A Review of Telemedicine and E-health in Iran as a Developing Country: Situation and Challenges

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Background: As the other developing countries, Iran has made some progresses in science and technology. Although the progress in medicine is significant, no comprehensive application of medical information systems or technology-based health services is found. In fact, the situation of such services is unclear. The aim of this study is to review the Iranian researches, activities and progress in telemedicine and to address the barriers and challenges.

Methods: A general search was performed in PubMed, Scopus, Scholar Google, Web of Science and three other Iranian databases up to May 2017, using proper keywords for related studies and in Google and Bing for notable activities and projects. Some interviews with elites were conducted to study the related activities and documents. All results were studied carefully by two or three authors in three steps and included with the whole team consensus. The results were categorized in three groups of A, B and C considering the methods, reporting quality for studies, the scope and success for the projects. Finally, the useful information extracted, aggregated and reported.

Findings: the total number of collected studies was 5470 but 42 English and 8 Persian studies were included; and out of that number only 13 were categorized in group A, having proper method and reporting. All of them were studies in terms of usage and evaluation of technology for imaging, sound and patient data transfer, without reporting any comprehensive deployment. No significant telemedicine project by medical sciences universities was found, but two large projects by Admiralty and Oil ministry have provided medical services for agents and navy sailors on ships and derricks. There is a general upper hand constitution but no authorized rule covering e-health or telemedicine. The other challenges are budget and denial by patients.

Conclusion: The status of telemedicine is not suitable in Iran in terms of research and services. More efforts are needed to provide guidelines and facilitating rules and it seems necessary to have more earnest academic education and experienced human resource.