

A Qualitative Study of Changes in Demand and
Supply of Illicit Drugs and the Related Interventions
in Bam during the First Year after the Earthquake

- A Summary Report -

Investigators:

Afarin Rahimi Movaghar, MD, MPH

Ali Farhoodian, MD

Reza Rad Goodarzi, MD



Iranian National Center for Addiction Studies

In Collaboration with
Research Center for Environmental Health



TEHRAN UNIVERSITY
OF MEDICAL SCIENCES



UNITED NATIONS
Office on Drugs and Crime

Winter 2005

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Investigators:

- ✓ Afarin Rahimi Movaghar, MD, MPH
- ✓ Ali Farhoodian, MD
- ✓ Reza Rad Goodarzi, MD

Other Colleagues:

- ✓ Mohsen Vazirian, MD
- ✓ Masoud Younesian, MD

Organizations:

- ✓ Iranian National Center for Addiction Studies
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Supported by:

- ✓ United Nations Office for Drugs and Crime (UNODC)

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ACKNOWLEDGEMENTS

This project was supported by United Nations Office for Drugs and Crime (UNODC).

The authors would like to thank Dr. Gelareh Mostashari, Dr. Mohsen Hafezi, Ms. Tayebah Dehbashi, Mr Ali and Mr Manochehr for their close cooperation on research.

We would like to appreciate the kind co-operation of the following organizations:

- ✓ Research Deputy of Tehran University of Medical Sciences
- ✓ National Research Center of Medical Sciences
- ✓ The Office for Youth Health, Ministry of Health
- ✓ Bam Governor's Office
- ✓ Bam Law Enforcement Office

INTRODUCTION

The Bam earthquake occurred on 26 December 2003 at 5:26:26 local time in the historic city of Bam. The intensity was reported between 5.8 to 6.5 Richter. The official toll stands at approximately 30,000 dead and 50,000 injured. Over 100,000 people lost their homes. Altogether, over 30,000 urban and rural residential and commercial units were destroyed. Figures 1 and 2 show views of city of Bam after the earthquake.

Figure 1- City of Bam after the earthquake

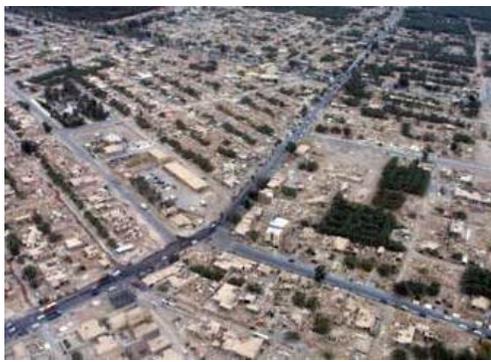


Figure 2- A city of Bam neighborhood after the earthquake



City of Bam, with an approximate area of 17,755 sq. km. is located at 193 Km south-east of Kerman (Fig.3), surrounded by cities of Kerman to the north, Zahedan to the east, Iranshahr and Jiroft to the south and district of Rine, now annexed to Kerman, to the west (<http://www.spk-gov.ir/Bam.asp>). City of Bam consists of five towns, four districts, 13 townships and over 998 villages. Based on Iran Statistics center estimation, Bam population was app. 223,000 in the midst of year 1382.

Figure 3- City of Bam geography



Opiate cultivation in the region dates back many centuries. During the 1300 decade, Iran ranked among most important opium producing countries in the world and province of Kerman was one of the region with highest cultivation and production of opium. Although presently the production of opium has been eradicated in Iran and narcotic drugs are illegal, but narcotics abuse, namely opium (Thariac), in some areas of the country, especially in the south east region, is traditionally and culturally widespread. Almost all the opium consumed in the Kerman province is imported from Afghanistan and the province is a major conduit for transit of narcotic drugs to other regions of the country and to other countries. In the city of Bam narcotic drugs abuse is common among male population.

After the Bam earthquake, drug dependents' deprivation from narcotic drugs has caused problems and difficulties. Healthcare and social workers verbal reports indicate changes in the narcotics market and consumption patterns. After the earthquake, on one side the physical and psychological distress among the survivors has dramatically increased and created potential environment for start or increase of drug abuse and on the other side, reports of diminishing security and police protection were being laid out. Also, reports of increase in heroin abuse and drug injection were made.

In a survey made to determine drug abuse status in Bam two weeks after the quake, the majority of respondents considered one fourth to one half of Bam male population as opium abusers and pointed out that users were mostly middle age, married and employed men. All the respondents considered opium as the main drug of abuse. Some referred to opium residue (Shireh) and some to heroin as other drugs of abuse. The most common method of opium abuse is inhalation with opium pipe or skewer and stone. Whilst, before the earthquake the dominant method had been inhalation, in the first two weeks after the quake the method was changed to swallowing. Almost all the said group was obtaining their opium from residents of other cities on a courtesy basis and as gift. In the first day after the quake, the very majority of drug dependents did not experience withdrawal symptoms.

During the very critical period right after the quake, many of the drug dependents experienced acute stress and physical trauma and others were totally involved in rescue efforts. But from the second day, withdrawal symptoms appeared and became as essential needs of these people.

About half the number of drug dependents sought consultation with treatment system and requested pain killer or narcotic medications. But only in one fourth of them the withdrawal symptoms were controlled with prescription of narcotic pain killers and more than half abused opium (Rahimi-Movaghar, et al, 1383). In another study conducted two months after the Bam earthquake on 363 people over fifteen years of age, 8.3 % reported history of drug dependency prior to the event and 9.9 % after the event (Bayanzadeh, et al, 1382).

The question remained whether or not few months after the quake, the dominant difficult environment along with cultural issues and attitudinal problems caused acceleration or worsening of drug abuse situation. People experiencing acute trauma may turn to drug abuse to calm down or cope with stress and negative passion. In

some studies, alcohol consumption was considered as a protection element against depression and post trauma stress (Armenian H.K. et al. 2002; Maes M. et al. 2001). In addition, after a disaster, patients with prior drug dependency may experience aggravated withdrawal symptoms (especially sensitivity and anger), when drug use is reduced or stopped, and consequently, abuse dosage may increase again (Vlahov D. et al. 2004).

So far, few researches have been undertaken with regard to drug abuse after disasters, most focusing on cigarette smoking and alcohol consumption. Thus, this study focuses on a subject that despite its importance has been disregarded. Results of studies mostly imply that demand and abuse of drugs, cigarette and alcohol increase after disasters (Weiss L. et al 2002; Vlahov D. et al 2002, 2004; Factor S.H. et al. 2002; Deren S. et al 2002; Pferfferbaum B. et al. 2001; Joseph et al. 1993). In addition, some studies show that after disasters, drug availability becomes more difficult and its quality decreases (Deren et al, 2002). It also has been reported that need for and usage of medical and mental health services increases (Pferfferbaum B. et al. 2001, 2002; Joseph S. et al. 1993; North C.S. et al 1999; Herman D. et al 2002; Siegel C. et al. 2004).

In major earthquakes similar to the one in Bam, even though during emergency relief services period (in the first five days), when priorities lie in medical care and accommodations for the injured, less attention is given to the needs of drug abusers. But during reorganization period, the fifth day on, it becomes necessary to attend to the needs and requirements of the survivors (Shaditalab, 1372).

The goal of this study is to review changes in the number of users according to different population groups and drug abuse patterns and review the causes and variation in different drugs market, including level of availability and price. Also since the only drug treatment center in Bam was destroyed during the quake, attention was focused on the situation of drug treatment services and other available services. This study was undertaken in Bam and the village of Baghchamak so that a pattern on the status of above-mentioned parameters in an urban and a rural society could be generated.

METHOD OF STUDY

This research was conducted in the city of Bam and the village of Baghchamak. Three methods of qualitative study were used in this study. Focused group discussion, individual in-depth interview, ethnographic observation. The study population consisted of drug abusers, regular non-abusers and key informants.

Samples were chosen through opportunistic sampling, peer referral and ethnographic methods. As this study was performed qualitatively, incidental sampling was not intended. Although efforts were made to use people of different groups and drug abusers (of different age, gender and places) and key informants as representatives.

Altogether, 54 drug dependents (addicts) divided in five groups were given thirty-seven in-depth interviews. Five were female and the balance male. Different methods were used to access these people. 31 persons, chosen through opportunistic sampling method from treatment centers, private clinics, narcotics anonymous attendees and NGOs, were interviewed. Twenty three persons, accessed through ethnographic and peer referral methods were interviewed. In this study drug dependent (addict) is referred to a person that during the last year, at least in a period of time, has abused an illegal drug at least once or more daily. Street people, drug treatment providers and other key informants including commanders and personnel of Bam law enforcement, education system, NGOs, pharmacies, drugstores personnel, social workers, medical assistants, construction contractors, drug traffickers, drug dependents' spouses and people with spinal cord injuries, divided in five groups, were given in-depth interviews. Table 1 shows the number of participants based on sample population, method of interview and interview sites.

Table 1- Method of study, number of samples based on sample population & study site

Sample Population	Method of Interview	City of Bam	Baghchamak Village
Drug abusers	Focused group discussion	4 groups	1 group
	In – depth interview	37 persons	
Drug treatment providers	In – depth interview	10 persons from 8 different centers	
Street people & key informants	In – depth interview	22 persons	
	Focused group discussion	3 groups	2 groups
Other forms of data Collection	Observation	Observation of abuse conditions Observation of treatment centers	Observation of abuse conditions
	Photography & Mapping	The situation of the city Locations & conditions of drug use	

Open questionnaire, checklists and structured questionnaires were used for interviews, group discussions and observations, and for recording characteristics of drug dependents and their drug use pattern, respectively. Also, in order to review the normal conditions of drug abuse and drug treatment services provided observation

method was used. Beforehand checklists were drafted for researchers to record observation results. Altogether 9 open questionnaires or checklists were prepared for interviews with sample groups and conducting observations. In addition, the procedure of using drugs and treatment centers were photographed and infected areas and treatment centers were mapped. Also, the herbal medicine claimed to be effective in treating addiction underwent thin layer chromatographic testing. Organizing all the groups, conducting interviews and ethnography were handled by project planners and core team members. Some of the Bam drug abusers cooperated with research groups during different phases of the fieldwork. At the end of the fieldwork, a meeting attended by City managers and key informants involved with addiction issues was held in the Bam gubernatorial offices during which preliminary results of the studies were presented and suggestions were discussed. Views presented in the meeting have also been used in compiling results of this report. Fieldwork was conducted during months of Azar and Dey 1383 (November-December 2005).

Qualitative information generated from open questionnaire and focused group discussions were extracted manually and analyzed. Due to the illegal nature of drug abuse and the concept of this study, based on speedy gathering of qualitative information, incidental sampling of drug dependents and street people was not possible. Therefore, all information is presented in a qualitative form and quantitative information were disregarded to avoid confusion and misinterpretation. To ensure ethical considerations, no names or identification information of drug dependents were recorded on corresponding questionnaires. Individuals participated in the interviews based on their informed consent. The research group kept all completed questionnaires confidential and only conclusions were used in the reports.

FINDINGS

1 - Characteristics of interviewed drug dependents

In total 54 drug abusers were interviewed, 48 male and 6 female, with ages ranging from 16 to 84. Age range spread was substantial. From these, 45 were from city of Bam. Education ranged from illiterate to masters' degree. Half were married and the majority were unemployed or with temporary employment. Out of the total number, 27 had history of continuous abuse of opium or opium residue without any history of heroin abuse. 19 with history of regular use of heroin without any injection history. Seven with past and present history of injection. Only one person was hashish dependent. Nine were also simultaneously consuming alcohol.

2- City of Bam

2-1- Drug Demand Status

In Bam drug abuse is widespread and mostly within male. Most of respondents estimated that half the male population use narcotic drugs. The majority believed that drug abuse and dependency has increased in the aftermath of the earthquake. 30 to 40% of drug abuse treatment seekers are newcomers. Most considered the relaxation caused by using drugs, extreme dilemmas, people's frustration and presence of migrants as causes of increase in drug abuse after the quake. Diminishing incentive to quit was sometimes also stated as an effective element. Opium is the most common drug of abuse in Bam and the most common method of abuse is inhalation with opium pipes in upper social classes and with "skewer and stone" in lower ones. A solid majority of respondents believed that opium abuse has increased in the aftermath of the earthquake. The method of smoking in opium pipe has mostly given place to "skew and stone" after the quake. Twenty out of 27 interviewed drug dependents had increased dosage after the quake. With regard to heroin, although variable opinions were expressed, but the majority believed heroin abuse is not substantial and longstanding in Bam. Overall, heroin is more of a "taboo" than opium. Heroin abuse spread among treatment centers' attendees was estimated from 5 to 15%. Most believed heroin abuse increased after the quake. Many considered the widespread heroin abuse among migrants as the reason for high heroin abuse after the quake. Also, after the quake, many have changed method from inhalation to sniffing. Twelve out of 24 interviewed heroin dependents (injecting or non-injecting) increased heroin usage after the quake.

Most respondents did not consider hashish abuse in Bam substantial and believed it did not change after the quake. Also, most believed that alcohol consumption is not very common in Bam but it does start at young age. Different opinions were expressed regarding post quake fluctuation in alcohol consumption. The ones, who believed in a decrease in the latter, mentioned the switch over from alcohol to opium

due to religious beliefs in the early stages after the quake, and others referred to the incompatibility between opium and alcohol, as reasons. Use of tranquilizers by drug dependents in Bam is a common phenomenon. Some believed that use of self-prescribed medications and psychotropic drugs has increased in the aftermath of the earthquake. Other illegal drugs are not commonly used in Bam. Half of the respondents knew about Temgesic (Bupernorphine) but the solid majority mentioned that its usage has decreased after the quake.

The daily expenditures ranges from 20,000 to 60,000 Rials for opium and 50,000 to 100,000 Rials for heroin abuse. Theft, mixing burned bread and flour to and sale of drugs, providing place for drug use, hand outs from people, transport of drugs, blackmail and prostitution were mentioned as means of earning income to cover drug use costs.

Drug abuse usually takes place in private places such as tents or dwellings. But, physical and social conditions of abuse vary. Some drug dependents abuse drugs alone, some with friends and others in the presence of their family members. It appears that group drug abuse has increased after the quake. In one case of observation, in a private trailer, a 30-year old bachelor was inhaling opium residue in the presence of his grandfather and younger brother, both opium dependents, and the interviewing psychiatrist. The trailer was in good state of cleanliness and hygiene (Figures 4 to 6).

Figure 4– Utensils containing opium residue



Figure 5– Preparation of paraphernalia for opium residue inhalation



Figure 6 – A drug dependent inhaling opium residue



Half of respondents believed drug abuse in children as low and the other half as high. The percentage of treatment centers visitors under 20 years of age was mentioned at between 5 to 15%. Different reasons were expressed regarding drug use in children including drug dependency in mothers, harmful intentions by others and using children as “quased”. Half also believed that drug abuse among children and teenagers has increased after the quake. Youth unemployment and lack of entertainment facilities were cited as main reasons. The majority believed that drug abuse in women is not substantial; eventhough the number seems to have increased after the quake. Female visitors to treatment centers attendees are estimated to average between 10 to 20%. Diminishing shamefulness, loss of family and the increase in usage among single girls were cited as reasons. Migrants, elderly, people with spinal cord injury, athletes and students were named among vulnerable groups. Drug abuse is more widespread in districts of “Sangestan”, “Seyed Tahereddin” (“Siahkhaneh” area), “Fakhreddin”, “Fakhrabad”, “Arabkhaneh Boulevard”, “Emamzadeh Zia”, camps and city outskirts.

Injecting drug use (IDU) in Bam carries more shame and is less common. There were very few injecting drug abusers among treatment centers attendees. Most respondents believed IDU has become less widespread after the quake. More deaths among injecting drug abusers after the quake (due to poor economic conditions) and increase in sniffing in lieu of injection (due to less police control) were cited as main reasons for the decline in injection. Nevertheless, out of seven interviewed drug dependents with injection history, three had picked up the habit again. It seems that throw away syringes are easily available in Bam. Insuline syringes cost between 400 to 500 Rials each. Sharing needles is not common in Bam at all, except in prisons where it was reported to be frequent. Injection can be done by the person himself or by another drug dependent. Most drug dependents prefer to be injected by others. All drug dependents mentioned that they always use new needles. Only half of them used boiling water or alcohol to disinfect injection sites. Most non-injecting drug dependents knew little about AIDS. But all injecting drug users were well informed about it and the dangers of needle sharing. Among interviewed injecting drug users only one had taken HIV test with negative result.

The majority of respondents did not see sexual risk behavior as widespread in Bam. Migrants in camps, spouses of male drug dependents, widows and female drug dependents were considered as more vulnerable. Drug overdose in Bam was reported as rare.

Forgetting problems, tranquility and reducing pain and decline in symptoms of PTSD (Posttraumatic stress Disorder) were cited as positive consequences of drug abuse. Unemployment, economic hardships, lack of discipline, bootlegging, increase in corruption and prostitution, quitting school and child abuse were considered by respondents as complications resulted by drug abuse in Bam.

2-2- Drug Supply Status

The majority of respondents believed opium purity has declined and cutting has increased after the quake. Most drug dependents and street people cited the going price of opium before the quake between 30,000 to 50,000 Rials per mesghal (app. 4.6 grams) and during the month after the quake 18,000 to 20,000 Rials and at the time of interview between 30,000 to 50,000 Rials. They believed it still is easily available as it had been prior to the quake.

The majority of respondents from Bam believed that the grade of heroin purity has also declined. The average price of heroin at the time of interview was cited at 5000 Rials per grain and 100,000 Rials per mesghal (app. 4.6 grams). Again they believed heroin is as easily available as before the quake.

The solid majority believed that the price and grade of purity of hashish were similar to pre-quake time and between 18,000 to 25,000 Rials per bar. Hashish is easily available similar to pre-quake time. With regard to alcohol no change in price, purity and availability has been noticed. Few referred to Temgesic in addition to the above.

Some of the respondents referred to the increase in number of petty drug dealers. During the street people group interviews it was pointed out that since opium dealers, originally from Bam and living elsewhere, have returned to Bam and started peddling drugs, number of drug dealers in Bam has increased. Regarding heroin, majority of dealers and users are from other cities.

2-3- Existing intervention for drug abuse control

The majority mentioned that police intervention and emphasis with regard to drugs are similar to pre-quake era or even little less, and police protection has not made availability any more difficult. They mostly believed most emphasis is on heroin. Although, the research team did not witness any case of police interaction with drug abusers during the research period, but they noticed their wariness with regard to police presence in the interview sites or their place of drug use. They also believed that no coordinated and constructive action is taken by officials. Opinions were widely different and variable with regard to people's reaction to drug abuse.

The majority believed that serious and sufficient didactic or non-didactic actions for drug abuse prevention do not exist. Most people were requesting more serious actions and their suggestions for preventive actions consisted of: Complete borders sealing by the government, stronger law enforcement actions, employment and jobs creation especially for youth, holding of classes and education in schools and neighborhoods, drug abuse treatment, creation of sport facilities and healthy entertainment for children and youth, budget allocation for education of preventive measures.

During the study period, treatment centers in Bam consisted of: The semi-private State Welfare organization outpatient treatment center, outpatient treatment clinic as a division of Imam Khomeini Hospital affiliated with Bam healthcare therapeutic

network, private offices of psychiatrists and general practitioners, Arg-e-jadid clinic (for in-patient detoxification), Narcotics anonymous group, and two herbal medicine stores (Figures 7 to 12). As it can be noticed, these centers include a wide range of governmental, non-governmental and private and rendered services are medical, specialized, herbal and peer-help.

Figure 7- Bam healthcare therapeutic treatment centers



Figure 8- State Welfare treatment center doctor visiting patient



Figure 9- Nurse giving Methadone to patient



Figure 10- Psychiatrist office alongside other doctors offices



Figure 11- Beds allocated to addict patients in Arg-e-jadid

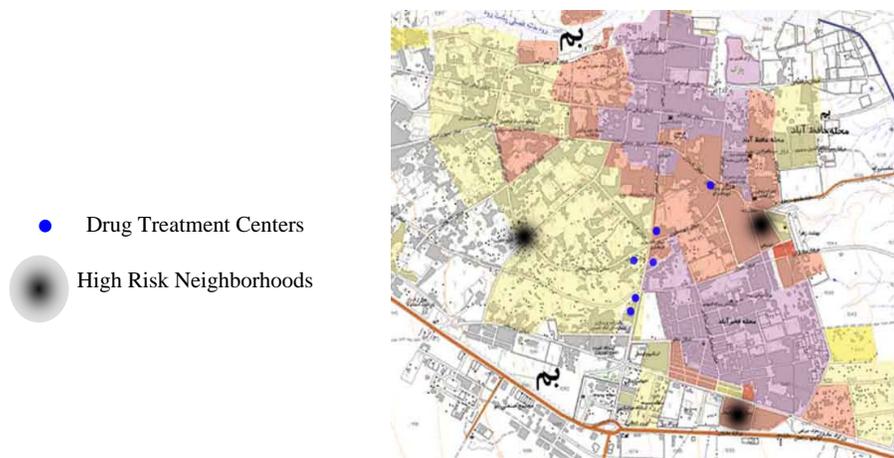


Figure 12- A herbal medicine store



The overall information obtained from ten treatment centers and interviews with drug therapists indicate that the solid majority of the centers are conveniently located and easily accessible (Figure 13). Almost in all centers, detoxification services are available and each month 400 to 600 patients visit Bam treatment centers for detoxification services. Such existing services in Bam in general consist of abstinence model with or without Tramadol, Bupernorphine by injection, methadone, rapid detoxification and the so-called herbal medicine containing opium. Some of these treatment services are rendered free of charge in governmental centers and some others are rendered in private centers for a fee of 100 to 800 thousand rials and on a in-patient status are available for a cost of 1.5 million rials.

Figure 13 – Treatment centers locations and high risk neighborhoods in Bam



Maintenance treatment with Naltrexone is possible but it is not seriously used based on its protocol. Maintenance treatment with methadone exists and is provided to injecting drug users or cases with severe heroin dependency. Efforts are made to comply with methadone prescription standards, but there are serious limitations in storage and protection of the medication.

Non-pharmacologic treatment and social services are almost non-existent and patients cut contact with treatment after detoxification. Educating, aware rising and encouraging of drug dependents and their family do not exist either. Many drug dependents motivated to quit are not aware of detoxification services. Communication and referral mechanisms between services are non-existent. Even treatment specialists of some centers were not aware of the existence of other centers or services.

The majority of treatment centers did not have any reliable and usable recording systems on patients. So, statistics and information of attendees could not be provided.

The conclusion from the collection of interviews and observations was pointing to the fact that in Bam active interventions for AIDS prevention in general population and drug dependents do not exist.

3- Village of Baghchamak

3-1- Drug Demand Status

Drug abuse is widespread in Baghchamak and based on respondents' opinion it has increased after the earthquake. Respondents believed that psychological impacts are the cause. Opium is the most common drug of abuse and the method of abuse was cited as "stone and skewer (Sikh-o-sang)". Opium abuse has increased in the aftermath of the quake.

Heroin is not used in Baghchamak and no new cases of such abuse have been noticed after the quake. Injecting drug use (IDU) does not exist in Baghchamak. Alcohol consumption is considered as low by some and high by others. Hashish abuse is low and, as reported, mostly by youth. No other drugs exist in Baghchamak.

The daily cost of drug abuse was estimated between 20,000 to 35,000 Rials. Respondents considered theft of sheeps and dates, providing safe houses for drug use and drug selling as means of covering the cost of youth drug use in Baghchamak.

Drug abuse in youth, especially those that have lost a family member, has increased since the quake and it is usually done in groups and casually. Some believed group abuse has increased since the quake. Drug abuse in women was reported as low.

3- 2- Drug Supply Status

The majority believed that the purity of opium has not changed. The price of opium was cited at 25,000 Rials before the quake, 50,000 Rials one month after and 35,000 Rials during the interview period. Most also believed availability has decreased compared to pre-quake time. All the respondents mentioned that heroin is non-existent in Baghchamak.

Solid majority of respondents believed that price (18,000 to 25,000 Rials per bar), purity and availability of hashish has not changed since the quake and still is easily available. Most drug dependents cited the price of each bottle of alcohol at 10,000 to 15,000 Rials; the price has not changed and youth access to alcoholic beverages has stayed the same since the quake. Most people did not know about price of alcoholic beverages and believed alcohol is less available in Baghchamak compared to Bam. All the respondents believed that other drugs do not exist in Baghchamak. They mostly mentioned that there are fewer opium dealers than before.

3-2-Existing intervention for addiction control

The majority of respondents believed that during the first few months after the earthquake there was less police control and now, as prior to the quake, such control is not sufficient in Baghchamak and they all stated that no actions were taken by other responsible persons either.

People believed that the best methods for drug abuse prevention consist of: youth education and guidance, job creation, healthy entertainment and alternative activities, treatment of drug dependents, establishment of treatment centers and public information.

In the village of Baghchamak even medical treatment for general diseases on a mobile basis did not exist. All the respondents believed that medical doctors and medicines are necessary for the village and requested detoxification methods and procedures that did not require hospitalization or bed-rest at home, so that they can quit the habit while continuing their work.

DISCUSSIONS AND CONCLUSIONS

Even one year after the earthquake, progress in Bam people's situation and conditions is taking place very slowly. People are still staying in temporary dwellings with minimum of accommodation and extremely worried about their future. Under these conditions, on one hand easy access to drugs and, on the other hand, generated psychological disorders such as PTSD are main and critical elements of inclination toward drug abuse. Also, social dilemmas such as increase in unemployment and feeling of injustice are making the situation even harder. This report shows that most probably opium abuse followed by dependency in general have increased in Bam. More heroin abuse is reported among migrants. A large proportion of the latter has taken up residency in Bam and is gradually introducing its lifestyle to Bam population. Spread of drug dependency has been reported in lower age bracket and women and it is expected that in long term more changes in drug abuse will occur, namely within these groups. Although, injecting drug use (IDU) has been reported as rare and it appears so far it has not progressed substantially, but based on drug dependents' complaints regarding covering costs of drugs, inclination toward more dangerous drugs and methods of drug abuse to save on use dosage can be noticed in the future. Therefore, additional medium and long term studies, to monitor drug abuse status under said conditions, are needed.

Based on drug therapists' estimation, on the average, 5 to 15% of Bam treatment centers attendees consist of persons under the age of 20. In national reports, the percentage has been less than 5%. In addition, they have mostly estimated the percentage of female attendees in their centers between 10 to 20%, while other national reports put the percentage at less than 10%. In addition, the percentage of heroin abusers among such attendees has been estimated between 5 to 15%, while the national percentage has been reported over 15%. Therefore, it is possible that the level of addiction in Bam youth and women is more than the national average and the level of heroin abuse in this group is less than the national average. But it is not clear that the same discrepancy exist vis-à-vis other places in the Kerman province. In any case, to draw any kind of conclusion, additional studies are necessary.

This report shows that access to opium and heroin abuse has not changed compared to pre-quake era. During the first days after the quake a decrease in price of drugs and after few days to few weeks an increase of price has been reported. But, during the study period, the price of opium was a little less compared to pre-quake time. These findings are not compatible with results drawn from studies conducted mostly after disasters in the United States. It appears that in the first few weeks after the earthquake, the occurrence of the event has been effective in price increase and decrease in availability, whilst after one year, supply conditions have returned to stability. Information regarding the status of opium production in Afghanistan shows that during the years 2003 and 2004 production has continued to increase. Taking into consideration that Bam is the closest depot to the border for opium, obviously its drug market is directly affected by fluctuation in Afghanistan production and it is anticipated that drug availability will increase and the price will decrease. In this

study, drop in quality and purity has been reported and that could be attributed to economic problems, increase in the number of petty dealers and multiple handling of drugs. With regard to hashish, alcohol and other drugs, no noticeable fluctuation in availability, price and quality has been reported. An increase in the number of petty dealers was also reported. It seems that unemployment, economic problems, breaking down of family structure and discipline, lack of proper care for parentless children and migration from other areas can be the reasons for said increase.

Whilst, a drop in price of opium occurred in Bam right after the quake, in Baghchamak the price actually increased. The possibility exists that Baghchamak dealers might have been killed in the quake or distributing individuals in Baghchamak might have shown less activity after the quake.

Recording of information

Presently the Bam society, influenced by different parameters before and after the quake, can go through substantial psychological, social and cultural changes. Foreseeing methods that can assess these changes is of utmost importance. Obviously, the easiest, cheapest and most available of these methods would be to use routine and daily information generated from service providing systems. However, the process should be mechanized and unified and capable of generating periodic reports in short intervals that can be provided to organization involved therein. The most accessible of said processes could be generated from treatment services in at least 8 centers with capability of providing such system.

In addition, part of the society is always kept away from being in contact with such activities and services, and the necessity of obtaining other information, not foreseen in the information recording system, always exists. Therefore, conducting small periodical qualitative studies can shed light on other aspects of the nature and intensity of existing needs.

Prevention

The problem of drug abuse is of unique complexity. Solving this major dilemma requires coordinated, comprehensive and organized planning, interaction and interdisciplinary actions by different governmental and non-governmental systems and organizations. It is suggested that responsible persons of different levels hold meetings to discuss this subject and review necessary venues in order to reach common opinions.

In Bam, people are insisting on additional and stiffer controls of addiction and drugs. Disruption of family structure and other environmental elements can be attributed to inclination toward more drug abuse. Under these conditions, less police control is not recommended. More sensitivity toward heroin by law enforcement forces is considered positive, as opium use dates back to the pre-quake society, but heroin was not the same and it is better that additional protection be applied for heroin abuse.

Opium abuse in Bam is widespread in men and in some social groups is considered as normal. The existence of half-sided beliefs such as “sober head belongs to the grave” or “opium money is God’s give outs and will arrive regardless and that’s God’s will” is an indication of such social acceptance. Probably the short effect of drugs in controlling PTSD signs is contributing to people’s positive view toward drugs and in creation of new beliefs in this respect.

It should be noted that a considerable number of families were strongly against drug abuse and showed approval and willingness to cooperate with prevention programs. In many cases, women reported that their husbands never use drugs in their presence. Many women would take their spouses to treatment centers to quit drug use. They would encourage even threaten their husbands to quit. During the interviews, cases of wives going through divorce because of their husbands' drug dependency were frequent. Therefore, the Bam society does not have a homogenous view toward drugs and, similar to other cities in the country, is facing cultural double-standards regarding this subject.

People’s view toward drugs is the consequence of a web of causes, among which cultural problems, officials' attitudes, media education, etc., can be referred to. Proper education and information with long-term planning can be effective in changing attitudes and can also gradually result in changes in the current culture that encourages drug abuse. In present conditions, under which, many elements are pushing drug use, influencing the system of beliefs is important in prevention. In case no change in views can be generated, drug abuse can become more widespread and can have lead to a dangerous trend in the future. Comprehensive planning to inform people, especially women having key role in the family, regarding consequences of drug abuse is necessary. The group of people that believed in an increase in alcohol consumption after the quake cited that the reason for such is the switch from alcohol to opium due to religious inclination early after the quake. This shows that it is possible that in Bam there are potentials for change of views with regard to drug abuse in general, and to recognize such, more review and research is needed.

Fortunately, heroin abuse is not widespread in Bam and it appears that its abuse carries a lot of shame among people and even among opium users. However it is possible that with the arrival of migrants, heroin use can spread. In this regard, it is suggested that prevention programs especially focus on stabilizing negative views toward heroin.

It appears that in a considerable number of families opium abuse is considered as part of men’s routine lifestyle. Any change would be a hard and complex task and it is not even clear that in long term to what extent it can be possible. May be, in preventive programs it would be necessary that specific actions be taken for men in high risk neighborhoods or groups, and instead of messages on non-abuse of drugs, emphasis be made on education of methods of controlling drug abuse. This way, instead of concentrating on drug use prevention, that can probably draw serious resistance or lead to inter-family tensions, more emphasis be placed upon drug dependency prevention. In this situation, it seems that programs can be more

successful. However, this subject must be discussed with responsible persons and key informants.

In this report, groups or neighborhoods that were identified as at risk groups can be focused on by prevention programs. Migrants, residents of camps and neighborhoods such as Sangestan and Siahkhaneh are of the kind. Focused programs in neighborhoods can have special content compatible with the culture and needs of its audience and thus, be more effective. In such areas, merging of prevention and drug dependency treatment programs and cooperation of governmental and non-governmental organizations and self-help groups and cooperation and intervention of people in design and execution of such programs can have more effect.

Taking into consideration that it appears that people, especially children and teenagers, have more free time after the quake, their intervention in design and execution of programs and also attention toward the needs of this group is of unique importance. For example, foreseeing of active and low cost activities to create movement, outpour of excitements, such as inter-neighborhoods tournaments, can be useful in filling free times, improving psychological states and satisfying their needs.

The directorate of education in Bam has a drug dependency prevention committee. Taking into consideration the sensitivity of said organization toward assuring non-negative application of drug dependency programs, it is suggested that any planning for schools be channeled through the committee. Scientific and financial support for active operation of this committee and financial support for education programs can be placed on priority of general programs related to Bam.

In Bam, persons and organizations with different expertise and duties provide services that are related to drug dependency problems. It is suggested that all these persons and organizations receive training regarding drug dependency problems and become capable of providing special prevention and drug dependency treatment services. For example, in the headquarter of Socio-psychological supports or in the Red Crescent organization, if employees or psychologists identify drug dependents or at risk individuals among people, especially children or women or other at risk people, and refer them for treatment, a step is taken toward drug abuse prevention and treatment.

In any case, design and execution of any program must be done with considering the following problems: First, due to the death of a considerable portion of the Bam population, the structure of many families has come apart and multitude of family difficulties have surfaced, and that in turn has added to individuals' discomfort and social dilemmas. Creation of difference and contrast in family outlooks can aggravate existing tensions. Secondly, in any case, drug abuse can generate temporary tranquility and a fake feeling of peace in people and the surrounding environment. Eliminating this element or creating more double standard in drug abuse without proper and efficient replacement or without increasing expertise in coordinating and controlling stress in the short time can cause new problems.

Taking into consideration the above-mentioned problems, it is suggested that preventive programs follow few main procedures as part of their plans: information

and change of outlook aimed at all members of each social units, providing serious group consultations and foreseeing methods of soothing and treatment of psychological and stress problems, family consultation along with social support, and in the meantime, access to motivation elevation methods and treatment services to quit drug use.

It is obvious that efficient application of these procedures requires expert specialists that have received in depth training related to their duties and are capable of coordinating with the new potential circumstances and employing proper ideas; these specialists must have continuous access to experts for their questions and for possibility of necessary consultations.

Treatment Upgrade

Although it seems that the number and variety of existing treatment centers in Bam are considerable and these centers are geographically accessible, but many of drug dependents and their family were not aware of the existence of even one of these centers and were complaining and suffering about lack of facilities and many of drug dependents were showing serious motivation for starting detoxification procedures. Considering this, flow of continuous distribution of information from centers and explaining available services, especially free services, in general can contribute to real access (not only geographical access), so that when anybody is ready to quit addiction he or she can use these facilities.

One of the proper methods applied in the Social Welfare outpatient drug treatment center and the drug treatment center affiliated with the Bam therapeutic and medical services network is the handing of medications to the patient in each visit and free of charge. Although, it seems that reviewing probable effects of this method requires separate study, but it appears to have positive effect on increasing patient's enthusiasm to receive proper care on time and complete detoxification process. It is emphasized that, under present circumstances and with available information, continuation of subsidies and especially handing of required dosage of medications for the period between consecutive visits are necessary.

One of the findings of this report is the limited prescription of Naltrexone by physicians for relapse prevention after detoxification. Although, reasons have been presented on the cause for lack of willingness to use the medication, but it seems that physicians do not have enough enthusiasm for introducing it to patients and informing them on its benefits. It is possible that providing more information in this regard to physicians can contribute to wider application of the medication in Bam. Taking into consideration that drug dependency pattern in Bam evolves mainly around opium dependency, it appears that, a wider application of this medication within the frameworks of available protocols, can contribute to longer lasting abstinence and contact with the treatment system and provide better opportunities to receive non-pharmacologic therapies and decrease family problems generated by relapse.

Presently, the solid majority of drug treatment centers provide only detoxification services. Obviously in Bam, similar to other regions of the country or even the world, most drug dependents and their families consider completion of detoxification as a victory in treatment without any need for follow-ups. That's why, request for continuation of treatment is rarely made by patients. However, focusing on planning, providing post detoxification services along with seriously informing and educating attendees on the importance of using these methods, and foreseeing other methods to be used by attendees, should all be put on top priority of drug treatment programs in Bam. Consequently, education and non- pharmacologic treatments can be provided as part of the treatment package. In depth education of therapists on venues of providing such treatments and increasing their expertise can lead to wider application of aftercare. Specially, training of therapists with regard to methods of psycho-education, cognitive behavior therapy, group therapy and family education is recommended.

Obviously, application of these methods in the private sectors would depend on patients' already awareness and/or on making them aware of the necessity and effects of non- pharmacologic therapies and the existence of demand for such.

In addition, since PTSD is quite widespread in Bam presently, it would be necessary that comorbidity treatment methods be studied and a workable and practical protocol be drafted and deployed.

At the present time, the only available long-term mechanism, to render a pattern on non- pharmacologic treatment, is the Narcotics Anonymous group. Development of the group in small cities is challenged by drug dependents concern over publicity (risk of being recognized) and the generated lack of enthusiasm to attend the group meetings. However, taking into consideration that drug dependency is widespread in Bam; it does not seem that such challenges will have any significant negative effect on drug dependents' absorption by the group. Presently, the group is facing physical challenges in providing services and development of such services. The site where the group holds its meeting is located in the city suburb and away from existing treatment centers. Since the group is managed by now recovered ex-drug dependents and is not a financial burden on the government or the treatment seekers and presents a good mechanism for long-term treatment and moral and psychological changes, supports in the form of providing actual meeting places and referring the patients after detoxification will be helpful in the group development and patients' benefits. A suitable physical space for holding group's meetings can be secured adjacent to treatment centers or the latter's trailers can be used during off-time hours. This way, not only contact is established between centers and the group and referring of cases made, but it will also imply approval of government centers regarding methods and efficiency of the group.

In this study, the issues of increase in drug abuse after the earthquake in women and children are being raised. Although, drug abuse is not widespread in women, but since drug dependency in mothers has been cited as one of the most important reasons for drug dependency in children, the issue of drug dependency in women bears multi-folded importance and deserves to be focused on as a pivotal element in the future generation's drug dependency outbreak and severity issues. The existence

of drug dependency in women can, in one hand, cause increase in children's drug dependency and, on the other hand, can generate other psychological dilemmas, like child abuse, and also other social and health problems. Also, the lower the age of starting drug use, the higher the possibility of future dependency to harder drugs and use of riskier methods. In addition, even if the children of drug dependent mothers do not become drug dependent themselves but, in the future they will require more social support and services. Even short term treatment of drug dependent mothers can be effective in decreasing harms. Providers of other services in Bam, such as health, psychological, social, governmental or non-governmental, can identify drug dependents and refer them to drug treatment centers. Many of female drug dependents are in need of special services coupled with social supports. NGOs can be the best platforms for rendering such services. It is suggested that volunteer organizations receive proper training and support in their endeavor.

Injecting drug use (IDU) in Bam carries more shame and is not widespread and needle sharing is not common. It appears that, efforts are being made, more or less depending on degree of awareness, to use new syringes or disinfect syringes and injection sites. As throw away syringes are easily available in Bam, hygienic methods of using syringes and other injection paraphernalia can be taught through precise educational programs. Although interviewed Bam injecting drug users were well informed regarding AIDS and how it can be contracted, but public education can be effective in changing risky behaviors and minimizing first attempts to inject. It does not appear that harm reduction methods such as distribution of syringes or wider application of maintenance Methadone treatment (MMT) are on any priority list. In any case, the existence of MMT service under the present format and by notifying other treatment centers to refer suitable cases can be effective in controlling rare strong cases of IDU. It also seems that sex education for public and drug abusers is needed in Bam as in other places in the country.

One of the main findings of this research is the better introduction of drug dependents to Bupernorphine (Temgesic) by injection. Since sublingual application of Bupernorphine has shown to be effective in controlling withdrawal symptoms during detoxification, it is suggested that necessary steps be taken to make this medication available to physicians involved in drug dependency treatment in Bam, so that there will be no need to prescribe it by injection to control withdrawal symptoms. It is also suggested that, the risks of increase in use of Bupernorphine by injection be assessed by corresponding authorities.

This research shows that the monthly cost of opium abuse by drug dependents averages about 1,200,000 Rials and for heroin it averages about 2,200,000 Rials. The findings of this report point to the fact that on one side drug abuse has increased and on the other side public's general income has decreased due to high rate of unemployment. It is difficult to cover such costs under present circumstances. Taking into consideration the high unemployment rate in Bam population of drug dependents and the limited amount of currencies in circulation, it seems that to cover such costs turning to illegal and unorthodox means will be unavoidable. Drug dependency and unemployment can create a vicious cycle. Although such cycle may exist in other societies, but the pace of revolution of the cycle is faster in Bam,

especially in the reconstruction process that requires more manpower, and that could be considered as one of the harms caused by drug dependency in Bam after the quake. Taking note of the existence of programs in the Social welfare organization with regard to encouraging entrepreneurs to employ recovered drug dependents, it seems that execution of such programs in Bam carries priority and can help the trend of recovery in drug dependents.

Although it does not seem that there is an outbreak of HIV in Bam, but its outbreak is not improbable. Presently, free of charge ELISA test to detect HIV infection is not available in Bam. Obviously the solid majority of at risk individuals in Bam cannot afford the cost of such test. Therefore, provision of free HIV tests and before and after counseling and active identification and referral of at risk individuals for these services and recording and compiling of the findings of the tests are strongly recommended.

It seems that in Baghchamak, although opium abuse, especially in youth, has increased but the high risk behaviors such as heroin abuse or IDU were not detected. The general opinion was that preventive and treatment actions were nonexistent. Respondents did not consider law enforcement activities as sufficient. It is suggested that physicians or public health staff that can identify individuals' problems and refer them to corresponding centers in Bam be employed, so by this way at least a referral system can become operational in the villages.

Other notes

The findings of this qualitative study are compatible with similar studies conducted after September 11 or other events or disasters. These studies also show that drug abuse becomes more widespread and a considerable number is added to new cases of drug abuse and also, many of old timer drug abusers return to abuse, while, the extent of the tragedy in all reviewed cases had not been as severe as in Bam earthquake.

In our country, drug abuse increases annually. Every year some start drug abuse and some drug dependents turn to riskier behaviors such as heroin abuse or IDU. In Bam, the events of the past year have been related to the earthquake and its consequences. This connection needs to be cautiously interpreted.

Based on respondents' reports, alcohol consumption and hashish abuse is not common in Bam. The same held true with interviewed drug dependents. Of course in this report, drug dependents were chosen based on their dependency to opioids and it seems that in Bam, users of alcohol and hashish have limited overlap with opioid abusers.

In this report, many of the interviewed drug dependents belonged to a more aggravated pattern of drug abuse. To be noted that, to exclusively review high-risk behaviors in this report, purposely a higher number from this group of drug dependents were interviewed. Also, to identify more problems of lower social and economical echelon individuals, most samplings were taken from this group and less attention was paid to problems of other groups. Therefore, findings from such group

cannot be generalized for the entire Bam population and should only be used qualitatively.

Researchers faced minor resistance from people, responsible persons and drug dependents while conducting this research, and mostly, were warmly received and views, grievances and needs were freely discussed. It seems that, the same kind of cooperation will be seen in the implementation of preventive and drug dependency treatment programs, thus, making progress in programs easier.

Conducting this research faced serious challenges due to physical obstacles and cold weather. Due to lack of adequate space in treatment centers, organizations and people's houses, researchers' presence was causing inconvenience and limitations. For the same reason, researchers had to cut interviews short and do away without reaching to the bottom of received information and this was one of the shortcomings and limitations in execution of the research. For future studies and new programs and services, suitable actual spaces ought to be considered.

It is hoped, that this research can shed lights on some of the Bam population's dilemmas and, positively contribute to improvement in general conditions of the people and upgrading of prevention and drug dependency treatment programs.

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