Paper ID:	1571066799
Paper Title:	Development MIORTXORTHO chatbot to assist in selecting medical instruments for orthopedics trauma surgery procedures
Authors:	Watchara Sroykham, Thanda Chawong, Tisa Khanthaarpha, Thinnapat Nukohkun, Arisa Chuaboonmee and Pichayut Wattanapreechanon (Navamindradhiraj University, Thailand); Somsri Daochai (Mahidol University, Thailand)
Email:	watchara@nmu.ac.th

Abstract

Orthopedic surgery is a crucial medical procedure for treating and rehabilitating the musculoskeletal system, covering conditions from osteoarthritis to fractures and dislocations resulting from accidents. Due to the variety of cases, orthopedic surgeries require specific medical instruments and equipment. The MIORTXORTHO chatbot has been developed to assist in selecting medical instruments for treating orthopedic injuries from accidents. It also includes assessments of knowledge before and after using the chatbot, which is accessed through the LINE application by 34 third-year students majoring in Medical Instrumentation and Surgical Technology at Navamindradhiraj University. The study results indicate that knowledge scores significantly improved after using the chatbot, with a statistically significant confidence level of 95% ($t = -4.11$, p-value < 0.01). Therefore, the MIORTXORTHO chatbot effectively aids users in selecting medical instruments for orthopedic injury surgery independently via the LINE application. It also enhances knowledge and can be used as an educational tool for medical personnel, thereby improving the efficiency of orthopedic surgical procedures.