TREATMENT OF DRUG OFFENDERS IN THE MAURITIUS PRISON SERVICE

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I. SITUATIONAL ANALYSIS ON SUBSTANCE ABUSE IN MAURITIUS

Mauritius is a small developing island[1] in the Indian Ocean with a population of around 1.35 million and with a population growth rate of 0.59%. Of this population 43.75% is composed of the age group 25-54, both male and female included. With a 5% of GDP expenditure on education, the total population literacy rate is 92.7%[2].

According to Natarajan (2016)[3], developing countries are more prone to various types of crimes ranging from very simple to the most complex offences including sex trafficking, murders and drug trafficking. The author further stated that most serious offences around the world have been recorded in developing countries. As in all developing countries, the incidence of crime is fairly high in Mauritius. During the year 2016, statistics[4] showed a decreased of 3% in the number of drug offences perpetrated in 2016 in contrast to 2015, resulting in the stabilization of the drug offence rate to 2.7 per 1000. In 2016, out of the 3,370 drug offences reported, 57% were *gandia* (Cannabis) related offences, 25% heroin related offences, 5% for sedatives/tranquilizers and 1% for buprenorphine. The remaining 12% represented other types of drugs which included mainly synthetic cannabinoid, methadone and hashish. During a study carried out in 2015 by a Non-Governmental Organization (Pils. mu, 2018)[5], it was reported that more than half of Mauritians interviewed (N = 600) stated their lives were somehow directly or indirectly influenced by the drug problem across the island. Furthermore, the organization stated that drugs topped the list of social problems in the country due to the fact that more and more complex types of drugs including synthetic substances were being easily introduced into the drug market. As mentioned earlier, Cannabis is more rampant over the island and is consumed by people from all walks of life in the Mauritian society. This is because most Cannabis consumed by Mauritians is being cultivated and produced locally. However, the perception of the Mauritian population towards Cannabis is diverse as it generates mixed emotions and feelings.

- 36% think that cannabis is harmless if a reasonable amount is consumed;
- 33% think that cannabis is harmful;
- 34% think that cannabis must not be considered as a crime and must be treated just like cigarettes and alcohol;
- 46% claim that the law must make a difference between cannabis and other illegal substances;

However, the use of heroin and other intravenously administered substance are still rampant over the island.

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[1] http://www.ssr.org/DevelopingCountries

[2] Indexmundi.com. (2018). *Mauritius Demographics Profile 2018*. [online] Available at: https://www.indexmundi.com/mauritius/demographics_profile.html [Accessed 22 Apr. 2018].

[3] Natarajan, M. (2016). Crime in developing countries: the contribution of crime science. *Crime Science*, 5(1).

[4] Statsmauritius.govmu.org. (2018). *Statistics Mauritius - Crime, Justice and Security Statistics - Year 2016*. [online] Available at: http://statsmauritius.govmu.org/English/Publications/Pages/CJS_Stats_Yr2016.aspx [Accessed 22 Apr. 2018].

[5] Pils. mu. (2018). [online] Available at: http: //pils. mu/wp-content/uploads/2017/03/TNS-Image-and-perception-of-drugs-in-Mauritius.pdf [Accessed 22 Apr. 2018].

II. LEGAL FRAMEWORK TO ADDRESS SUBSTANCE ABUSE IN MAURITIUS

A. Political Will

Political activities have an influence on national policies targeting the fight against drug abuse and trafficking[6]. Therefore it is obvious that political will is an indispensable factor towards tackling drug problems in a society. In June 2017, according to a Government Press release[7], the Prime Minister Hon Pravind Kumar Jugnauth reiterated his determination and commitment to deploy all means to combat the surge of drugs which is causing enormous harm to the Mauritian society.

In the same breath, Dr. Abdool Reychad, consultant, United Nation Office on Drug and Crime (UNODC), expressed satisfaction regarding the fruitful discussions with the Prime Minister on issues of drug trafficking and crime, approaches to prevent drug proliferation targeting both local and foreign drug dealers and their networks as well as drug consumers.

In that context, the elaboration of the National Drug Control Master Plan was the focus of a three-day workshop held from 31 May 2017 to 02 June 2017[8] under the aegis of the Prime Minister's Office in collaboration with the UNODC. Various stakeholders including government officials and Non Governmental Organizations participated in discussions. In January 2018, the Prime Minister announced the setting up of a National Drug and HIV council to strengthen the fight against drug abuse, drug trafficking and drug lords, and HIV/AIDS[9].

B. Dangerous Drug Act

Thanks to committed political will, the legislature has enacted law enforcement policies against drug trafficking and abuse. The Dangerous Drug Act[10] was enacted in year 2000 and later amended in 2003. The fundamental aim of the Act is as follows:

> *To consolidate the law relating to dangerous drugs and to make further and better provision for the control of dangerous drugs, the treatment of addiction, the prevention, detection and repression of drug trafficking, the prevention of laundering of drug money in Mauritius, the sentencing of drug-traffickers, seized assets of drug offenders to be vested in designated institutions, restriction of bail and minimum penalties in respect of certain serious drug offences and the punishment of persons making false statements in relation to drug offences.*

C. Drug Control Master Plan for Mauritius

The National Drug Control Master Plan shall empower institutions, communities and individuals in their response to drug trafficking and use through law enforcement, prevention, harm reduction and treatment for a safe and healthier Mauritius while maintaining human rights.

The master plan shall target specific areas, namely drug supply reduction, drug demand reduction, harm reduction and coordinating mechanisms among the various drug fighting stakeholders.

III. INCARCERATION

As a main component of the criminal justice system, the Mauritius Prison Service is entrusted with the

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[6] Ryder, D. (2008). Political and legal institutions and their influence on drug policy: an Australian perspective. *Drug and Alcohol Review*, 27(4), pp.374-379.

[7] Govmu.org. (2018). *Republic of Mauritius- UNODC pledges assistance to elaborate Drug Control Master Plan for Mauritius*. [online] Available at: http: //www. govmu. org/English/News/Pages/UNODC-pledges-assistance-to-elaborate-Drug-Control-Master-Plan-for-Mauritius.aspx [Accessed 24 Apr. 2018].

[8] Govmu.org. (2018). *Republic of Mauritius- Elaboration of a Master Plan to fight drug scourge in Mauritius*. [online] Available at: http://www.govmu.org/English/News/Pages/Elaboration-of-a-Master-Plan-to-fight-drug-scourge-in-Mauritius.aspx [Accessed 26 Apr. 2018].

[9] lexpress.mu. (2018). *PravindJugnauth: «Un National Drug and HIV Council sur pied cette année»*. [online] Available at: https: //www.lexpress.mu/article/323880/pravind-jugnauth-un-national-drug-and-hiv-council-sur-pied-cette-annee [Accessed 24 Apr. 2018].

[10] Apps.who.int. (2018). [online] Available at: http://apps.who.int/medicinedocs/documents/s18370en/s18370en.pdf [Accessed 24 Apr. 2018].

main duty of keeping prisoners in custody after they have been convicted by the Judiciary. An average amount of Rs 775 was spent daily to maintain a detainee in 2016 on the Island of Mauritius[11].

A. The Mauritius Prison Service

The Mauritius Prison Service (MPS) is a public service and is under the aegis of the Ministry of Defense and Rodrigues. The MPS comprises ten penal institutions, including one in Rodrigues and one modern prison named Eastern High Security Prison. Prison institutions are classified as high, medium and low security prisons in terms of security rating. The more the security is high, the higher the wall, barbed wire fencing, security checks, dog surveillance, use of metal detectors and the more searches of prisoners and premises. On the other hand, a low security prison will be one which provides low security measures, open conditions for inmates and opportunity for outside labour and contact visits with relatives. It also includes one prison for females and one for juveniles. The Mauritius Prison Service[12] is accountable for protecting the public by keeping detainees in safe custody while exercising a duty of care. In order to meet national and international norms, changes are brought at regular intervals. It aims at achieving this through investment in staff development and support. It also aims to manage their resources effectively and efficiently, to work to clear objectives, to value diversity and to provide a healthy environment where rehabilitation takes place. These are the main missions of the Mauritius Prison Service.

B. Statistics on Drug Offenders Detained in Penal Institutions

Table showing the number of persons (male) convicted for drug offences from 1990 to 2016

Year	Heroin	Gandia	Opium	Others*	Total	Total number of Detainees	Percentage
1990	62	92	6	2	162	969	16.7
1991	74	88	0	10	172	998	17.2
1992	95	61	1	3	160	887	18.0
1993	177	74	0	0	251	1025	24.0
1994	255	97	0	5	357	1162	30.7
1995	326	110	1	6	443	1276	34.7
1996	338	127	2	6	473	1428	33
1997	242	139	3	11	395	1378	29
1998	124	161	0	14	299	1228	24.35
1999	153	123	1	7	284	1044	27.2
2000	234	128	-	7	369	1305	28.2
2001	310	154	-	12	456	1672	27.2
2002	369	136	-	16	521	2110	24.7
2003	404	121	-	9	540	2295	24.1
2004	372	97	-	222	691	2400	28
2005	344	50	-	249	643	2323	27
2006	315	59	-	202	576	2423	23
2007	227	40	-	311	578	2626	22
2008	305	97	-	352	754	3032	25
2009	162	67	-	431	660	3517	18

[11] Statsmauritius.govmu.org. (2018). *Statistics Mauritius - Crime, Justice and Security Statistics - Year 2016*. [online] Available at: http://statsmauritius.govmu.org/English/Publications/Pages/CJS_Stats_Yr2016.aspx [Accessed 26 Apr. 2018].

[12] Prisons. govmu. org. (2018). *Mauritius Prison Service - Goals and Objectives*. [online] Available at: http://prisons. govmu. org/English/AboutUs/Pages/The-Minister.aspx [Accessed 24 Apr. 2018].

2010	103	111	-	398	612	3551	17
2011	97	104	-	340	541	3250	17
2012	53	43	-	381	477	2905	16
2013	102	96	-	126	324	2710	12
2014	57	113	-	91	261	2437	11
2015	116	115	-	-	231	2725	8.47
2016	110	129	-	65	304	3434	8.55

Source: Mauritius Prison Service[13]

Table showing the number of persons (Female) convicted for drug offences from 2001 to 2016

Year	Heroin	Gandia	Opium	Others*	Total	Total number of Detainees	Percentage
2001	15	06	-	-	21	59	35.6
2002	17	04	-	03	24	99	24.2
2003	18	07	-	09	34	103	33
2004	17	04	-	08	29	78	37.2
2005	17	04	-	08	29	80	36.3
2006	10	02	-	16	31	93	33.33
2007	10	-	-	08	18	87	20.7
2008	16	01	-	16	33	103	32
2009	11	02	-	12	25	123	20
2010	14	01	-	12	27	112	24
2011	11	15	-	14	40	122	33
2012	7	7	-	23	37	125	30
2013	7	-	-	19	26	124	21
2014	7	2	-	6	15	92	16
2015	5	6	-	14	20	86	23
2016	9	2	-	4	15	112	13.4

Source: Mauritius Prison Service[14]

C. Induction Procedure

1. History Taking through Motivational Interviewing

The main purpose of induction procedures is to take over the convicted person who is about to discover the penal world. The induction process mainly revolves around interviewing the detainee to elicit relevant information in connection to his or her substance abuse history. On the very first night, the detainee is confined according to his/her physiological needs.

[13] Prisons.govmu.org. (2018). *Mauritius Prison Service - Total number of persons (male) convicted for drug offences from 1990 to 2016*. [online] Available at: http://prisons.govmu.org/English/statistics/Pages/drug-offences-Male.aspx [Accessed 25 Apr. 2018].

[14] Prisons.govmu.org. (2018). *Mauritius Prison Service - Number of persons (Female) convicted for drug offences from 2001 to 2016*. [online] Available at: http://prisons.govmu.org/English/statistics/Pages/drug-offences-Female.aspx [Accessed 25 Apr. 2018].

2. Health Screening

On admission to the prison, every detainee is seen by a doctor who assesses the detainee's general health. All detainees are offered Provider Initiated Counselling and Testing as screening procedures for HIV. Subject to clinical observation by the Prison Medical Officer, further pathological and radiological tests are requested as and when needed. The same process is observed when he is released. During the period of detention, whenever the need arises, the detainee can be seen by the doctor at the prison hospital or dispensaries for any health problem. In addition, detainees requiring specialist treatment are referred to public hospitals.

D. Sentence Planning

A sentence plan is made for prisoners serving long-term sentences. Sentence planning is in fact a plan about how a detainee will spend the time in prison. It is concerned with addressing the different needs of detainees while making optimum use of their time in prison. It aims at providing programmes to suit their needs, to keep them busy, to prevent them from being idle and to help them to lead a useful life after their release from prison. The sentence plan is the key tool for identifying what an offender will do during their sentence, based on an assessment of the factors associated with their offending, thus enabling prison authorities to achieve the aims of the sentence.

It is also concerned about placing prisoners in institutions with varying degrees of security. The first day a person is imprisoned, he is detained in a high or maximum security prison depending on the gravity of the case. When reaching fifty percent of his term of imprisonment, he is transferred to a medium security prison and at the last stage of imprisonment; he is once more transferred this time to a low security prison, thereby planning for his release and facilitating reintegration in the society. Unfortunately, no such facility is available for women. However, rehabilitation programmes exist; they are also employed outside prison walls. A new open facility for women is now open to ease detention of female detainees in view of enhancing the rehabilitation process.

IV. REHABILITATION OF DRUG OFFENDERS

The MPS offers a range of rehabilitation programmes to inmates with a view to provide them with new skills to facilitate their integration in society after release. The programmes range from educational, vocational, spiritual and also life skills.

Since January 2012, the Mauritian authorities have launched a raft in the prisons of the island, to allow inmates to acquire skills, to regain their freedom. 1,060 prisoners in six prisons in Mauritius are now benefiting from this programme of rehabilitation through labour, which has an annual government envelope of 7 million rupees. Inmates eligible and subject to strict discipline where the work is honoured are paid at the rate of Rs 20-30 per day for their efforts in learning of a work which is an effective passport for personal reintegration into civilian life.

Training workshops with the key qualifications, such as cooking, baking, masonry, tailoring, carpentry, are thus provided to prisoners of Mauritius to eventually reduce the recurrence rate, once outside.

A. Lotus Center

The Lotus Center is an in-house rehabilitation centre which saw the light of day in 1985. However, due to its reduced activities, the project was re-engineered in 2018 by the prison authorities in collaboration with the National Agency for the Treatment and Rehabilitation of Substance Abusers (NATReSA), the National AIDS Secretariat and various Non-Governmental Organizations[15].

The Lotus Programme is a Residential Rehabilitation and Day Care programme in prisons across the island which aims at helping detainees to be free from addiction, encouraging them to participate in rehabilitation programmes to gain greater self-awareness to live a drug free life, and preparing their re-entry in the community with the involvement of stakeholders. It is a new era in the Prison Department where an integrated approach is adopted to treat substance abusing detainees based on medical and therapeutic

[15] Le Mauricien. (2018). RÉHABILITATION DES DÉTENUS: Réouverture du Lotus Centre à la prison centrale - Le Mauricien. [online] Available at: https://www.lemauricien.com/article/r%C3%A9habilitation-des-d%C3%A9tenus-r%C3%A9ouverture-du-lotus-centre-%C3%A0-la-prison-centrale/ [Accessed 26 Apr. 2018].

community models combined with a multi-disciplinary concept.

In the same line, a new Lotus Center was put in operation in October 2017 in collaboration with the Ministry of Health & Quality of Life at the Eastern High Security Prison which is the most recent penal institution of the island having a capacity of around 1,000 detainees. According to the Health & QL Minister, who proceeded for the inauguration in presence of the Commissioner of Prisons, his Ministry is working in close collaboration with the Prisons Department to better handle detainees who use drugs. The Lotus Programme, he added, will help the Prison Department achieve one of its goals, that is, making detainees drug-free and substance misuse-free so that they can have better opportunities when they leave the prisons and there is less chance of them reoffending on their release[16].

B. Non-Governmental Organizations

In order to sustain the activities of the Lotus Center in view of addressing the needs of illicit drug users among Mauritian detainees, the support and collaboration of various NGOs are sought due to their expertise in relevant fields.

C. Sensitization and Awareness Campaigns

Sensitization and awareness campaigns are mostly run by Prison Hospital Staff. As from the induction phase, awareness is raised among newly admitted detainees, and they are sensitized about the salient health issues orbiting around their incarceration. As an ongoing educational programme for detainees, prison nurses are called upon to deliver health education to inmates undergoing the rehabilitation programme in the Lotus Center. Issues such as the function of the human body, pathology in connection with substance abuse, HIV / AIDS, non-communicable diseases among others are discussed with inmates.

D. Vocational Training

Various skills are provided to prisoners. The aim is to reshape them and provide others with new skills. They can use these skills to earn a living on release. Numeracy and literacy are also provided to those who are in need. And where an in-prison business partner is involved in providing work, they will help design the vocational skills delivery that supports that, exactly as they would outside. Moreover, these partners employ some of the prisoners on their release.

A prison that is a place of work and industry will instil in offenders the disciplines of working life: order, timekeeping, working within deadlines, being managed and overseen. These are skills that employers want, for they comprise the elements of responsibility which make lives normal. When allied to vocational skills, ex-offenders who have gained these 'life-skills' — the fabric of responsibility — become more attractive potential employees and better husbands, parents, neighbours and friends.

Facilities are provided to prisoners who wish to study further. The MPS provides prisoners who are studying advanced courses with electronic tablets and internet facilities.

V. THERAPEUTIC TREATMENT OF DRUG OFFENDERS IN PENAL INSTITUTIONS

Prison contains the largest concentration among the most at risk population which are over-represented within the prison community. The marginalized and vulnerable groups such as injecting drug users, commercial sex workers, mentally ill and HIV/AIDS inmates are all compounded within prison. The majority of prisoners have multiple health problems.

There are high turnover and mobility rates among the detainees. The average stay is short and the return rate is high, thus making the prison population a significant vector of inward and outward transmission of HIV and other infectious diseases. Imprisonment is a unique opportunity for all aspects of health promotion, health education and disease prevention. Thus, prison health staff has to take an active role in the prevention, as well as the care, of mental and physical health problems and provide the foundation of a healthy environment. As a major service provider of a high-risk group population, prison could seize this opportunity

[16] Govmu.org. (2018). Republic of Mauritius- Mauritius Prison Service must contribute to eradicate drug problem, states Minister Husnoo. [online] Available at: http: //www. govmu. org/English/News/Pages/Mauritius-Prison-Service-must-contribute-to-eradicate-drug-problem,-states-Minister-Husnoo.aspx [Accessed 26 Apr. 2018].

to attend to their health care needs and provide care support and treatment programmes aimed at reducing and changing high-risk behaviour patterns during incarceration and after release.

A. Substance Abuse

Problematic drug users are among the most vulnerable among prisoners, and are over-represented within the prison population, often due to a growing trend towards the criminalization of drug use and possession and the use of custodial sentences for drug-related crime.

B. Harm Reduction Strategies

1. Methadone Substitution Therapy

Since November 2006, about 5,000 drug users have been induced on methadone at the national level, and prisons had registered about 3,310 that have been detained and that 346 among them are currently on Methadone Substitution Treatment in prison. Since December 2011, detainees were induced on methadone at the prison level and 324 among this group have already been induced. There is a weekly intake of 5 induced on methadone. Diversion of methadone is becoming a recurrent feature in prison. About 115 cases of diversion of methadone have been reported since implementation.

C. Treatment of People Living with HIV/ AIDS

The Mauritius Prison Service has hosted 51.9% of national cumulative HIV positive cases, among which about 33% are injecting drug users. The daily average of HIV/ AIDS inmates in prison is about 394, representing 16.4% of the actual prison population. Prison had registered 1,508 detainees on anti-retroviral treatment (ARV) and that 300 among them are still serving prison sentences. HIV diagnosed detainees are given adequate treatment and follow up. Patients are seen regularly by HIV physicians; pathological tests are requested on each subsequent medical consultation and treatment is tailored for each patient.

VI. CHALLENGES

A. Inadequate Resources

The treatment of illicit drug users in prison is a multi-disciplinary approach and involves complex activities such as prevention, screening, sensitization, and treatment, care and support. The Mauritius Prison Service has established an effective therapeutic psychosocial approach that relies on funding from external organizations like the Global Fund to sustain the treatment of drug offenders in its various penal institutions.

B. Lack of Trained Personnel

The involvement of prison personnel, especially the prison hospital staff, is indispensable for the optimum delivery of care to drug offenders. The prison staff is trained in correctional services and general health service but is not adequately trained to provide specific and up-to-date care and support to illicit drug users detained in prisons.

C. Gang Affiliation and Peer Pressure

The affiliation to prison gangs among detainees is a current practice. In so doing, detainees are most of the time subject to peer pressure which influences the treatment of patients. Irrespective of their intrinsic motivation, detainees who have opted to benefit from substance abuse treatment often halt their treatment due to peer pressure.

D. Availability of Illicit Drugs and Relapse

There are a significant number of traffickers detained in prisons. Hence the availability of illicit substances allows drug users to obtain their daily dose with ease. The fact that these people are sustaining their addiction, they are not interested in health services and treatment offered to them by the MPS. On the other hand, illicit drug users who have been recruited in substance abuse treatment programmes are often subject to relapse due to the availability of their preferred illicit substances.

E. Access to Prevention Commodities

Illicit drug users are prone to developing adverse health conditions such as blood-borne communicable diseases namely HIV and Hepatitis. Furthermore, some detainees often engage in high risk sexual activities which may have health related consequences. Illicit drug users do not currently have access to prevention commodities, such as sterile needles and syringes and condoms for safer sex.

F. Aftercare and Recidivism

The high recidivism rate[17] in the Mauritius Prison Service impacts greatly on the treatment of drug offenders in the various penal institutions of Mauritius. Detainees who have successfully completed their substance abuse treatment in the prison are not taken care of when they are reinstated in the society. With an accrued negative perception of the society towards ex-detainees, these persons often revert to their illicit activities and come back to prison where they are influenced by their peers and restart illicit drug use.

VII. WAY FORWARD

In order to curb the negative pressure exerted by the above-mentioned challenges, with a view of promoting the treatment of illicit drug users in the Mauritius Prison Service, the prison staff has come up with a few potential solutions to address these challenges.

A. Advocacy

The MPS has a dedicated Strategic Planning and Research Unit which needs to co-opt active participation of a staff member from the prison health care team to participate in research, the analysis of current situation and drafting of reports and documents for submission to higher authorities, policymakers, and unilateral, bilateral, international organizations. There is a need to advocate with judicial legal authorities in view of promoting alternatives to imprisonment such as non-custodial care of illicit drug consumers.

B. Capacity-Building of Staff

The MPS should train its personnel, especially the health care personnel in substance abuse, motivational interviewing techniques, counselling, and social work among others to empower them to deliver optimum health care service to the detainees. Therefore, capacity-building and empowerment should be the fundamental pursuits of the MPS to be better equipped to treat illicit drug users. With an optimal advocacy level, the MPS may consider application for scholarships or training with international organizations in the field under study.

C. Training of Peer Support

One of the best ways to fight gang affiliation and peer pressure is the implementation of an intramural peer support network[18] for each institution. These peer support groups will be responsible to create a healthy relationship between inmates thereby instilling the element of trust among them. In this way, the application of health processes to treat illicit drug users may be more accepted.

D. Supply Reduction

The application of more rigid security measures to halt the entry of illicit substances inside prisons shall be a focal activity of the Mauritius Prison Service. Decreasing drug supplies will certainly entail an increase in the need for medical care to palliate withdrawal, resulting in more detainees soliciting health care service.

E. Setting Up Harmonized Programmes Including Stakeholders

Consultative workshops must be held involving the various stakeholders fighting the drug scourge and aiming at giving out treatment and care to illicit drug users. There shall be a harmonized programme to share confidential information of patients with external agencies such as rehabilitation centres, the national HIV/AIDS units in view of reducing loss to follow up and to sustain treatment initiated in prison once a detainee is released, which could represent an effective and efficient aftercare bridge.

F. Setting Up of a Dedicated Rehabilitation Centre

The setting up of a comprehensive centralized rehabilitation centre for the provision of care support and treatment of illicit drug users detained in prison should be considered. The centre shall be a drug free unit whereby clients shall be cared for in their cognitive, affective and physiological dimensions.

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[17] Globaljournals.org. (2018). [online] Available at: https://globaljournals.org/GJHSS_Volume11/9-Trends-in-Incarceration-and-Recidivism-in-Mauritius.pdf [Accessed 26 Apr. 2018].

[18] Pacenterofexcellence.pitt.edu. (2018). [online] Available at: http://www.pacenterofexcellence.pitt.edu/documents/prison%20based%20peer-15.pdf [Accessed 26 Apr. 2018].

VIII. CASE STUDY

As the treatment of illicit drug users revolves around therapeutic intervention coupled with strong psychosocial support, the application of the Health Belief Model is an ideal approach to cater for the health needs of illicit drug users incarcerated in the Mauritius penal institutions.

The Health Belief Model (HBM) is a psychological model that attempts to explain and predict health behaviours (UniversiteitTwente, 2017)[19]. This is done by focusing on the attitudes and beliefs of individuals. The HBM was first developed in the 1950s by social psychologists Hochbaum, Rosenstock and Kegels working in the U.S. Public Health Services. The model was developed in response to the failure of a free tuberculosis (TB) health screening programme. Since then, the HBM has been adapted to explore a variety of long- and short-term health behaviours, including sexual risk behaviours and the transmission of HIV/AIDS and drug addiction.

This present case study reports the intervention of prison hospital officers to address the issue of drug addiction among a group of five prison inmates with history of substance abuse. The intervention was extended on a six months period and was conducted in collaboration with the Prison Medical Officer, prison psychologist and welfare officers. The programme encompassed medical care to cater for physiological symptoms such as withdrawal and psychosocial support to enhance their morale.

The five inmates were recruited in the programme through peer contact tracing method and the inclusion criteria were firstly, a history of substance abuse through intravenous use, and secondly, their remaining sentence to be served should be more than six months representing the span of the programme and to prevent loss to follow up.

The programme was based on the application of the Health Belief Model, and all the constructs of the model were applied in a very efficient and effective way. The HBM was spelled out in terms of four constructs representing the *perceived threat* and net benefits: *perceived susceptibility*, *perceived severity*, *perceived benefits*, and *perceived barriers*. These concepts were proposed as accounting for people's "readiness to act." An added concept, *cues to action*, would activate that readiness and stimulate overt behaviour. A recent addition to the HBM is the concept of self-efficacy, or one's confidence in the ability to successfully perform an action. This concept was added by Rosenstock and others in 1988 to help the HBM better fit the challenges of changing habitually unhealthy behaviours, such as being sedentary, smoking, or overeating and drug abuse.

The programme was launched through a focus group discussion whereby it was carefully explained and the participants were reassured.

During that initial phase of the programme, all participants were encouraged to discuss their perceived susceptibility with regard to their risky behaviour and their health. At first, they all averred that they are used to injecting drugs, and they found no reason to worry because they have been doing that for over a couple of years and that nothing bad happened to them. The participants were then embarked on a sensitization and awareness programme for two weeks where adequate information and education were communicated to them. As the perception of threat is dependent on the level of knowledge, the participants were able to shift from a low perceived threat to a high one, thus increasing their perceived severity and susceptibility about intravenous drug use.

The participants were aware of the impending dangers of injecting drugs, and they averred they were prone to the very serious HIV infection which could affect their health with detrimental impact on their lives and activities of daily living. Besides, they were also very much aware of the threat of the Hepatitis C virus and the various physiological impacts of injecting drugs. On the other hand, they were also aware of harmful health effects that may include inflamed and/or collapsed veins, puncture marks / track lines, skin infection — abscesses, cellulitis, necrotizing fasciitis, bacteria on the cardiac valves, endocarditis, and other

[19] UniversiteitTwente. (2017). Health Communication | Health Belief Model. [online] Available at: https://www.utwente.nl/en/bms/communication-theories/sorted-by-cluster/Health%20Communication/Health_Belief_Model/

cardiovascular infections, swelling of the feet, ankles, and legs secondary to poor peripheral blood flow.

While the above are general injection-related health effects, there are some other dangers common to drugs prepared with many adulterant chemicals, binders and other toxic substances. Black tar heroin, for example, which is named after its tar-like consistency, contains a large amount of additives and contaminants. These can cause local inflammation, clog blood vessels and contribute to widespread damage to the liver, kidneys, lungs and brain. The participants were very much aware of the severity of the consequences of injecting drugs and that has given rise to a very strong perceived severity about injecting drug.

The next construct to be explored was their perceived susceptibility. Due to their increased perceived severity, the participants were concerned about their state of health. They believed that since they regularly indulged in injecting drugs, they were prone to develop adverse health problems. Furthermore, they had shared needles with their friends, putting them at higher risk of contracting the HIV and the Hepatitis C viruses. The participants were anxious of contracting HIV/AIDS and Hepatitis. They feared they would develop the conditions and were very apprehensive of the need to undergo anti-retroviral treatment.

On the whole, all the five participants had a high perceived threat with regards to their health-related behaviours. Since they were all aware of the threats they were facing and showed interest in modifying their behaviour, the Methadone Substitution Therapy was proposed to them. It is to be noted that MST induction is carried out in the prison setting itself and therefore would be easily accessible to the participants. After explaining the benefits of such treatment to the participants, it was observed that their perceived benefits of quitting intravenous drug abuse and starting Methadone Therapy had increased. They were encouraged due to the fact that they could stay away from all the dangers of injecting drugs and at the same time they could palliate their cravings for drugs and the high feeling.

Now that they had very high perceived benefits, the programme was becoming more challenging because these participants were evolving in a prison setting and that various barriers could hinder their behaviour modification. The issue was discussed with them, and it was obvious that they had a high degree of perceived barriers. They stated that they fear not being able to sustain their actions and that they could in a certain way find it difficult to adapt to their new lifestyle. They also averred of having tried to stop using intravenous drugs but could not manage the withdrawal effectively due to the cost implication with regards to food and medicinal items. The participants were reassured that they shall be given all the necessary facilities and support to help them embark on their health behaviour modification.

In order to facilitate the detainees to effectively and successfully be induced on MST and quit injecting drugs, the programme coordinator advocated for certain privileges from the prison administration, which were acceded to. Thus some modifying variables were identified and addressed. The participants were housed in a self-care dormitory away from other detainees. They were given facilities such as late night television, refrigerator, kettle and additional milk and food items. Thus they were placed away from peer pressure and they felt more comfortable. That enhanced their motivation to quit injecting drugs.

As cues to action, various strategies were employed. Health-related posters were placed in their dormitory to remind them of the dangers of drug abuse and of the advantages of quitting and that of Methadone Substitution Therapy. As the participants had a fairly high perceived severity and susceptibility and benefits and at the same time their perceived barriers were reduced, the intensity of the cues to action could be lower. Once in a while, rehabilitated drug addicts were invited to motivate the participants.

During the implementation phase of the programme, that is, around the second month, the participants were placed on the MST and were followed by the Medical Officer, while the Psychologist and the Welfare officers provided psycho-social support to them. The detainees were not indulging in injecting drugs and were very adherent to MST. They showed very little signs of withdrawal due to their tailored treatment plan. By the end of the fifth month, the participants stated that they were not thinking about drugs but about their future, and they thanked the prison personnel for their support. They were released from prison and they maintained their treatment as their self efficacy was very high.

However, due to harsh societal conditions for released detainees, two of these participants relapsed into injecting drugs and were re-incarcerated.

As a conclusion, according to Taylor (2006)[20], the development of the Health Belief Model was of pioneering significance in the early 1950s. Systematic analyses using the full range of components that it today incorporates might cast light on the impact of social and other factors associated with inequalities in health, and the reasons why individuals and groups may not take up health improvement or protection opportunities.

However, the HBM is not in itself clearly or adequately specified, and the available evidence indicates that in practice its application appears to be inadequate for such purposes. Further, although the HBM may be used to derive information that may then prompt interventions designed to change health beliefs and behaviours, using the model itself cannot inform decision making as to how such interventions might best be structured.

The value of the 'perceived threat' element serving as a central indicator of behavioural motivation in the HBM has been questioned. So has the phenomenological orientation of its design. Notwithstanding components like perceived barriers and demographic and socio-economic descriptors, as normally applied this model may be taken implicitly to assume that people are rational actors, driven by their conscious perceptions of the world. This may misleadingly suggest that health behaviours can always best be understood as being under volitional control, rather than in a large part determined by combinations of circumstantial reality and individuals' habitual, emotional, unconscious and/or otherwise non-rational reactions to the external world. The research identified provides evidence that the overall explanatory power of the HBM is limited, even simply as compared to that of alternative social cognition models.

[20] prezi.com. (2018). *HEALTH BELIEF MODEL*. [online] Available at: https://prezi.com/1jprhmxjqg0j/health-belief-model/ [Accessed 24 Apr. 2018].