

Research Article

Mobile and web-based application to get solutions from drug addiction- Telepsychiatry perspective

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ABSTRACT

Background: In recent time, telepsychiatry has brought the revolutionary changes in the treatment of mental health sector. Telepsychiatry has received most significance as it can help in saving the time, cost and visits of the victims.

Objectives: The main objective of this study is to assess the significance of telepsychiatry as a solution of drug addiction. Moreover, to analyze the comparative benefits of using telepsychiatry as a solution of drug addiction and the previous manual system and to evaluate whether using telepsychiatry can save the time, money and energy of the patients and their nearest persons, the study has been directed.

Methodology: For this research study, both the primary and secondary data has been used and, in this regard, the primary data has been collected from 48 drug addicted people and 36 parents of the addicted people, where the research area is Dhaka, Bangladesh.

Results: The results show that a large number of addict (89%) and their parents (85%) gets the information regarding the negative consequences of drug addiction from the internet. Moreover, the study also revealed that because of telepsychiatry, the time, money as well as energy of both the addicts and their parents have been saved.

Conclusion: In Bangladesh, the necessity of telepsychiatry has been felt in recent time. In this regard, many organizations have started to understand to feel the significance and therefore, they have started to think about this issue. With this consequences, Thikana Psychiatric and Drug Addiction Clinic has already started their activities regarding telepsychiatry. It is hope that by ensuring mobile or web-based application can make revolutionary changes in the telepsychiatry of Bangladesh.

Keywords: Drug Addiction, Mobile Application, Ashokti Mukti, Thikana Clinic, Telepsychiatry.

Chapter 1

Introduction

It is becoming increasingly difficult to ignore the negative impact of drug abuse in recent time. Throughout the world, the young generation is the main victim of this death trap [1]. Addiction of drugs not only has negative impact on physical health, but it also hampers the mental health of the addicted person. In case of drug addiction, the main treatment is based on counselling. In this regard, for the treatment of mental disorder, medical specialty which is termed as psychiatry [2]. Psychiatry includes different kinds of maladaptation which are related to the mood, cognition, behavior as well as perception of a person [3]. In this case, most of the time, it is emphasized to make an assessment to understand the state of mental condition. However, in this case, both the physical and mental tests can be directed. In this regard, the treatment of drug addiction, can be considered under the treatment of psychiatry [4].

In the history of the development of health sector, telepsychiatry has been thought as a key factor in the revolutionary treatment in mental health sector. Recent development in telepsychiatry heightened the need for saving the time, cost and visits of the victims. Throughout the world, telepsychiatry has been used for making available of the mental health service [5]. Simultaneously, drug addiction has become one of the global problems and in many cases, at the initial stage people do not take the issue seriously [6]. It is because, people are not aware of the symptoms and just for identifying the severity of addiction, the parent or the other guardians are not willing to take the victims to hospitals. Therefore, the need for finding out proper solution of these challenges has been felt, and the concept of telepsychiatry has been developed.

Justification of the study

In Bangladesh, telemedicine is not a new thing, but telepsychiatry is. In recent time, the government of Bangladesh

has emphasized on ensuring digital Bangladesh, which means, they want to ensure the use of information and communication technologies in all possible sectors, as for example, in agriculture, health, education and many more [7]. Keeping consistency with it, telemedicine has been introduced in Bangladesh, by which people from rural as well as remote areas can take the medical services with the use of their mobile for 24 hours [8]. In a recent a study, it has been found that by using telemedicine, the average cost and time have been saved by 56% and 94% respectively [9]. Therefore, it is clear that by using telemedicine, the people of Bangladesh can save their time and cost for availing the service. Considering the fact, the idea of using mobile and web-based application for getting the solution from drug addiction has come forward and hoping that by the successful implementation of this application, it will be possible to ensure a revolutionary development in telepsychiatry sector.

Hypothesis

= With the use of mobile or web-based application telepsychiatry cannot make the solution from drug addiction.

= With the use of mobile or web-based application telepsychiatry can make the solution from drug addiction.

For this research, Null hypothesis should be rejected by the researchers, which means this research will try to prove that with the use of mobile or web-based application telepsychiatry can make the solution from drug addiction.

Objectives of the study

The main objective of this research is to assess the significance of telepsychiatry as a solution of drug addiction. For achieving this research objective, there are some other specific objectives:

- To analyze the comparative benefits of using telepsychiatry as a solution of drug addiction and the previous manual system.

- To evaluate whether using telepsychiatry can save the time, money and energy of the patients and their nearest persons.
- To understand the perception of patients as well as their nearest persons towards the benefits of telepsychiatry.

Chapter 2

Literature review

Literature search strategy

Library works helps to search the available literature about the research topic. Moreover, Access to Information (a2i) Programme and other medical research institutes helped the researcher to find out this research topic related literature and to review it.

Telepsychiatry throughout the world

Telepsychiatry is not a new concept. With the development of modern information and communication technologies, in recent time, it has been becoming popular. In the last century, telepsychiatry is not that much affordable for all. Moreover, in some cases, patients are not feeling secure or satisfied by taking medical services through telepsychiatry. In this regard, a large number of literatures has been directed to make people understand that telepsychiatry is beneficial for all. In this case, Koocher & Morray (2000) stated that during the time of offering a service, there was less risk of harm to a cyber-client as the service providers are well trained as well as licensed professionals. Moreover, they also added that in case of long term telepsychiatry, it will ensure less risk for the clients, as the client will be acknowledged regarding the service providers. Similarly, other researchers also tried to emphasize on significance of telepsychiatry. At present, the use of telepsychiatry has been increased at a large scale throughout the world. For the purpose of treatment of drug addiction, many countries are using telepsychiatry and it has been becoming successful day by day [10].

Benefits of telepsychiatry

A large number of researches has been conducted for finding out the significance of using telepsychiatry. In this regard, there is a significant number of researches, who showed that telepsychiatry is beneficial for the patients as well as for the doctors. According to a study of Sinclair Method [11], it has been found that the patient participation rate is higher in telepsychiatry. Moreover, both the service providers and recipients can have the services, from wherever they want. It also saves the cost and money of the patients, as they are not required to go to the medical chamber. Moreover, in case of people from rural areas, can have better benefits, as it cannot be possible for them to go to the town for having any psychiatric services. But because of telepsychiatry, now it is possible for them to have better medical services, while they are staying at home.

Impact of mobile and web-based application to get solution from drug addiction

If the patients have the option to use any mobile or web-based application, which will help them to assess the level of their drug addiction and also suggest them what to according to their level of addiction, it will be very beneficial for the patients. In this regard, people from remote areas will get more benefits, as in most of the cases, it is not possible for them to come to the town for assessing whether they are suffering from any mental diseases or not [12]. Again, at the initial stage of addiction, many parents cannot understand, whether their children are addicted not. In this regard, by using mobile or web-based application, it can possible to assess the condition of the patients [13]. Therefore, it can be said that by using mobile or web-based application, it can be possible to assess the level of addiction properly, which will lead to get the solution from drug addiction.

Revolution of telepsychiatry: perspective of Bangladesh

In recent time, some initiatives have been taken for making telepsychiatry successful in Bangladesh. In this regard, from 2009, Thikana Psychiatric and Drug Addiction Clinic has been conducting their activities in Dhaka [14]. The main objective of this clinic is to offer the world-class medical treatment for addiction as well as other neuropsychiatric disorders. Moreover, this clinic also offers the facilities of telepsychiatry. With the video chatting, patients can communicate with the doctor directly, while they are at home. It is very beneficial for them as it saves their time, cost and energy for visiting the doctor. Moreover, if the doctor is not available at the hospital or if the doctor is outside of the country, no matter what, the patients can communicate with the doctor through video chatting [14].

In Bangladesh, the significance of telemedicine has been understood by the government, and they have already taken the initiative to ensure the use of telemedicine all over the country [15]. Though telemedicine is a common term in Bangladesh, telepsychiatry is not that much familiar here. Again, in many cases, though people know about the term, but cannot understand the significance of this. Moreover, they do not feel secure to take the treatment from telepsychiatry rather than they prefer to go to the doctor physically. Therefore, because of extra time as well as money, sometimes, they skip to go to the diction, though they have appointments with him. In this regard, the necessity of telepsychiatry has been felt and initiative has been taken to make people understand regarding the significance of it. However, there is no significant study in Bangladesh, which has been conducted to understand the significance of using telepsychiatry as the treatment of drug addiction. In this regard, the initiative has been taken by the researchers to assess the significance of telepsychiatry as the solution of any kinds of drug addiction [16].

Chapter 3

Methodology

Type of research

For conducting the research, both the qualitative and quantitative analysis have been used for achieving the research objectives. As both qualitative and quantitative data have been used, therefore, the research philosophy is Pragmatism. In this study, both the primary and secondary data has been used for full filing the research purpose.

Research area

For conducting the research, the selected research area is Dhaka, Bangladesh.

Sample size

For this research study, the primary data has been collected from 48 drug addicted people and 36 parents of the addicted people.

Sampling technique

For selecting the samples, the researchers are required to follow specific sampling technique. For this research study, simple random sampling has been used as the sampling technique.

Data collection and data analysis

For collecting data, face to face interview was conducted through a semi-structured questionnaire and in this case, the main respondents were the drug addicted people and their parents. After collecting the primary data, the data was analyzed with SPSS and then the outcome of the analysis has shown in the excel format. Moreover, in case of collecting secondary data, different kinds of published documents regarding telepsychiatry, published articles, magazines, newspapers and websites have been used.

Chapter 4

Findings

The findings of the study show that most of the drug addicted people (44%) are from the age range of 31 years to 40 years old and most of them (35%) have done with their HSC or equivalent of study. Again, in case of the parents of the addicted people, it has been observed that most of the parents (37%) are businessmen. In the following Table 1, the detail information regarding the demographic information of the respondents are given:

Figure 1 shows that 72% parents have to go to the doctor to get the instructional information and only 25% can have this information by staying at home.

It has been found (Figure 2) that 89% addicted people and 85% parents of drug addicted people are getting information

regarding the negative impact of the drug addiction. Again, 72% addicts and 79% parents of the addicts are getting their required information regarding the treatment of drug addiction. Again, in case of assessing the situation of the patient in a particular time, 53% addicts and 85% parents of addicts are getting their necessary information. The study also shows that 19% addicted people and 39% parents of addicts are having information regarding the costs of drug addiction treatment through using the mobile or internet. Moreover, in case of getting information regarding the presence of doctors in a specific time, 17% addicts and 21% parents of addicts are using the mobile or internet.

According to the Figure 3, it has been found that 58% parents of addicts are going to rehabilitation center in this regard. Moreover, only 4% are getting direct counselling from the doctors and 38% parents do the both.

In this regard, from the Figure 4, it has been seen that for the parents of the addicts, 40% of the them are required to send 1 hour to 5 hours, whereas the majority of the addicts (30%) are required to spend maximum 2 hours at a time (Figure 5). The data also revealed that 20% parents of the addicts are needed to spend more than 10 hours, whereas, 13% addicts are necessary to spend maximum more than 4 hours.

According to the Figure 6,7, it has been found that for the counselling purpose, the majority of the parents (40%) of the

Table 1: Demographic Information of the Respondents.	
Demographic Information	
Age of the Addicted Persons	Percentage
Less than 20 years	4%
21 – 30 years	23%
31 – 40 years	44%
More than 40 years	29%
Educational Qualification of the Addicted Persons	
Secondary	13%
SSC/Equivalent	6%
HSC/Equivalent	35%
Honours/Equivalent	27%
Masters/Equivalent	10%
Age of the Parents of Addicted Persons	
21 – 30 years	17%
31 – 40 years	17%
More than 40 years	63%
Educational Qualification of the Parents of Addicted Persons	
Primary	11%
Secondary	8%
SSC/Equivalent	19%
HSC/Equivalent	42%
Honours/Equivalent	8%
Masters/Equivalent	8%
Occupation of the Parents of Addicted Persons	
Agriculture	8%
Service Holder	14%
Housewife	35%
Businessman	37%

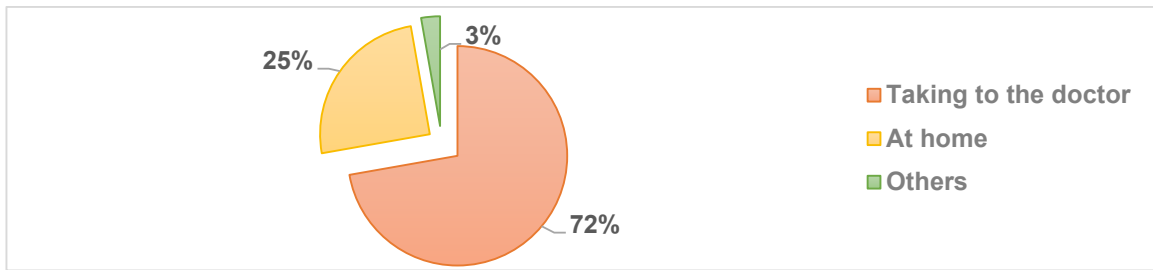


Figure 1: Ways of getting instructional information about drug rehabilitation.

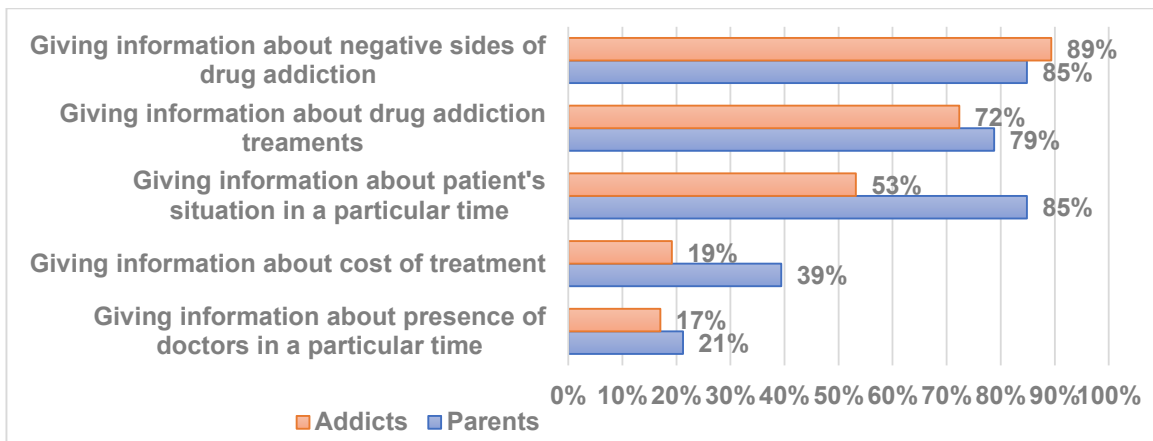


Figure 2: Ways of helping drug addicted individuals through mobile/internet.

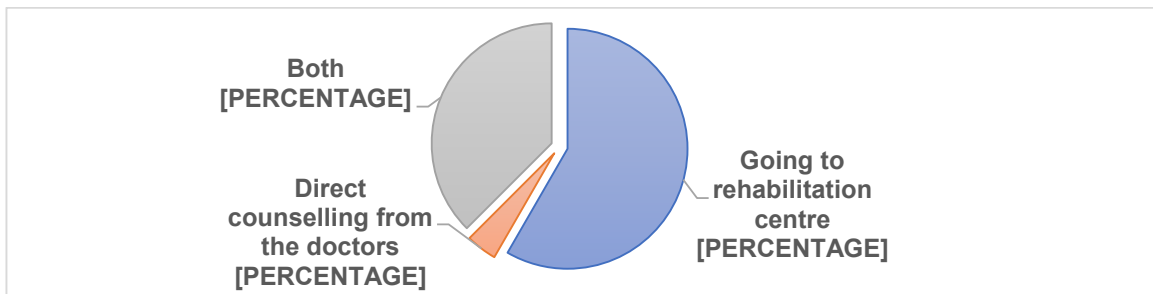


Figure 3: Process of forsaking drugs.

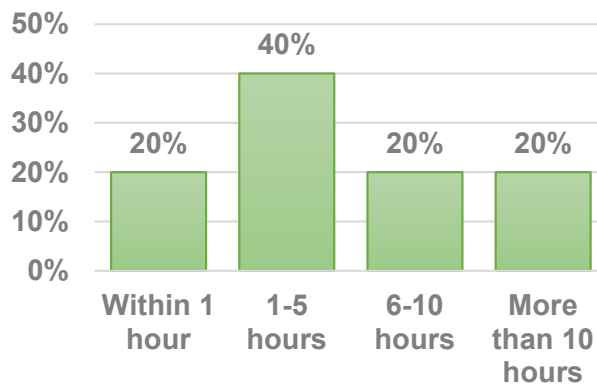


Figure 4: Time required for Counselling (Parents).



Figure 5: Time required for Counselling (Addicts).

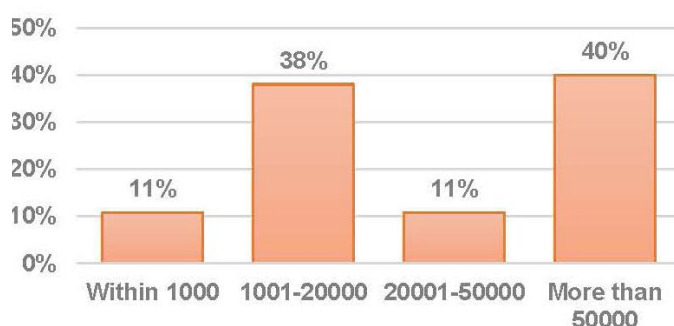


Figure 6: Cost of Counselling (Parents).

addicts are required to send more than BDT. 50,000, whereas the majority of the addicted persons (50%) are needed to spend within BDT. 20,000. The figure also shows that 38% of the parents of addicts are necessary to spend BDT. 1,001 to BDT. 20,000 and 11% are needed to spend BDT. 20,001 to BDT. 50,000 for the counselling. On the other hand, in case of addicts, 36% of them are required to spend BDT. 20,001 to BDT. 40,000 and 14% addicts are necessary to spend more than BDT. 40,000.

Forsaking the drugs, it is required to go to the rehabilitation or to the doctors physically. In this regard, according to the Figure 8,9, it has been seen that majority of the parents of addicts (64%) are required to make more than 4 visits for the purpose of counselling. On the other hand, 12% addicts are required to make more than 10 times visits for the counselling.

Chapter 5

Discussion

In Bangladesh, telepsychiatry is a new concept and in this regard, the study has been directed for assessing the significance of telepsychiatry as the solution for drug addiction. From the findings, it has been identified that for getting the instructional information as well as for having the counselling, both addicts and the parents of the addicts have to spend a huge amount of time, money, as well as have to make multiple visits. Therefore, it can be said that is a hassle for the family of the addicts, to spend such a long time, huge amount of money and energy. In

this regard, telepsychiatry can be considered as one of the best alternatives for the treatment of drug addiction. In this context, the researcher suggested that by using mobile or web-based application can help the addicts as well as their parents to take the medical treatment without any hassles.

Ways of getting instructional information about drug rehabilitation

The study reveals that when, it is identified that a person is drug addicted, it is not easily possible to get instructional information regarding the drug rehabilitation by staying at home. The study also shows that without physical meeting with the doctor, it is not easy to get the required instructional information. Because of this, in many cases, people are feeling reluctant to go to doctor for just getting information at the initial stage of addiction. However, it can be suggested that if there is

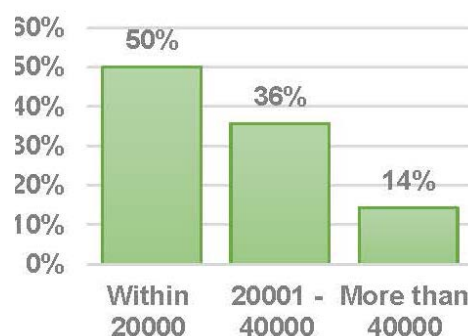


Figure 7: Cost of Counselling (Addicts).

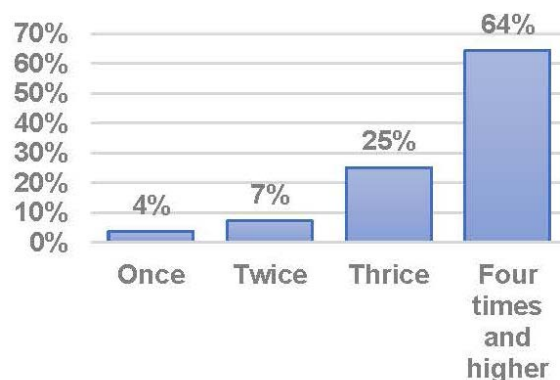


Figure 8: Number of visits required for Counselling (Parents).

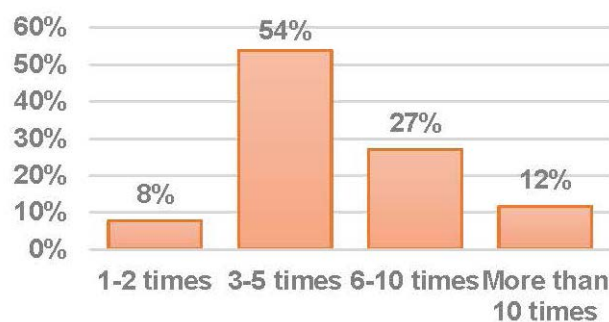


Figure 9: Number of visits required for Counselling (Addicts).

any reliable option to get the required instructional information regarding the drug rehabilitation, many people can take effective measures as the treatment of drug addiction.

Ways of helping drug addicted individuals through mobile/internet

The study also shows that there are many drug addicted people as well as their parents, who are taking help from mobile or internet. In this regard, it is found that most of the parents as well as their addicted children are looking for the information regarding the negative impact of the drug addiction by using internet. Moreover, for finding out the solution of drug addiction, there are also a large amount of addicts and their parents. Again, in case of assessing the situation of the patient in a particular time, a large number of parents are looking for information in internet.

Process of forsaking drugs

After the identification of level of drug addiction, the addicts have to take steps to forsake drugs. The study revealed that the addicts are required either to go to the rehabilitation center or required to have an appointment of doctor for forsaking drugs. Therefore, it is clear that there is actually no way, by which the addicted person can forsake drugs while staying at home. In this regard, it can be said that, it is comparatively a costly process for forsaking the drugs, for which sometimes the addicts cannot afford to take these steps. Therefore, it can be suggested that if there is any way to make video chatting with the doctor for getting his direction, it can at least same the money and time of the addicts as well as their parents.

Time required for Counselling

It is most usual that when it is identified that the person is addicted, the main responsibility to forsake the drugs goes to their parents. It is because, most of the cases, the addicts are not in a situation to go to the hospital or other rehabilitation centers for their treatment. Moreover, it is also required to mention that when the parents took their children to the rehabilitation centers, it takes longer time for them than the addicts. For instance, it can be said that in case of counselling, the addicts have to spend 1 hour, but for their parents, the required time is more as they have to take the addicts to the rehabilitation center. In this case, the study revealed that both the addicts and their parents are required to spend a huge amount of time for the counselling purpose.

Cost of Counselling

As the addicts and in some cases their parents have to go to the rehabilitation center or to doctor for direct counselling, it is required a huge amount of cost. Moreover, as they have to physically go there, they are also required to spend for travelling. In this regard, it is also necessary to mention that they are required to make several visits for completing the counselling process, and in some cases, it is more than ten visits. Therefore,

it is suggested by the researchers that if it is possible to have the counselling facilities with the mobile or web-based application, therefore, it can save some money of the addicts.

Number of visits required for Counselling

At the initial stage of counselling, the parents of addicts are needed to go with their children, but after 3/4 session of counselling, the condition of the addicts has been changed. Therefore, the parents are not required to go with their children or counselling. In this regard, though the parents are not required to make that much visits, however, for the addicts, they are required to go to the rehabilitation center or to the doctor's chambers for the counselling and in some cases, the number of visits is more than ten. Therefore, it is suggested that if it is possible to get the counselling without going to the rehabilitation center or to the doctor's chamber physically, therefore, the number of visits can be minimized.

After analyzing all the related issues, therefore, in this circumstances, it can be clearly stated that for getting a solution from drug addiction with less time, cost as well as less number of visits, mobile or web based application can play significant a role, which will bring the revolutionary changes in the telepsychiatry.

Chapter 6

Recommendation and concluding remark

Drug addiction is an alarming issue for the young generation. The youth are the future of the nation. Therefore, it is required to take steps for ensuring their healthy life and future. In this regard, some requirements are recommended, which are suggested by the drug affected people (Figure 10):

- At first, it has been emphasized on increasing the familial responsibilities. In many cases, it has been observed that because of lack of family ties, the children are becoming addicted by different kinds of drugs. Moreover, it is also seen that a large number of addicts are come from the broken families. Again, if the family members are enough responsible to take care of their children, it will be possible to identify the level of drug addiction at the very initial stage. Therefore, it can be easily said that by increasing the familial relationship as well as responsibilities, it can be possible to minimize the rate of drug addiction.
- It is also important to increase the publicity regarding the negative impact of the drug addiction. In many cases, it has been seen that the people from young generation are experimenting the drugs just for fun and after that they are becoming addicted. If they are aware of the negative consequences of the drug addiction, they would not involve with such activities.

- In our country, the medicine pharmacies are providing medicines without the doctor's prescriptions. In this regard, many drugs are easily affordable. Because of availability of drug supply, the addicts can continue to their addiction. In this

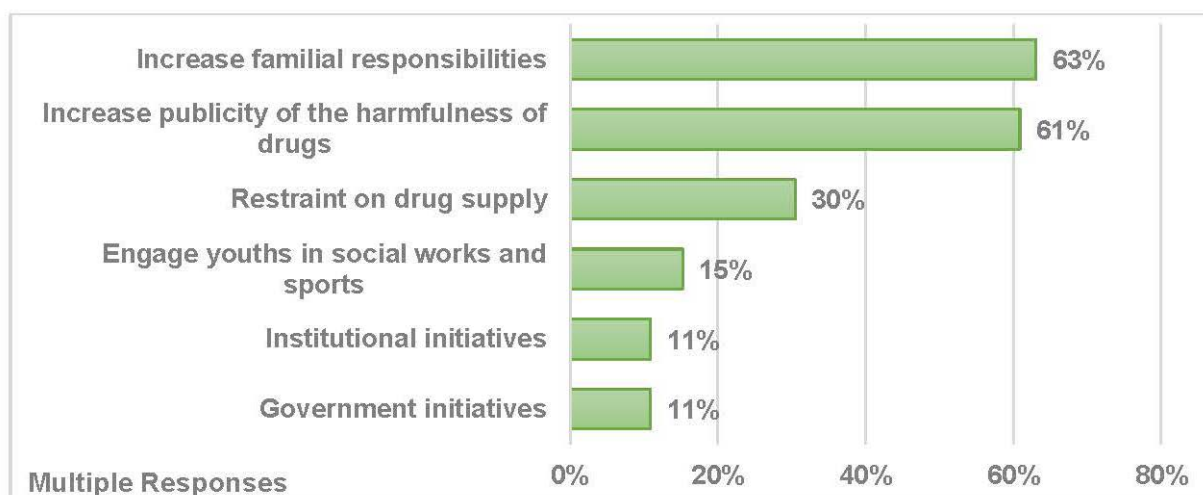


Figure 10: Steps should be taken for youth to get rid of drug addiction.

regard, it is recommended that if it is possible to restrain the supply of drugs without the prescriptions of doctors, it will be possible to reduce the number of drug addicted people.

- In many cases, young people are starting to use the drugs just for fun or experimenting a new thing. Therefore, it is possible to engage themselves into social works or any other sports or entertaining activities, they will remain busy with creative works rather than experimenting such a harmful thing. By involving the youth into social work, it will be possible to make them responsible towards the society as well as country as a whole and it will also reduce the tendency of being drug addicted.

- Different types of institutions along with the government organization, it is required to take required steps to make the people aware of drug addiction and make them known regarding the negative consequences of the drug addiction. Drug addiction is not harmful only for the individual, but also for the nation. Youth are the future of a country. Therefore, different institutions as well as the government organizations should come forward to take required measurement to minimize the death trap of drug addiction.

By following these recommendations, it can be possible to ensure a healthy social life with enthusiastic young generation, who will work for the development of the society, as well as for the country as a whole.

In Bangladesh, the significance of telepsychiatry has been felt in recent time. For saving the valuable time of the parents of addicts, telepsychiatry can be a good option. Moreover, it also assists to save the money and energy of the patients along with their parents. Understanding the significance, there are many organizations, who have started to think about this issue. In this case, Thikana Psychiatric and Drug Addiction Clinic has already started their activities regarding telepsychiatry. Therefore, there is a hope that if the clinic can successfully run their operations, it will be considered as the pioneer of other mental health clinics

regarding starting telepsychiatry. By the successful formation and implementation of telepsychiatry, it can be possible to save the time, money as well as the energy of the patients along with their parents. In this case, mobile or web-based application can be used, which has already initiated by Thikana Clinic. In this regard, Ashokti Mukti is the mobile based application that helps the parents of the addicts to identify the level of the addiction of their children and also provides the required instruction that are required to do as the treatment of drug addiction. Therefore, successful formation and implementation of this type of mobile or web-based application can make a revolutionary change into the context of telepsychiatry in Bangladesh.

Ethics, consent and permissions

Informed written consents have also been taken from the participants of this research to use their data for scientific research and publication.

Declaration

None of the authors has any conflicts of interest associated with this study. Raw data and materials used for this study are all available.

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