

# THE HONG KONG POLYTECHNIC UNIVERSITY DEPARTMENT OF MANAGEMENT AND MARKETING

## Departmental Research Seminar

**Do Initial and In-Process Waiting Times Shape Subsequent Patient Visits:  
Evidence from Asynchronous Telemedicine**

**By**

**Prof. Xiaosong (David) Peng  
Lehigh University**



**Date : 12 Mar 2026 (THU)  
Time : 10:30 am – 12 noon  
Venue : GH120c, PolyU**

### **Abstract**

This study examines the impact of initial and in-process waiting times in asynchronous telemedicine on subsequent online and offline visits, as well as the mediating effects of patient appreciation. Methodology/results: We focus on three measures of waiting time in asynchronous telemedicine: initial waiting time (the duration from a patient's initial request to admission into an online consultation session), average in-process waiting time (the average time between a patient's question and the doctor's response during the session), and the variability of in-process waiting times, which together capture both the initial and ongoing responsiveness to patients during asynchronous care delivery. We define a subsequent visit as one made for a medical condition that differs from that of the initial online consultation. We use 41,658 patients' online and offline consultation records from a primarily text-based, asynchronous telemedicine platform affiliated with a top-ranked hospital system (February 2021-April 2024). Our results show that a one-unit increase in average in-process waiting time (one standard deviation = 3.71 hours) decreases the odds of subsequent all visits, online visits, and offline outpatient visits by 8.6%, 15.9%, and 5.0%, respectively. Variability of in-process waiting times decreases the odds of subsequent offline outpatient visits in the next 30 days. Surprisingly, the initial waiting time shows no significant effect. Results remain consistent when considering whether the subsequent visits are with the same doctor. Finally, patient appreciation negatively mediates the relationship between average in-process waiting time and subsequent visits. Managerial implications: Average in-process waiting time in asynchronous telemedicine has a significant impact on both subsequent online and offline visits. The findings highlight reducing in-process waiting in asynchronous telemedicine as a viable means of enhancing patient engagement and ensuring continuity of care across channels.

**Prof. Xiaosong (David) Peng** is a professor and holds the dean's chair professorship in the College of Business, Lehigh University. Prof. Peng completed his doctoral degree in Operations Management from the Carlson School of Management, University of Minnesota, and a master's degree in information systems management from Carnegie Mellon University.

Prof. Peng's research interests are in operations and supply chain strategy, service and manufacturing technology management, healthcare operations management, and empirical research methods. Prof. Peng's research has appeared in *Manufacturing and Service Operations Management*, *Journal of Operations Management*, *Production and Operations Management*, *Decision Sciences*, *Journal of Supply Chain Management*, among others. He is currently department editor for the *Journal of Operations Management* and *Decision Sciences Journal*, senior editor for *Production and Operations Management*, and associate editor for the *Journal of Supply Chain Management*.

**All interested are welcome.**



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