



# Chiropractic Physicians: Toward a Synthesis of Electronic Medical Records and the Society, Culture, Personality Model in the New Millennium

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## ABSTRACT

**Objective:** The purpose of this paper is to synthesize the key concepts of electronic medical records and society-culture-personality relationship upon the educational practice as well as decision making of chiropractors in the new millennium.

**Discussion:** It is essential for doctors of chiropractic to be cognizant of the fundamental core of the society-culture-personality model as an organizational tool to conceptualize key features of electronic medical records technology. The new form of socially meaningful interaction established through electronic medical records technology may augment communication among the healthcare team and thereby could expand the quality of care.

**Conclusion:** Electronic medical records technology has the capability to provide the medium for chiropractors to foster improvements in the health care institution in regard to five components: availability, accessibility, affordability, continuity, and quality. (*J Chiropr Humanit* 2008;15:2-9)

**Key Indexing Terms:** Chiropractic; Medical Records Systems, Computerized; Sociology of Medicine.

## INTRODUCTION

The explosive growth of electronic medical records (EMR) in the new millennium may influence the health care institution in its

totality.<sup>1,2,3,4</sup> Indeed, Dean Rottinghaus, DC<sup>5</sup> recently reminded the chiropractic profession to, “Imagine increasing the number of patients you see each day and eliminating some of those time-consuming office processes that direct your attention away from your patients and revenue streams.” Within the health care institution, several sub-systems may be affected; for example, the future professionalization of health care practitioners<sup>6,7</sup> and the doctor-patient relationship.<sup>8,9</sup>

The chiropractic profession is an integral part of the health care institution. Therefore, it is essential to place the diverse body of descriptive and empirical research on electronic medical records (EMR) technology and society, culture, personality

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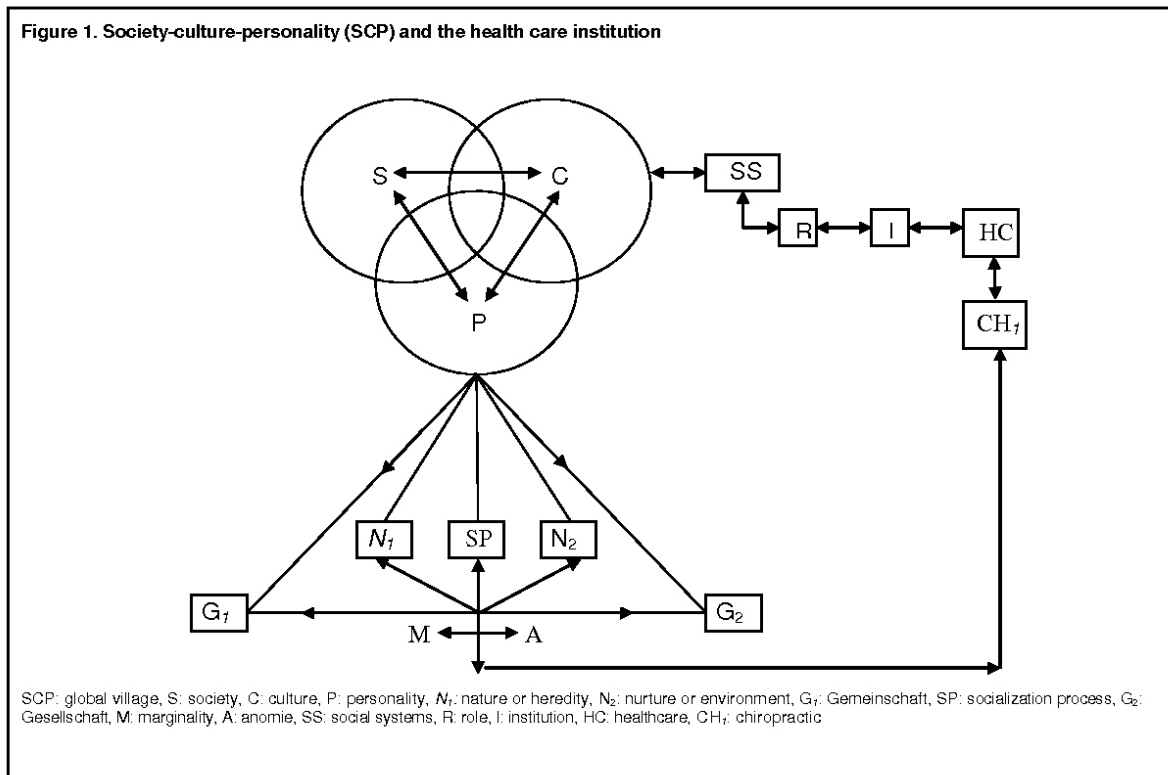
(SCP) relationships within a constructive type of theoretical framework. This perspective might assist chiropractors nationally and transculturally in the diagnosis, treatment, and prognosis of their future patients in a globalized world. Indeed, globalization and technology have certainly transformed the landscape of the health care institution in dynamic areas of society such as the quality of care, the availability of care, the accessibility of care, the affordability of care, and the continuity of care - factors that are intertwined and most essential in the practice of chiropractic medicine.<sup>10,11</sup>

The Center for Disease Control and Prevention estimates that 29.2 percent of office-based physicians utilized EMR technology in 2006.<sup>12</sup> Despite this low number, there has been pressure from the federal government, managed care organizations, hospitals, corporations, and

patients that may soon lead to the universal adoption of EMR technology. President Bush highlighted the urgency for health care reform in his 2006 State of the Union Address, specifically the adoption of electronic medical records as integral to unify health care objectives of the 21<sup>st</sup> century.<sup>13</sup> Additionally, IBM Corp became the first American Corporation to supply its 180,000 employees with a form of EMRs to encourage more physicians to adopt EMR technology.<sup>14</sup> Recognition by the federal government and the private sector of the value of EMR technology underscores one major point. In the future, EMR technology can continue to play a large role in the delivery of health care.

### Purpose of the SCP Model in Relation to EMR and Chiropractors

The SCP model (Fig 1) can be used as an organizational device for aiding



chiropractors in developing a better understanding and appreciation of the interrelationships between EMR technology and the SCP model as they practice their roles as a chiropractic physicians in diverse communities within a Gemeinschaft (G<sub>1</sub>) (Rural) and/ or Gesellschaft (G<sub>2</sub>) (urban) society (Fig 1).<sup>6-7</sup> The purpose of the paper is to synthesize select key concepts of the electronic medical records and society-culture-personality relationship that bear upon the educational practice as well as decision making of chiropractors in the new millennium. Moreover, these select concepts will be limited to the overall core dimension of the SCP model as an interlocking system.

### **Fundamental Core: Society, Culture, Personality**

Careful consideration must first be taken to examine the major differences of society, culture, and personality to provide the basis for synthesis and integration. In general, an interlocking social system (SS) forms through the multidimensional relationship between society, culture, and personality (Fig 1). Society (S) refers to,<sup>15</sup> “an ordered and dynamic system of all the social interactions involving the members (personalities), of a total population, which can be identified as sharing a culture distinct from that shared by other populations.” Culture (C) is the culmination of a group’s knowledge, beliefs, customs, laws, and habits, more generally, a way of life. In other words, it is a system of conventionalized understandings of a group manifested in act (immaterial) and artifact (material) aspects. As an individual incorporates the values of a society, the individual develops a unique personality that flourishes, given the freedom and restraints of the respective society. Personality (P) is an individual’s dynamic arrangement of ideas, attitudes, and habits, which gives a

person a distinct quality. The first subdivision of personality, genetic basis (N<sub>1</sub>), represents only potentiality; however, the “finished product” develops through interactions during the socialization process (SP), a learning process in a social environment (N<sub>2</sub>) wherein the value attitude system of a culture is internalized.<sup>7</sup> Thus, it would be useful for the chiropractic physician to incorporate the central components of EMR technology in order to assimilate into the computerized medical social environment of the new millennium.

### **SCP Interrelationship to EMR Technology**

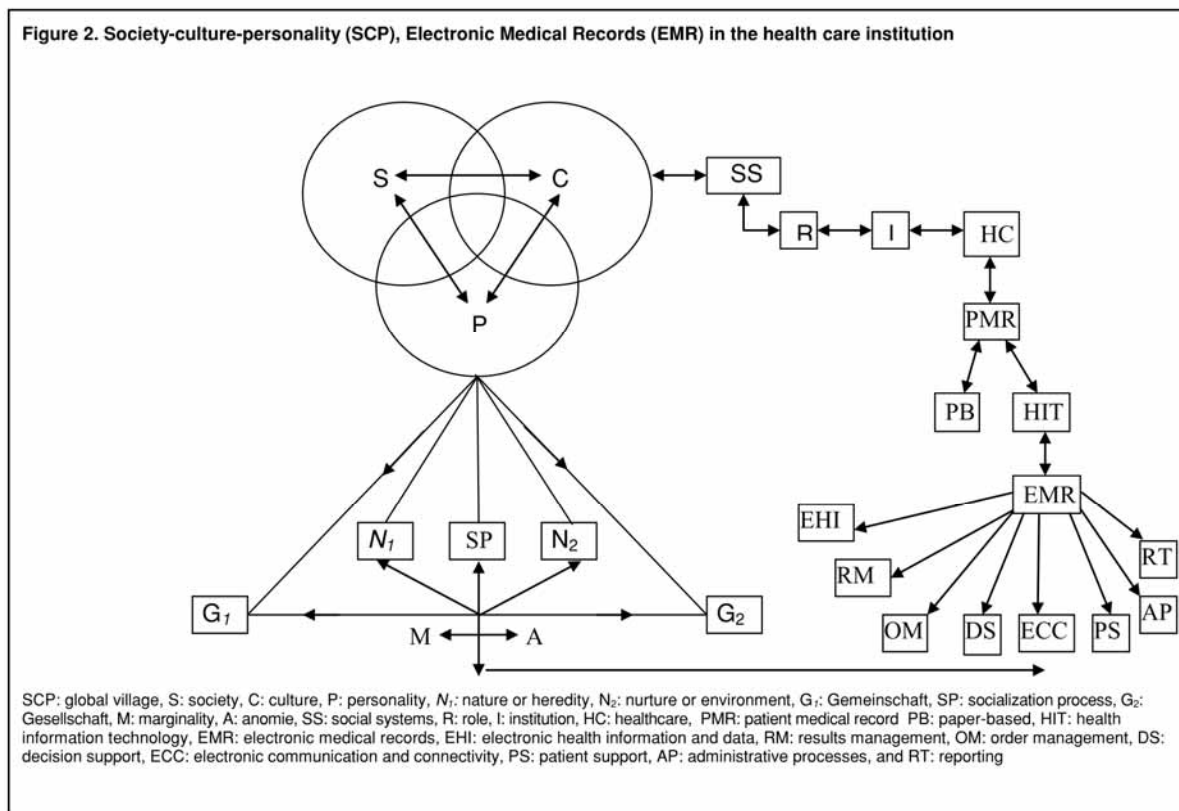
As noted previously, SCP forms an interlocking pattern of relationships of roles within the social system (SS). Role (R) is a:<sup>7</sup> “pattern of expected behavior associated with a certain position within society.” As roles become highly complex structures, institutions form to fulfill basic human needs. In America, the roles of health care professionals aid in the creation and preservation of the health care institution (HC). A society requires various institutions to function as a single entity. Institutions develop over time and then become interrelated. As a result, proper examination of the health care institution must include isolation from, as well as integration with other institutions, such as, political, religious, educational, family, economic, and other organizational structures. The health care institution is the overarching point of origin where EMR branches. For instance, patient medical records (PMR) can be considered a large subdivision encompassing the two main ways medical information is created and stored, which includes paper or electronic form. More precisely, patient medical records can then be divided into two main categories: the paper-based system and the health

information technology (HIT) system. Paper-based simply means the patient's medical information is tangible, eventually filed away. On the contrary, HIT represents a computerized system with the ability to store patient information and/ or to allow communication electronically. Presently, there is a multitude of distinct HIT systems. Health information technology systems are similar to institutions, since HIT systems develop over time through stages and are interrelated vis-à-vis the care of the patient.

### Structure of Electronic Medical Records Technology

It is essential for chiropractors to fully grasp the key components of EMR technology, in order to realize why the whole is greater than the sum of the parts. Before this can occur, the basics concepts and theories must be introduced (Fig 2). The Institute of Medicine defines the eight major

components of EMR technology: electronic health information and data, results management, order management, decision support, electronic communication and connectivity, patient support, administrative processes, and reporting.<sup>16</sup> Therefore, an EMR system is not intended as a replacement of the paper-based system, but rather it is an enhancement to the older system. Health and information data allows for a quick retrieval of relevant information pertaining to patients' diagnosis, allergies, and lab test results.<sup>16</sup> Results management provides immediate access to past test results and other news about a patient while order management allows the organization of all computerized entries of medications, tests, and patient information.<sup>16</sup> Electronic communication and connectivity possess the capability for numerous health care professionals to communicate among each other and with patients. Patient support gives patients the opportunity to have a

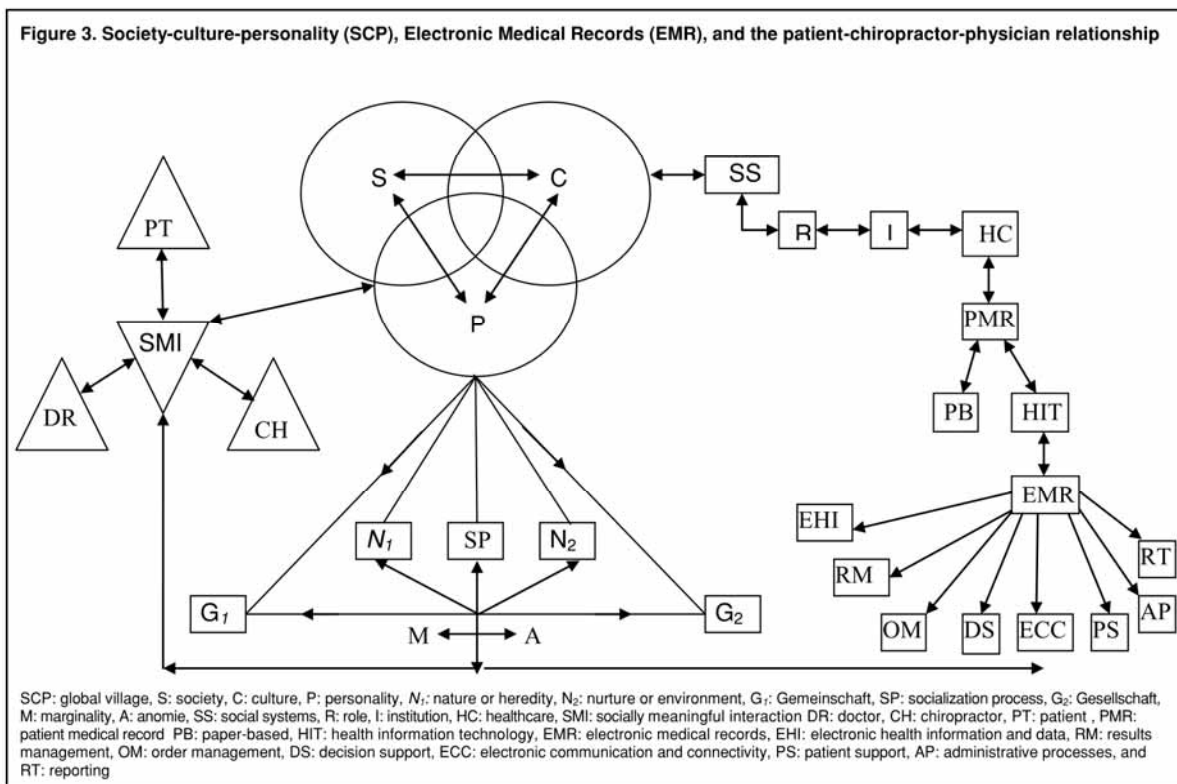


more active role in the delivery of health care by having access to their own medical records, medical education material, and their own personally implemented preventive care measures.<sup>16</sup> The administrative process component is an organizational tool for scheduling, administrative efficiencies and patient service.<sup>16</sup> Reporting is uniform with electronic data storage that allows chiropractors and other health care professionals to follow federal and state regulations.<sup>16</sup> In 2006, the Centers for Disease Control and Prevention reported that only 12.4 % of physicians surveyed actually utilize a full EMR system that encompasses all four basic functions: computerized orders for prescriptions, computerized orders for tests or imaging, reporting of test results, and physician notes.<sup>12</sup> Even though the figure is low, the medical as well as its political environment could trigger an increase in the adoption of EMR systems in the new millennium. Under

the Medicare Modernization Act, the Centers for Medicare and Medicaid Services is required to implement electronic prescribing no later than 2009, which is intended to not only reduce medication errors, but also to become a major platform for future HIT systems.<sup>17</sup>

### Relationship of Electronic Medical Records and Socially Meaningful Interaction of the SCP

Electronic Medical Record technology has the opportunity to reduce fragmentation among health care professionals through the standardization of patient information, electronic accessibility, and communication amongst the health care team. Overall, the current paper-based system may hinder the socially meaningful interaction during the team approach for the caring of the patient, since there is lack of team communication and coordination. Pellegrino argues,<sup>18</sup> “The team, therefore, is a transitory social system,



consisting of a number of persons working together for a defined and mutually accepted goal and according to the mutually accepted program.” EMR systems may aid in the reduction of fragmentation through the improved socially meaningful interaction capability to coordinate patient care within the health care team. Socially meaningful interaction refers to the social contact and communication within a society. Social interaction can occur in various ways: oral and written languages, gestures, arts, or other mediums. This socially meaningful interaction is the catalyst or the agent needed before SCP can become a functional interlocking system.<sup>7</sup> Medical records are one of the most important means of communication within the health care community. Thus, communication or socially meaningful interaction may improve among the health care team because patients’ medical records will become more accessible to each member through EMR systems (Fig 3). Moreover, this new electronic form of communication through comprehensive EMR systems could foster greater possibilities of socially meaningful interaction among the health care team during the treatment, diagnosis, and prognosis of patients.

## CONCLUSION

The effect of EMR technology on patient care has a tremendous impact on the health care institution in any society—hence on the culture and personalities within the societies of the globalized world. Thus, the interrelationship between EMR and SCP. Rottinghaum documents this rather succinctly:<sup>5</sup> “Using the efficiency and organization only a computer can provide, along with the connectivity of the internet should be a good thing. A truly paperless EMR that’s affordable, easy to use and helps save money is a huge plus for any practice.”

Thus, we suggest that there is a crucial need for the utilization and integration of the behavioral sciences and EMR theory throughout the continuing educational process of chiropractors. This perspective may perhaps provide a successful professionalization process into the computerized record based medicine, already present in the United States.

The SCP model is presented as a vital tool for assisting chiropractors to utilize the electronic medical records technology across the continuum of care in the new millennium. Indeed, the integration and synthesis of EMR and SCP may certainly enhance the knowledge and applicability of areas such as e-mail communication, patient-education, public health responses, and electronic patient reminders and alerts.

In brief, the synthesis of EMR and SCP may have a synergistic effect on the three basic functions of EMR technology. These are: 1) It centralizes all records on a patient and instantly communicates to any health care provider in a secure and confidential manner; 2) All patient information including medical history, diagnostic tests (e.g. x-rays, CT scans, video-tape copies of surgery, ultra-sounds and laboratory treatments) can be shared immediately with health care professionals, consultants and other health care specialists; 3) EMR’s are capable of instantly checking that proper diagnostic questions are asked and that providers follow up on health records including future appointments.

On balance, therefore, health care in the new millennium will call on future professionals such as chiropractors to assume new roles in order to improve the health care institution through the following five major components in the SCP model. These are, namely, quality, availability, accessibility,

affordability, and continuity of care whereby, “The secret of the care of the patient is in the caring of the patient.”<sup>19</sup>

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