



Influence of Stress on Drug Abuse Among Prison Inmates: A Case of Kangeta Prison, Meru County, Kenya

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Abstract: Prisons aim to rehabilitate inmates, but drug abuse among prisoners undermines this goal. Despite government efforts, drug use persists in Kenyan prisons, particularly in Kangeta Prison. This study addresses the gap in understanding the links between stress and drug abuse among Kangeta inmates. Stress, a reaction to environmental events, can lead individuals to cope through various means, including substance abuse. In prisons, factors like police relationships, new environments, and fear contribute to inmate stress. Mental illnesses are prevalent among inmates, often exacerbated by traumatic life events. Drug abuse serves as an escape from emotional turmoil, peer pressure, and limited mental health care in prisons. Inmates addicted to drugs face intense withdrawal symptoms when incarcerated. Managing inmate stress is crucial for rehabilitation, requiring effective programs and a stress-free environment in prisons. The study, conducted in Kangeta Prison, utilized a mixed-method design with 497 inmates and 26 prison staff. Sampling involved both random and purposive methods. Questionnaires and interviews collected data on stress, prison policies, and drug abuse. A pilot study ensured instrument reliability. Ethical considerations were adhered to, obtaining authorization from the university ethics committee and NACOSTI. Survey results indicated a moderate correlation (0.629) between stress and drug abuse, with stressors such as separation from family and inadequate stress management programs in prison. Stakeholder interviews highlighted the unpleasant prison environment contributing to drug abuse. Inmates often resort to drugs as a coping mechanism. Stress is a significant contributor to drug abuse among Kangeta inmates. Prison conditions, separation from loved ones, and a lack of stress management programs intensify stress levels. Addressing the root causes of drug abuse is crucial for effective rehabilitation. Recommendations to reduce stress among the inmates includes integrating stress mitigation activities, enhancing emotional wellness programs, educating inmates on stress-drug abuse links, and establishing peer support groups. These measures aim to minimize drug abuse through improved mental health care and stress management. Future research should be done explore factors influencing drug abuse in other Kenyan prisons, challenges in correctional department reforms, and the role of inmates in the stress rehabilitation process.

Keywords: Drugs, Inmates, Stress

1. Introduction

Prisons are the correctional facilities that have the objective of helping inmates become more productive and law-abiding citizens. A significant number of inmates however resort to drug abuse while in prisons which negates the purpose of rehabilitation in the first place. Ensuring that the inmates are not drug addicts has been the target of many prisons and prison programs in many countries and especially Kenya. Despite the effort and resources of the government to fight the drug abuse in prison, drug use in prison still continues to be a

problem in different prisons in Kenya. There is also scanty of documented research aimed at examining the links between various factors and drug abuse among prison inmates especially in Kenya. This study thus aims to close this gap by determining the influence of stress, prison policies and stress programs on drug abuse among inmates at Kangeta Prison.

2. Literature Review

Stress is a brain and body reaction towards a certain event or condition in a certain environment. These changes can be

good or bad depending on the individual's response, for instance starting a new life in new environment and getting separated from loved ones [1]. When stress hits an individual, he or she may experience some certain psychological changes that even affect the coordination of the whole body. In some cases, these changes can even affect the whole life of an individual as the brain tries to provide some reactions of high stress or when it discerns itself to be in danger or threat. [2].

Every person as different ways of coping with stress, some may use medicated ways, other through guidance and counselling while others may end up abusing drugs and other substances. Mind and mood-changing substances are some of the drugs individuals use in order to fight stress [3]. Some of these substance and drugs usually affects the brain's communications to the sensory systems and body. When these communications are tampered with the emotions and impulse control systems do not work well. Some drugs such as depressants will not only affect the psychological aspect of a person but also bring out some physical changes such as slowing down the heart beats, increasing the body temperatures and enhancing relaxation of all body organs [4] These kind of drugs makes inmates feel 'out of the World' and help them forget the harsh conditions in prisons and also dismiss the mind from thinking about families and relatives back in the society [5].

Inmates' stress can be facilitated by various factors. The most ordinary factors are the relationship between the inmates and prison police, the new prison environment and fear of intimidation by other inmates. Other Factors such as, employment troubles and integration challenges after release can also facilitate stress to a large extent [6] Negative conditions in prison that might cause mental problems include forced isolation, congestion, antagonism, a lack of personal space, worries about the future, and being unable to receive proper health care [7].

Serious mental illness is more prevalent among convicts than in the general population. Inmates typically suffer from mood disorders, anxiety disorders, schizophrenia, and post-traumatic stress disorders. These mental issues may have started before incarceration or they may develop over time. [8]

In accordance with the stress cycle hypothesis, a person should have a consistent life path with low trauma and overall excellent health if their life events are always moving toward their goals and values that are acknowledged by society [9] However, many people who are involved in the legal system act in ways that are against society's norms due to pressures from their adolescence and adulthood, which adds new stressors [9] Prisoners suffer many traumatic events throughout their life, including physical or sexual abuse, violence, and negative legal outcomes [10].

Inmates often face trauma and emotional turmoil, including issues related to their criminal behavior, incarceration experience, and unresolved past traumas. Drugs can serve as a way to numb or dissociate from these painful emotions, providing a temporary escape from reality. In a prison environment, there is often peer pressure and a social hierarchy that can influence inmates to use drugs. Those who

are struggling with mental health issues may feel compelled to use substances to fit in or avoid being targeted by other inmates [11].

In many prisons, access to mental health care is limited. Inmates may not receive the treatment and support they need for their mental health issues, leading them to self-medicate as a way to manage their symptoms without proper medical guidance. In some cases, inmates may believe that using drugs is a way to self-regulate their mental health symptoms. They may have observed others using drugs and believe it's an effective way to control their emotions and mental state [12].

Inmates who are addicted to drugs often face a significant challenge when they are incarcerated. When they abruptly stop using drugs, they frequently experience a range of both physical and psychological withdrawal symptoms. These symptoms can be particularly intense and distressing, making the process of quitting drugs while in prison exceptionally difficult for them. [13]

The physical symptoms can include things like muscle aches, nausea, sweating, and other physical discomfort. These symptoms are not only uncomfortable but can also be painful, making the inmates feel physically unwell. Additionally, the psychological symptoms can be equally daunting. These may manifest as intense cravings for the drugs, overwhelming anxiety, deep-seated depression, and, in some severe cases, even the onset of medical complications. These symptoms collectively create a substantial burden for inmates who are trying to overcome their drug addiction [14].

Inmates who are addicted to drugs often face a significant challenge when they are incarcerated. When they abruptly stop using drugs, they frequently experience a range of both physical and psychological withdrawal symptoms. These symptoms can be particularly intense and distressing, making the process of quitting drugs while in prison exceptionally difficult for them. [13]

Helping inmate manage their stress and develop measures that help them cope with stress within the prison is of essential. This essential can only be dealt with by developing measures and programs that can help an inmate. Prisons are intended to serve their primary purpose of rehabilitating and changing the behaviour of an inmate, they should also stay in a safe and stress- environment for better rehabilitation [15].

3. Methodology

This study was carried out in Kangeta prison which is a correctional facility located in Igembe Central Sub County, Meru County Kenya. This location was chosen by the researcher due to the increasing recidivism in the area and also the prison is located in the area where violence and drug trafficking offences are so common [16] This study was done using a sequential explanatory mixed method research design in order to establish the influence of stress programs on drug and substance usage among the prisoners of Kangeta Prison. Sequential explanatory mixed method enabled the research have a more comprehensive understanding of the research

problem by combining the strengths of both qualitative and quantitative data. The target population of the study was 523 respondents when the study was conducted which includes; prisoners, remandees, prison wardens and other staffs. The accessible population was 497 inmates and 26 officers working within the prison.

Sample from the inmates were obtained using the simple random sampling procedure which is a probability sampling method. This method of sampling ensured that each sample had an equal chance of being chosen. A random sample is intended to be a fair and balanced representation of the general population. [6] Additionally, the researcher used a purposive sampling method to draw only six individuals from the prison staffs and other stakeholders. These respondents were interviewed by the researcher. These included include, one prison police, one ex-inmate of the prison, one health care official, one prison counsellor, a probation officer and a rehabilitation/vocational training coordinator.

For the purpose of getting a better sample from the inmate's population the sample size calculation formulae proposed by Nassiuma (2000) was used this formula enabled the researcher to take into consideration the possible errors and coefficient of variation. Below is the formulae:

$$n = \frac{NC^2}{C^2 + (N - 1)e^2}$$

Where:

n = Sample size,

e = Standard error.

C = Coefficient of variation,

N = Population,

C=25% (Nassiuma 2000), e = 0.02 and N= 497(Kangeta Prison inmate)

$$n = \frac{497 \times 0.25^2}{0.25^2 + (497 - 1) \times 0.02^2}$$

$$= 31.0625 / 0.2609 = 119.06$$

=120 Respondents were selected to participate in this research.

The researcher utilized the questionnaire to obtain essential data from respondents, the questions were both open ended and closed. The questionnaire was administered by the researcher. The questionnaire was organized into four sections, where section A covered personal information about the respondents and the remaining sections capturing data based on the objectives of the study. Interview schedules was used to get qualitative data from the relevant experts selected purposely by the researcher.

To ensure there is internal and content validity of the instruments, the research presented these instruments to different experts in the social sciences and readers for their judgements, considerations and suggestions. A pilot study was carried out in order to evaluate the instruments' reliability. The researcher used the Cronbach alpha coefficient, which is a number between 0 and 1, to evaluate the internal consistency of the questionnaire's items. The Pilot study was conducted in Meru main Prison because it has some similar characteristics

with Kangeta Prison. The pilot sample was 10% of the sample to be used in the study. Therefore, twelve respondents were given questionnaires at the pilot stage. Results obtained were then split into two and measured in the Cronbach's alpha. And a score of 0.915 was determined which surpass the allowed value of 0.7, showing that the instruments used were reliable. [9].

In accordance with the legal requirements for conducting research in Kenya, the researcher received a letter of authorization from Tharaka University Ethic Committee and a permit from NACOSTI during the course of this study. The findings of the study were reported as they are, without any manipulation or erroneous assumptions. In order to safeguard respondents' privacy, the responses were treated with great confidence. The researcher accurately reported the findings and avoid bias and subjective data analysis. Additionally, the research also adheres to the attached timetable and appropriately schedule the administration of the research instruments. The ethical considerations in research will be respected throughout the entire research process. The NACOSTI rules and regulations were also observed in this study.

4. Results and Discussion

The researcher tested the null hypothesis that there is no statistically significant influence of stress on drug abuse among the inmates of Kangeta Prison, Meru County, Kenya. Respondents were asked to fill questionnaire regarding the relationship between stress and drug abuse especially on how stress can make them get into drug abuse while in prison. The question formed, touched on different approaches regarding stress including; how stress can influence use of drugs, factors causing stress and possible mechanisms and methods available in the prison. Table 3 provides a summary of the questions asked for instance, when Kangeta prison inmates were asked if stress might encourage them to take drugs while incarcerated, a substantial majority (51% and 23.5%) of respondents agreed that stress can result in drug abuse in prison. Only 17.6% of respondents disagreed with this assertion, in contrast. 7.9% of respondents felt neutral towards this statement. The majority of responders (mean = 3.8) skew towards agreement.

The usage of drugs so that one can relieve themselves from stress came out clearly and the responses produced a statistical mean of 3.5 showing that 56.6 % (32.4 & 24.2) of the respondents agreed that drugs having been assisting them relieve stress while in prison.

Separation from family, friends and loved ones came out as one of the significant factors that made most of the inmates feel stressed while in prison with a mean of 3.8 which shows that majority of the respondents either agreed or strongly agreed about this statement.

A significant portion of respondents (61.7%) moderately agreed and strongly agreed that the prison lacks stress management programs. Conversely, 18.6% of respondents disagreed with this statement while 19.7% were neutral on this issue. The average agreement is moderate (mean = 3.5)

A small percentage of respondents (14.7%) disagreed that inmates feel stressed due to adapting to the prison environment. In contrast, 72.5% of respondents agreed and strongly agreed with this statement. Average agreement appeared to be in favour of agreement. (mean = 3.7)

A substantial percentage of respondents (64.7%) agreed

and strongly agreed that assisting prisoners in managing their stress will lower drug use. In contrast, 14.7% of respondents disagreed with this idea, while 20.6% had no opinion. The mean (3.8) indicates a reasonable level of agreement. The table 8 below summaries these findings:

Table 1 Influence of stress on drug abuse.

Statement/Question	1	2	3	4	5	Mean	SD
stress influences the abuse of drug while in prison:	5	13	8	52	24	3.8	1.10
	4.9%	12.7%	7.8%	51%	23.5%		
The usage of drugs while in prison helps an inmate relieve stress	5	18	21	33	24	3.5	1.18
	4.9%	17.6%	20.6%	32.4%	24.2		
Separation from family, friends and loved ones makes inmates feel stressed	5	7	21	42	27	3.8	1.07
	4.9%	6.9%	20.6%	41.2%	26.5%		
This prison does not have programs and policies that helps inmates manage their stress	9	10	20	44	19	3.5	1.17
	8.8%	9.8%	19.6%	43.1%	18.6%		
The adaptation of the prison environment makes inmates feel stressed	2	19	7	49	25	3.7	1.09
	2.0%	18.6	6.9%	48%	24.5%		
Helping inmates manage their stress will reduce drug use among the inmates	2	13	21	31	35	3.8	1.10
	2%	12.7%	20.6%	30.4%	34.3%		
(Mean Average)- 3.68 (Standard Deviation) (SD) Average – 1.11							
NB - (1- Strongly Disagree, 2- Disagree, 3- Neutral, 4- Agree and 5- Strongly Agree).							

The strength and direction of the relationship between these factors were evaluated using the Spearman's rank correlation coefficient (rho). Between the Drug abuse (DA)_Score and S Stress and Drug abuse (SD) Score, the Spearman's rank correlation coefficient is 0.629. The magnitude of this relationship is moderately strong. This shows a substantial and relatively favourable correlation between the two factors. The correlation is statistically significant since the p-value for the correlation coefficient is

less than the threshold of 0.05.

Increases in DA_Score typically correspond to increases in SD Score. Similar to SD Score, DA_Score also has a propensity to rise as SD Score does. The intermediate strength of this relationship shows that although the two variables do not have a strong relationship, there is still a significant correlation between them. The null hypothesis was rejected since the association is statistically significant at the 0.01 level. Table 9 provides a summary of this finding.

Table 2. Correlation between Stress and Drug abuse (Spearman Correlation).

Correlations		DA SCORE	SD SCORE
Spearman's rho	Correlation Coefficient	1.000	.629**
	Sig. (2-tailed)	.	.001
	N	102	102
	Correlation Coefficient	.629**	1.000
	Sig. (2-tailed)	.001	.
	N	102	102

To get a better understanding on this issue of stress and drug abuse, the researcher asked the stakeholders and authorities question regarding how stress can influence an inmate abuse drug. Most of the respondents reported that prison produces unpleasant environment such as loss of autonomy, separation from loved ones, fear of violence, uncertainty about the future, limited resources, stigma, lack of activities. Others claimed their stress is as a result of unfair and long judicial system.

Other respondents said that some inmates use drug as a strategy of helping them cope with the prison environment and a way of adapting easily in the prison and socializing with others. Stress within the prison can prolong to some extent that it can produce some mental illnesses and disorders. A mind map showing this relationship is as shown in figure 6.

When the stakeholders were asked about the treatment of

mental patient most of the responded by saying that the prison does not have a good treatment program for such inmates with mental issues.

Based to the interviews done on stakeholders within the prison, some inmates use drugs as a coping technique for the difficult prison setting. The drugs are used as a way to deal with the pressure, loneliness, and uncertainty of incarceration. In this scenario, drugs could be used as an interim flee from the harsh reality of prison life and as a form of psychological pleasure. Drugs may also serve as a way of social acceptability for those who are unaccustomed with prison culture, making it easier for them to integrate into already-existing prisoner networks.

Prisons environment can result to high levels of stress that can lead to inmates developing mental diseases. The majority of stakeholders stated that the current treatment programs are insufficient when questioned about how prisons handle

convicts with mental health issues. This emphasizes the important need for improved mental health services in prisons to assist prisoners who are struggling with

psychological issues receive the care they need to stop their conditions from getting worse while they are incarcerated.

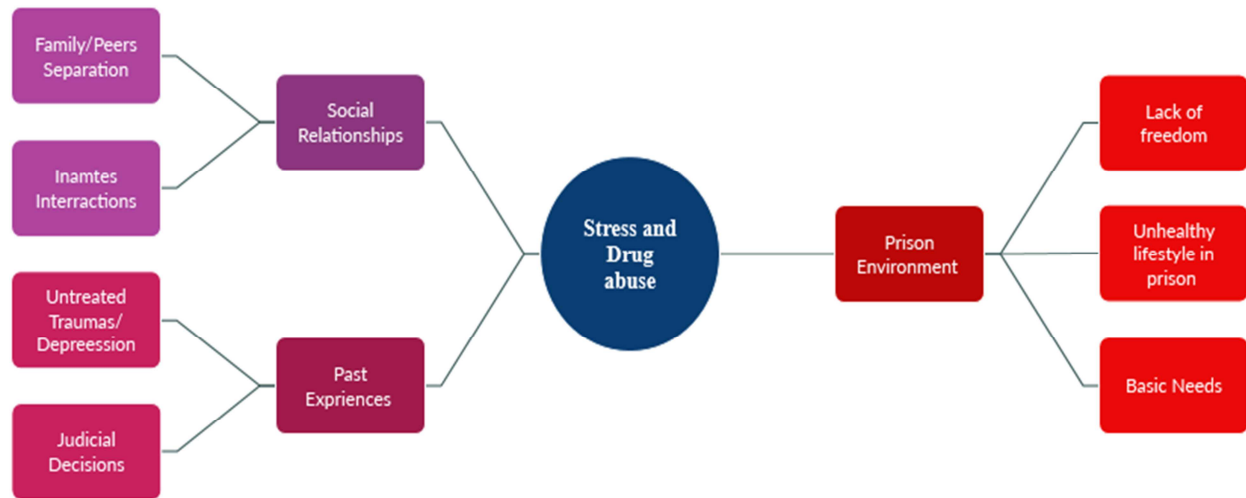


Figure 1. Mind map of Responses on Stress and Drug Abuse.

The following statements are some of the excerpts from the responses given by stakeholders:

“You know sometime the prison can produce a very unpleasant environment for many and especially new inmates, depending on the individual behaviour and learnt behaviour from other inmates, inmate can be forced to get into these drugs so that he can feel relieved from the stressing situations. We also do carry studies here and it has shown majority of the inmates have some mental issues and other illnesses”

(Stakeholder 5, Male, KVI, 17TH JULY 2023)

“Most of them inmates especially the “New Ones” have a hard time in adapting the new environment of the prison, some were even depressed before arrest and stressed as a result of judicial results that is making them be in this prison. This can make them get into drugs as a way forgetting their problems at their homes and even help them adapt in the harsh environment of the prison.”

(Stakeholder 1, Male, KI, 17TH JULY 2023)

“In this correctional facility, prisoners with mental health conditions do not receive treatment on-site; instead, they are relocated to other prisons like Kamiti or sent to the Mathare Rehab centre. However, it's important to note that not all inmates with mental health problems undergo this transfer, as some are still left untreated within the prison.”

(Stakeholder 6, Male, KIV, 17TH JULY 2023)

It can be challenging for inmates to settle in to the new prison setting because it frequently not so welcoming. For the purpose to keep and discipline those who have been found responsible of crimes, prisons have been designed to be harsh and secure environments. The environment may feel cruel and unpleasant as a consequence of often lacking the liberties and features of the outside environment [13].

Surprisingly, a study that was carried out by Chatterjee, 2006 in one of the largest prisons in Nepal found that over 35% of the detainees were struggling with depression and 65% of those suffering depressions were using drugs to cope with their stress.

Despite this, neither the prisoners nor the staff at the prison are aware of these disorders, allowing the individual to suffer in silence.

Just like what was found in Kangeta prison, a study carried out in Eldoret Prison, Rift Valley Region, Kenya by Showed that 24.5% of the inmates in that prison abused drugs so that they could cope with the prison environment and a way of adapting easily in the prison and socializing with others [14] The findings from Kangeta and other prisons across the world shows that stress is a major contributor in abusing drugs. Most of the inmate's responses shows that most prisons lack methods that can be used to help this depressed prisoner. The stress can be facilitated by factors such as prison environment, hostile inmates/staffs, separation from loved ones and unhealthy lifestyle in prison. Effective measures and programs needs to be implemented by the government and prison department.

5. Conclusions

It became clear that the stress among the inmates was a major cause of drug use. Penitentiary conditions, which were marked by the harsh environment, diminished privacy, and constant threat of violence, separation from relatives are some of the reasons fostered to elevated stress levels. Inmates who face stress often resort to using drugs as an ineffective way to overcome the intensity of jail. The results of this study emphasized the importance of understanding the major influence of stress on inmate well-being and pointed to the necessity for focused treatments that minimize stress and support mental health to deal with the root causes of drug abuse.

6. Policy Recommendations

1. Integrate based on research stress mitigation activities to

correctional institutions via establishing stress management programs Such as meditation, mindfulness meditation, and other relaxation practices may be amongst them.

2. Enhance emotional wellness programs and support inside prison institutions to broaden accessibility to these therapies. This could involve employing additional psychologists to provide therapy and counselling to inmates enduring stress and other psychological issues. Drug abuse statistics can be minimized with proper mental health care.
3. The recommended programs could include teachings on stress management. Inform inmates regarding the relationship between stress and addiction to drugs and educate them on effective stress-management practices.
4. Establishing peer support groups in which prisoners can talk about their experiences and methods for coping.

7. Limitations and Future Research

Accessing the prison was one of the major challenges faced due to the long procedures involved. The finding and results of this study only act as a base for other prisons in Kenya. This study may not have comprehensively cover all the aspects pertaining drug abuse among the prison inmates and it recommends further research on.

1. Influence of various factors on drug abuse in other prisons in Kenya.
2. Challenges facing implementation of reforms in Kenya correction department.
3. Role of inmate on stress rehabilitation process.

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