

Chapter 13

A Neuroimaging Study Protocol on the Motivational Structures of Physicians Belonging to Private and Public Health: Neuroeconomics in Healthcare

Luis-Alberto Casado-Aranda
University of Granada, Spain

Carmen Fernández-Aguilar
University of Granada, Spain

Juan Sánchez-Fernández
University of Granada, Spain

José Jesús Martín Martín
University of Granada, Spain

Sergio Minué-Lorenzo
Escuela Andaluza de Salud Pública, Spain

ABSTRACT

Health economics literature has demonstrated that physician motivation is related with three reasons—extrinsic motivation, intrinsic motivation, and prosocial motivation—and that this motivational structure is influenced by the type of organization in which they work. Yet this research proves insufficient to identify the origin of the physician's

DOI: 10.4018/978-1-7998-3515-8.ch013

psychological motivations. To shed light on this gap, this chapter aims to outline a neuroimaging methodology which would prove useful to identify the neurocognitive motivational structures of hospital physicians with the proposes the design of several intrasubject laboratory experiments, using the functional neuroimaging technique magnetic resonance imaging (fMRI). Identifying the neuronal origin of doctors' motivational framework belonging to private or public health organizations would be a step forward in defining the most appropriate motivational plan for a medical profile working in different hospital environments.

INTRODUCTION

Health economics literature has demonstrated that physician motivation is related with three reasons: extrinsic motivation, intrinsic motivation, and prosocial motivation and that this motivational structure is influenced by the type of organization in which they work. Most of the research on the structure of physicians' motivations has been conducted either through changes in remuneration systems or through surveys. Yet this research proves insufficient to identify the origin of the physician's psychological motivations. To shed light on this gap, this article aims to outline a neuroimaging methodology which would prove useful to identify the neurocognitive motivational structures of hospital physicians.

This study proposes the design of several intrasubject laboratory experiments based on exposing 60 doctors to extrinsic, intrinsic and prosocial motivational environments and recording the brain activity caused by these stimuli, using the functional neuroimaging technique Magnetic Resonance Imaging (fMRI).

Identifying the neural origin of doctors' motivational framework belonging to private or public health organizations would be a step forward in defining the most appropriate motivational plan for a medical profile working in different hospital environments. The results may be useful to explain the interaction between motivational structure and type of health care organization as well as being able to suggest more efficient cognitive and more affective motivation structures. So, the current research constitutes the first protocol in health organization and management that proposes a neuroimaging methodology as a means of the neuronal origin of doctors' motivational framework belonging to private or public health organizations, where the main objective of this article is to propose a neuroimaging methodology which would prove to be a useful way to identify the neurocognitive motivational structures of hospital physicians belonging to both private and public health organizations. This would allow an analysis methodology of evaluation, based on neuroimaging tools, which would permit the assessment of differences in

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