Chapter 6
Obtaining Patient’s Information from Hospital Employees through Social Engineering Techniques: An Investigative Study

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ABSTRACT
Social engineering can be briefly defined as the obtaining of information through deceptive methods. The intention of the action is to acquire information that will be of use in order to gain access to a system or use of information obtained from the system. There are benefits gained by allowing health care workers access to patient data, but the ability to maintain security of that information may be compromised due to the accessibility. Using methods such as social engineering, health care workers may innocently provide sensitive information without realizing that they have participated in the process of deception. This chapter addresses the issue of social engineering used to obtain health care worker’s passwords, as well as the laws that govern health care workers in relation to the privacy and security of confidential patient information.

INTRODUCTION
For most organizations, an employee uses a self-selected username and password as a form of authentication. Even when an organization chooses to enhance security by assigning information used by employees for authentication, social engineers are able to obtain information by using a variety of tricks and techniques (Ciampa, 2005). Social engineering is defined as the “act of manipulating a person or persons into performing some action” (McQuade, 2006). That action may be the “master key” to the health care agency’s vault containing patient information.
Most hackers rely on employees to unknowingly help them attack company networks and systems by simply answering a series of simple questions. Today, most health care agencies have intrusion detection/prevention systems such as firewalls that can be used to alert organizations in the event of a security breach, but these systems cannot prevent employees from inadvertently sharing information with others. Therefore, the question still remains, “how much information might an employee provide to a stranger or to a co-worker?”

The social engineer can, and often does, utilize an arsenal of methods that allow him or her to involve the emotions of a victim to aid in an attack. According to Mitnick & Simon (2002), the social engineer may flirt with the employee in an attempt to trick the individual into releasing information or another approach sometimes taken is to convince the employee that their job depends on supplying the attacker with the requested information. No matter the technique employed, if relevant and meaningful information is supplied, the entire network and all of the information it contains has been placed at risk.

Managers must be vigilant in their efforts to protect patient information as required by several laws. Most recently, on February 17th, 2009, President Obama signed into law the Health Information Technology and Clinical Health Act (HITECH) as part of the American Recovery and Reinvestment Act. The HITECH Act enhances the security and privacy provisions as well as the penalties contained in the Health Insurance Portability and Accountability Act of 1996 (http://www.nixonpeabody.com/publications_detail3.asp?ID=2621). This new law also requires patients be notified in the event of a security breach.

In this study, we simulated how a social engineer might obtain personal information from unsuspecting hospital employees. As previously mentioned, health care agencies and their employees must be especially vigilant in their effort to guard against the sharing of patients personal and/or private information.