



## **The Nexus between Innovation in Healthcare Technology and Cultural Competence: Insights from Muslim Medical Tourists in South Korea**

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### **Dear Editor-in-Chief**

The rapid advancement of medical technology and digital healthcare has positioned South Korea as a competitive hub for medical tourism. Technologies such as robotic surgery, telemedicine, and ICT-driven health systems are major attractions for international patients (1). Innovation in healthcare technologies is a triggering variable for destination choice. However, findings from our mixed-methods study suggest that technological excellence alone does not guarantee patient satisfaction. Instead, satisfaction among Muslim patients depends on the synergy between healthcare technology and culturally competent services.

First, while technological innovation strongly influences destination choice, our survey ( $n = 40$ ) and interviews ( $n = 6$ ) revealed that effectively addressing patients' cultural and personal needs plays an equally critical role in shaping satisfaction. Participants consistently emphasized the importance of halal-friendly healthcare services, including halal meals, accessible prayer spaces, and gender-concordant care. Many also noted that receiving detailed explanations of the treatment process delivered either by physicians or interpreters helped them feel reassured about how technology would be used throughout their

care. This factor emerged as highly significant in our findings, which is unsurprising given that technology-driven treatments may sometimes compromise culturally sensitive communication. Similar results were reported already, who identified physicians, interpreters, and halal meals as the strongest determinants of Arab patients' satisfaction in Korea (2, 3).

Second, we found that technology plays a dual role. On one hand, tele-consultations and electronic medical records enhanced convenience and strengthened trust in the Korean healthcare system. On the other hand, overreliance on automated translation systems or digital kiosks sometimes created barriers to cultural sensitivity and interpersonal trust, echoing concerns raised in previous research (1). This underscores the need to balance the efficiency of technological innovations with respectful and inclusive patient care.

Third, socio-demographic characteristics were tested as control variables. Age, gender, and education emerged as influential factors. Younger, more educated patients and those with prior medical tourism experience reported lower sensitivity to halal-compliant services. Similar trends



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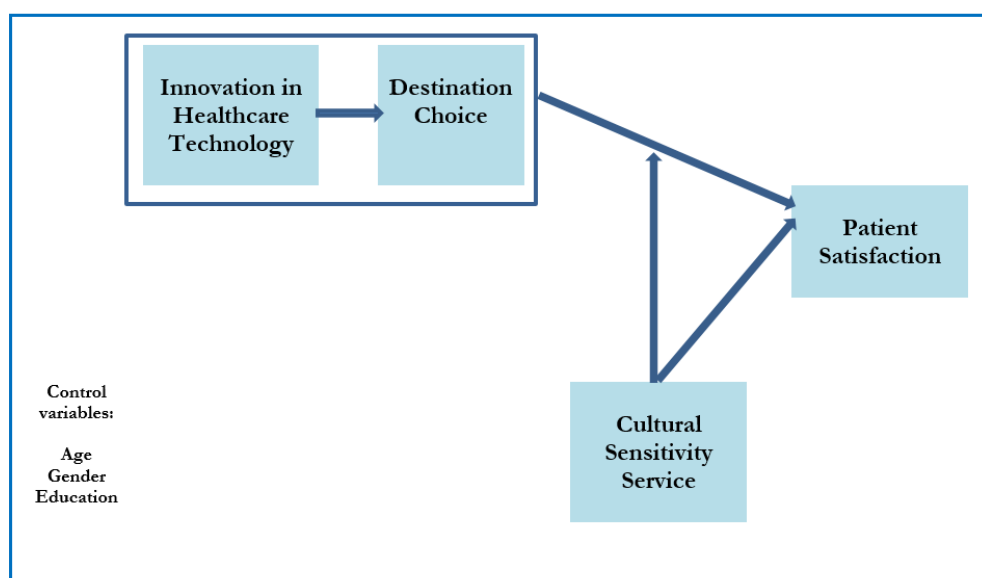
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were observed in Iran, where Muslim tourists' expectations for halal-friendly services were predicted by age, marital status, and education level (4).

Overall, our study demonstrated that cultural competence significantly amplifies the positive effects of technology on satisfaction. When patients perceived that both advanced medical care and their cultural needs were met, they were more likely to report positive word-of-mouth intentions and intentions to revisit. Evidence from the UAE similarly indicates that while ad-

vanced technology remains a primary determinant of destination choice, positive word-of-mouth plays a vital role in reinforcing trust and satisfaction (5, 6). Considering the results, Fig. 1 represents how the presence of innovative healthcare technology in Korea influences destination choice among the Muslim patients from the Middle East, and how it leads to patients' satisfaction. Though, culturally sensitive services can moderate that relationship, while having a direct positive impact on satisfaction.



**Fig. 1:** The Nexus between Innovation in Healthcare Technology and Cultural Competence: Insights from Muslim Medical Tourists in South Korea

This research contributes a novel integration of two streams of medical tourism, first, the role of healthcare technology innovation and second, the role of cultural and religious sensitivity in shaping patient perceptions. By combining qualitative and quantitative insights, our study demonstrates that these factors are not competing but are complementary.

From a practical perspective, healthcare providers in Korea should adopt holistic models of care that integrate both technological excellence and religious-cultural adaptation. Examples include ensuring halal certification of hospital meals, staff training in Islamic practices, gender-sensitive medical teams, and digital tools that embed cul-

turally appropriate communication. For policymakers, the findings suggest that national medical tourism strategies should move beyond showcasing technological achievements and treatments. Establishing clear halal medical service standards, alongside investments in advanced technology, will enhance Korea's credibility in Muslim-majority markets.

Therefore, the future of medical tourism of South Korea for the Middle East patients depends on a balanced approach: marketing through healthcare technology while respecting the religious and cultural expectations of Muslim patients. Our findings show that cultural competence not only improves satisfaction but also

strengthens the positive impact of medical innovations. By building trust and aligning technology with patient values, South Korea can reinforce its competitive position in medical tourism.

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## Conflict of Interest

The authors declare that there is no conflict of interests.

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