

## GUEST EDITORIAL PREFACE

# Is There a Grey Zone between Information Therapy, Bibliotherapy and Patient Education?

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## INTRODUCTION

The concept of Information Therapy is not a novel coin/invent in medicine. In the past, physicians gave instructions to their patients and educated them through oral communication while collecting past medical history. For years, nurses, doctors and consultants in hospitals have tried to include patient education in their patient care practice, at least in one of its many forms, including face to face conversation, discussion panel, printed materials and audio visual materials. All of these activities and programs are categorized under the concept of patient education in which the memorization of instructions is expected from the audience. However, the information prescription is a new approach with a framework that offers more specific standards to ensure the quality of information and the efficacy of healthcare.

Although information therapy is in line with the old patient education program, its evidence-based nature differentiates it from other concepts. Information prescription is different from the long standing models of information interventions such as bibliotherapy, patient education and consumer health information (CHI), although the basis and philosophy of these approaches are similar and all are valuable and effective steps in the course of health care provision. Information prescription utilizes the themes of cognitive therapy, information literacy, information science, evidence-based medicine and patient education. However, it comprises of some rigorous criteria such as being evidence based, decision- focused, individualized, and up-to-date, (Kemper-Mettler, 2002) that differentiate concepts Ix/IP from other related concepts like CHI, bibliotherapy and patient education. For instance, CHI is

health information for general rather than to support decision making among specific patients. Bibliotherapy, even if it may be referred to as a prescription, is not classified as information prescriptions (IPs) and Information Therapy in medicine due to the nature and purpose of the information. Webb (1933) was among the first authors who described the concept of prescription of literature to patients to help them ease their anxiety. Webb as a physician used the word prescription not for provision of medical information with specific criteria but for relevant literature, which is known as bibliotherapy in the field of information science (Gavani VZ, In Press). All these concepts can be categorized under the broader concept of patient education. While, information therapy, has some standards and criteria of the information prescription, such as being evidence-based, decision-focused, approved by physician, up-to-date, referenced, unbiased its purpose is to provide personalized information for a specific patient to help him/her at the specific moment of care (Kemper & Mettler, 2002).

IPs also follows a classification based on the source of issuance of IPs i.e. physician directed IP and non-physician prescribed IPs. As an analogy, the physician directed IP is exactly like Rx that is prescribed by a physician to specific patients following a clinical visit and a diagnosis, in contrast to a non-physician IP is similar to the over the Counter (OTC) medications in which people approach drug stores and buy OTCs following a self-diagnosis (Gavani & Biswas, In Press). In non-physician directed IP people search or browse the web for health information and health related websites with health information in plain language following a need for health related information for themselves or their family members. The information they may find through surfing the websites is ready to use and “one-size-fits-all” information, (NHS, 2008a), which can be used by public. These websites can give background information about health related issues to consumers but not necessarily specific foreground information for supporting the decision at the

moment of care, the line we draw to distinguish the information prescription from any kind of consumer health information.

However, there are controversies about the prescription of information and involving patients in medical decision by providing them with relevant information, because of possible side effects of being informed and related anxiety and hopelessness (Jenkins, 2001; Frojid, 2009). To find out whether information really creates anxiety and depression, or it improves health outcomes, we need more empirical studies and controlled trials. A brief review of literature shows that there are very few randomized controlled trials (RCTs) in “information prescription” and no meta-analysis have been performed in this area. We need to put it into practice and encourage researchers to fill in this gap of research by conducting rigorous RCTs in the field of personalized and specifically physician-directed information prescription

## **CAN INFORMATION ACT AS MEDICINE?**

With the advances in scientific research, especially those involving human evolution creation and capabilities, there is increasing faith in the power of information and knowledge transformation. Let's consider some examples to indicate how information transformation acts as basic element of change and improvement in human cognition. For years, neuroscientists believed that the brain is physiologically a static organ, but now neuroplasticity has changed this belief by indicating that human brain regenerates and changes. Now, “the role of neuroplasticity is widely recognized in health development, learning, memory, and recovery from brain damage” (LeDoux, 2002). The other considerable ability of humans that we can use to base our idea of information therapy on is “innate intelligence”. Innate intelligence as a chiropractic concept is a metaphysical view that says we are born with a vitalistic principle, that it controls body function, monitors

the preservation of the body, and is expressed through the nervous system (Morgan, 1998) according to the philosophy of innate all life contains Innate Intelligence and that this force is responsible for the organization, maintenance and healing of the body. According to this view, it is not just starfish that has the capability for gene regeneration. Humans may also have the capability to generate the lost organs and cells or heal the diseases and disorders through their innate intelligence (Levine & Frederick, 1997; Paul et al., 2009). Putting these two scientific facts together, neuroplasticity and innate intelligence/healing, can't we say that through training, blooming this clandestine aptitude, and practicing based on appropriate information one can heal his/her illness?

The conversion of information into the energy is another achievement in human knowledge that leads us to state that information can act as a therapeutic element. Once, 150 years ago, the discovery of the conversion of information into energy was rejected due to opposition to the second law of thermodynamics. Recently, physicists from Chuo University in Japan converted information into pure energy, experimentally. By measuring the particle's degree of rotation against the field, Toyabe et al found that they could convert the equivalent of one bit information to  $0.28 kT \ln 2$  of energy. In other words, they could exploit more than a quarter of the information's energy content (Toyabe et al., 2010).

Though the idea that we can heal ourselves by receiving information and inner empowerment may seem far reaching today, various theories and experimental evidences point to a possibility. Since, there are still some questions to be raised in this area such as: "what kind of information is appropriate and how is it converted to energy in one's system of body/brain? How and when can the information be received? How can this potential energy be utilized in medicine and healthcare? When can we say that the information has been used? Is reading information sufficient or does it need another form of utilization?

These types of questions refer to the existing gap in this field that needs to be explored and answered.

With these premises it can be said:

- Every creature in nature carries information and functions based on information;
- Human being (ill/healthy) owns the capabilities to heal, change, regenerate, and reshape himself using the right information at the right time;
- Brain plasticity and neuroplasticity, capability strength of the brain can be utilized in learning and rehabilitation and may be linked to information.

We accept that information can be used as complementary medicine in healing and healthcare and describe the differences between information therapy and other related concepts such as bibliotherapy, consumer health information and patient education.

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