



# Identifying the main factors affecting the distribution of narcotic drugs with a qualitative approach

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## ABSTRACT

**Background:** Narcotic drugs are used as an effective analgesic in diseases such as cancers and malignancies after surgery and addiction treatment. The available data show that the burden of addiction in Iranian society is not decreasing despite several thousand addiction treatment centers in the country. This issue reveals the importance of the proper use of narcotic drugs and the legal and controlled distribution in our society. One of the critical issues in medicine is the discussion of the correct supply of drugs, mainly controlled drugs, and narcotics, which are very prone to consumption and trafficking. Targeted distribution of these drugs can be a big step towards combating drug trafficking and drug abuse in Iran and preventing the illegal market for narcotic analgesics. The aim of this study was to investigate the distribution method of analgesic drugs in Iran.

**Methods:** Qualitative method was used to study the distribution system and access to narcotic drugs in Iran. Data analysis was performed by an inductive method and developing models and themes. In the sampling process of experts, up to 40 interviews were conducted in person by the researcher.

**Results:** The main factors affecting the distribution of narcotic drugs in Iran were identified, and solutions for the optimal distribution of these drugs were presented. This study showed the importance and role of regulatory bodies, monitoring system, supply and distribution system, electronic system, and the place of supply of narcotic drugs that have affected the distribution of narcotic drugs in Iran.



**Conclusion:** The problem that can be seen outside the control of the organization's inspectors on the performance of these centers is due to a large number of pharmacies and MMT centers, and this is one of the disorders and obstacles to the principle of monitoring the distribution process within the system. Also, we need to consider the main factors affecting the distribution of narcotic drugs.

**Keywords:** Narcotics, Distribution, Electronic system, Access.

## Introduction

Pain is a perceptual phenomenon that is especially difficult to diagnose and manage for cancer patients. A recent study found that the prevalence of cancer pain was 64% in patients with metastatic or advanced stage, 59% in patients treated with anticancer drugs, and 33% after treatment. (1)

80% of patients undergoing surgery experience postoperative pain, 60% of women experience severe pain in the first delivery. (2) Opioids are the most potent drugs known to relieve pain (3).  $\mu$ Drugs work in the body to relieve pain. (4) Opioids can play a key role in acute postoperative treatment and in reducing the suffering of patients with severe acute pain and cancer pain. (5) Commercial opioid analgesics in oral, intravenous, transdermal drugs There are intranasal, epidural, and intestinal aids that assist in their clinical use and are combined to meet the patient's needs. (6) The increased risk of postoperative pneumonia due to uncontrolled pain and the risk of poverty due to inability to perform daily tasks due to uncontrolled pain have all led to access to narcotic drugs. (7) But opioids also have serious side effects deration Respiratory, constipation, depression and severe opioid dependence, including (8) In the United States, overdose or overdose of narcotic analgesics is now the leading cause of death from injury (7). One of the causes of the opioid crisis is the increasing availability and low prices of these drugs. (9) WHO Recommends the use of opioids for adults in moderate to severe pain that is constantly increasing. (10) Access to medicines is an important element in population health in low- and middle-income countries (LMIC) (11) A comprehensive solution in the distribution system is to reduce unnecessary access to narcotic drugs (12) and action towards the targeted distribution of these drugs. Despite the several thousand addiction treatment centers in Iran that have access to narcotic drugs, including methadone, and the many cases that have been filed for patients in these centers over the years, why do we still not see a decrease in consumption and a decrease in patients addicted to drugs? ? How long will the open file of these patients continue? Do all these patients need to take

narcotics for the rest of their lives? Another challenge regarding narcotics in Iran is the attempt to distribute narcotics through electronic systems and in selected pharmacies across the country, which has not been successful so far. The implementation and decision-making of the country has followed.

Unfortunately, despite the measures and activities taken so far, there has been no relative improvement in the distribution and control of narcotics. Severe ambiguity in the existing regulations, the situation of addiction in the country, inconsistencies between the country's health and judicial institutions, inconsistencies between the Anti-Narcotics Headquarters and the Food and Drug Administration, abuse of such addiction treatment centers and leakage of narcotics from these centers, import of these drugs Importantly, the perfumers have joined hands and caused the current situation.

The main purpose of this study is to describe the distribution of narcotics in Iran and to provide solutions to achieve an optimal supply, storage and distribution system for narcotics in Iran.

## Materials and Method

In this research, a qualitative method has been used to conduct research. In this method, in-depth interviews were used to collect data, and to attract people's participation and cooperation in the research process, the subject, goals and value of the research were introduced to individuals. Number of selected research samples that were selected by purposive sampling; Includes 40 technical managers of analgesic drug distribution companies, pharmacist doctrine in the Food and Drug Administration and food and drug deputies of Tehran University of Medical Sciences, Iran and Urmia and technical pharmacists in pharmacies. To achieve the objectives of the study, individuals or experts who had key information about narcotics were interviewed. The interviews included 9 important questions in the field of distribution and access to narcotic drugs in Iran. The method of data analysis was based on thematic analysis) peer debriefing used. In this method, data analysis and its

results are presented to experts to increase the richness of research credibility. In the researcher self-review technique (self-monitoring). The process of data collection and analysis is one of the methods used in this study to increase the validity of the research. (13)

### Data analysis

According to the text of the interviews, it can be inferred that the supply and demand of narcotics in Iran is increasing, as well as in this system and drug cycle, management weaknesses, legal gaps, strategic shortcomings in some areas are deteriorating. And in some cases it has improved.

One of the questions raised in the field of monitoring the distribution of narcotic drugs, which includes the body supervising the narcotics system and the main causes of weakness of the supervisory body in the narcotics distribution system, is as follows. (Tables 1&2)

According to the text of the interviews, one of the main factors related to the field of drug monitoring is the inefficient monitoring of the Food and Drug Administration on the proper process of production, distribution and supply of narcotic drugs.

The next question was about the main factors and obstacles of the supply and distribution system of narcotics in the country, which is given in (Table 3).

The sub-factors that are effective and related to drug shortages include the quota of drug distribution, drug import, currency supply issue, corona issue, sanctions issue, warehouse supply issue, and drug sensitivity issue. Also, the sub-factors related to the lack of distribution supervision in the form of factors such as the supervision of Turkish centers, the type of supervision of distribution companies are examined. Sub-factors related to the type of policy in the field of distribution include inaccurate statistics of drug users, increasing the price of drugs, the direction of legislation, and self-monitoring. The consequences of the form of incorrect distribution of narcotic drugs have been evaluated under the category of creating a free market for drugs (price difference in the free market) and the occurrence of the phenomenon of reverse drug trafficking.

According to the transcripts of the interviews, few people have emphasized the lack of quantitative and qualitative control and

monitoring in the distribution system. The interviewees emphasized it. (Table 4)

One of the categories related to non-supervision of distribution is the category of non-supervision of the performance of addiction treatment centers. According to some interviewees, one of the weaknesses of the regulatory field, which was clearly reflected in the field of drug distribution and disrupted the distribution system, is not precisely controlling the last distribution chain, namely the addiction treatment center.

Deemed to be. While the supervision of universities and vice chancellors is better than the staff of these centers due to their statehood and the impossibility of personal profit.

One of the most important questions asked of the interviewees was in the field of setting up an electronic system for the distribution and close monitoring of narcotic drugs. In the field of electronic system, from the point of view of the interviewees, there are advantages and disadvantages that make it necessary to launch and complete a system such as Titek. So that even from the point of view of people who have listed numerous disadvantages for this system, the positive aspects are significant. According to the repetition of the answer to agree or the answer to disagree with the launch of the electronic system, 85% was on the category of agreeing to repeat a lot and 15% was on the category of disagreeing with this system. (Tables 5&6)

Finally, the interviewees were asked about the best place to supply narcotics and why they were chosen. According to the text of the interviews in the field of surveying the most suitable place for the supply of narcotic drugs in the country, three different types of approaches can be distinguished. In the meantime, 58% of the supply in the pharmacy has been emphasized by the interviewees. There was 17% agreement on the supply category in addiction treatment centers and also 25% repetition of the frequency of the supply category in both places (pharmacy and Turkish center). Examining the level of agreement or disagreement with the supply and distribution of narcotic drugs in each of these places is classified into 3 subcategories.

In this section, the reasons related to agreeing or disagreeing with the supply and distribution of narcotic drugs along with the advantages and disadvantages in each of these places are discussed. (Tables 7&8)



The categories related to the benefits of supplying narcotic drugs in addiction treatment centers include the possibility of inspecting and recording violations from the file (30%), psychological monitoring of the patient (30%) and control and checking consumption (40%), which are 3 related sub-factors. With the reasons for the suitability of the addiction treatment center as a place of supply of narcotic drugs in the country comes. (Table9)

### Results

According to the findings of the research, it can be said that the legal authorities of the country, based on the decisions made in recent years, have adopted a completely open and easy policy in issuing licenses to addiction treatment centers and pharmacies, and therefore the number of these centers and pharmacies in cities has multiplied; Due to the personal interests of doctors and founders of Turkish centers, including the acquisition of financial benefits and income, some of these people with the aim and financial incentives to establish and create this lucrative business. Since these are not government centers, the number of applicants for licenses to establish addiction treatment and withdrawal clinics is increasing day by day. The problem that can be seen outside the control of the organization's inspectors on the performance of these centers is due to the large number of pharmacies and MMT centers, and this is one of the disorders and obstacles to the principle of monitoring the distribution process within the system.

### Discussion

The results of qualitative data of the present study, which was conducted to identify the main factors affecting the distribution of narcotic drugs with a qualitative approach, show that easy and authorized access of patients and consumers to narcotic drugs are facing problems and weaknesses in the pharmaceutical system. Due to the lack of supervision, weak legislation, weak policy, and on the other hand due to lack of coordination between regulatory bodies and security agencies with each other, many problems have occurred in the services of drug distribution centers. This situation, in addition to being greatly affected by manpower errors and the lack of an electronic system, is mainly due to several other main factors. What is clear is that the main factor among all the factors related to the issue is the weakness of governance in the country's pharmaceutical system. In the following, we will briefly review the causes of weakness in the system. Among the main

factors influencing access to narcotic drugs include weak and inefficient supervision of the Food and Drug Administration, including sub-factors affecting it (scope of supervision, organizational policy problems, organizational regulatory problems, the existence of a legislative vacuum in the organization). Also, the intervening factors that have affected the monitoring process have included issues of the electronic monitoring system such as (lack of electronic monitoring, lack of access of experts to the system, the way the system works and shortcomings within the system). Thus, solutions that can be provided to improve the drug system and better access to them in the form of Also, the intervening factors that have affected the monitoring process have included issues of the electronic monitoring system such as (lack of electronic monitoring, lack of access of experts to the system, the way the system works and shortcomings within the system). Thus, solutions that can be provided to improve the drug system and better access to them in the form of In short, it can be in the form of setting up an electronic system, assigning a tracking code for drugs, allocating more government currency to significant imported drugs. Also, the solutions that have been suggested and presented by the interviewees to eliminate these shortcomings in the system, and especially in order to eliminate the supervisory weakness of the system, can include the categories of setting up the electronic system, pharmacist monitoring drug delivery in supply centers and clinics, using the double method. Check, establish an inspector in my centers. T, identification of drugs and assigning tracking code to drugs, transparency in the system, change of inspection style, application of U code. Oh you. Day to be considered.

In the absence of a transparent and perfect electronic system, it will be possible to monitor all areas of pharmaceuticals from production to distribution and supply and monitoring. Because manual monitoring is not sufficient and in most cases does not allow control of the status of narcotic drugs for the organs involved. In other words, lack of drug monitoring through the tracking code and failure to register the U code.

Oh you. Di in the system has created the conditions for any kind of unauthorized sale at an unapproved price.

Strategies related to improving the distribution system of narcotic drugs from the perspective of experts in the field can be proposed in two categories. Subcategories such as the intervention of the Court of Audit in budget affairs, policy review, implementation of a pilot project.

### Conclusion

Based on the text of the interviews, the second solution from the set of solutions in the field of improving the distribution of drugs can be considered under the title of implementing pilot projects. Plans such as setting quotas and supervision by the deputy, and distribution by the distribution company to the pharmacy, and distribution from the pharmacy to my centers. ما. T be done.

A set of improvement strategies in the field of supervision, such as setting up an electronic system, pharmacist supervision over drug delivery, double check method, and establishing an inspector in my centers. ما. T, identification of drugs, transparency in the system, change of inspection style, application of U code. Oh you. Di, there.

Most of the interviewees believed that one of the best ways to improve the field of supervision is to set up an electronic system. Using systems such as Titek that inspectors, experts, doctors, pharmacists in pharmacies and addiction treatment centers have full access to at the same time, so that all the steps from prescribing to distribution and supply, and finally monitoring the whole system are electronically monitored.

The second solution that some of the interviewees agreed on in improving the field of supervision was to supervise the pharmacist in all supply centers such as M centers. ما. T, and centers for prescribing narcotic drugs such as clinics. The pharmacist can prevent any unauthorized activity in the system and improve the distribution monitoring process by determining the dosage for the patient and then entering the prescribed amounts in the electronic system.

The use of UID tracking code in the production phase of narcotic drugs can be considered as a solution to improve the monitoring area. In this way, the drugs are registered and the process

of production to distribution, consumption and supervision is fully monitored by the organization through an electronic system.

Finally, there must be a profound change in the manner and process of proper distribution of narcotic drugs in Iran. And this goal is possible only with the efforts of pharmacists and policymakers in the Food and Drug Administration to prevent the misuse and abuse of these drugs. To be taken.

### Ethical Considerations

#### Compliance with ethical guidelines

This study was approved by the ethical committee of the Tehran University of Medical Sciences (TUMS). All the participants accepted enrollment in the study orally and all of the data that were gathered was considered confidential.

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#### Authors' contributions

All authors equally contributed to preparing this article.

#### Conflict of interest

The authors declared no conflict of interest.

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**Tables**

**Table 1. The role of regulatory bodies in the drug system**

The role of regulatory bodies in the drug system	Related categories
	Ministry of Health and Food and Drug Administration (68%) University of Medical Sciences (20%) Security and military organs (12%)

**Table 2. Monitoring system on Narcotic drugs in country**

	main factors	interfering factors	consequences
Monitoring system On Narcotic drugs in country	<ul style="list-style-type: none"> <li>- Poor monitoring and Inefficient food organization And medicine (74%) ratio to the main factors (51%) to all regulatory factors</li> <li>- Lack of coordination between Organizations and organs security (26%) (17%)</li> </ul>	<ul style="list-style-type: none"> <li>- Electronic monitoring system issues (26%) to interfering factors (10%) to all regulatory factors</li> <li>- Weak state of force</li> <li>- Work in the Food and Drug Administration (74%) (22%)</li> </ul>	<ul style="list-style-type: none"> <li>- Leakage of drugs - (81%) compared to consequences</li> <li>- Anomie in prescribing and taking medicine (19%)</li> </ul>

**Table 3. Supply and distribution system of narcotic drugs in Country: Basic factors and obstacles**

	Effective factors	consequences
Supply and distribution system of narcotic drugs in Country: Basic factors and obstacles:	<ul style="list-style-type: none"> <li>- Drug shortage (73%)</li> <li>- Lack of distribution supervision (21%)</li> <li>- Type of policy in the field of distribution (6%)</li> </ul>	<ul style="list-style-type: none"> <li>- Creating an illegal drug market (66%)</li> <li>- Reverse drug trafficking (44%)</li> </ul>

**Table 4. Drug supply and distribution system Narcotic: Lack of distribution supervision**

Drug supply and distribution system Narcotic: Lack of distribution supervision:	Related categories
	Lack of supervision of distribution in Turkish centers (50%) Lack of supervision of distribution in the distribution company (37%) Individual monitoring (13%)

**Table 5. Advantages of electronic system on control distribution of Narcotic Drug**

Electronic system: Advantages of electronic system	Related subcategories
	Ability to precisely control distribution and supply (33%) Leak prevention (20%) Reduction of drug abuse (13%) Prevention of drug trafficking (8%) Possibility of drug monitoring (13%) Elimination of personal tastes of observers (6%) Measuring the effectiveness of treatment protocols (7%)

**Table 6. Disadvantages of electronic system on control distribution of Narcotic Drug**

Electronic system: Disadvantages of electronic system	Related subcategories
	Poor infrastructure (33%) The problem of patients' lack of insurance (13%) Confidentiality and security of the project (13%) The issue of requiring physical supervision (3%) Incomplete data (9%) Loss of domestic production (6%) Way to face in the system (11%) Cost of the project (9%) Dosage unit consumption in clinics (3%)

**Table 7. Investigation of the place of supply of narcotic drugs: Advantages of pharmacy supply**

Investigation of the place of supply of narcotic drugs: Comparing the advantages and disadvantages of drug supply Between pharmacy and Center Advantages of pharmacy supply	Subcategories
	Leak prevention (27%) Better and more accurate monitoring (37%) Easier access (12%) Observance of technical points (12%) Registration and supervision of drug sales (12%)

**Table 8. Investigation of the place of supply of narcotic drugs: Disadvantages of pharmacy supply**

Investigation of the place of supply of narcotic drugs: Comparison of drug supply between pharmacy and center Disadvantages of pharmacy supply:	Related categories
	The problem of dealing with the addicted group in the pharmacy (34%) Increase the working volume of the pharmacy (10%) Increase in pharmacy costs (21%) Problem that the system is not working (10%) The need to ensure the security of the pharmacy (5%) Necessity of supplying and storing medicines (5%) Necessity of coordination of drug organs (10%) Check and inspection of warehouse (5%)

**Table 9. Investigation of the place of supply of narcotic drugs: Disadvantages of supply in Turkish centers:**

Investigation of the place of supply of narcotic drugs: Compare the place of supply of medicine between pharmacies or My Center. Disadvantages of supply in Turkish centers:	Effective factors
	Problem verification (16%) Forgery and filing in centers (18%) Leakage incidence (33%) Profit of Turkish centers (33%)

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