was significant improvement in either blood glucose level or HbA1c in 25% of the participants, and 55% of the participants had shown at least 5% of body weight reduction. This hybrid program has comparable result to the conventional face to face meal replacement program.

Furthermore, patients joining both pilot programs were satisfied with the services provided. The pilot programs may bring us insight on the implementation of telecare service as one of our future service provisions.