

## Chapter 8.2

# E–Therapy

**Catarina I. Reis**

*Polytechnic Institute of Leiria, Portugal*

**Carla S. Freire**

*Polytechnic Institute of Leiria, Portugal*

**Josep M. Monguet**

*Polytechnical University of Catalonia, Spain*

### ABSTRACT

Nowadays, information and communication technologies (ICT) are being used in the mental health field to improve the quality of the services provided. Several studies refer both advantages and disadvantages for these practices. E-therapy appears as a new way to help people in their life and existing relationships, and there is proven evidence that on-line therapy helps, for instance, to reduce depression symptoms. It is also seen as a complement of the technological and traditional techniques, to improve the effectiveness and efficiency of the therapeutic process. As a matter of fact, some people tend to be more comfortable with the computer than in face-to-face therapy. Besides patients and physicians, other direct players could be found in this domain, namely, families and caregivers. All players will be directly affected by the use of existing services and thus, a correct assessment of the effectiveness of e-therapy solutions and studies is required. eSchi

is a multimedia portal that enables an e-therapy setting for schizophrenia patients. Currently under development, the system is described and future trends in the area are depicted.

### INTRODUCTION

E-Therapy is a new concept that has been receiving growing attention both by the scientific community and by the general public.

World governments are reassessing their health funding system to increase mental health assistance, since, more than ever, it is regarded as the key question to a healthier population. On the other hand, emerging information and communication technologies (ICT) are being reinforced to bridge the info-technology divide that still currently exists.

Therefore, the most obvious step to take is provide mental health services via emerging ICT, as already happens for some general health services. E-Therapy is the establishment of a therapeutic session using ICT. This concept allows a patient

DOI: 10.4018/978-1-61520-670-4.ch042

and a therapist to access distinct activities, available online, and engage in a therapeutic session with a slightly distinct contour from the one in a traditional practice setting.

In this chapter the authors aim to provide a consistent summary of the existing literature on e-Therapy, presenting the major players implicated and chief advantages and shortcomings. The authors propose a list of items that will enable the effectiveness assessment of this type of service; followed by a set of guidelines for the design, implementation and deployment of an effective e-Therapy service. eSchi is an e-Therapy tool, currently under development, that is presented as a case study and analyzed according to the effectiveness assessment items proposed. Finally the authors present future trends in the provisioning of e-Therapy services.

## BACKGROUND

E-health, or electronic health, describes the provision of health services over a wide range of electronic amenities, like electronic health records or health information networks. According to Le (Le, 2007) this term covers two large areas: health informatics—related to applications and databases that can record data to conduct analysis and to provide support to health care; and telehealth—related to the delivery of health information or care to a recipient, e.g. videoconferencing.

Telehealth, also known as telemedicine, means medicine at a distance and thus it's not a new concept. Guler (Guler & Ubeyli, 2002) refers the use of the analogue telephone to transmit electrocardiograms (ECGs) and electroencephalograms (EEGs) in the beginning of the twentieth century; National Aeronautics and Space Administration (NASA) has used remote monitoring of astronauts since 1960 (Guler & Ubeyli, 2002) and some (Myron & Irene, 2004) state NASA as the pioneer in the area. It is difficult to state a specific date to the beginning of telemedicine; imperative is to

refer that new information and communication technologies have brought a new breath to this concept. Nowadays, telemedicine can be defined as the use of ICT to provide medical information and services, like health information, assessment, diagnosis, education and other services across geographical distance (Guler & Ubeyli, 2002), (Myron & Irene, 2004), (Castelnuovo, Gaggioli, Mantovani, & Riva, 2003). According to this definition it is possible to state that the fundamental concepts of telemedicine are related to basic principles of telecommunications and Internet-working of computer systems: the use of communication software, like email and web browsers; and forms of telecommunication like videoconferencing, remote data monitoring and file transfers (Guler & Ubeyli, 2002). ICT is changing so fast (Le, 2007) that new products and services are becoming available all the time (Guler & Ubeyli, 2002).

The application of telemedicine requires the integration of new tools (Guler & Ubeyli, 2002) so people involved have to go through an acculturation process. This, according to Le (Le, 2007) “is a process in which people of a different cultural and social discourse have adapted to accommodate a new discourse” (p. 1195) and can bring positive or negative experiences. To aid the acculturation process it is important to train and educate people involved. Indeed, they do not have to become experts to use telemedicine systems, but they must be ready to use them (Guler & Ubeyli, 2002), (Castelnuovo, Gaggioli, Mantovani, & Riva, 2003a), (Kanani & Regehr, 2003).

The health context is quite extensive and ICTs have not covered it all, despite the growing effort in this direction. The mental health field, despite some use of ICT, still has many uncovered fields where it is possible to explore the potential of these new technologies. In fact, there has been a great interest in introducing new technologies in this field, usually referred as telepsychiatry or e-mental health (D. M. Hilty, Luo, Morache, Marcelo, & Nesbitt, 2002), (McGinty, Saeed,

20 more pages are available in the full version of this document, which may be purchased using the "Add to Cart" button on the publisher's webpage:

[www.igi-global.com/chapter/therapy/44054](http://www.igi-global.com/chapter/therapy/44054)

## Related Content

---

### Service Composition Based Software Solution Design: A Case Study in Automobile Supply Chain

Tong Mo, Jingmin Xu, Zhongjie Wang, Yufei Ma, Heyuan Huang, Yuan Wang, Ying Liu, Jun Zhuand Xiaofei Xu (2012). *Technological Applications and Advancements in Service Science, Management, and Engineering* (pp. 103-115).

[www.irma-international.org/chapter/service-composition-based-software-solution/66288](http://www.irma-international.org/chapter/service-composition-based-software-solution/66288)

### A Survey of Development Methods for Semantic Web Service Systems

Terje Wahland Guttorm Sindre (2010). *Electronic Services: Concepts, Methodologies, Tools and Applications* (pp. 135-150).

[www.irma-international.org/chapter/survey-development-methods-semantic-web/43946](http://www.irma-international.org/chapter/survey-development-methods-semantic-web/43946)

### Technology Adoption and Educational Change in Turkey

Serhat Kurt (2011). *International Journal of Information Systems in the Service Sector* (pp. 76-85).

[www.irma-international.org/article/technology-adoption-educational-change-turkey/53231](http://www.irma-international.org/article/technology-adoption-educational-change-turkey/53231)

### Skills Development Factors of Information Technology Competency Among External Auditors

Mokhtar Abdulhakim Alsabahi, Ku Maisurah Ku Bahadorand Rafeah Mat Saat (2021). *International Journal of Information Systems in the Service Sector* (pp. 13-28).

[www.irma-international.org/article/skills-development-factors-of-information-technology-competency-among-external-auditors/273642](http://www.irma-international.org/article/skills-development-factors-of-information-technology-competency-among-external-auditors/273642)

### The Security of Cloud Infrastructure

Massimo Civilini (2012). *Achieving Federated and Self-Manageable Cloud Infrastructures: Theory and Practice* (pp. 158-175).

[www.irma-international.org/chapter/security-cloud-infrastructure/66232](http://www.irma-international.org/chapter/security-cloud-infrastructure/66232)