

Original Article

Identifying the Opportunities and Challenges of Establishing an Information Therapy Center

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ABSTRACT

Introduction: Information therapy is a simple solution to facilitate patients' access to health information, which can contribute to patient self-care. Considering the importance of treatment and health information, and engagement of people with different specialties in the process of information therapy, this research was conducted to identify the opportunities and challenges of establishing an information therapy center.

Methods: The present study was an applied-qualitative research. The study population included patients, medical librarians, physicians, health care providers, and psychologists with experience in information therapy and health information prescription. A purposive sampling along with snowball sampling were performed. The data were collected via a semi-structured interview. The data were then analyzed by using MAQDA20 software.

Results: By analysing the interviews, we were able to identify a main class entitled "Benefits of Information Therapy" including 4 subclasses of "patients and families", "medical staff", "health system", and "medical librarians" under the main themes of "Opportunities". Under the and "Challenges", four subclasses of "barriers to information therapy", "financial issues", "implementation", and "execution" were also identified.

Conclusion: Despite the benefits of establishing an information therapy center for patients and their families, treatment staff, psychologists and medical librarians, there are some obstacles posed by these groups and the healthcare system, which require further consideration. Careful investigation and finding solutions to remove the obstacles as well as creating an appropriate platform to adopt the center in the society and health sector. In order to establish this center, it is necessary to consider inter-group and inter-organizational cooperation with detailed planning, as well.

Extended Abstract

Introduction

Recently, in order to facilitate patients' access to reliable health information, information therapy centers have been initiated simply by information prescription besides drug prescription, to increase patient awareness and self-care, to follow the doctor's instructions correctly, and to engage the patient in health decision-making .[1-3] The goals of information therapy can be divided into two categories. Patients' objectives are: developing disease management skills, improving the ability to cope with the disease, [1-3] increasing general knowledge, [2] reducing the use and costs of medical services, and preventing side effects of diseases. [4] The goals related to physicians are: improving patient-physician communication, reducing the use of medical services, and preventing chronic and acute diseases. [3] The members of medical team are the main persons with the potential to provide reliable information to patients. [5,6] Psychologists, clinical librarians and counselors have the main role in the process of information therapy. [6] Clinical librarians have the ability to evaluate the quality of various medical information sources and produce the health educational packages under the supervision of a medical , as they are trained to do so by taking courses such as medical references, medical terminology, health information literacy, evidence-based medicine, etc. [6] The results of a search performed by a patient is not as reliable as that of a health provider and clinical librarian . [7] Moreover, physicians have faced a challenge due to the increasing number of information resources, lack of search skills, busy time schedule, and burden of work. [6] The presence of an information therapy specialists in the medical team will be effective in conveying information to the patient. [8,9] However, clinical librarians are not allowed to intervene in medical procedure independently without

the supervision of the medical team. [10,11] \Previous studies on information therapy have addressed the feasibility of providing this service in teaching hospitals, [1] on various patients, [3,4] on reducing treatment costs [12] and the benefits of information therapy for society and the health system. [2,5] To the best of our knowledge, none of these studies have addressed the challenges and opportunities facing the establishment of an independent information therapy center which is the purpose of present study contributing to the health system.

Methods

This study is an applied qualitative research which has been carried out by using the conventional content analysis method. The participants included patients and clinical librarians, doctors and psychologists living in Isfahan in 2021 when they had experience in information therapy and prescribing health information. The sampling method was purposive and the sample size was 48 people using the snowball technique. After reaching the saturation, the interviews were stopped. The data collection instrument was a semi-structured interview. The interview guide questions were developed in collaboration with the research team and included two general questions: 1) what are the opportunities and 2) what are the challenges of establishing an information-therapy center? Under these two questions, other sub-questions were also developed according to the interview process. The interviews were conducted in person for 30 to 40 minutes, and for those who could not attend the meeting due to the conditions of the Covid-19 disease, online interviews were conducted. Ethical principles of qualitative research method were observed by obtaining the ethical code ,obtaining an informed consent form from the participants, and ensuring the confidentiality of their information, giving

the right to withdraw at any stage of the research. determining the time and place of the interviews with the agreement of the participants and making the interview text available to the participants for their reconfirmation. According to Guba and Lincoln, [13] instead of validity and reliability, four criteria of credibility, transferability, confirmability and dependability can be used. In order to check the credibility criteria, the interview text was re-read by the researcher many times and the authenticity and correctness of the interview text was confirmed by participants. The process of conventional qualitative content analysis during data coding and classifying was reviewed by the research team and an external checker in multiple meetings. All the details related to how to collect data and how to make decisions, interpretations and analysis during the research process were reviewed by an external observer to check the

confirmability criteria. In order to check the dependability of the data, it was tried to report all stages of the research in full detail, and also the text of a number of interviews and codes to the research team, two qualitative research experts and two of the interviewees in order to ensure that the findings were correctly transcribed.. In transferability, the principle is based on the transparent presentation of information by the researcher, so it was tried to provide the possibility of reproducing the research path by others by describing the research process in a clear, precise and targeted manner. Data analysis was performed using MAXQDA20 software.

Results

From the analysis of the interviews, a total of 187 codes were obtained, without counting their overlaps, which were then reduced to 93 codes by merging the similar and repeated codes.

Table 1: Demographic information of the participants

Percentage	Frequency	Attributes	
64.6	31	Woman	Gender
35.4	17	man	
22.9	11	Medical Librarian and Informationist	Group
18.8	9	Psychologist	
35.4	17	Clinical Team	
22.9	11	Patient	
8.33	4	Diploma	Educational Level
8.33	4	BSc.	
۴۷,۹۲	23	MSc.	
35.42	17	PhD	
100	48	Total	

Ultimately, two main themes of “opportunities” and “challenges” were identified after several stages of analyzing the data, coding and classification of codes and integration of classes. In addition to the main themes, five main classes, 16 subclasses and 51 codes were obtained. Regarding the theme of “opportunities”, there was a main class (benefits of

information therapy) and 4 subclasses: 1) patient and family; 2) treatment staff; 3) health system; and 4) medical librarians. In addition, a total of 23 codes were obtained (Figure 1, shows the numbers in parentheses indicating the frequency of responses of the participants)

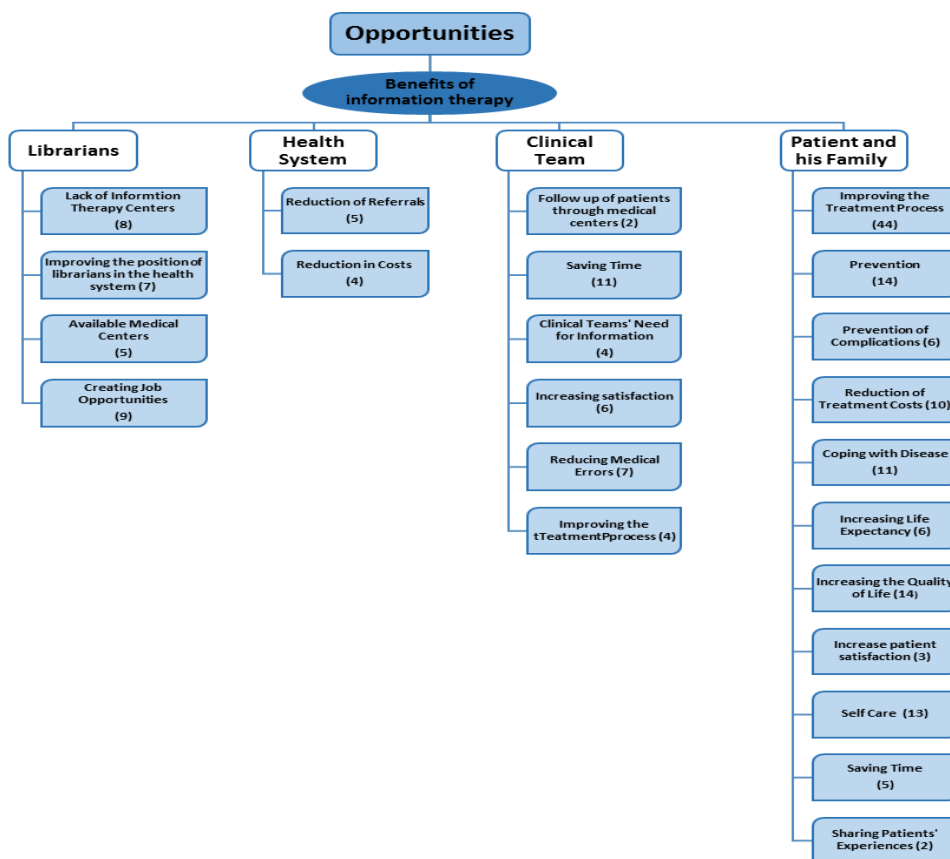


Figure 1. Opportunities to establish an information and treatment center

The main opportunity to establish an information-therapy center is the benefits of information therapy for four groups of patients and families, medical staff, health system and medical librarians. One of the benefits of information therapy for the patient and his family is to improve the treatment process. Participant 20 stated: "Often, if people have enough information about their own problems and illnesses, it can help their recovery and treatment." Another advantage is reducing costs and of patients as well as saving their time. "With the increase in the level of awareness and knowledge of our patients, the costs of our treatment will certainly decrease and our patients will later spend less money on medicine and treatment and the complications of their diseases" (interview 29). Another advantage is self-care, where

a person learns how to manage her/his disease and take care of herself/himself, especially in case of chronic diseases. Interviewee 14 says: "The patient himself should know what behaviors he should have and what behaviors he should not have during the period of illness, when he is not in contact with his doctor". Among the benefits of information therapy for the clinical team, we can also refer to the following evidence: Interview 37 explains with the saving of time: "We are not normally trained to explain the contents one by one to the patients, and this is a difficult and time consuming task ". Interviewee 30 remarks the reduction of medical errors: "Well, the issue of consent, which is always in the patients' files, has a direct relationship with this information therapy, and we realize how much the effect of this

issue is on the same medical malpractices and medical-legal issues". Participant 34 suggests the improvement of the treatment process: "Information therapy can play a very effective role in the treatment process. Because, for example, I am currently working in a hospital, those patients who have better information and can take care of themselves, will recover sooner and will be discharged sooner". Another benefit of information therapy for the health system is reducing visits to medical offices or hospitals and reducing costs. "A large group of unnecessary visits to medical offices, clinics, and hospitals will be reduced" (Interview 48) and "And it is good for the government as the costs will decrease. " (Interview 39). The theme of "challenges" has four main categories: 1) barriers to information therapy; 2) financial problems; 3) implementation; and 4) accomplishment while there are 12 subcategories and 28 codes (Figure 2 shows the numbers in parentheses indicating the frequency of participants' answers). The obstacles of establishing an information therapy center are related to five groups of stakeholders of this center. People's ignorance is an obstacle: "Firstly, many people do not know about information therapy and do not take it seriously, and this is an important problem that people do not know enough about information therapy, and it may even be ridiculed" (No. 13). The opposition of psychologists, treatment staff, and the health system, which is caused by the conflict of interests and overlap in performing duties, is also an important obstacle to information therapy,: "We are all giving information, we cannot tell people, you go to an information center and

then come to us" (Participant 9). But person number 20 had a different opinion: "Your first barrier is the objections of the top managers [of the health system]." If the medical librarians do not have enough expertise and skills, there is the possibility of providing some incorrect information and it will be an obstacle to the establishment of the information therapy center: "The only threat is that false information will be given to the people"(No. 27). Another challenge is financial problems related to start-up costs, current costs and income: "Finally, a center that wants to be paid for, even renting a center, costs a lot. It costs a lot to get the equipment" (interview 2). "Purchasing physical equipment such as computers, printers, desks and chairs, purchasing access accounts for a number of foreign sites and databases, are very expensive" (Interview 17) and Participant 32 discussed the salary: "The cost of this center is high, for example, one of the costs is related to the payment of water and electricity bills, which may be high, as personnel's salaries are." Another financial problem is the issue of generating income for the information therapy center: "I think the information therapy center is useful, but I don't think that money will be made from it. Because our people are willing to wait in line for everything. They are willing to pay a huge fee for a barber shop, but people don't look for these things for treatment or prevention, unless they have serious problems. In our society, unfortunately, there is no acceptance for the information therapy center, nor are people willing to pay for treatment" (interview 2).

Opportunities and Challenges of Establishing an Information Therapy Center

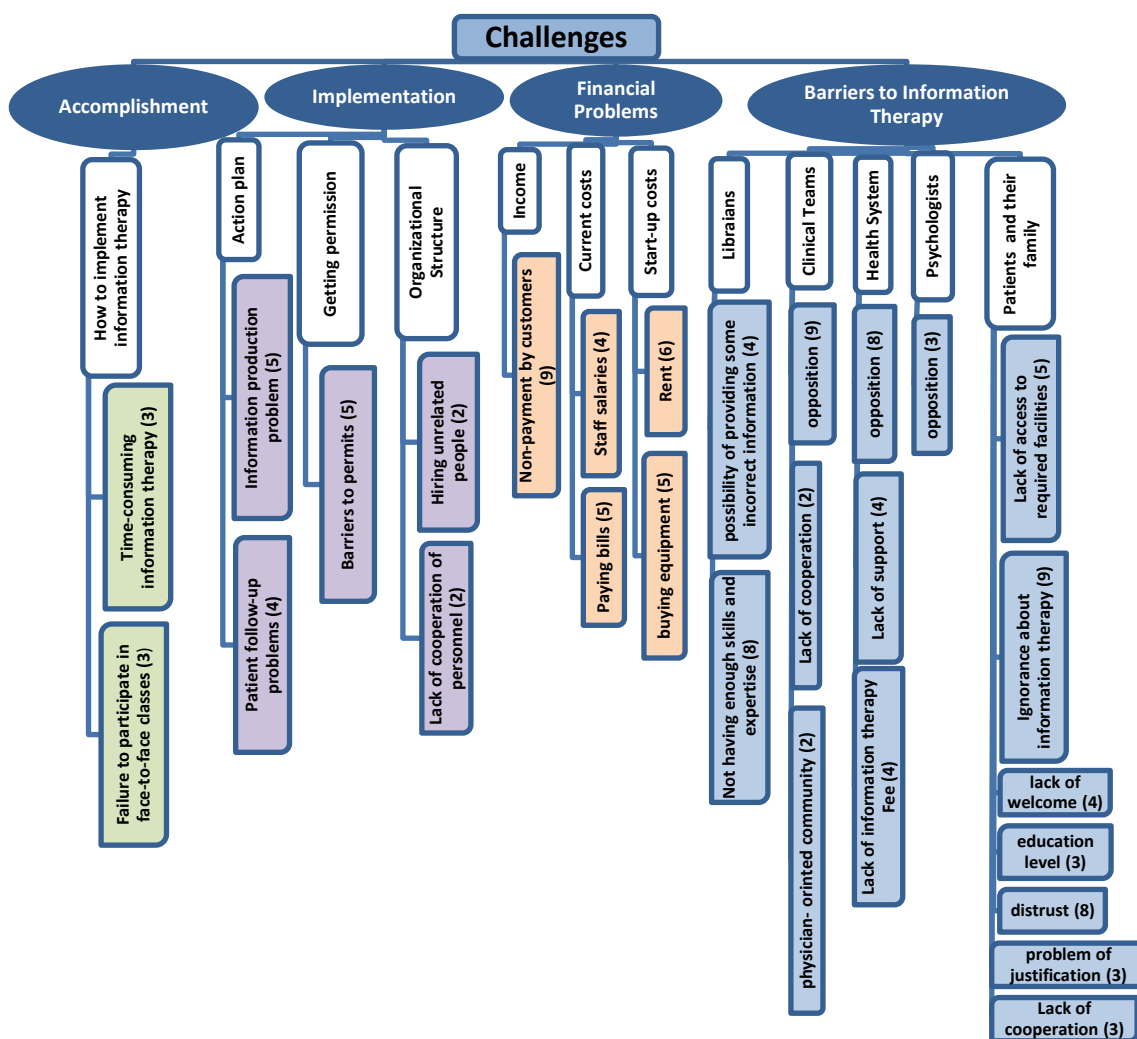


Figure 2: Challenges of establishing an information therapy center

The third category of challenges are related to the implementation that may arise at the beginning of the establishment of the center, such as problems in obtaining permits, producing information, and lack of cooperation in personnel or failure to adhere to the mission of the center. One of these challenges is the hiring of unrelated people who lack information therapy experience and expertise: "First of all, what can happen in all centers is hiring people who do not have the expertise" (code 46). Obstacles to obtaining the necessary permits are also an important challenge: "Because we currently do not have an information therapy center, you may have problems in obtaining the permit. Because

it will be difficult to convince the authorities for that" (Code 14). The lack of a suitable action plan is another challenge that can create problems for the production of information or the follow-up of the patient's information therapy process: "Well, it has its own requirements, how this information is produced, what filters does this information go through, and how is it available for patients or a person who needs it" (Code 11). The fourth main category of challenges is accomplishment issues related to the implementation of information therapy. The main challenge in this regard is the lengthy process of the information-therapy: "It is possible that the effect of the information-therapy process on

patients is not a quick as they expect. , and that they may think of other approaches to manage their disease" (No. 19).

Discussion

The present study identified the opportunities and challenges of setting up an information therapy center. One of these opportunities was to improve the process of patient treatment. These findings are in line with the studies of Yarahmadi et al, [4] Vakili Mofard et al, [14] Cheser et al, [15] and Willis et al [16]. Moreover, Zeinali and Riahinia [1] and Ahmadizadeh et al [17] have discussed that information therapy will increase patient's knowledge and acceptance of their disease. Zeinali and Riahinia, [1] Ahmadizadeh et al, [17] Oliver et al, [18] Cheser et al [15] have remarked that when patients have sufficient and appropriate information about their disease, their quality of life will increase and the number of the referrals to medical centers will decrease. Azami et al, [19] Cheser et al [15] and Peer et al [20] have suggested that people who receive adequate, reliable and practical health information will be able to take care of themselves at home and do not go to medical centers for minor medical issues. Zeinali and Riahinia [1] have found that many diseases and their complications can be prevented by using information therapy. Azami et al. [19] have discussed that when sharing experiences with each other, patients are enabled to deal with their problems and solve them. However, the result of the present study is contrary to the research findings of Vahhab et al [21] who found that information therapy was not effective in reducing blood sugar in diabetic and pre-diabetic patients, thereby

concluding that they should use a variety of information therapy methods. The results of the present study regarding the costs were in line with the study of Ronaghi, [22] Ziyae and Seyed Kaboli [23] who found that the provision of primary and secondary equipment of an informational center is costly. Ronagi [22] also stated that it may be difficult to pay the expenses especially at the beginning of the work due to lack of initial income. They also believed that issues such as obtaining permits, cooperation with new personnel and not hiring inexperience personnel, are some difficulties in the implementation stage. Willis et al [16] also believed that issues related to follow-up of patients for the correct use of received information may be another issue and that librarians must be trained in this regard. Ronagi, [22] and Ziyae and Seyed Kaboli [23] mentioned that the lack of skilled personnel can be an important threat for such a center. Other challenges can be different levels of literacy among patients [1] and their refusal to receive information therapy, thereby not cooperating with the center. [22] To sum up, the present study showed that the establishment of an information therapy center can be beneficial for the patient and his family, medical staff, psychologists, librarians and medical informants. However, the establishment of the center may face some challenges similar to those any new organization might face at the beginning steps. The establishment of information therapy center requires a detailed planning addressing implementation stage and inter-group as well as inter-organizational cooperation.

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