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Exploring Barriers to Implementing Telerehabilitation from experiences of managers, policymakers, and providers of rehabilitation services in Iran: A Qualitative Study

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Abstract

Background: Telerehabilitation is an emerging technology that uses digital technologies to perform evaluation, counseling, treatment, and telemonitoring to provide rehabilitative care to patients in various locations such as homes, communities, health centers, and workplaces. This approach has advantages such as reducing costs and overcoming barriers of distance and time. Reducing patient-rehabilitator interaction, and being hard to teamwork and express thoughts and feelings are some disadvantages of this approach. TR services are provided by a variety of rehabilitation specialists. The aim of the study was to identify barriers in the way of implementing TR in Iran

Methods: This study was conducted using a conventional content analysis method based on a qualitative approach. 26 people were selected as participants based on purposive sampling with maximum diversity. Data were collected through semi-structured interviews and managed using MAXQDA 10 software.

Results: 765 codes were extracted by conducting interviews and coding. The findings of this study are classified into seven main categories and 32 sub-categories. The main categories are insufficient infrastructure, legal, physical, and moral hazards, lack of priority and insufficient determination, insufficient support of the public and non-governmental organizations, poor knowledge in using equipment, Lack of knowledge and negative attitude, and low capacity in comparison with face-to-face rehabilitation.

Conclusion: This study shows that based on the insights from the experiences of participants, inadequate infrastructure and poor knowledge of the use of equipment are the most important obstacles in the way of TR. This study reveals that the implementation of TR in Iran encounters several obstacles and eliminating them requires serious effort.

Keywords: Telerehabilitation, Challenge, Barriers, Implementation, and Telemedicine

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Introduction

People with disabilities need to go to health centers and hospitals to get rehabilitation services, which is often costly and time-consuming (1, 2). Telerehabilitation, as a subset of telemedicine, is an emerging technology that uses digital technologies in the evaluation, counseling, treatment, and telemonitoring to provide rehabilitation care to

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↑What is "already known" in this topic:
Telerehabilitation is a new approach with many advantages for providing rehabilitation services to people with disabilities in the world.

→What this article adds:
This approach in our country has many obstacles, and until these obstacles are removed, people with disabilities cannot benefit from the benefits of this type of service. The most important of these obstacles are the lack of knowledge and awareness, weak and insufficient infrastructure and technology, and low literacy of people with disabilities in working with technology.

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patients in various places such as homes, communities, health centers, and workplaces (3). TR services can be provided by video communication tools, which are free or low-cost. The patient only needs a mobile phone, tablet, computer, and internet connection to communicate with the specialist and benefit from TR services (4). In fact, this approach is a favored method among therapists and patients because it compensates for the lack of direct access to rehabilitation services through low-cost methods and removes the dependency on time and place (5-7).

TR can be provided to improve community-based rehabilitation systems, especially in countries where rehabilitation services are expensive or unavailable (7). Reduced travel time and cost, easy access to specialist support in local communities, improved access to specialized services, indirect training benefits for therapists who participate in remote counseling, reduced isolation of rural therapists, provided local health care in rural communities, better adaptation to patient life and increase patient self-management ability are the other benefits of this approach (6, 8-10). TR provides an opportunity for the individual to receive the rehabilitation services they need at home, at work, or at school, and this improves their performance as well as their integration into the community (11). Other benefits of TR are boosting patient's and therapist's abilities, reducing the use of traditional therapies, improving health care service, reducing waiting times and delays in patient appointments, shortening hospitalization, increasing the knowledge of rural communities, caregivers, and patient's families, increasing education networks, and saving government resources (8, 12-14).

Besides all the advantages of TR, limitations in human contact, body language, and non-verbal communication are some of the disadvantages of TR. Also, it is hard to empathize with patients. Some people with disabilities may not be able to convey their thoughts, feelings, and concerns through communication technology. In addition, the electronic communication format makes it more difficult for the typical dynamics of group interaction. Therefore, although TR is more used for counseling matters, it may not replace face-to-face counseling (14).

TR services are provided to adults and children with disabilities by a wide range of rehabilitation specialists, including physiotherapists (15, 16), speech and language pathologists (17-19), occupational therapists (20), rehabilitation physicians, and nurses, rehabilitation engineers, assistive technology specialists, and teachers, psychologists, and nutritionists. Non-specialists, such as patients'families and caregivers, are other contributors to TR (11). This approach has a variety of clinical applications, including advice for sitting positions and different patient postures, providing assistive technologies even through using a simple old telephone, bedsore control and monitoring using high or low-quality images by physicians and nurses, remote therapy using tools such as EMG controlled games for stroke rehabilitation, telephone counseling and management of TR by physical medicine and rehabilitation specialists and the use of videoconferencing systems (21).

Providing TR services faces many challenges and obstacles. One of the most important clinical challenges is to determine how we can connect TR technology to a specific clinical environment and specific service (9). The possibility of abusing patients' information and patient's negative attitude towards this approach, is another challenge. Other challenges mentioned in the previous study in different world places include:

In entering incorrect clinical information, issues related to reimbursement and insurance policies, the need for therapists with licenses, uncertainty in the personnel's responsibility, inability to use technology in low-income communities, the resistance of people to use this new method, wide variety of disabilities and the need for various technologies for each of them, lack of specialized services for people with special rehabilitation needs, lack of clarity about its impact, difficulty in managing and keeping a high amount of information resulting from the rehabilitation process, the lack of a specific administer and leadership, and the problems related to how to treat patients according to each countries law (8).

Studies on the implementation of telemedicine theory show that the attitudes and resources of front-line staff are important when implementing new health interventions (22-24). Despite the efforts made in recent years to implement TR in Iran, the absence of a qualitative study and lack of knowledge caused TR not to be an accepted and dominant approach in providing rehabilitation services to clients. Also, the need to provide services to suburban, rural and poor areas of society as well as the other benefits mentioned for this approach, make it worth of studying barriers in the way of implementing TR in Iran. In this study, we try to identify barriers to the way of implementing TR in Iran from institutions and health service provider centers, managers and policy-makers perspectives.

Methods

Study plan

This study is qualitative research using the conventional content analysis method. In this method, data were extracted directly from the participants' experiences by data coding. Qualitative content analysis was also used to interpret the text data, which was identified through a regular categorification process, explicit themes, or specific patterns (25).

Participants

Participants in this study included 26 people (9 females and 17 males). 16 participants were managers, policymakers, and service providers of rehabilitation institutions and centers, and 10 of them had experience receiving TR services. In order to sample, a purposive sampling method with maximum diversity was used. Participants were chosen by the supervisors based on their background in telerehabilitation and all of the meeting arrangements were made by telephone.

Data collection

A semi-structured interview was used and continued until data saturation. 14 interviews are conducted face to face and others by video and voice call. The interviews

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were conducted in Tehran from February to November 2021. The interview locations are chosen by participants. Prior to the interviews, the purpose of the study was explained to the participants and informed consent was obtained. The average interview time was between 20 and 50 minutes. All interviews were recorded and then written verbatim for analysis.

In this article, semi-structured and in-depth interviews with open-ended questions were used. "Then, if necessary, follow-up questions were used to gather more data." In subsequent interviews, questions were set based on previously extracted categories. The main questions are as follows:

1. Please talk about your experience in providing/receiving telerehabilitation.
2. What pitfalls have you faced in the implementation of remote rehabilitation? Explain about them.
3. Have you had any other obstacles or challenges?

Data analysis

Interviews were analyzed using a method for inductive qualitative content analyses described by Graneheim & Lundman (2004) (26) and MAXQDA 10 software, simultaneously with data collection. The interviews were first digitally recorded and then typed by the researcher. The researcher has again reconciled the typed texts with the recorded sound. After typing the text of each participant's interview, the entire text was read several times. In fact, by repeatedly reading the whole text, a general understanding of the text was obtained. In the next step, the text was read word by word to extract the analysis units from the words and statements of the participants and the researcher's impressions. Then, the results were coded for analysis in the form of initial coding or open codes and then named. The process of code extraction and naming was done continuously. After extracting the codes, they were re-read several times and classified according to the similarity of the themes in certain categories. All the interviews were analyzed in the same way. Categories were formed by repeatedly reviewing the initial codes extracted from all the interviews and merging similar codes. This stage is called the second-level coding, and the subcategories were formed in this stage. In the next step, the resulting subcategories were reviewed and compared again, and the subcategories that were similar in content were merged and this way main Categories appeared. Coding and specifying the subcategories was done under the supervision of supervisors and consultants.

Trustworthiness of data

Guba and Lincoln have proposed four criteria, creditability, dependency, conformability, and transferability, for the trustworthiness of qualitative data. In this study, these criteria were used to evaluate the data (27). Lincoln and Guba believe that acceptability has two aspects: a) conducting the study in a way that strengthens the reliability of the data. B) Take steps to explain acceptance to readers.

In this study, prolonged engagement with the data, spending enough time to collect and analyze data, review by participants, review of data by supervisors and consultants, and peer check are used to confirm the creditability of the data.

The second criterion for the accuracy and robustness of the data is transferability, meaning that the findings can be translated or can be used in other similar environments or groups. In this study, we provided in-depth and analytical descriptions, rich literature, and a rich set of participants to explain the study context, a clear description of the obstacles and limitations, and the conditions for using the findings in other social environments.

Dependency, which means the trustiness and reliability of data over similar times and conditions, is achieved through step-by-step iteration and investigation (28). In this study, data and documents were thoroughly checked by an impartial referee. The dependency of quantitative research means the same results at the same time and conditions.

In this study, in order to achieve the criterion of confirmability, all steps of the research, especially the steps of data analysis during the research, were recorded in detail to make it usable and easy to follow for other researchers who want to continue this research. In addition, some interviews, codes, and extracted categories were provided to the research colleagues and a number of faculty members who were familiar with qualitative research, and they were asked to check the accuracy of this coding.

Ethical considerations

In this study, all relevant ethical principles such as: obtaining informed consent from participants before the interview for interview and recording them, considering the right of participants to leave at any stage of the study and keeping information confidential were fully observed. This article is extracted from the master's thesis and has an ethics code approved by the ethics committee of the University of Social Welfare and Rehabilitation Sciences (USWR) (IR.USWR.REC.1398.212).

Results

This study gives some insights into rehabilitation services through the TR approach. The results of this study are based on the experiences of two groups involved in TR, i.e., rehabilitation service providers and recipients, with more than 6 months of experience in providing or receiving TR. Table 1 shows the demographic characteristics of the participants, including gender, level of education, experience duration in providing/receiving TR, type of providing/ receiving services, and occupation. From 765 codes obtained for obstacles, 7 main categories and 32 subcategories were extracted (Table 2).

1. Insufficient infrastructure

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Table 1. Demographic characteristics of the participants

Subject number	Occupation	Type of providing/receiving services	Experience duration	Level of education	Sex	
					Female	Male
1	Therapist / Faculty member / Rehabilitation Manager in university	Governmental/private	1year	PhD		*
2	Employee	Governmental	1year	PhD	*	
3	TR Technologist	Private	2 year	MSc		*
4	Therapist / TR researcher	Private	2.5 year	PhD student	*	
5	Therapist	Private	2 year	Specialist		*
6	Therapist	Private	1 year	PhD	*	
7	Therapist	private	1 year	MSc	*	
8	TR Technologist / Faculty member / Manager of rehabilitation center / TR researcher	Governmental/private	6 year	Postdoc		*
9	TR Technologist	Governmental/private	3 year	PHD		*
10	Faculty member / Therapist	Governmental	1 year	PHD		*
11	Faculty member / Therapist	Governmental/private	7 year	PHD		*
12	Faculty member / Therapist / manager in rehabilitation university	Governmental/private	1 year	PHD	*	
13	researcher / Therapist	Governmental/private	5 year	PHD	*	
14	Faculty member / Therapist / manager of rehabilitation hospital	Governmental/private	1 year	Specialty		*
15	Faculty member / Therapist / manager in rehabilitation university	Governmental/private	1 year	PhD		*
16	Faculty member	Governmental	1 year	Postdoc		*
17	-	Private	1 year	BSc	*	
18	-	Private	1.5 year	Diploma		*
19	-	Private	1.5 year	Diploma	*	
20	-	Private	1.5 year	BSc		*
21	-	Private	1.5 year	Diploma		*
22	-	Private	1.5 year	MSc		*
23	-	Private	1 year	Diploma		*
24	-	Private	9 month	Less than diploma	*	
25	-	Private	2 year	Diploma		*
26	-	private	2 year	Diploma		*

Proper infrastructure is one of the most basic requirements for providing TR services. Weaknesses of infrastructure make an obstacle in the way of providing TR services and lead to a reduction in the provision of services. Inadequate infrastructure is one of the main concerns expressed by the participants. Lack of specialized equipment, internet failure, lack of trained specialized personnel and insufficient facilities are subcategories of insufficient infrastructure category.

In this regard, one of the participants said:

"Unfortunately, we could not develop TR in other areas, because our facilities are limited. Our facilities are limited; for example, in the field of speech therapy, we can't do anything because our therapist can't work offline, why? because we do not have anything that can meet the patient's needs and remove or replace the traditional face-to-face therapy services."

2. Legal and moral hazards

The disadvantages of the TR approach may cause several risks for the patient, the patient's family, and the therapist. Some of these risks include physical injuries such as losing balance and falling that may lead to injure and even death, security issues for the patient such as publishing his information on the internet and violating his privacy and also legal problems that can sometimes lead to the patient's family breakup. This category includes five subcategories: patient information security, the possibility of endangering the patient's physical health, psychosocial vulnerability, and negative family consequences. In this regard, one participant says:

"When they want to send a video, they ask like thousand times that please do not let someone see it do not show it to anyone else, or delete it immediately. For example, a family sent me a video of their child's behavior recently and they were waiting for me to call and talk to them. Unfortunately, it lasted three or four weeks until I got a chance to see the video. But they had deleted the video and I did not have access to it. I told them to send the video again. They said, our child is a girl and we are so sensitive about publishing her video on the internet."

3. Lack of priority and insufficient determination

There is no firm determination on the part of executives, managers, and health policymakers, especially those engaged with rehabilitation, to implement TR. The lack of priority for TR and even rehabilitation in Iran has led to paying less attention to the progress of this field. This category has five subcategories, which include low acceptance among beneficiaries, considering TR as a complementarity approach, poor cooperation of knowledge-based companies and equipment manufacturers, having big problems, and the lack of priority for TR. Regarding this, one of the participants said:

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Table 2. Classification of the barriers to the implementation of TR

Categories	Subcategories
Insufficient infrastructure	1. Lack of specialized equipment
	2. Internet failure
	3. lack of trained specialized personnel
	4. insufficient facilities
Legal and moral hazards	5. patient information security
	6. endangering the patient's physical health,
	7. social and psychological vulnerability
	8. negative family consequences
Lack of priority and insufficient determination	9. low acceptance among beneficiaries
	10. considering TR as a complementarity approach
	11. poor cooperation between knowledge-based companies and equipment manufacturers
	12. having bigger problems, and the lack of priority for TR
Insufficient support from public and non-governmental organizations	13. insufficient government support
	14. lack of support from NGOs
	15. unclear legal issues
	16. weak insurance system
	17. being costly
	18. insufficient support for academic researchers
Poor knowledge of using equipment	19. Inability to work with devices
	20. the therapist's inability to provide appropriate treatment
	21. equipment failure and the need for ongoing support
Lack of knowledge and negative attitude	22. Lack of education and knowledge in benefactors
	23. different interpretation and lack of common language between patient, therapist, and technologist
	24. lack of patience and high expectations of the approach
	25. administrative bureaucracy
	26. unfamiliarity of personnel with equipment
Low capacity in comparison with face-to-face rehabilitation	27. Inability to accurately assess the patient
	28. reduce patient interaction and team approach
	29. unrealistic treatment environment
	30. uncertainty in the implementation process
	31. time-consuming
	32. limited to simple virtual and research methods

"For example, the hospital wants to do something related to TR. It says I want a room, personnel, software, and hardware. Then, we don't have these facilities or enough space. Our country is boycotted, and we cannot buy anything and equip the hospital. These are all barriers, and we have to deal with all of them. Also, suppose a decision is made to implement TR services in a hospital. There is some resistance from the hospital side."

4. Insufficient support from government and non-government sectors side

As long as the relevant institutions and organizations do not support the planning and implementation of this approach, this approach will not be feasible by itself. These supports can be financial, legal, law-related, research, etc. The lack of any of these supports leads to difficulty in implementing the TR approach. This category of barriers is divided into 6 subcategories, which include insufficient government support, lack of support from NGOs, unclear legal issues, weak insurance system, being costly, and insufficient support for academic researchers. One of the participants said regarding the insufficient support of the governmental and non-governmental sectors:

"The situation will be much better if the government can help us with, for example, tickets or the cost of renting equipment. My wife was using the rehabilitation equipment for a while, and it really helped and prevented her disses from progressing. But now we have to return the device because we cannot pay for it. I wish the government consider financial support for using TR services."

5. Poor knowledge of equipment use

No matter how developed and advanced telemedicine equipment is, if the user doesn't have enough knowledge to use it, there will be no improvement in the treatment process or it will not be very effective. The inability to work with devices, the therapist's inability to provide appropriate treatment, equipment failure and the need for ongoing support are subcategories for the "poor knowledge in equipment use" category. The following are quotes from research participants about this category of TR barriers.

"It is very difficult for Parkinson's patients, who are 60 to 70 years old, to even turn on the computer system. We said, OK, these people are using the cellphone and have a cell phone in their home, but some of them didn't have and also, their caregivers did not have enough experience working with computer systems. I even said that we can keep it as simple as possible like pressing a button to turn the system on and a click to run a game, but again, this was a challenge for many of them."

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6. The poverty of knowledge and attitude

Every person's attitude toward a path is an important factor in his/her success in that path. As long as the patients who need rehabilitation services, the therapists who provide the services, and even the managers and policy-makers who have the task of determining and formulating rehabilitation policies have a negative attitude or little knowledge of the benefits of the TR approach and its therapeutic and diagnostic capabilities, it is clear that there will be a little chance to succeed in implementing the approach. Lack of education and knowledge in benefactors, different interpretations and lack of common language between patient, therapist, and technologist, lack of patience and high expectations of the approach, administrative bureaucracy, and unfamiliarity of personnel with equipment are the subcategories of "the poverty of knowledge and attitude" category. One participant said:

"We have just started, and I think it is normal. But maybe it is difficult to get the cooperation of doctors or therapists because they do not have an insight into this issue. We are weak in this area because we have just started."

7. Low capacity compared to face-to-face rehabilitation

TR has less capacity than face-to-face rehabilitation because it has failed to provide some face-to-face rehabilitation features. The inability to accurately assess the patient, reduced patient interaction and team approach, unrealistic treatment environment, uncertainty in the implementation process, and time-consuming, and limited to simple virtual and research methods are some disadvantages of TR compared to face-to-face rehabilitation. In this regard, one participant said:

"One problem with TR is that the hands are removed, and there is no physical contact. For example, if we want to evaluate the process, who will do the evaluation?"

Discussion

This study gives us a new insight into the challenges, obstacles, and disadvantages of implementing TR. Identifying obstacles in the way of implementing this approach leads to a better understanding of the state and conditions for successfully implementing TR in Iran.

One of the major obstacles mentioned by the participants was insufficient infrastructure, which includes lack of specialized equipment, internet system failure, lack of trained specialized personnel, and insufficient facilities. It is necessary for relevant institutions and organizations to provide infrastructure and specialized equipment for successfully implementing TR. Despite the importance of this issue, few studies focused on the way of providing infrastructure and specialized equipment in Iran. In a similar study on telemedicine conducted by Fallah et al., the lack of equipment is one of the weaknesses of telemedicine in Iran (29).

In our study, which was in the field of TR, the lack of specialized and advanced equipment was one of the challenges that our rehabilitation community is struggling with. Based on Nyika's thesis, a lack of trained personnel is classified as one of the TR challenges which was also mentioned by our participants (30).

Also, in a study by Gholamhosseini and his colleagues, the high cost of telecommunication infrastructure is introduced as one of the barriers in the way of telemedicine which is in a row with the results of our study (31).

Based on the analyzing interviews, legal, physical, and moral hazards were one of the implementation challenges of TR, which includes: patient information security, endangering the patient's physical health, social and psychological vulnerability and negative family consequences.

Lots of studies (12, 18, 29, 30, 32-35) introduced the lack of information security and privacy as one of the most important challenges that most of the participants in our study acknowledged. Also, Nyika's study introduced social issues as another challenge, which in our study expressed in the form of psychosocial and family issues (30).

Lack of priority and insufficient determination was another obstacle, which included: low acceptance among beneficiaries, considering TR as a complementarity approach, poor cooperation of knowledge-based companies and equipment manufacturers, having big problems, and the lack of priority for TR. Low acceptance among beneficiaries come from ignorance, lack of knowledge or lack of manpower, budget or sufficient facilities. Studies have shown that patients are more inclined to attend face-to-face therapy and even have a second therapist but are reluctant to use this approach (18, 30). In our study, not only patients but also therapists were reluctant to use TR. Also, faculty members and students were reluctant to research in the field of TR due to problems that might be considered for their evaluation score and also fear of prolonging their studies.

Inadequate government and non-government sector support as a key obstacle have very important factors in its subcategories: insufficient government support, lack of support from NGOs, lack of a clear legal framework, weak insurance system, being costly, and insufficient support for academic researchers. Health projects are usually implemented by governments, so when a government does not provide adequate support to a project or does not provide financial support at all, there is little growth can be seen in the implementation process. In our study, many participants, especially executive managers and manufacturers of TR equipment, reported the lack of this important factor in implementing the approach.

Lack of organizational resources and support, followed by financial and economic issues, which are mentioned in the literature as barriers to implementing TR (18, 22, 36), is consistent with the findings of our study. Another requirement for the implementation of the approach is to create or change some rules in favor of and in support of TR. Unfortunately, according to some participants' opinion, some rules has been an obstacle to the implementation process of the approach, as Narvaez has pointed out in his study (37).

Also, the lack of appropriate insurance can cause financial losses for the patient and sometimes therapists and even become a tool for some people to take advantage. Many participants in this study mentioned that the first challenge they faced was the lack of support from insur-

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ance organizations for TR and even for many face-to-face rehabilitation services, as well as the lack of specific and legal tariffs for it. In a country with economic problems and a high percentage of poverty, people with disabilities who cannot even afford their basic needs and lack appropriate insurance lead to discouragement from receiving services both in person and remotely. This issue is also mentioned in literature as a big challenge in the field of remote service (12, 18, 29).

The inability to work with devices, inability to provide treatment and equipment failure, and the need for ongoing support are subcategories for the "lack of knowledge in the use of equipment" category. Lack of knowledge was very common among the clients of the centers that provided remote services to the elderly. Some participants who worked in TR centers stated that the therapist had the equipment to provide the remote service, but sometimes the patient or therapist didn't know how to use and work with it. Also, sometimes after the failure of the devices, it is difficult to find a person who can repair and troubleshoot the devices.

In Hoaas et al. (38), poor knowledge of using the computer was mentioned as a challenge in implementing remote services. Also, in a study by Marzano et al., the lack of knowledge in using technology was introduced as the main obstacle to providing remote service to older American adults (39). Also, it mentioned that it is very difficult to develop technologies that are simple enough to use by the elderly.

In another study, Jafni et al. mentioned that lack of knowledge in using technology and consequent underutilization as an effective barrier to telemedicine in Malaysia (40). Brennan et al. and several studies in Iran also pointed to poor knowledge of rehabilitation technology as a barrier to implementing telemedicine (12, 29, 41).

According to Jafni et al. (40), the lack of knowledge is one of the seven major barriers to TR in Malaysia. Also, Brennan et al., introduced attitudes and culture as an obstacle to the implementation of TR in communities (12).

Fatehi also referred to cultural and sociological factors as one of the challenges of setting up a telemedicine clinic (36). Further, Fallah described low public knowledge as a weakness and a threat to the development of telemedicine in Iran (29). High expectations, lack of patience until seeing the effectiveness, and the lack of common language between the patient, therapist and technologist are other barriers to TR which introduced in this study and not mentioned in the literature.

The disadvantages of TR in comparison with face-to-face rehabilitation cause slows down or stop (in some cases) the implementation of TR in Iran. Reduced patient interaction and team approach, unrealistic treatment environment, inability to accurately assess the patient, the uncertainty of the implementation process, and time consumption are disadvantages of TR in comparison with face-to-face rehabilitation. Jafni also mentioned limited patient relationships as one of TR's obstacles (40). In the present study, poor interaction and limited patient relationships were mentioned by the participants as one of the issues that effect the patient's motivation and discouragement.

In the end, it is worth mentioning that we also investigate the solutions to discussed obstacles in a separate study, and in the future, it will be submitted. However, here some most important solutions are briefly mentioned. They include Broadband development, Training personnel for telerehabilitation treatment, Government support, Research support and Protect patient privacy.

Limitations

This qualitative study was conducted based on the experiences of managers and policymakers as well as patients receiving TR services in Iran. This approach is a new and emerging way of providing services in the world and even in developed countries, so there is little experience in this field in Iran. However, the coronavirus made TR more common. As a result, it was difficult to find people who had enough experience in this field. The research was conducted in Tehran because the main medical centers providing TR services are located in the capital and there are fewer centers in other provinces. Therefore, it was difficult to find provider centers or patients who received these services.

Conclusion

Based on the results of this study, the implementation of TR in Iran has faced many challenges which require serious efforts by organizations and related institutions as well as rehabilitation universities in the country. As long as these barriers exist and no serious action is taken to remove them, patients who need rehabilitation services will not benefit from the new TR approach. The results of this study will be able to provide a broad knowledge of the field of TR and highlight its barriers to researchers, managers, policymakers, and rehabilitation engineers and encourage them to provide better and more effective TR services.

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Conflict of Interests

The authors declare that they have no competing interests.

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