Chapter 6.2
Difficulties in Accepting Telemedicine

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ABSTRACT

Telemedicine requires a new type of worker: the health care teleworker. Nevertheless, physicians remain wary of adopting telemedicine. This work examines the sources of the resistance to incorporating telemedicine. We adopt a focus centering on the difficulties that human factors have in accepting the practice of telemedicine. Employees' resistance to change comes mainly from the inertia that perpetuates traditional routines and methods of working. The success of telemedicine projects will be determined by these human factors as well as by an adequate use of information technology and an appropriate organizational management. This work also offers some practical implications in human resource management for managers of telemedicine projects to consider.

INTRODUCTION

Information technology (IT) can improve aspects of both medical care and of the underlying administrative infrastructure. Thus, as in any other industry, we are seeing a proliferation of specialist applications and systems such as hospital information systems (HIS), medical decision support systems, interpretation of biomedical signals and medical images, integration of knowledge-based systems with HIS, and telemedicine.

Telemedicine enables the provision of health care services or the exchange of health care information across geographic, temporal, social, and cultural barriers (Chau & Hu, 2004). Telemedicine makes use of a wide range of technologies to overcome

distances, such as radio, analog landlines, e-mail, the Internet, ISDN, satellites, telesensors, and so forth, for the transmission of medical information (data, voice, and video) and provision of medical services from a distance.

Thanks to telemedicine, health care centers can offer diverse specialty services to other centers, to other physicians, or directly to the patient, such as, for example, telecardiology, teledermatology, teleendoscopy, telemedicine, telemonitoring, telenursing, telepathology, teleradiology, and telesurgery (Tachakra, 2003).

The concept of telemedicine does not actually require the use of information technologies. Indeed, it was common in the past to exchange medical opinions and prescribe treatments using mail, the radio, or even visual signals. People living in remote areas of Australia at the beginning of the 20th Century used radio to communicate with the Royal Flying Doctor Service of Australia. At this time, physicians on dry land also used the radio to communicate with ships suffering from medical emergencies (Wootton, 2001). Some African villages used smoke signals to warn outsiders not to approach the village during an epidemic. Similarly, ships used flags to warn that they were in quarantine (Darkins & Cary, 2000). Nevertheless, modern IT has given new meaning to the practice of telemedicine (Bladwin, Clarke, & Jones, 2002).

Telemedicine requires a new type of worker: the health care teleworker. Indeed, telemedicine can be seen as a pioneering activity in the field of teleworking. But unlike in other types of telework, the human factor is much more important for the success of projects in telemedicine. Nevertheless, physicians remain wary of adopting telemedicine. Most experts agree that the major barriers to implementing telemedicine are known but that the solutions are complex and require cooperative efforts.

This chapter examines the sources of the resistance to incorporate telemedicine. We adopt a focus centering on the difficulties that human factors have in accepting the practice of telemedicine. Employees' resistance to change comes mainly from the inertia that perpetuates traditional routines and methods of working (Pardo & Martinez, 2003; Rumelt, 1995). The success of telemedicine projects will be determined by these human factors, as well as by an adequate use of IT and an appropriate organizational management (Bruque-Cámara, Vargas-Sánchez, & Hernández-Ortiz, 2004; Khatri, 2006; Melville, Kraemer & Gurbaxani, 2004; Powell & Dent-Micallef, 1997).

The rest of this chapter is organized as follows. The second section discusses the relationship between telemedicine and human resource management. The third section tries to identify the obstacles in the way of an adequate acceptance and development of telemedicine. This section also offers some practical implications in human resource management for managers of telemedicine projects to consider. Section four suggests some future research opportunities within the domain of the telemedicine and human resource management topics.

BACKGROUND

There has been a considerable amount of work on telemedicine in the scientific literature (Demiris & Tao, 2005; Roine, Ohinmaa, & Hailey, 2001), but academics have focused mainly on technical questions—to do with what technologies are available for the practice of telemedicine (Rao, 2001)—or on health care issues: to what medical fields telemedicine can be applied (Fishman, 1997; Tachakra, 2003).

Researchers have shown rather less interest, however, in questions concerning the organization and management in the adoption and implementation of telemedicine projects. In particular, few studies analyze the impact of telemedicine projects on the management of the human resources participating in such projects (Croteau & Vieru,

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