

Factors affecting the adoption and non adoption of biogas technology in semi-arid areas of Tanzania

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ABSTRACT

Tanzanian Government through its policies in response to energy crisis has been promoting among others, biogas as an alternative source of energy. However, the adoption of biogas technology has been reported to be low or not to the expected levels. This study examines the factors that affect the adoption and Non adoption of Biogas technology as an alternative energy source for rural population in Semi arid areas. Kongwa and Chamwino Districts in Dodoma region were used as case study. Data collection methods employed included interviews, focus group discussions and observation. The findings of the study revealed that there is little or no access to the factors hoped to facilitate adoption of biogas technology which implies weakness in promotion efforts. Little involvement of the Government has underestimated the importance of the biogas technology contributing to low adoption. Other factors include, poor performance of biogas plants associated to technical problems, having a negative implication in adoption process, high installation costs unaffordable to the majority of rural population, unreliable feed stocks and water shortage problems. It is recommended that Government should take intentional efforts to fully involve in promoting biogas technology and ensure the enabling environment for the adoption of the technology.

Introduction

Biomass, which includes traditional fuels like wood, charcoal, cattle dung and farm residues is the major source of energy in developing countries. For instance, in Tanzania, over 95 percent of the total population depends on wood as their only source of energy for cooking and heating (REA 2007). However, with the increase in population growth, the demand for fuel wood is automatically on the increase while the supply of the same is declining. In most cases, the need to meet the increasing demand for fuel wood leads to uncontrolled and indiscriminate felling of trees (Misana and Nyaki 1991). Unfortunately, forest shrinking is accompanied by inadequate afforestation measures and forest management. According to FAO (2007) deforestation in Tanzania has spread rapidly, affecting most of the semi-arid areas where forest and bush regeneration is slow. This is supported by recent national survey which has indicated that distances to firewood sources increased year after year. Further more, the collection and use of fuel wood are linked to heavy and often low-productive, time consuming work predominantly done by women and children (Ngwandu et al 2009). As demonstrated by The National Energy Policy (URT, 2003), the government of Tanzania is keen to solve the problem of excessive dependence on fuel wood for energy by promoting energy efficient buildings and facilitation of wider application of alternative sources of energy for cooking, heating, cooling, lighting and other applications.

In recent years, there has been a growing interest in developing alternative non conversional sources of energy particularly, biogas. Biogas technology has been acknowledged by many scholars as being simple and cheap (Rajeswaran, 1983). The technology does not require imported knowledge or components and is suitable for family and/or village scale use. It is one of the few technologies that utilize wastes as valuable resources. It is among the renewable non-conventional fuel technologies, which involves anaerobic digestion of biomass to yield biogas and organic fertilizer slurry. According to Rajeswaran, Semi-arid Zones could be ideal locations for biogas units because they have factors that are favorable for the operation of biogas plants. Such factors include the relatively high ambient temperature; a vast livestock population and fuel wood scarcity experienced in the area hence alternative energy sources are needed.

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The history of biogas dissemination in Tanzania dates back to 1975. Several stakeholders including CAMARTEC the government parastatal, religious organisations, NGOs and private sectors have been involved in promoting and construction of biogas plants. However Kauzeni et al. (1998) in their study on renewable energy sources found out that, despite efforts made in introducing Bioenergy programmes or interventions in Tanzania, such efforts have met with little success. Similarly, Kambele (2003) study in Arusha region found that despite its apparent advantages, biogas technology has yet to be taken as an alternative source of energy in Tanzania as a way out of energy crisis.

The available literatures suggest that there are several factors that influence the adoption of innovations. Tendler (1993) and Cramb (2000) mentioned a number of success stories in agricultural research and extension in poverty Northern Brazil as comprising of; strong demand from farmers for a solution to a particular problem, localized credits and subsidies to bring about rapid and wide spread adoption, the role of municipal and local actors, provision of technical assistance, rewarding good performers and keeping funds away from bad performers, use of entrepreneurial farmers as model farmers, use of experienced and well regarded extension workers and decisive influence of other developmental actors.

Based on feasibility study on biogas technology, Ngwandu et al (2009) identified several barriers for large scale biogas technology dissemination in Tanzania. The major barrier being high installation costs which are unaffordable to the majority poor farming households. Other barriers include centralized dissemination approach, limited awareness of domestic biogas, limited coordination between sector actors, declined financial support by the government, limited availability of water and unavailability of credit facilities. Although Tanzania has some microfinance infrastructures, biogas loans do not fit in the current services of most saving and credit organization.

Seemingly, the factors mentioned by other researchers are a manifestation of promotional problems, which need thorough investigation. This study therefore, intends to find out the possible explanation for the low adoption rate of Biogas technology in semi -arid Tanzania with particular focus on existing promotion strategies in Bahi and Kongwa districts where Biogas activities have been in existence since 1994 after the establishment of MIGESADO project. According to Ngwandu et al (2009), MIGESADO is the largest biogas disseminator in Tanzania operating in Dodoma and surrounding regions, being in operation for about 15 years MIGESADO project was expected to have a substantial influence in biogas dissemination in semi arid areas of Tanzania.

Methodology

The sampling frame for this study comprised wards and villages in Kongwa and Bahi districts (Fig 1 & 2). Multi-stage sampling technique was used where the first sampling stage involved selection of divisions, wards and villages using purposive sampling technique. The choice of divisions, wards and villages was based on availability of biogas users. The second stage involved differentiating households into two groups, namely, users and non-users of biogas technology using a list of users available at MIGESADO project offices. In every village register was used as sampling frame and from the register 25 names of respondents were drawn in order to obtain a fair representation of the population. Purposive sampling was also employed at village level where the biogas users (households) were identified and given priority of being interviewed in order to explore the experiences from the adopters of the technology. In total, 320 households heads were interviewed.

The methodology was based on household survey which involved interviews and focus group discussions, participatory observation and questionnaire monitoring as data collection tools. Similarly, checklists were used to guide discussions with key informants such as MIGESADO officers, ward and village leaders in the study area. The information generated from these discussions were used to confirm some findings from respondents and making relevant recommendations.

Collected data were coded and entered into the Statistical Package for Social Sciences (SPSS) for windows versions 11.5. The Statistical Package for Social Sciences (SPSS-PC) software was used to analyze most of descriptive statistics while Microsoft Excel software was used to generate figures such as histograms.

Figure 2: Bahi District: Location of Villages covered by study

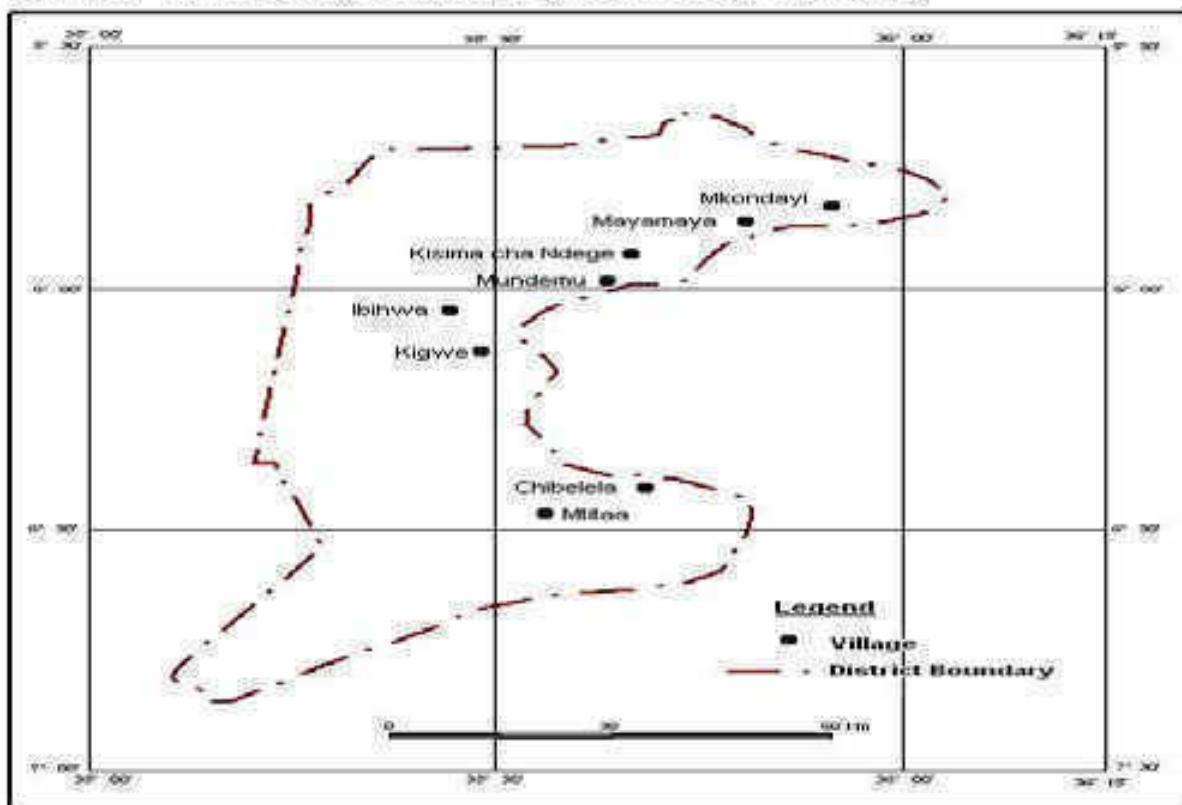
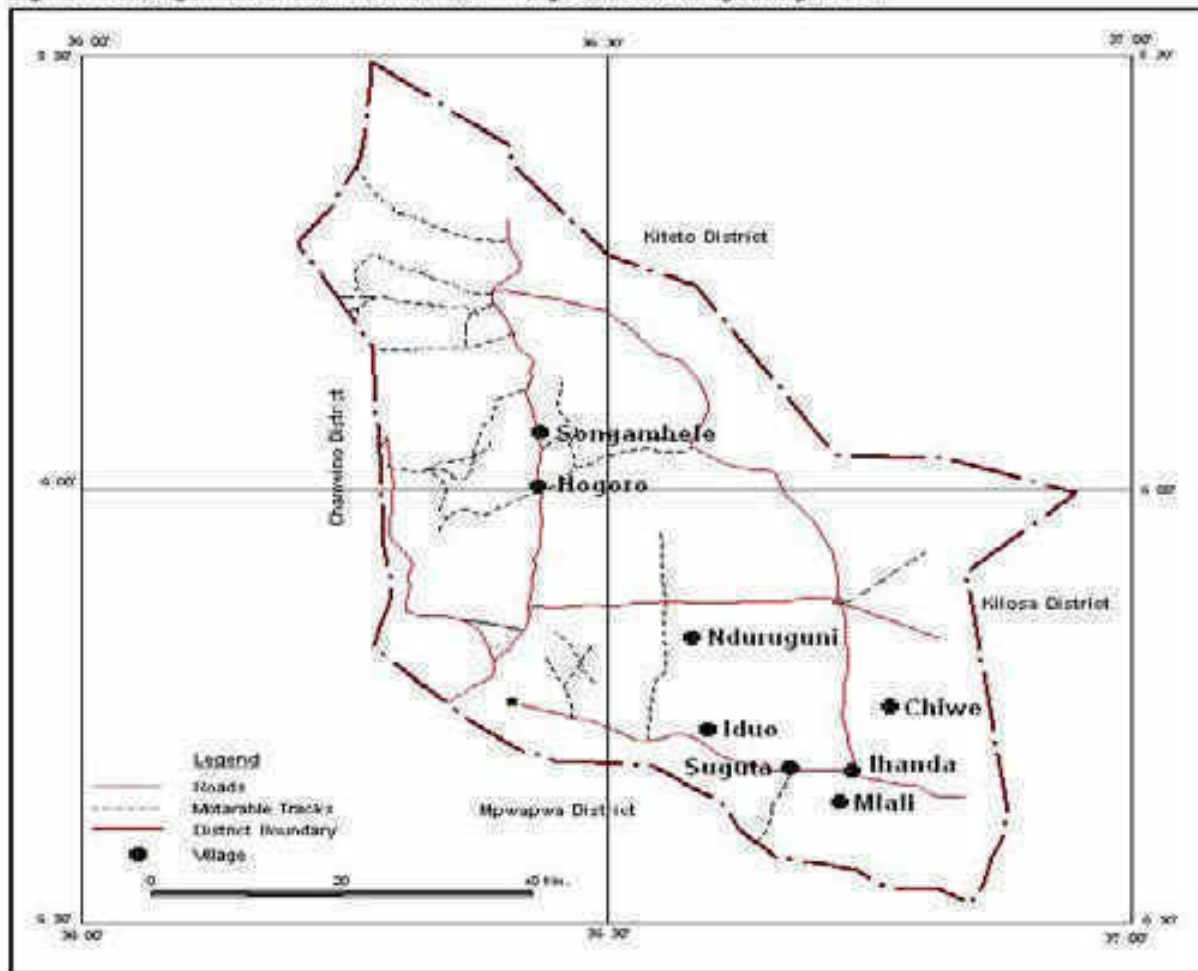


Figure 3: Kongwa District: Location of Villages covered by study area



Source: Geological Institute of Statistics

Findings and Discussion

Factors influencing adoption of biogas technology in the study area

Technology awareness in the study area

From the findings of the study (Fig. 1), 81.5% of the respondents acknowledged that they have at least heard about biogas technology. This might be due to the existence of biogas project (MIGESADO) in the area since 1994. However when asked about their knowledge on biogas technology, 40% (Bahi District) and 42.4% (Kongwa District) of respondents claimed to have little access to biogas knowledge (Table 2). Seminars and continuous campaigns on biogas technology would facilitate knowledge hence promote the adoption, but table 1 indicates that, 51.5% of respondents expressed that there are no campaigns for biogas technology in their area while 38.5% of respondents revealed that seminars on biogas were held only once during the beginning of the project and no more seminars afterwards. Even biogas users claimed to have little knowledge on operations of biogas plants as well as on emerging obstacles. These arguments were also supported by key informant (MIGESADO staff) who confessed that the project focused more on construction of biogas plants, but little was done on promotion and maintenance services.

These findings indicate that though people in the study area have heard about biogas technology they do not have enough knowledge hence the majority are not convinced of adopting the technology. Further more, little knowledge reduces the possibility and confidence of biogas adopters of being good ambassadors for the technology. Adoption Theories suggests that the awareness and the knowledge of innovation are very important stages in the adoption process of any innovation.

Figure 1. Awareness of biogas technology to household head

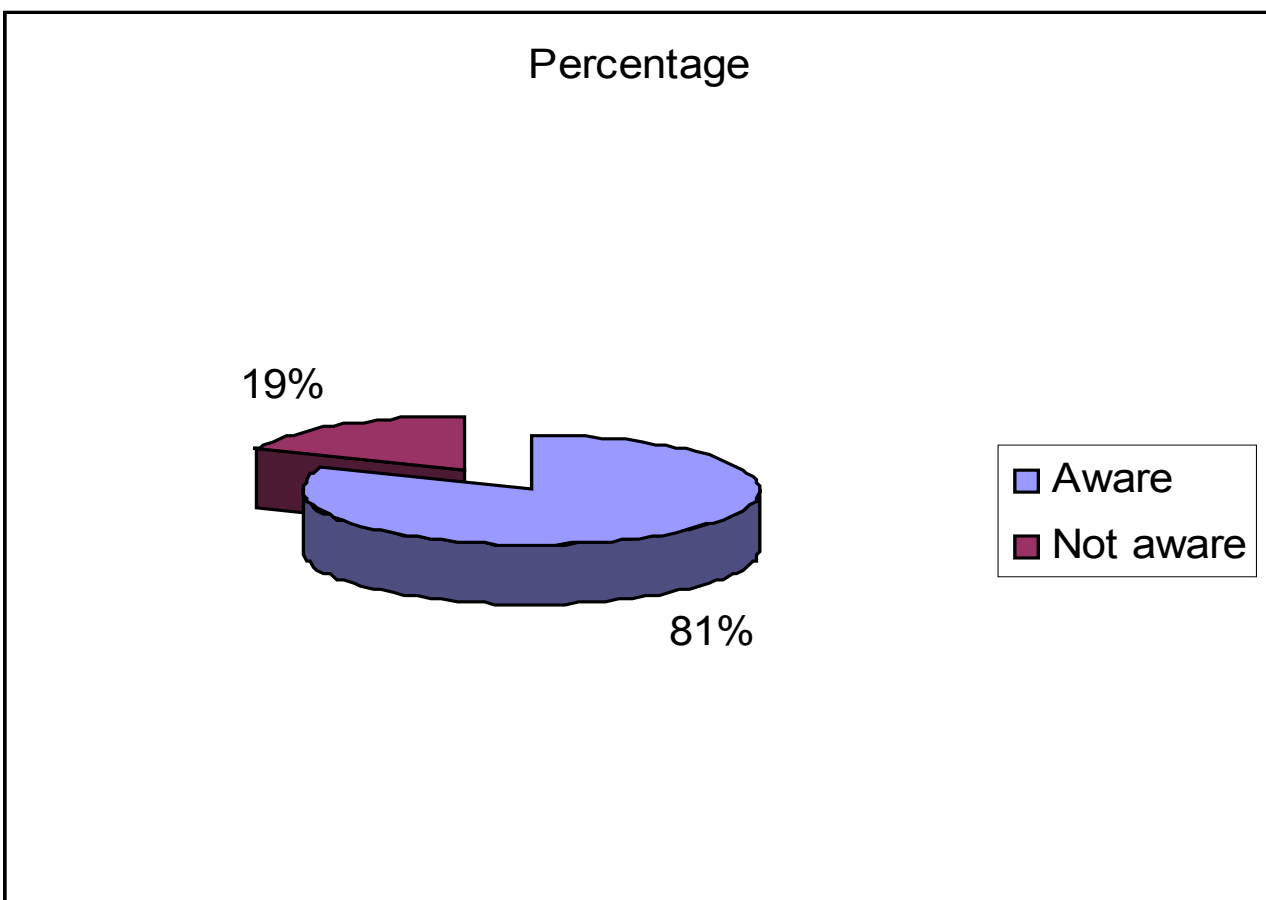


Table 1. Responses on how frequent biogas campaigns being held in the study area

Frequencies of Biogas Campaigns	Frequency	Percent
None	135	51.5
Only once during project introduction	101	38.5
More than once a year	26	9.9
Total	262	100.0

Promotion of Biogas technology

From existing literatures several factors has been identified to promote adoption of any innovation. These include access to knowledge, access to credit and subsidies, access to technical support, advertisements, encouragement and support from the government and rewarding of good performers. This study has assessed these factors, and recorded the views of respondents on the status of access to such factors in the study area (Table 2). From the findings the majority of respondents indicated that they either have no access or little access to such factors (responses ranges from 40% - 96% of the respondents).

Table 2. Responses on Factors influencing adoption and non adoption biogas technology in a study area

Factors	Study District								Chi-square
	Bahi				Kongwa				
	No access	Little access	Moderate Access	Big Access	No access	Little access	Moderate Access	Big access	
Access to biogas techno knowledge	25 16.1%	62 40.0%	54 34.8%	14 9.0%	20 12.7%	67 42.4%	64 40.5%	7 4.4%	0.272
Access to credit and subsidies	84 53.5%	57 36.3%	12 7.6%	4 2.5%	82 51.9%	65 41.1%	11 7.0%	0 0%	0.045
Access to technical services	103 65.6%	41 26.1%	9 5.7%	4 2.5%	73 46.2%	72 45.6%	8 5.1%	5 3.2%	0.003
Access to district council encouragement	97 62.6%	37 23.9%	18 11.6%	3 1.9%	75 47.5%	75 47.5%	7 4.4%	1 0.6%	0.000
Access to advertisement through media	60 38.2%	72 45.9%	23 14.6%	2 1.3%	98 62.0%	54 34.2%	6 3.8%	0 0.0%	0.000
Access to rewards for good performers	140 89.2%	12 7.6%	4 2.5%	1 0.6%	152 96.2%	4 2.5%	1 0.6%	1 0.6%	0.980
Access to demonstrations by good performers	133 84.7%	18 11.5%	5 3.2%	1 0.6%	149 94.3%	5 3.2%	3 1.9%	1 0.6%	0.033

From the table above it is evident that in the study area people have little or no access to factors which promote the adoption of biogas technology. This implies that there are weaknesses or little efforts in promotion of the technology in the study area, by stakeholders

Factors which motivated biogas users to adopt the technology in the study area,

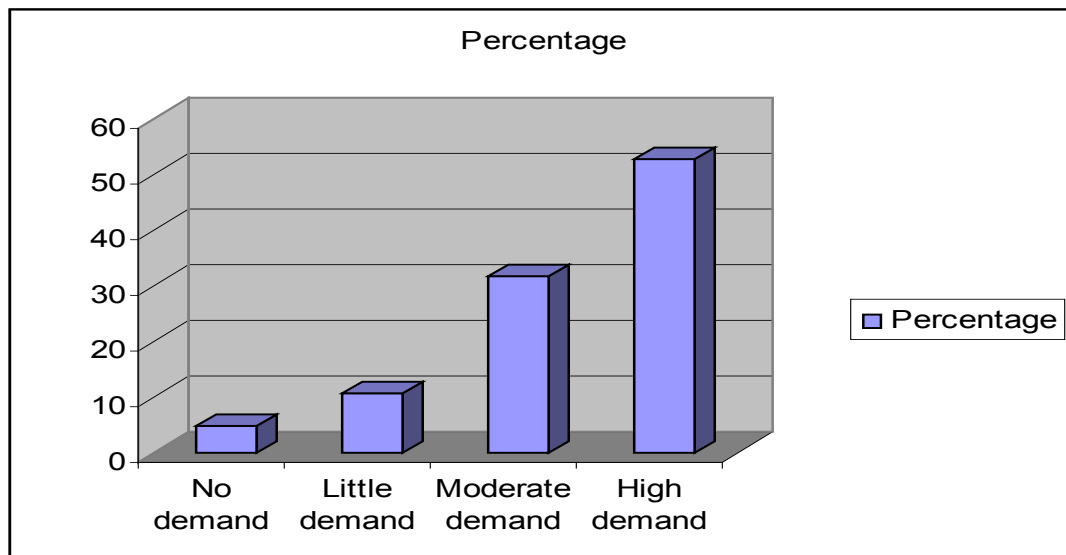
From the findings (Table 3), shortage of wood fuel was a major factor (60.1%) which motivated people in the study area to adopt biogas technology. This factor was further supported by the responses on a demand for a solution for energy crisis (Figure 2) where 52.7% of respondents declared that there is a high demand for energy problems solution in the study area. From the adoption theories, a strong demand for a solution to a certain problem motivates people to look for alternatives to the problem. Figure 2 further indicates that only 1.3 % of respondents were motivated by extension officers to adopt the technology. An extension officer here represents the government; this implies that there is a little involvement of the government in awareness creation towards biogas technology.

Another motivation which was revealed during Focus group discussion is the promises given by biogas project staffs during the promotion, that biogas energy in addition to provide energy for cooking, will also provide power for lighting, ironing and refrigeration. This promise created excitement and high expectation towards the technology. Unfortunately, among the expected benefits only lighting was appreciated, while the remaining promises never came to pass and turned to be a disappointment to both users and non adopters of the technology.

Table 3. Factors motivated biogas users to adopt the technology

	Count	% of Responses	% of Cases
Need for a modern energy source	23	15.3	30.3
Shortage of wood fuel	90	60.1	118.3
Motivated by Extension Officers	2	1.3	2.6
Encouraged by biogas user	19	12.7	25.0
Motivated and Supported by NGOs	15	10.0	19.7
High Cost of Other Energy Sources	23	15.3	30.3
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Total responses	150	100.0	197.4

Figure 2. Demand from people for energy crisis solution



Limiting Factors for non adoption of biogas technology in the study area

From the findings there was a slight difference in responses from adopters and non adopters on the factors for non adoption of biogas technology. Table 4 indicates that biogas adopters mentioned unreliable technical services as a major factor (26.4%) followed by high installation costs (20%) while Non adopters mentioned unaffordable installation costs as a major factor for low adoption rate (39.5%) followed by the technology not given a priority by the government (20.9%).

From Adopters perceptions, unreliable technical services have lead to poor performance of biogas plants which in turn discourage both biogas users in continual use of the technology also discourage potential adopters to adopt the technology. This perception was supported by focus group discussion, where biogas users expressed their grievances that poor performance of biogas plants have made them being laughed at, by non adopters and labelled as losers. Further more their struggle for technical services have no any support from either village or district Government.

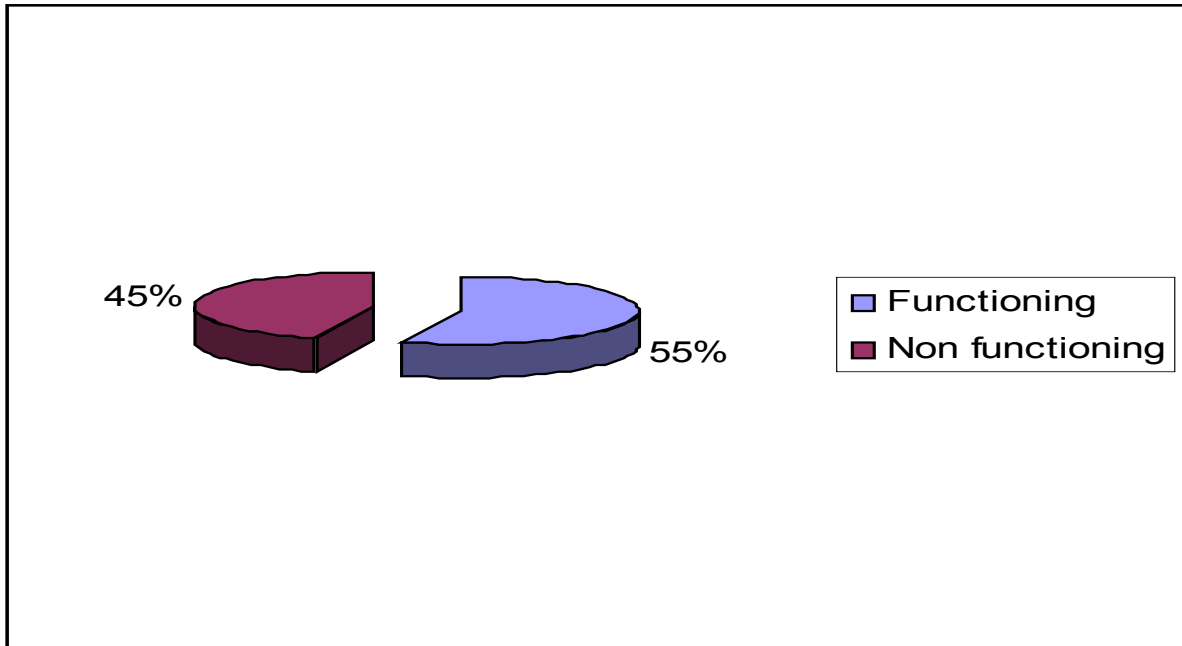
Poor performance of biogas plants is confirmed by the findings in Figure 3, where 44.7 % of constructed biogas plants are not functioning. However, these findings differ from the comment given by Tanzania Biogas Stakeholders Group Mission who did the technical assessment in a country. The mission’s field investigation revealed that even with little training to masons and minimum supervision the quality of construction and workmanship of biogas plants has been good, resulting in the majority of the users being satisfied with the performance of their biogas plants” (Ngwandu et al 2009). Ngwandu, further comment that, in rural settings particularly, a household that is satisfied with the benefits of biogas technology is by far the most powerful promotional tool for the technology.

In the study area, however, dissatisfaction due to poor performance of biogas plants was clearly expressed during household interviews and in focus group discussions. Major reason for non functioning plants is technical problems mainly; incomplete construction, lack and or expensive appliances e.g. stoves, biogas lambs, gas taps and pipes which are not easily available locally. A researcher witnessed a biogas plant, almost completely constructed; only missing pipes, being abandoned in the farm after the death of household head and remaining family members were unable to make follow up. In another incidence, a household turned the biogas plant to underground crop storage tank after waiting for 5 years for completion of plant construction. From such cases one can easily assess the disappointments the biogas adopters face which have negative implications to promotion of the technology.

Table 4; Responses on factors for limiting adoption of biogas technology in the study area

Factor	Adopters (N=121)	Non adopters (N=152)
High installation costs	20.7	39.5
Inefficiency of existing biogas plants	16.5	9.0
Unreliable technical services	26.	11.6
Unavailable feed stocks	17.4	9.0
Not given a priority by the Government	14.1	20.9
Water problems	0.0	5.0
Availability of firewood	5.0	5.0
Total	100	100

Figure 3. Status of biogas plants constructed in the study area from 1994 to 2009



From Table 4, Non adopters on the other hand mentioned unaffordable installation costs as a major factor for low adoption rate (39.5%). High installation costs are a factor which has also been mentioned by other studies (Ngwandu 2009 and Kambele 2003). In the study area, a key informant, explained that the project started by demonstration plants where the beneficiaries paid only Tsh 15,000/= in 1994, from then the costs of biogas plants started raising to Tsh 30,000/=, 80,000/=, 160,000/= to present cost of 350,000/= for low income households which are subsidized by the donors. High income earners pay full cost of Tshs 650,000/=. These rates seemed to be unaffordable to the majority of rural population hence potential adopters declined.

The second factor as perceived by non adopters is that the technology is not given the priority by the government (20.9%) (Table 5). This is also indicated in table 5 where 85.3% of respondents showed that the Government is not fully participated in promotion of biogas technology. The perception on little government involvement in biogas activities was also expressed by focus group participants who commented that, district council leader are reluctant on biogas issues, the biogas activities have been left with NGOs only. Non involvement of Government made people in the study area feel that the technology might not be that much important hence people too become reluctant to the technology. Furthermore focus group discussion expressed that during promotion, project staff through village leaders identified livestock keepers with high income who can pay for installation costs. The promotion approach was perceived to be selective by the villagers and thought to be somebody’s business hence the majority of villagers didn’t bother about it. Ngowi and Sudi in Kambele (2003), having the same observation, pointed out that biogas in Tanzania have not been incorporated in national energy policy plans because of its importance being underestimated by the government.

Table 5. Responses on government participation in promoting biogas technology

Government participation	Frequency	Percent
Fully participated	41	13.1
Not fully participated	266	85.3
I don’t know	5	1.6
Total	312	100.0

Conclusion

The findings of the study have revealed that there is a high demand for a solution to energy problems. Due to potentiality of the area, as revealed by other studies, biogas technology could be an appropriate solution for energy problems in semi arid areas. However the study has revealed that the majority of respondents in the study area have little or no access to factors hoped to promote adoption of biogas technology. The study revealed that promotion was not sustainable only done at the beginning of the project and the respondents doesn't see the seriousness of the government in promoting this technology hence feel that the technology might not be of that much importance. It is therefore recommended that for effective biogas technology adoption, Government should take intentional efforts in ensuring enabling environment for the technology, also in coordination of biogas activities done by other stakeholders. Potential customers should be well informed of the benefits as well as limitations of the technology, technical services should be locally available

Other factors revealed by the study are of technical nature these include; poor performance of existing biogas plants accompanied by low gas production, Incomplete construction of biogas plants, unavailable technical services when needed by biogas users and other interested potential adopters, unmet promises or expected benefits of biogas, like biogas being a source of power for lighting, ironing and for refrigeration. All these factors demoralize both adopters and potential adopters of biogas technology. A thorough technical examination is required which will come up with strategies for improvements. Monitoring and maintenance services are very important to ensure continuity of the technology. Since poor performance of biogas plants has already caused negative effects, extra efforts will be required to revive the existing plants so as to motivate the disappointed biogas adopters and potential adopters. Other factors which should not be ignored include insufficient feed stocks and water shortage. These are very important ingredients for biogas technology hence the responsible Ministries should cooperate with biogas stakeholders to ensure their availability.

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The Elusive Recovery from Drug Addiction in Pemba: How Addicted Persons and their Families cope

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ABSTRACT

This article elucidates on how addiction affects family and how the latter copes while living with an addict. The article is based on a study whose objectives were to explore the factors influencing people to start using drugs and to learn the impacts of drug addiction on family members. It was found that many addicts started using drugs during their young ages mainly before the age of 30. Most of them started taking drugs due to curiosity, misconception, ignorance, or simply imitation of others under peer pressure. Exposure to certain social milieu such as availability of drugs or/and people using drug at the family and community level is one of the contributory factors. Different opinions with regard to the trend of people who abuse drugs are considered. It is shown that formal rehabilitation measures such as sober house were effective in rehabilitating drug addicts though many addicts opted to use these services as a last resort. We recommend that the public should be informed about the availability of sober houses and should be encouraged to use their services to deal with drug addiction problems.

Introduction

The World Drug Report of the United Nations Office on Drugs and Crime (UNODC) (2012) estimates that, five percent of the world's adult population aged 15-64 had used illegal drugs at least once in 2010. The problem of drug addicts, who mainly depend on cocaine and heroin, make up an estimated 0.6percent of the world's adult population, amounting to roughly 27 million people. Every year, about 200,000 people worldwide die from drug abuse (UNODC, 2012).

In his speech on the World Day against Drugs delivered on June 26 2013, the then Prime Minister of the United Republic of Tanzania claimed that, drugs are a national tragedy as “...more than 10,799 Tanzanians had been charged with drug-dealing in the last five years (*The Guardian*, 30.8.2013). Similarly, when Tanzania hosted the 15th Ministerial Committee Organ (MCO) responsible for Defence and Security Co-operation of the Southern African Development Community (SADC), the then Tanzania's Minister for Foreign Affairs and International Co-operation, confirmed that, the country was one of the top five countries whose harbours and airports were used as conduits for drug trafficking. Other countries were South Africa, Mozambique, Namibia and Angola (*The Guardian*, 30.8.2013). Tanzania is geographically situated along the drug route, which makes it more prone to drug trafficking problems. Tanzania, especially its Zanzibar archipelago, is thought to serve as a transit country in international illicit trafficking in drugs (UNODC, 2012). A strategic location of Zanzibar in a drug trafficking route covering Asia, the Middle East, and Europe contributes to the availability of heroin in this area. In fact, the 2012 UNODC global report notes that, smaller quantities of heroin are conveyed by air via both cargo and courier services. Most ship-borne narcotics pass through Zanzibar, where they are offloaded and then moved to the Tanzania Mainland in small boat consignments. The 2012 global report of the UN Office for Drugs and Crime (UNODC) indicates that, East Africa is a major target for traffickers wishing to enter African markets because of its unprotected coastline, major seaports and airports and porous land borders, which provide multiple entry and exit points.

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Data presented in this article attempts to elucidate on how drug addiction affects families and how families cope while living with an addict. A number of studies have documented the general response to drug abuse. However, they have not outlined the differences in response and family coping that depends on a range of factors such as location (urban/rural), education level, demographic composition of household and pre-existing wealth. Moreover, relatively little information appears to exist in the literature available on parents' own experiences with having drug addicts in the family, particularly in the context of Zanzibar. Furthermore, the literature reviewed reveal very little on the trend and past experiences of the family and drug addict life experiences before drug abuse, during drug abuse and, possibly, after quitting drugs.

The Zanzibar Situation

The Zanzibar Substance Abuse and HIV and AIDs Strategic Plan (2007 – 2011) suggest that over 9,000 people abused drugs in the archipelago, out of whom about 4,000 (44%) use injectables. As in other parts of the world, Zanzibar is also affected by drug abuse and its effects among individuals, families and the society in general. Basically, Zanzibaris are Muslims, and, Islam forbids the use of any kind of alcohol or intoxicants. Experience shows that, although alcohol is forbidden on social, cultural and religious grounds, there is an evidence of Zanzibaris who consume the locally-produced brew from coconut tree known as “TEMBO” and gin known as “GONGO”, which is a local brew from fermented rotten fruits. Beckerleg *et al.* (2006) note that, before the 1980s tobacco, alcohol and cannabis were the only known drugs in Zanzibar. However, in the 1980s Unguja and Pemba islands began to experience an influx of hard drugs such as heroin, cocaine, mandrax and amphetamine as a result of trade liberalisation and globalisation. Since the beginning of 1980s, the implementation of the trade liberalisation led to the improvement of the Zanzibar economy but with a number of challenges. The negative consequences include the flow of drugs into Zanzibar islands. These drugs were brought into the isles, by citizens who worked as seamen and businessmen in various countries around the world, and by tourists.

Living with an addict person

As each family is unique and is differently affected by drug addiction, families can also have different coping mechanisms when dealing with drug addicts. Because of the sensitive, secret and criminal nature of drug abuse in the community, there is no official statistics on the family experiences and coping efforts and responses of the family to the drug abuse problem in the family. For instance, the Prevention and Illicit Traffic Act, 1995, section 16(f) states that any act related to the production, possession, transportation, sale, purchase, use of narcotic drugs constitutes a criminal offence that attracts harsh punishment of a fine or imprisonment or both. Many recent studies and initiatives in Tanzania/Zanzibar have concentrated on the issue of drug abuse. They focus on drug addicts struggling with a chronic and repeated illness that is difficult to treat; they concentrate on the relationship between drug abuse and other diseases such as HIV/AIDS and Hepatitis (Dahoma *et al.*, 2006); others have focused on HIV/AIDS prevalence among sexually active intravenous drug users in Dar es Salaam (Mc Curdy *et al.*, 2005), and substance abuse in Zanzibar's correction facilities (RGoZ, 2008).

Zimic and Jakic (2012) as cited by Laura, Howsare and Byrne (2013) explained that, each family and each family member is uniquely affected by individual cases of drug abuse including having unmet developmental needs, impaired attachments, economic hardships, legal problems, emotional distress and, sometimes, violence being perpetrated against the culprit. For children, there is also an increased risk of developing drug abuse problem. Social stigma also affects the families of drug addicts. Parents of people with drug problems are concerned about disclosing this problem, partly because they are concerned that people will blame them. Moreover, people with a drug addiction problem history are heavily stigmatised as they are seen as both blameworthy and to be condemned for their drug habit or addiction. As a result, they are subjected to exclusion and discrimination in many areas (UKDPC, 2010).

Adults with Substance Use Disorders (SUDS) may also engage in behaviours that embarrass their children and may appear disinterested in their children's activities or school performance. Consequently,

children may separate themselves from their parents by avoiding going home after school, by not bringing school friends to the home, or by not asking for help with their homework. These children may feel detached and may be negatively affected by certain aspects of their parents' lives such as unemployment, homelessness, and involvement with the criminal justice system, or SUD treatment (Feidler *et al.*, 2009).

A study conducted in the Nandi community in Kenya (Birech, Kibiru, Misaro and Kairuki, 2013) found that 50 percent of wives whose husbands drank had resorted to selling illicit brews such as "chang'aa" and "busaa" to meet their basic needs. It has also been established that, children whose parents drank also resorted to drinking alcohol to relieve psychological stress. Some women have resorted to prayer, seeking divine intervention for God to help their husbands to stop taking alcohol (*ibid.*).

Similarly, Brown (2004) found that, children with step parents or single parents are more likely to be troubled by behavioural and emotional problems than those who are brought up by a couple in a traditional marriage relationship. Hemovich and Crano (2009) pointed out that, adolescents who did not live and were not taken care of by both parents had a higher likelihood of developing drug abuse problems than those with both parents. Carlson and Corcoran (2001) allude to the predictive effect of the family structure on behavioural problem of children but, the effect tends to be compounded by other variables such as family economic status and mother's psychological functioning.

Drug addiction and Poverty

Generally, there is a debate and different perspectives on the relationship that exist between drug abuse and poverty. The literature available shows that there are some people who start drugs while in poverty and others who are not materially poor but because of drug abuse end up poor. Still, the literature available tends to over-generalise poverty as a cause of drug abuse. Nevertheless, there are arguments to the effect that the changing socio-economic context, coupled with widespread poverty, has resulted into a growing drug abuse problem in Zanzibar. As pointed out earlier, it is estimated that 9,000 people abuse drugs in Zanzibar, out of who about 4,000 use injectables (RGoZ, *op.cit.*). Similarly, experience from South Africa shows that, cheap drugs such as marijuana/mandrax and solvents (e.g. glue) are common among persons from less advantaged communities whereas expensive drugs such as cocaine and ecstasy are prevalent among persons from middle and upper-class communities. Kaestner (1998) suggests that, drug use was positively associated with poverty, and might even be a causal factor of poverty. Indeed, drug abuse often causes poverty (Seacliff Recovery, 2013). Furthermore, some drug addicts can quickly lose their jobs or have a hard time holding down regular jobs. All the money they earn is squandered on drugs. Those hooked to drugs or alcohol may lose their jobs because of the habit, or they spend all the money they have to sustain the habit (Miranda, 2009). Consequently, people can quickly find themselves in poverty because of drug addiction.

On the other hand, the relationship that exists between drug abuse and poverty creates a controversy. After all, lack of money or income alone does not guarantee that a person would abuse drugs. The relationship between poverty and drug abuse is more complicated, as there are some celebrities who are drug abusers. Paris Hilton was in 2006 arrested and charged with drinking and driving. She was given probation but, then sentenced to jail for violating her probation. Lindsay Lohan is another celebrity who in mid-September 2010, less than a month after being granted an early release from rehabilitation, was arrested after failing a pair of court-mandated drug tests (Bellum, 2010). The problem is compounded by inadequate knowledge on the truth about drug abuse and its consequences. In fact, all of these factors affect the family system, and possibly the perception of the family and responses to dealing with a person abusing drugs in the family. But little attention has been given to study these factors to gain in-depth understanding vital in designing holistic interventions.

Smith (1998:184-85) argues that, the psychological effects associated with substance use disorder include chronic anxiety, depression, irritability, lack of motivation and absence of sex drive. Generally, the health and wellbeing of many young people today are being seriously threatened by the escalating

abuse of illicit drugs such as cocaine, heroin and bhang. The use of illicit drugs has adverse effects on homes, schools and communities (Nsimba and Maselle, 2012). Apart from lying to relatives, friends and co-workers, addicts can sell personal belongings or stolen items and even steal money for drugs. Moreover, promiscuous and risky sexual behaviours can be attributed to lack of inhibition among drug addicts in an attempt to get money or trade sex for drugs (Pleis, 2014).

Generally, a growing body of literature suggests that substance abuse has distinct effects on different family structures (see, for example, Brown and Lewis, 1999). Many professionals regard substance abuse as a manifestation of a dysfunction within the family system; in any case, drug addicts both affect and are affected by the family system (Hepworth *et al.*, 2010:205).

Social factors to drug abuse

External social and familial factors tend to occur simultaneously. This interaction creates a complex system of risk factors that predict adolescent substance abuse, which ought to be taken into account. In this regard, age, gender, religiosity, parental marital status, quality of parent-youth relationship, parental monitoring and values, substance abuse of significant others, the person a youth spends most time with generally involvement in extracurricular activities; matters for instance, Dahoma *et al.* (2007) suggest that peer pressure from friends and family members were among the predisposing factors to substance taking in Zanzibar.

Some theoretical issues as applied to the study

Our study is guided by the symbolic interactionism perspective. Symbolic interactionism is a social psychological theory developed from the work of a group of sociologists such as Blumer (1969), Becker (1963), Goffman (1959) and Denzin (1992), who underscore the subjective meaning of human behaviour, the social process, and pragmatism. Blumer (1969) states that, symbolic interactionism rests on three premises. Firstly, that human beings act towards things on the meanings the things have for them. Secondly, meanings occur through social interaction. Thirdly, meanings are handled and modified through an interpretative process by the person interacting with any given object. In other words, social life is an ongoing process of activity whereby, the social actor interprets the situation he/she faced and acts accordingly. As people dialectically relate to their own environment, it is essential for the researcher to take part in their situation to understand how they interpret their social world (Blumer, 1969). Here, Blumer underlines the value of conducting a study on the natural settings of the study participants for the purpose of obtaining first-hand data based on their ideas, perceptions, interpretations, lived experiences and responses to the social world.

In relation to drug abuse, people abusing psychoactive drugs tend to assign different meanings to how these substances should be used. Drug abuse is not simply a matter of individual choice. It starts with a thought and expectation of the presumed soothing effects the drug abuser is likely to experience from that drug of choice. Drug abuse theories explain how structural and cultural forces, as well as biological factors, influence drug abuse and society's responses (Mooney, Knox and Schacht, 2000). Drug abuse can also be induced by interaction in small groups. First-time users learn not only the motivations behind the drug abuse and its techniques but also what to experience.

With regard to the principle of language, the misinterpretation of 'drug' falls on the attractive use for drug abusers. But, in the medical field the language 'drug' for psychoactive substances takes a specific meaning that the substances can only be useful when it is used medically and under legal prescription and not otherwise. As Palen (2001) outlines, interactionists point out that, drug legislation reflects more the social customs of the society than the pharmacological effects of the drugs. For instance, morphine and heroin are pharmacologically similar but morphine is viewed as being proper when used medically whereas heroin is not.

Sources of data

Borrowing assumptions from the symbolic interactions perspective, this study adopted exploratory research design. This design assisted to generate insight into the family's perception, experiences and their responses to the problem of drug abuse in the family. Moreover, the research design allowed for the inclusion of people with practical experience with addicted persons to learn about their experiences and gain access to the knowledge on issues relating to drug addiction. Focus group discussions and in-depth interviews were the main techniques employed to collect data. Documentary review was conducted from different sources such as the world drug reports from United Nations Office on Drugs and Crime, local research reports from Zanzibar and Tanzania, implementation reports from the national organs responsible for control and co-ordination of drug abuse in Zanzibar and acts geared towards the prevention of drug use and trafficking.

The study involved 14 participants. Four participants were drawn from the National Commission for Co-ordination and Drug Control, three participants from non-governmental organisations dealing with drug addicted people, and seven participants from families whose members are drug addicted. Respondents were drawn for inclusion into the sample using the following criteria:

- i) Recovering drug addict with a clean time of not less than six months in the community or who is in recovering programme in sober house.
- ii) Parent or guardian aged 18 years and above who had lived with a drug addict for more than six months.
- iii) Officials from governmental and non-governmental organisations who directly or indirectly engage with drug addicts.

Non-probability sampling was employed to purposively choose respondents. The study was carried out in Chake Chake district, South region on Pemba Island in Zanzibar

Interviews were recorded, transcribed into texts and translated from Kiswahili to English. Texts were analysed for the meanings of the words, phrases and statements within a local social context. To make the data useful, we organised and classified the data in accordance with their characteristics so as to be concise and logical. Repeated reading of the narrative texts familiarised us with their contents to generate sub-themes followed by the establishment of links, relationships by looking at underlying patterns of causality. This analytical process allowed us to explore knowledge and experience of our respondents on drug addiction. A thematic approach was employed to identify the pattern in the meaning of the collected data from specific themes and sub-themes and representative connotations from FGDs and in-depth interviews.

Drug addiction in Pemba

Our results focus on three major issues. First, factors influencing people to start taking drug at the individual level. Second, we discuss impacts of drug addiction on the family, neighbours and community. Third we focus on the views from public and government official about the current situation of drug addiction in the Isles. On the whole, we sought to learn about why people decided to take a drug and what factors abet their progression drug addiction. Our interest was to learn about the social milieu from which drug addiction emerges. Our discussions with the respondents revealed a number of both personal and societal factors and reasons. However, one aspect is evident that many addicted persons started testing drug during their young ages mainly before 30 years. Many of them started due to curiosity, misconception, ignorance, imitation and exposure to certain social milieu which favoured drug use. Below are some extracts from our interview with persons recovering from drug addiction. They reveal under which psychosocial situation they started taking drugs. For example, one of them said:

It was a situation of experimenting; I was interested in experimenting with everything. Even when I saw a person riding a bicycle very fast I tried riding very fast to see what is inside and behind what he has done (FGD_25years_Recovering drug addict_Male_ofWawi village)

And in the following account, a respondent explained how he progressed from smoking marijuana to taking heroin after being influenced by his colleagues who initially used to smoke weed before taking on the hard stuff. Like the respondent above, this one started taking heroin out of curiosity to test it out:

At the place where I used to smoke marijuana with my fellows, some of them came with heroin to experiment with it and know what it is like. This is how I started to use it. When I used it for the first day I felt there was some difference, it brought me sleep and I felt that marijuana is nothing and felt heroin is my natural choice (FGD_37years_Male_of Mtoni Street).

Another respondent gave similar explanation when explaining his motivation behind his taking of drug by saying:

The thing that motivated me to start taking drugs was curiosity and need to understand different stem [getting high] of every drug... Amm... I can say family did not contribute [to my abusing drugs] but I contributed myself [I was the problem to myself], because family did not teach me that bad moral.... (FGD_25years_Recovering drug addict_Male_ofWawi village)

Ignorance is one of the contributing factors for many addicted persons. Lack of information and knowledge of the impacts of these substances, on the one hand, and false expectation, on the other hand, led many young people to drug addiction. The following explanation reveals the implication of ignorance to drug addiction:

I tried to use drugs and felt as if it was a pleasure and I felt that when I took drugs I will have greater intellectual capacity to grasp my studies, but it was not what happened ...When I sit and think about the past I remember taking drugs thinking it was as pleasure and I haven't realised that drugs I have been using will make me ill and became an addict...(FGD_Male_Recovering drug abuser _32years _of Tibirinzi Street)

Lack of information about the impacts of drugs led people to engage naively in such illicit habits. Such ignorance reflects a body of knowledge toward certain aspects which directly or indirectly affect people's life in a community. It shows how well or poorly these local communities are equipped with information concerning social issues around them. This poor knowledge and ignorance also emerged during discussions with the parents of addicted person as one of them used the following words to express the drug abuse of their son:

...We felt [his drug abuse] would have no serious negative effects contrary to the reality... it was open, again, we continued and kept on saying we really saw [his drug abuse] as a 'song of the nation' that everyone has it.(IDI_Female_50years_Msingini Street_Chake).

Apart from psychological factors at the individual level, social factors such as certain social milieu have been contributing to the problem. In fact, one respondent elaborated the causal factors that are closely linked with his family. He lacked support from his father. Although he does not reveal what motivated him to smoke marijuana prior to starting taking heroin, he implicitly reveals the social milieu (availability of drugs) which partly contributed to his being caught in the web of drug addition:

I can describe the time I started to abuse drugs; I was raised by my mother in our village, but when I reached Standard V my older sister got married so she decided to come and take me to live with her [in town]. I started taking drugs while I was in STD VI; I started to smoke marijuana for only a week. After one week, I found myself abusing heroin. Because heroin was easily available, I abused it until I completed school at the Form Two level. It means the issue of getting heroin was not a problem to me because it was easily available at home (FGD_28 years_recovering drug addict_Male).

In the similar social context, a respondent progressed from smoking marijuana to taking hard drug despite his family having known much earlier enough that he had been smoking the former. The family did not intervene or provide the kind of support that could facilitate his quitting the habit because (according to him) he had been making good academic progress. Had the family known that he would eventually abuse hard drugs and become an addict in addition to suffering academically they could have intervened earlier:

My family found out very early. They identified very early when I smoked marijuana, but because I had good performance at school, they felt it was something that could be ignored, that, I could stop it myself when I grow up (IDI_Recovering drug addict_45years_Male_of Mkoroshoni Street).

Similarly, single parents, especially women, complained that lack of their partners' (fatherly) guidance affected their young men negatively. In this regard, single mothers reported that boys needed their father's guidance as mothers can hardly replace or fulfil fatherly role, especially for boys. An 80-year-old mother from Msingini Street had the following to share while explaining her experience with an addicted son.

I raised [the children] myself, and everybody knows that this guy married many women here, then divorced and left the children with their mothers to be cared for... he divorced me since our two children were so young ... you know if a child is living while his father is not there to guide him, women alone cannot manage ...they only sit in the gathering places 'vijiweni' to share stories and sniff heroin, when the village is destroyed [by drugs] no one will be safe (IDI_Female_80 years_of Msingini street).

These testimonies illustrate that the victims started taking drugs due to curiosity, false expectations and ignorance about its consequences. Three of them are aged below 30 whereas two others are aged below 40 years and one is aged below 50. All of them are in a recovering programme (such as members of sober house or have at least visited a sober house). We assume that members of these three age groups started taking drug at different times due to their differences in ages; however, they share something in common in the sense that the factors which motivated them to start taking drug are similar. Others claimed that frustration, depression and stress were among the contributory factors. Below is a testimony from one respondent who linked his addiction with frustration caused by his family:

...I had frustrations. I travelled out of Tanzania. I had been to England and stayed there for seven years. When I was there, I had been working and remitting my earnings [money] to someone I trusted here in Tanzania [among my family members], but when I returned I came to see that there was injustice. That money has been misused, I was frustrated, really frustrated... I felt my family contributed to fraud or abuse of my money. It was abused by someone in the family, and my opinions were rejected because I told them that this case must be sent to court, but they rejected my opinion and insisted I should leave the matter in the hands of the Almighty God. I thought about where I came from, and here I am, I did not know where to begin , so I would say they contributed to some extent because if we would have sat together and found a solution I believe I would not have come here (IDI_Recovering drug abuser_male_33years_of Vikunguni village).

Another man from Chachamjawiri village confirmed that social milieu contributed to his addiction. While revealing his experience of starting to take drugs and consequently developing addiction, one respondent explained the process in the following manner:

But, when I go there [town] I met with the [home] environment which was quiet different from my home. The environment I met there was that, my sister's husband was selling drugs, he was selling marijuana and heroin when he left home in the morning for his work he left my sister who continued with the business [selling drugs] at home. I was in Standard VI, and when I entered Standard VII because the issue [drugs] was easily available at home. I started to use it without

being aware [of what would happen]. No one directly influenced me [to abuse drugs]. Neither my sister nor my brother-in-law influenced me to use this, but I used it because it was available at home (FGD_Male_Recovering drug addict_28 years_of Chanjamjawiri village).

Impacts on the family financially

The term family here refers to parents, brothers, sisters as well as close relatives of an addicted person. We do not refer to their spouse and children since most of our respondents had not established their own families in the sense that they were still single and unmarried. The impact on their families varies from a psychological, social and financial perspective. Psychosocial impacts included health-related aspects such as high blood pressure, headache, fear, stigma, shame and social alienation from relatives, neighbours and community. Financially, impact includes fines, debts or compensation resulting from theft or damage of other people's properties. All these have been causing financial stress on their families. The following constitutes evidence regarding how different family members experienced and shouldered the financial burden caused by an addicted person in the family. In this regard, a mother of an addicted person from Msingini Street shared her experience in the following manner:

... just few days ago I paid one hundred and fifteen thousand shillings; he stole a bucket of cooking oil with a plastic bag like this [demonstrating] from some people, which had items for a shop. And the owner came and said that, he did not want to go to the police station and he said, 'Mother, I don't want to go to police let us talk about this ...' I told him I will pay you, he came the first day I paid half and the second day I paid the second half. [She further added] I know if he didn't get some drugs it is difficult to control himself so when he asked me for two thousands shillings I brought it to him, why? Because I intend to prevent him from bad events [theft] and cases to come to me, you see, so I felt it would be better to give him, but here at home some people tend to blame me [for giving some money] but I said, let them blame me because they are not affected by this problem (IDI_Female_Parent_50years_of Msingini Street).

A female member of a family with an addicted person shared her experience of how her brother's addiction affected the family situation both psychologically and socially. During an in-depth interview with her she had the following to say:

Our family was very much affected; there was no harmony in the family. There was theft in the house and it was not possible to preserve a ring, money and clothes for both children and adults. It was difficult to keep them in this house (IDI_Female_Family member_35years_of Msingini Street).

Even government officials dealing with drug addicted persons confirmed the financial burden addicted person imposed on their families. In one of our discussions with government officials, it was evident that drug addiction ruins their families financially. In this regard, one government official argued:

The big problem they (parents) complain about is poverty, because whatever the family earns is directed towards paying fines or debts accrued by that addict. He possibly takes this here and takes that there, so in a way to prevent him from being sent to jail or be remanded, they brought some money, as a result, they returned to poverty instead of progressing (IDI_44years_Male_Official_of Vitongoji).

Psychosocial impacts on family

One of the impacts that family members face (of living with an addict person) is a psychological burden caused by words, practices and habits of an addict and outside (relatives and neighbours). Social and financial problems resulting from actions induced by addiction include fear, desperation, depression, trauma and mourning of the loved ones especially parents. Worse enough, family members have to live and try to cope with them over a long period and sometimes, forever, in case an addict does not manage to change. In this section, we present evidence of such experiences. For instance, one addict explained about the suffering his mother endured occasioned by his addiction:

....But also the issue of people pointing fingers at her [my mother] saying, do you see that mother of 'so and so' while they are religious, observe five prayers a day, are well dressed, knowledgeable in Islamic books but their son is abusing drugs, ...When I personally explained to them about my drug abuse problem they became so anxious and frustrated, such situation made my mother ill. I didn't understand what this condition was but she fainted when she got this information and the events I had been involved in (FGD1_40years_Male_Recovering drug abuser_Muharitani Street).

One participant in an FGD explained how addiction has been affecting his family in general, particularly a mother by sharing the following:

So I can say I have destroyed my life but more I have caused my mother to get a disease and now as I speak my mother is suffering from high blood pressure. When she hears, there is a thief being chased by the community in the street she knows that this is my son, so on the spot she panics and collapses (FGD_33years_Male_of Vikunguni village).

In the same context, a father of an addicted son revealed his psychological stress followed after being told about his son's stark warning:

To me, I have just stayed with [psychological] tension because he once told his friends in one of their conversations that he may come and kill me, so that, he can sell this house (IDI_55years_Male_Mtoni Street).

Another addict shared a similar experience about how his addiction had been causing financial problems for his family as it attempted to help him by seeking help from various places, from both traditional and formal institutions within Tanzania and abroad. Such experience reveals the extent to which some families struggle in a determined manner to help their loved ones at any financial cost:

Of course, I have put my family in a financial crisis I have created a financial burden for them because I have caused so many expensive costs to my family when they searched for solutions to help me. They go to traditional healers who charge a large fee, travel to different places, even the [drug] rehabilitation I tried to make it in Denmark costs an amount of not less than twenty thousand dollars, something that did not work well. That money could have been used for something else better than that nonsense. There were also valuable things I have stolen from home, and other charges that they had to shoulder for the neighbours when they heard something had happened with the neighbour [that I had done] and the neighbour wanted to take certain steps but could not take such action if a replacement was made. There are so many expenses incurred (IDI_45years_Recovering drug addict_Male_Mkoroshoni street).

Another father shared his experience in the following manner:

His behaviour was good. He was very good and there came a time he was taken by a family member to Dar es Salaam where he was assigned to manage a shop business. He was observed to be good enough and taken to other places to serve food [to boarding students] at school and, when he was in Dar es Salaam he used to bring to me some money after every period (IDI_55years_Male_Parent_Mtoni street).

My relationship with the family is not good. It was not good before drug abuse, became worse during my drug abuse period, and even this time [in my recovery], my relationship is not good ... Yeah, you know, I think the problem of a person with an addictive personality starts before drug abuse, I do have a state of stubbornness, feeling that I know more [than any other person], a condition that makes me want things instantly using whatever means, so these things have destroyed my relationship with my family.(IDI_45years_Recovering addict_Male_Mkoroshoni Street).

In an in-depth interview, a parent with a son abusing drugs, explained his behaviour thusly:

Before [drug abuse], his behaviour at home was good, except he used to refuse to go to school... he dropped out school before this [drug use]... there were no quarrels [with his school teachers] because there were some teachers who loved him, they kept him so close so he could continue with studies but he was not interested in school (IDI_50 years_Female_Msingini Street).

Another respondent shared his experiences in the following words:

My relationship with the family and the community was not good, it was not good because I was even disturbing /affecting the community; I was stealing from them. So these acts and my doings made the community unhappy with me. And also, if I failed to steal from other people outside I even used to steal from my family, so things like that made my family unhappy with me. And even my personal problem I usually get [because of drug behaviour] it hurt my family when they heard about it (FGD1_37years_Male_Mtoni Street).

Some families are socially-stigmatised and alienated from the neighbours and community due to practices and habits of their addicted members. For instance, in an in-depth interview with a government official it was revealed how such a situation is stressful for some families. Elaborating on such a circumstance, an official from the National Commission for Co-ordination and Drug Control had the following to share:

They [parents] become so depressed and frustrated because most of the time their [sons] abused drugs and committed many criminal offences and they [the family] fail to decide on what they should do (IDI_53years_Male_Official).

Apart from family members who experience difficulties caused by their addicted member, the drug addicts themselves also doubly suffer as they respond to or attempt to cope with the situation. For instance, they have to contend with fears and rejection as drug addicts, which may persist even after their quitting of drugs and achieving behavioural change. While discussing the family response to the drug addict, an official from National Commission for Co-ordination and Drug Control- Zanzibar explained such a situation in the following manner:

Yes, there are families which reject living with their recovering drug addicts; they feel that this youth is still having thieving behaviour and he will continue stealing from them, so they do not want to be with him, he has already wasted much money[to support him] (IDI_30years_Official_Female).

It is apparent from the family experiences presented thus far that a number of challenges resulting from an addicted member exist. The impact may vary from psychosocial, financial to health depending on the relationship that exists between an addict and family members as well as the socio-economic status of the family. Very often parents (especially mothers) mostly suffered for the indiscretion of their drug addicted children.

Drug addiction and the family

Due to social perception, family members might find themselves isolated and/or socially stigmatised. Moreover, drug abusers could become hostile and irresponsible in addition to excessively abusing drugs to escape from the negative and painful emotions, if they are not positively supported by the family to deal with the drug abuse problem. As our literature review revealed very little about the impact of addiction at family level, an understanding of how addicted individual and their families respond to such situation is vital for any holistic intervention programme. There is a scarcity of information on how an addicted person and their families cope. Factors contributing to drug addiction, family endeavour in dealing with an addicted person, and the social and psychological problems associated with addiction at both the individual and family levels have been given little attention. As a result, little is known, for example, about how poverty and addiction reinforce each other dialectically. Our findings suggest that

men are generally more addicted to drug abuse than women in the Isles where the study was carried out. The majority of the drug abuse victims started taking marijuana, then started taking hard drugs such as heroin. Curiosity, influence from peer groups and anxiousness to test how it felt using a drug are among the key factors which motivated them to start abusing drugs. However, the majority admitted that they started taking drugs without knowing the future impact of such drug abuse.

Misconceptions and naivety were also found to contribute to addiction. Our data suggests that there is a link between addiction and type of family a person lives in. For instance, three addicts confirmed that lack of fatherly guidance contributed to their addiction. Similarly, another respondent (a mother) who raised her addicted son single-handedly revealed her feeling that the absence of his father partly contributed to his taking up that habit. Other studies such as Hemorich and Crano (2009) suggest that adolescents who were not cared for by both parents are more prone to drug abuse. In the same context, Carlson and Corcoran (2001) explain how a family structure can determine future behaviour of children. Whereas Brown (2004) point out that children from a single-parent headed family are likely to be troubled emotionally and habitually. In a symbolic interaction sense, drug abuse in the family might also affect the experience and responses of an addicted family member. In fact, family members are more likely to isolate drug addicts and, in response, drug addicts often prefer to associate with others who support and reinforce each other's behaviour such as more abuse of drugs or participation in some form of antisocial behaviour such as theft.

Parents are usually affected and might react differently to coping with the situation, as drug addicts usually disappear from the family, commit crimes that the family are ashamed of and lose contact with the parents for several hours or days, leaving the family to have persistent fear, tension, guilt and helplessness associated with bad thoughts that something bad might have happened to their beloved one. Scholars such as Byrne (1997) argue that, the discovery of drug abuse proof might be devastating to the family. Generally, reactions may vary from outright rejection to denial of the problem. With time, patience and understanding, these tensions can be overcome and harmonious relationships can be restored. As presented in the previous section one of our addict respondents (a 45-year-old man) confirmed that his family found out very early that he was smoking marijuana but did not attempt to stop him because he had been doing well in school. He further pointed out that, had the family known beforehand that his habit would morph into addiction, probably it would have intervened.

Families living with an addict attempt to seek support from various sources. Support varies from informal or traditional to formal or professional support. Some families have attempted to seek help from traditional healers, religious leaders and even from professionals who provide services available in sober houses. During our discussions with different addicts, members of their families and government officials dealing with the drug addiction problem, it emerged that formal professional support such as sober house are more effective in dealing with the drug addiction problem. Unfortunately, many addicts opt to use this professional rehabilitation support very late and thus they do not only prolong the recovery period but make recovery much more complex and difficult. As we have presented in this article, it is apparent that more families feel obliged to cover financial debt caused by a drug addict. This is not only an attempt to rescue him from any legal and societal consequences, but also as a way of paying for damage or loss. This moral obligation affects families or relatives enormously, especially in financial terms.

Conclusion

Addiction is a complex social and medical problem. Factors motivating people to start using drug varies from curiosity, ignorance, and frustration to imitation. Men are more prone to drug addiction than women. Most of them began by smoking marijuana before proceeding to taking hard stuff such as cocaine. Addiction affects not only an addicted person but also the entire family. Impacts of addiction on families range from social, psychological to financial effects. Findings reveal that parents, especially mothers, have been affected mostly by the drug addiction of their sons. Although the addicted persons varyingly start seeking support from various sources such as traditional healers, witch-doctors, religious

leaders and rehabilitation centres such as sober houses, many of the drug addicts opted to use sober houses as the last resort. However, the study did not establish the factors which led to that health-seeking behaviour. One of the assumptions (which we did not assess) could be that people are not aware of the sober houses or have misconceptions about the source of addiction as some associate it with witchcraft. Our discussions with the respondents suggest that sober houses are more effective in helping the drug addicts kick the habit and in rehabilitating them. Based on the findings we suggest that inclusion of experience and knowledge from families living with addicted persons is imperative for any holistic intervention measure against addiction.

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