

Tibb-Med-Linking-Onto: Knowledge Representation of Linking Prophetic Medicine with Current Medical practices

Muna Al-Razgan^a, Salwa Ali^b, Sarah Mohamed Hassan^c, Asiyah Yu Lin^d

a Department of Information Technology, College of Computer and Information Sciences, King Saud University,

b Department of Community Medicine, Kasr Al Aini Medical School, Cairo University, Cairo, Egypt

c Computer and System Department, Faculty of Engineering, Alexandria University, Alexandria, Egypt

d linikujp@gmail.com

Abstract

The two main sources of Islamic legislation are the Quran and Hadith. Hadith are a collection of the sayings and/or deeds of the Prophet Mohamed. They cover many aspects of Muslim life, one of which is Tibb Al-Nabawi or Prophetic medicine, a category of hadith that addresses matters of health and well-being. In this paper, we designed a domain-specific ontology (Tibb-Med-Linking-Onto) to link Prophetic medicine with modern medical practices in a semantic ontological representation. The Ontology101 methodology was partially adopted while building the ontology. Our data source was a recent PhD dissertation published by Dr. Nourah Al-Ghamlas (a Hadith scientist) who examined a subgroup of Prophetic medicine Hadith, Hadith taken from <http://www.sunnah.com>, and publications for modern biomedical researches. The scope of this ontology covers medical conditions, treatment or materials used according to Prophetic medicine, and the corresponding modern medical practices. The major terms of the ontology were identified as: medical conditions, treatment, medical material, Hadiths, and modern biomedical research. We have identified 6 main classes and the relationships among them along with 65 hadiths as individuals in the ontology. Using this ontology, we identified the materials and treatments preserved across the 1400 years' time span. For example, honey was recommended 1400 years ago for treating loose bowels, and nowadays it is used to stop diarrhea. The Prophet advised his followers to use crepe ginger for the treatment of sore throat, whereas modern medical research has provided proof that the extract of this plant can be useful in treating tuberculosis. The Tibb-Med-Linking-Onto ontology is a starting point for future inclusion of all 400 Hadith and to make better use of the ancient concepts of preventive strategies for better health. It also aims at assisting people searching for a novel therapeutic approach for the treatment of specific illnesses. The future work for this ontology includes: 1) further verify and evaluate the ontology; 2) provide a user-friendly and searchable interface to present this ontology via a website; 3) fully integrate all 400 Prophetic medicine Hadith into the ontology; 4) extend the linked biomedical research to a broader health prevention and well-being domain, as Prophetic medicine covers all preventive medicine and

healthy life style for the wellness of human beings not only physically but also mentally and spiritually.

Keywords:

traditional medicine ontology; Hadith ontology; Prophetic medicine

Reference

1. Nourah Al-Ghamlas. *Mushkal Hadiths in Prophetic Medicine (Collection and Study)*. [Riyadh, Saudi Arabic]: King Saud University; 2015.