

## **Influence of Physiological Stress Coping Strategies on the Psychological Well-being of Life-Sentenced Inmates in Maximum- Security Prisons in Kenya.**

**Authors**

**Paul Ndung'u Muring'u<sup>1</sup>; Prof. Mary Kariuki<sup>2</sup>; Prof. Teresa Njunge<sup>3</sup>**

<sup>1,2,3</sup> Egerton University, Kenya.

Main author email: [miringupaul@gmail.com](mailto:miringupaul@gmail.com)

### **ABSTRACT:**

This study aimed at establishing the influence of physiological stress coping strategies on the psychological well-being of life-sentenced inmates in maximum-security prisons in Kenya. Cognitive behavioural theory and Logotherapy theory guided this study. This study was a descriptive survey. The target population was life-sentenced inmates in nine maximum security prisons in Kenya. The accessible population was 4,487 life-sentenced inmates. The sample size of the life-sentenced inmates was 365, which was selected through systematic sampling. In addition, 30 specialised prison officers were purposively selected. Thus, the total sample size was 395 respondents. The study collected data using questionnaires for life-sentenced inmates, an adapted psychological well-being scale for life-sentenced inmates and interviews for specialised prison officers. Data was analysed through both descriptive and inferential statistics. The findings of the study indicate that physiological stress coping strategies influence the psychological well-being of life-sentenced inmates. The study concluded that correctional facilities are intended to serve diverse purposes, which include keeping the imprisoned persons in safe custody, deterrence, rehabilitation and behaviour modification. The lifers' physiological activities that include; sleep, diet, exercises, relaxation, reading, listening to music, watching TV, games, and recreation have an influence on their psychological well-being. The study recommends that; policymakers and stakeholders of correctional and rehabilitation of inmates prioritise the psychological well-being of lifers and enhance physiological stress coping strategies for the psychological well-being of lifers and effective rehabilitation and reintegration of the inmates.

**Key terms:** Physiological Stress Coping Strategies, Psychological Well-Being, Lifers.

\*\*\*

### **How to cite this article in APA**

Muring'u, P.N., Kariuki, M. & Njunge, T. (2021). Influence of Physiological Stress Coping Strategies on the Psychological Well-being of Life-Sentenced Inmates in Maximum-Security Prisons in Kenya. *Editon Cons. J. Psychol. Guid. Couns.* 3(1), 242-258. <https://doi.org/10.51317/ecjpgc.v3i1.283>

\*\*\*

## INTRODUCTION

Human beings all over the world endeavour to have not only physical well-being but also psychological well-being. Psychological well-being is observed when one has positive self-regard, positive relationships, personal autonomy, mastery, purpose and personal growth (Steptoe, 2019). Unfortunately, persons that are in prison for life also struggle to get to that same level of psychological well-being. Globally, thousands of people have to spend a great part of the rest of their natural life in prison. According to the Kenya Law Resource Centre (2018), imprisonment is the most popular punishment, and it entails the actual physical restraint of the offender by placing him in custody. A prison, also called a correctional facility, is a facility in which inmates or persons who have committed crimes are confined and denied several freedoms (Welch, 2014).

Persons that are in prison experience stress due to incarceration as well as due to the depriving environment of prison. Among stressful prison, situations is how to deal with boredom, segregation, sexual harassment and the anxiety of uncertainty of what to expect in case of release. They also fear and worry over what happens to their properties and their families while in prison. Their freedom is curtailed; they have to follow the prison routine that incorporates constant headcounts and searches (Aday & Dye, 2019). Lifers have to strive to get along not only with fellow inmates but also with the prison warders. The prison environment could be unbearable due to congestion, constant noise and altercations. There could also be constant fear of outbreaks of contagious diseases. Therefore, being in prison is stressful, and coping with stress could contribute immensely to the rehabilitation process (Skoronski & Talik, 2018). It is possible humanely to bear with difficult situations, but when an individual is subjected to such a situation for a very long time or for a lifetime, one has to have coping strategies that would

enable him or her to survive or possibly adapt to the prison environment.

There are a variety of strategies for coping with stress in prison. The strategies could be positive or negative strategies. Among the positive strategies of coping with stress are physiological, sociological, psychological and religious activities. Some studies indicate that some prison inmates choose solitary isolation rather than being in open general wards because they feel safer. Nevertheless, they experience the harmful effect of withdrawal, such as anxiety and suicidal thoughts (Leonard, 2020). The negative or maladaptive ways of coping with stress involve obtaining and using contraband substances and drug abuse and obtaining money fraudulently while in prison. Fights and infractions in prison could also be ways of venting out anger and bitterness. These could easily affect inmates that have a high duration in prison.

The higher duration of imprisonment is life imprisonment. The purpose of imprisonment is to restrain and contain; that is, safekeeping in custody, deterrence and rehabilitation of the offender (Kenya Prisons Strategic Plan, 2012; Prison Act, CAP 90 part IV Art 34). A life sentence is a punishment by which somebody spends the rest of their natural life in prison or until paroled or given amnesty (Welch, 2014).

Porter (2014) enumerated crimes for which a person could receive a life sentence, but they differ from one country to another and include; murder, blasphemy, terrorism, severe child abuse, rape, child rape, severe case of fraud or economic crimes, robbery with violence, Piracy, genocide, and crimes against humanity. Kara (2015) observed that life imprisonment could, in certain cases, also be imposed for traffic offences causing death as a maximum term, as is the case in some states in the US and Canada.

Worldwide, the United States has the most population of persons in prison; consequently, it leads to the population of life sentences at a rate of 50 people per 100,000 residents imprisoned for life (Petersilia, 2019). One in nine people in prison in America is serving a life sentence, and approximately a third of lifers will not have a chance at Parole hearing because theirs is life without parole (LWOP); they are certain to die in prison (Dye & Aday, 2019; Willis & Zaitzow, 2015; Capers, 2012;). In America, sentences that exceed a century and sometimes 999 years have been given (Dye & Aday, 2019; Porter, 2014).

James and Glaze (2016) observed that persons imprisoned for life experience a lot of stress due to lack of contact and verbal and physical abuse. In addition, they experience the trauma of sexual abuse, especially among women inmates and young offenders, and solitary confinement for as long as 23 hours a day (National Alliance of Mental Illness, 2017). The consequence is worsening of psychiatric symptoms such as paranoia, extreme anxiety and depression, increased suicides attempts, homicides, sleep disturbances, hallucinations and self-harm. Such issues may have adverse traumatic effects on the inmates' mental health and maybe manifested as post-traumatic stress disorder (PTSD). Solitary confinement has harmful effects depending on the length of time people remain isolated (Drancoli, 2015). According to Johnson (2011), these forms of punishment result in deprivations caused by loss of liberty, material impoverishment, personal inadequacy, loss of heterosexual relationships, loss of autonomy, and loss of personal security. Frankl (2016) observed that while in the detention camps in the Second World War II, prisoners had everything taken away from them, even their names. Instead, they were given numbers, which were tattooed on their skins (McEvoy, 2016). In most cases, inmates are issued with a seven-digit number that would henceforth act as their identity (Willis & Zaitow, 2015). The emotional and psychological forms of punishment of prison life today might be viewed as punishments which the free

community deliberately inflicts on the offender for violating the law (Dye & Aday, 2019; Drancoli, 2015).

There are countries that do not have life imprisonment as a sentence. For instance, Portugal was the first country to abolish life imprisonment under the Prison reforms of *Sampaio e Melo* in 1884 (Howes, 2009). Such reforms and decisions not to have life imprisonment were probably informed by the desire not to have persons exposed to trauma and probably depressing situations in prison for a very long time. However, where life imprisonment is the possible sentence, in some cases, there may be formal mechanisms in requesting parole after a certain period of imprisonment (Cole, 2014). This implies that a convict could be released from prison much earlier and serve a sentence outside prison (Howes, 2009).

The Rome Statutes of International Criminal Court ICC (2000) stipulates that a prisoner should serve two-thirds of a fixed sentence or 35-50 years as the highest determined prison sentence (Moruf et al., 2016). Several European countries have abolished indefinite imprisonment of all forms, including Serbia, Croatia, and Spain, setting a maximum of 40 years. Bosnia and Herzegovina have a maximum sentence of 45 years (Cole, 2014). Life imprisonment is only for men in some countries, such as Albania, Argentina, Azerbaijan and Belarus (Porter, 2014). In South Africa, offences of premeditated murder, gang rape, Serial rape leads to life imprisonment. In the past, courts in South Africa have handed at least two sentences that have exceeded a century to individual offenders, Moses Sithole and Eugene de Koch, whose sentences were symbolic of life sentences (Derek, 2015).

Every prison inmate could easily turn the tough time in prison into constructive time if the pains of imprisonment are met by mature coping (Johnson, 2011). There are various ways that people imprisoned for life cope up with the stress of their incarceration. They embrace an

optimistic sense of personal efficacy – a belief in their autonomy- that should serve them well during the often tough progress from confinement to freedom (Paluch, 2004; Willis & Zaitzow, 2015). Johnson (2011) opined that effective adaptation would seem, first and foremost, the acceptance of one's limited situation. The majority of lifers also opt to avoid trouble and make the most of the opportunities for work, education and rehabilitative programs in prison (Dye & Aday, 2019). Some other coping mechanisms that inmates use include; writing books, poems and stories in prison, which relaxes the mind and keeps them purposeful, composing songs and video games, which allows the inmate to enter and live for a time in a fantasy world. Watching television and listening to music, which for lifers seems to offer a window on the real/outside world; they can share with loved ones when they visit (Johnson, 2011). Watching Television and listening to music may be viewed as an inactive form of coping, but in the prison environment, it may be helpful to relax the mind.

Capital punishment, which includes life imprisonment, was formally introduced into the Kenyan legal system by the British during the colonial era (Kenya Human Rights Commission, 2015). After independence, the country continued to apply the penalty. However, no executions of those on death row have been carried out in Kenya since 1986, when Hezekiah Ochuka and Pancras Okumu were hanged for alleged treason (Ondieki, 2016). The Kenyan Penal Code (2012, CAP 63, VI, 25) states that; "persons serving detention, during presidential pleasure, can be detained indefinitely and are not entitled to remission. However, anyone serving life sentence imprisonment or detention can be released under the president's prerogative of mercy." The board of sentence review conducts the review of sentences and provides advice to the president. The State law Office (2018) reported that President Uhuru, on 24<sup>th</sup> October 2016, signed commutation documents turning all death sentences then

into life jail terms. In the entire country, there were 2,655 males and 92 females that benefitted from this commutation. The last commutation of death sentence to life imprisonment had been done in 2009 by the then President Mwai Kibaki. While commuting the death row for the 4,000 prisoners to life imprisonment, in 2009, the president stated that; "the mass commutation would help alleviate the undue mental anguish, psychological trauma and anxiety that resulted from extended stays on death row" (Cherono, 2016).

The statement attests to the fact that; persons imprisoned, especially on death row, experience psychological and mental anguish (Kubiak, 2004). This may be the case for the death row inmates and those on life imprisonment sentences. The major difference between the circumstances of the two is that the death row inmates, awaits hanging any day; his or her life literally hangs on a balance (Nyandoro, 2013). The situation for the persons serving a life sentence may perhaps be a bit different since there is a glimmer of hope; of being conditionally released (Kubiak, 2004). Nevertheless, the continued stay in prison for persons sentenced for life becomes stressful not only due to the fact of being sentenced for life but also the trauma of verbal and physical abuse by fellow inmates, solitary confinement, constant exposure to the risk of contracting contagious diseases due to overcrowding and lack of proper medical attention. Kamoyo et al. (2015) observed that jails and prisons are required to provide basic health care for inmates, but often prison-based mental health care focuses on stabilising rather than treating inmates. Prisoners rarely get therapy or comprehensive treatment, so mental health issues that were previously controlled with medication worsen (Nyandoro, 2013). All these experiences may have far-reaching effects on the psychological well-being of persons incarcerated for life.



Mr Moody Awori, who was the Vice President and minister in the Ministry for Home Affairs in Kenya in 2002, focused on improving the Kenyan prisons. On the rehabilitation of prisoners, Moody proposed the employment of professionals in fields such as criminology, sociology, theology, psychology and psychiatry (Moody, 2017; Ondieki, 2016). His proposals also recommended developing vocational training, reviving the parole system, and reviewing the earning scheme for prisoners. In addition, the document suggested rolling out paralegal services in prisons and restorative justice. Moody Awori even suggested (to the amusement of many) that prisoners be allowed conjugal visits. He observed that "Prisoners are human beings who need to be rehabilitated. They are not social rejects bereft of any claim to the human right to love and the desire for acceptance" (Ogosia, 2008). It was at his time that he introduced the open door policy. This meant that, unlike before, individuals and groups could now visit the prisons and that families of the inmates could pay a visit to them in prison (Ogeto, 2009). This was important to promote interactions between inmates that are husbands and fathers with their wives and children and vice versa. Prisoners were hence allowed to watch television as well as listen to transistor radios in their cells (Yaa, 2015).

One of the pillars of Kenyan Vision 2030 is the political pillar, whose strategy is security, peace-building and conflict resolution. This strategy's vision is security for all persons and property throughout the Republic of Kenya (Kenya Vision, 2030). In order for the security of all persons to be attained, notorious offenders must be put to prison, some for life. Nevertheless, persons in prison, especially for life, perhaps need help toward rehabilitation and assistance toward their psychological well-being. In case of release, for such persons through successful court appeals, petitions, parole or presidential clemency, they may never be the same if their psychological well-being is not taken care of. They would have a lot of difficulties fitting back

into society due to PTSD and may easily become victims of recidivism (McEvoy, 2016).

## LITERATURE REVIEW

### *Physiological Stress Coping Strategies*

Physiological coping with stress involves physical coping, which is a series of transactions between a person who has a set of resources, values and commitments and a particular environment with its own demands and constraints. Good health and high-level energy through appropriate diet, rest, good sleep and exercise are vital (Fuster, 2020). In a study based in North Wollo, Amhara Regional State and Woldia town, Yedemie (2018) sought to establish, among other factors on the physiological coping strategies among the high school teachers. A sample of 78 teachers was selected where 13 were female while 65 of the respondents were male. A descriptive research design was employed in the study. The study revealed that the major physiological stress coping strategies that the high school teachers adopted were taking of balanced diet, resting, walking and listening to music. Giving way to crying for a while can also relieve stress (Ithinji, 2001). In addition, vacations or holidays and time for relaxation are necessary. Kawa (2016) carried out a study in Sumbawanga Municipality in Tanzania to examine the physiological coping strategies, among other coping strategies. The study applied two approaches; the qualitative and quantitative. In addition, a sample of 73 subjects of the study was used. It was found from the study that physical exercises and learning different techniques of relaxation were the major physiological coping strategies embraced by the respondents to cope with stress. The study recommended that while dealing with stress, the coping strategies they adopted should be in school and replicated in the neighbourhood and correctional facilities.

Blackett (2017) observed that physical activity (exercise) has beneficial effects on the body, lowering blood pressure, stress hormones, and pain due to tension. These

physical exercises could be helpful to lifers as a coping strategy but could also be hampered by the overcrowding that is experienced in many prisons in Kenya. Ogeto (2009) pointed out that many prisons in Kenya have remained the way they were since colonial time; or very little has been done to expand them or create room for the rising number of inmates. Hoyme (2018) emphasised contact comfort as an important aspect to all human beings and mammals. The innate need for contact comfort probably explains why massage therapy is one of the oldest treatments in the world (Tucker, 2013). According to Hoyme (2018), the earliest written records of massage were discovered in China, Egypt and India and dates back to over 4000 years. Wide-ranging studies have demonstrated the benefits of massage on human beings of every age, and especially on depressed elderly people and children with attention-deficit/hyperactive disorder (Rosser, 2004). Massage helps to reduce stress, depression, pain, and anxiety, improve immune function, and increases concentration and mental alertness (Tucker, 2013). In Kenya, massage even to the general population is not so popular and is not well understood; this, therefore, could not be availed to inmates. Quality sleep and a balanced diet are also helpful in addressing the issue of stress in people's day-to-day lives. In the context of Ghana, Iddi et al. (2021) sought to examine, among other coping strategies, the physiological coping strategies adopted by adults during the Covid-19 pandemic. A sample of 811 adults was chosen where questionnaires were used to collect data from them. Findings from the study indicated that the respondents handled stress, especially on lockdown during Covid-19, by sleeping. The study recommended that the government should develop public health policies that could aid in effective Strategies of coping with stress.

Meals and good diet practices are vital ways of physiological coping with stress; however, as observed in a study by Aday and Dye (2019) in a focus group discussion in a women prison in an American prison, the female lifers

stated that they loathed the food in prison because it was unpalatable. With the advent of the open-door policy adopted in prisons in Kenya and the reformation of the correctional facilities, prison canteens that stock fruits, bread and soft drinks were made available for prisoners so that they be able to purchase snacks that may complement their meals (Ogeto, 2009). Though this may seem good for the welfare of prison inmates, it may remain as a preserve for few prison inmates that get money forwarded to them by their families. The prisoners that may not afford it are unable to make use of the prison canteen.

Among the general benefit espoused for physical activity is that it is assumed to reduce reactivity. Physical fitness helps individual's better cope with the onset of stress, and it dampens or reduces physiological changes (Ithinji, 2001). A simple exercise such as taking a walk for a duration of 30-45 minutes could be helpful for any individual in dealing with personal stress. Prisoners who are serving life imprisonment ought to be involved in physical activities and sports to cope with the stress of imprisonment and promote both mental and physical well-being. Helping them through simple and not so complex ways of relaxation, including meditation, gym, aerobics, and yoga, probably could help. Prisons in the developed world have gyms and well set up sporting facilities where inmates not only work on their body appearance but also helps them cope with stress. In the case of prisons in Kenya, focusing on providing room and sporting equipment such as balls, nets, and rackets could greatly improve the participation of lifers in games and sporting activities. Nevertheless, Barykbsyeva (2012) observed that lifers are often kept apart and are subjected to a more harsh treatment than those in for other sentences. This isolation probably limits the participation of inmates in Kenya in physical exercises, which could easily affect their psychological well-being.

Mitchell Larson and Melgosa (2000) suggested three strategies in treating stress symptoms: direct use of

medication, behaviour therapy, and physical ways (sauna, massaging, hot tub, hydrotherapy and Jacuzzi). It is also possible to change a person by using biofeedback involving the use of medical technology to help individuals monitor and eventually control physiological processes (Shwartz & Andrasik, 2017). Another method is relaxation training by use of techniques designed to help people relax, such as yoga and *Thalassotherapy*, involving baths in the sea, which increases appetite, stimulates metabolism and help in better functioning of secretion of glands (Marquez, 2017). Some medicinal plants, such as stimulants (spearmint, savoury), also lead to relaxation, and others help balance the nervous system. Nevertheless, overdoing any of the above may also aggravate the stress levels (Langle & Waurm, 2016).

While the above may be good and helpful ways of coping with stress, they appear sophisticated for ordinary people and more so far out of reach for persons in prison. Nevertheless, programs based on inmates' gradual assistance, such as Stretching up and simple therapies, which may include relaxing exercises including yoga, dance, breathing techniques, meditation, aerobics, gymnastics, acrobatic exercises, may all be helpful. This study, therefore, purposes to determine whether the physiological stress coping strategies in prisons promote the psychological well-being of life-sentenced inmates, thereby helping them relax to handle or minimise their stress.

## RESULTS AND DISCUSSION

### Response Rate

The study targeted collecting data from 365 lifers and 30 prison officers. Table 3 shows the response rate achieved in this study.

**Table 1: Response Rate**

Respondent	Sample	Response	Response Rate
Lifers	365	350	95.89%
Prison Officers	30	24	80.00%
Total	395	374	94.68%

Table 1 indicates that out of the targeted 365 lifers, the study collected data from 350 lifers, presenting a response rate of 95.89 per cent. In addition, though the study targeted 30 prison officers, the study managed to conduct interviews with 24 prison officers within the data collection period. This presented a response rate of 80.00 per cent. The overall sample for the study was 395 respondents. However, a response of 374 respondents was obtained. Therefore the overall response rate was 94.68 per cent. According to Miller and Whicker (2017), a response rate of at least 70 per cent implies that the feedback obtained can be generalised to the entire population from which the sample was taken. Therefore the findings revealed in this study will be generalisable to all life-sentenced inmates in maximum-security prisons in Kenya.

The psychological well-being of the lifers was determined through Ryffe's 42 items Psychological well-being scale. The scale is a six-point Likert scale ranging from 1-strongly disagree, 2-disagree, 3-weakly disagree, 4-weakly agree, 5-agree, and 6-strongly agree. It incorporates all the six dimensions of psychological well-being, namely personal autonomy, environmental mastery, positive relationship, purpose in life, personal growth and self-acceptance. If the results of each dimension of the psychological well-being were to be presented individually, this publication would be voluminous. This was, therefore, deliberately left out. Nevertheless, the overall result of the psychological well-being was predicated on the physiological stress coping

strategies to determine the influence of the independent variable on the dependent variable.

The findings of the statements on physiological coping strategies are presented. The study used a five-point Likert scale for prisoners to express their agreement or disagreement on these statements. The five points on the Likert scales were; 1-Strongly Disagree (SD), 2-Disagree (D), 3- Undecided (U), 4-Agree (A), 5-Strongly Agree (SA). In respect to this scale, a standard deviation greater than

1.000 would represent a large spread in responses, while a standard deviation less than 1.000 would represent commonness in responses. On the other hand, an achieved mean less than 3.00 implied that the majority of the prisoners, on average, disagreed with the corresponding statement, while a mean greater than 3.00 showed agreement with the corresponding statement. Table 2 presents the responses of lifer's on physiological stress coping strategies.

**Table 2: Physiological Stress Coping Strategies**

Physiological Stress Coping Strategies	SD	D	U	A	SA	Total	
	F %	F %	F %	F %	F %	Mean	Std. Dev.
I participate in physical exercises here in prison	54 15.4	23 6.6	6 1.7	76 21.7	191 54.6	3.93	1.489
I like watching Television here in prison	39 11.1	17 4.9	4 1.1	70 20.0	220 62.9	4.19	1.345
I get enough sleep here in prison	123 35.1	71 20.3	51 14.6	46 13.1	59 16.9	2.56	1.493
I get enough time to relax here in prison	122 34.9	79 22.6	8 2.3	92 26.3	49 14.0	2.62	1.518
I am in good health here in prison	95 27.1	61 17.4	29 8.3	75 21.4	90 25.7	3.01	1.584
I have a good appetite for food here in prison	122 34.9	80 22.9	1 0.3	60 17.1	87 24.9	2.74	1.652
I like watching movies here in prison	75 21.4	38 10.9	7 2.0	105 30.0	125 35.7	3.48	1.573
I like reading storybooks here in prison	104 29.7	38 10.9	6 1.7	59 16.9	143 40.9	3.28	1.740
I share stories with my fellow inmates	102 29.1	30 8.6	6 1.7	90 25.7	122 34.9	3.29	1.682
I have written a book/poems/hymns here in prison	216 61.7	43 12.3	8 2.3	18 5.1	65 18.6	2.07	1.587
I am involved in teaching others in class here in prison	126 36.0	22 6.3	10 2.9	62 17.7	130 37.1	3.14	1.776
I have special responsibilities here in prison	87 24.9	29 8.3	8 2.3	79 22.6	147 42.0	3.49	1.660



I am an artist(drawing, painting, music, drama, comedy)here in prison	87 24.9	48 13.7	14 4.0	69 19.7	132 37.7	3.32	1.657
I like spectating games here in prison	53 15.1	21 6.0	7 2.0	93 26.6	176 50.3	3.91	1.457
I like listening to music here in prison	65 18.6	28 8.0	8 2.3	84 24.0	165 47.1	3.73	1.556
Composite Scores						3.25	1.585

Table 2 indicates that, on average, the majority of the respondents said that they participated in physical exercises in prison. This was evidenced by a mean of 3.93 achieved, which is greater than 3.00. A standard deviation of 1.489 attained, which is less than 1.500, implied that there was a small spread in responses and thus consensus among the life inmates. Moreover, the majority of the prisoners agreed that they participated in physical exercises in prison (Agree=21.7%, Strongly Agree=54.6%). Kawa (2016) found from his study that physical exercises and learning different techniques of relaxation were the major physiological coping strategies embraced by the respondents to cope with stress. In Malaysia, Hamid and Manan (2013), on the other hand, found that people coped with stress by working.

In regard to watching television while in prison, the majority of the lifers tended to agree that they liked watching television while in prison (20.0%=Agree, 62.9%=Strongly Agree). A mean of 4.19 attained, which is greater than 3.00, depicted that, on average, the majority of the respondents liked watching television while in prison. Furthermore, a standard deviation of 1.345 achieved showed that there was consensus in responses given by prisoners.

It was further revealed that the majority disagreed on having enough sleep (35.1%= Strongly Disagree, 20.3%= Disagree). A mean of 2.56 attained, which is less than 3.00, depicted that, on average, the lifers did not get enough sleep in prison. A standard deviation of 1.493 gotten

implied that there was consensus in responses given by prisoners regarding having enough sleep on the other hand. Following the statement on getting enough time to relax, the study found that there was uniqueness in responses given by the respondents. This was evidenced by a standard deviation of 1.518, which is greater than 1.500. In addition, a mean of 2.62 achieved, which is less than 3.00, implied that, on average, the majority of the lifers did not get enough time to relax. It was also found that prisoners did not agree that they had enough time to sleep (Strongly Disagree=34.9, Disagree=22.6%).

Based on health, 27.1 per cent of the respondents strongly disagreed that they were in good health in prison. A mean of 3.01 attained depicted that, on average, the majority of the prisoners were indifferent on whether they were in good health in prison. Moreover, a standard deviation of 1.584 implied a lack of consensus among the life inmates. The interviewed health officers indicated that;

*"We have dispensaries within the prison for taking care of small ailments of the inmates; however, at times, we are short of supplies of medicine and health equipment. Therefore, for major issues with the inmates, we often refer them to the referral hospitals."*

Other health officials agreed that the dispensaries could not help with health cases and referrals were made, and families were called upon to take responsibility.

*"Where it happens that an inmate requires an X-ray or MRI to be taken or maybe he has problems with his eye-sight or hearing such is normally beyond the*

*scope of what is provided in prison. The family or well-wishers are normally called to facilitate such"*

A large spread in responses was also revealed from a standard deviation of 1.652 (greater than 1.500) achieved from a statement on appetite for food. A mean of 2.74 obtained implied that, on average, the majority of the life inmates did not have a good appetite for food in prison. This was further evidenced by 34.9 per cent of the respondents who strongly disagreed and 24.9 per cent who strongly agreed the existence of a good appetite for food. One of the health officers in an interview was in agreement that food was not good and appetising and noted that;

*"The food served to prisoners does not even look good; it doesn't taste well either. The only food the prisoners like most is 'Githeri', a mixture of maize and beans because at least the beans are plenty."*

It was further revealed that, on average, the majority of the prisoners liked watching movies in prison. This was evidenced by a mean of 3.48 achieved, which is greater than 3.00. Most of the prisoners agreed that they liked watching movies in prison (Agree=30.0%, Strongly Agree=35.7%). A large standard deviation of 1.573 attained depicted that there was a lack of consensus on this metric. The welfare officers interviewed indicated that they provided good movies and videos for the inmates to watch. One of them indicated that;

*"The welfare office sources for inspiring and educational videos and allow the inmates to watch. They watch the video in the wards or in the open halls. This, in a way, also reduces prison frustrations and is also a rehabilitative tool due to the educative and inspiring movies at times shown to the inmates."*

The majority of the respondents were also found to strongly agree that they read storybooks (40.9%), while 29.7% of the respondents strongly disagreed with the same. Therefore a large spread in responses was unveiled from a

standard deviation of 1.740 and thus lack of consensus among the respondents. A mean of 3.28 realised, which is greater than 3.00, showed that, on average, the majority of the prisoners liked reading storybooks while in prison. The study revealed through the conducted interviews that reading materials were supplied to the inmates for those who would want to read. One of them indicated that;

*"Our prison library has a variety of books both for school curriculum, motivational and novels. We are supplied with reading books by non-governmental organisations such as Grol's foundation, Faraja trust, Strathmore University, among others. Prisoners that are able to read borrow the books from the library."*

On average, the majority of the lifers also said that they shared stories with their fellow inmates in prison. This was evident from a mean of 3.29 achieved, which is greater than 3.00. A standard deviation of 1.682 attained implied that there was a large spread in responses given on the other hand, and thus there is a proportion that shared stories and another that did not share stories to fellow inmates. Further, 34.9 per cent strongly agreed, while 29.1 per cent strongly disagreed that they shared stories with their fellow inmates in prison.

In regard to writing books, poems or hymns, 61.7 per cent of the respondents strongly disagreed that they wrote books, poems or hymns, while 18.6 per cent strongly agreed with the same. A mean of 2.07 achieved, which is less than 3.00, revealed that, on average, the majority of the respondents said that they had not written books, poems or hymns in prison. However, there was uniqueness in responses evidenced by a standard deviation of 1.587, which is greater than 1.000, implying low consensus.

Following the statement on teaching others in the class, the study revealed that, on average, the majority of the life inmates were involved in teaching others in class while in prison. This was evident from a mean greater than 3.00

(3.14). A standard deviation of 1.776 achieved, which is greater than 1.500, implied that there was a large spread in responses. This implied some proportion of life inmates would teach and the other would not. In addition, 37.1 per cent of the respondents strongly agreed with the statement, while 36.0 per cent strongly disagreed.

Lack of consensus in responses was unveiled from the statement about having special responsibilities in prison. This was evidenced by a standard deviation of 1.660 attained which is greater than 1.500. In respect to this, 42.0 per cent of the respondents strongly agreed with the statement, while 24.9 per cent strongly disagreed that they had special responsibilities in prison. Furthermore, a mean of 3.49 was achieved, which is greater than 3.00, implying that, on average, most of the prisoners said they had special responsibilities in prison.

Further, the majority of the prisoners, on average, said that they were artists. This was evidenced by a mean of 3.32, which is greater than 3.00. The study further found that 37.7 per cent of the prisoners strongly agreed, while 24.9 per cent strongly disagreed that they were artists. Therefore, a standard deviation of 1.657 was obtained and thus implying that there was a large spread in responses. These results are in line with the information provided by the welfare officers, who noted that there was a variety of talents in prison. One of them indicated that;

*"In prison, we have inmates from all backgrounds, we have professionals, and we have musicians, artists and artisans. For example, the artwork dotting the walls of prison walls were done by inmates themselves as a way of expressing themselves and communicating positive messages."*

In line with this, another officer indicated that;

*"We at times organise moments for inmates to dance; they love it; it is known here in prison as*

*'kujiachilia time' or fun time. The inmates dance and outdo each other in new dance styles. You could easily think that they are not in prison."*

Also, majority of the respondents tended to agree that they liked spectating games in prison (26.6%=Agree, 50.3%=Strongly Agree). On average, the majority of the prisoners said that they liked spectating games in prison. This was evidenced by a mean of 3.91 attained, which is greater than 3.00. A standard deviation of 1.457 achieved implied that there was consensus in responses given.

On average, the majority of the life inmates loved listening to music in prison. This was evident from a mean of 3.73 achieved. The study further found that the majority tended to agree that listening to music in prison (Agree=24.0%, Strongly Agree=47.1%). However, a standard deviation of 1.556 gotten, which is greater than 1.500, implied that there was uniqueness in responses from prisoners and thus lack of consensus.

An overall standard deviation of 1.585 was obtained. The overall standard deviation, which is greater than 1.500, implied that there was high variance in responses given by the prisoners regarding the aspects of physiological stress coping strategies. However, an overall mean score of 3.25 was attained. An overall mean score greater than 3.00 depicted that, on average, prisoners agreed with the various physiological coping strategies examined. This implied that there was the use of physiological coping strategies among the life inmates in all maximum prisons in Kenya.

The study further asked the lifers to suggest any other physiological coping strategies that they used to manage stress while in prison. Table 3 presents the qualitative data analysis from the open-ended questions on physiological stress coping strategies.

**Table 3: Other Physiological Stress Coping Strategies**

Themes	Codes	References
1.0 Physiological Stress coping strategies	1.01 Work- related physiological coping strategies	<ul style="list-style-type: none"> <li>• I am a carpenter, and this occupies me a lot.</li> <li>• I do metalwork, and it keeps me busy here in prison</li> <li>• Carpentry</li> <li>• I work in prison as an artisan and carpenter</li> <li>• by working here</li> <li>• I am involved in tailoring here in prison, and it keeps me busy and occupied.</li> <li>• Tailoring keeps me occupied</li> <li>• I am a tailor, which keeps me busy</li> <li>• Metalwork which is my field of work</li> <li>• I do welding here in prison</li> <li>• Vocational and manual work</li> <li>• I work as a carpenter here in prison</li> <li>• Drawing and painting</li> <li>• Working in the prison industry</li> <li>• Tailoring keeps me busy</li> <li>• I am busy in prison workshop as a carpenter</li> <li>• Working in the prison industry as a tailor</li> <li>• I work as a tailor here in prison</li> <li>• I do tailoring work in prison</li> <li>• Carpentry keeps me busy</li> <li>• I am a Kinyozi (barber). I shave fellow inmates, and that keeps me very busy.</li> <li>• Working in the workshop as a welder</li> <li>• Working in the prison workshop</li> <li>• As a tailor, I am ever busy working</li> <li>• I am busy always working at the workshop as a welder</li> <li>• Working in the prison kitchen</li> <li>• I work in the bakery during the day and therefore very busy</li> <li>• Drawing and painting-I am an artist</li> <li>• Working as a carpenter in the workshop keeps me busy</li> <li>• Working as a welder here in prison</li> </ul>
	1.02 Hobbies related physiological coping strategies	<ul style="list-style-type: none"> <li>• Watching cartoons and knitting as a hobby</li> <li>• Playing keyboard and dancing .....</li> <li>• Bed resting</li> <li>• Dancing</li> <li>• Dancing and fun making</li> </ul>



		<ul style="list-style-type: none"> <li>• Composing songs</li> <li>• Jogging</li> <li>• I involve myself in my hobbies such as knitting and crocheting</li> <li>• Reading novels</li> <li>• I am involved in hobbies</li> <li>• Keyboard</li> <li>• Extra-Curricular activities</li> <li>• Acrobatic exercise</li> <li>• Dancing</li> <li>• Reading novels</li> <li>• Playing the guitar</li> <li>• Push-ups</li> <li>• Playing drafts with others</li> <li>• Exercising karate</li> <li>• Sleeping</li> <li>• Vocational skills and jogging are helpful to me</li> <li>• I teach others here in prison</li> <li>• Athletics in the field</li> <li>• Playing draft</li> <li>• Being involved in a tug of war</li> <li>• Walking around</li> <li>• Playing and spectating others play draft</li> <li>• I get involved in a lot of exercises</li> <li>• Participating in music and cultural festivals here in prison</li> <li>• Participating in music festivals here in prison</li> <li>• Stretching exercise</li> <li>• By hardworking</li> <li>• Walking to preach to inmates</li> <li>• Singing and playing the guitar</li> <li>• Walking around to avoid many thoughts</li> <li>• Tug of war</li> <li>• Doing a lot of physical exercises</li> <li>• Gymnastic exercises</li> </ul>
--	--	---

Table 3 indicates that the study also revealed that in addition to the 15 metrics on physiological coping strategies, life inmates coped physiologically with stress through work-related activities and strategies. These occupation-related activities included metalwork and welding, carpentry, artisan, tailoring, vocational and manual work, drawing and painting, working as a barber and in the bakery as a chef. The study further found that

other lifers coped with stress physiologically through their hobbies. These included watching cartoons, playing the keyboard and dancing, bed resting and sleeping, fun making, composing songs, jogging and gymnastics. In addition, others involved themselves in hobbies such as knitting and crocheting, reading novels, acrobatic exercises and karate, singing and playing the guitar, playing drafts and cards with others, athletics in the field, participating in music and cultural festivals, and preaching to fellow inmates. This implies that the life-sentenced inmates were

committed to overcoming stress physiologically through various means.

## Regression between Physiological Stress Coping Strategies and Psychological Well-Being

The study used simple linear regression with physiological coping strategies being the independent variable and psychological well-being as the dependent variable. Table 4 presents the results of the simple regression.

**Table 4: Influence of Physiological Stress Coping Strategies on Psychological Wellbeing**

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.652	0.135		19.604	0.000
	Physiological Stress Coping Strategies	0.338	0.041	0.407	8.303	0.000

R=0.407, R Square=0.165, Adjusted R Square=0.163, F (1,348) =68.942, P<0.05

a. Dependent Variable: Psychological Wellbeing b. Predictors: (Constant), Physiological Stress Coping Strategies

Table 4 indicates that there was a weak correlation between the psychological well-being of lifers and physiological stress coping strategies due to an R-value of 0.407. It was noted that physiological stress coping strategies accounted for 16.5 per cent of the variance in psychological well-being. This is due to the R-Square value of 0.165. Focusing on the adjusted R-value, the study observed that the addition of more predictor variables would improve the model less than expected due to an adjusted P-value less than the R-Square value (adjusted R Square=0.163).

Concentrating on t-test results, the study established that physiological stress coping strategies was a significant predictor ( $p<0.05$ ) of psychological well-being. This, therefore, implies that physiological coping strategies determine the level of psychological well-being of the prisoners. Therefore, it was revealed that a unit increase in

the physiological coping strategies of the prisoners resulted in a 0.338 units increase in the psychological well-being with other factors held constant. Furthermore, the regression was statistically significant as a whole due to F (1,348) = 68.942,  $P<0.05$ .

Therefore the null hypothesis that stated that there was no statistically significant influence of physiological stress coping strategies on the psychological well-being of life-sentenced inmates in maximum-security prisons in Kenya was rejected at a 5 per cent confidence level. The alternative hypothesis was adopted that there is a statistically significant influence of physiological stress coping strategies on the psychological well-being of lifers in maximum-security prisons in Kenya.

## CONCLUSION AND RECOMMENDATION

**Conclusion:** Correctional facilities are intended to serve diverse purposes, which include keeping the imprisoned persons in safe custody, deterrence, rehabilitation and behaviour modification. The lifers' physiological activities that include; sleep, diet, exercises, relaxation, reading, listening to music, watching TV, games, and recreation have an influence on their psychological well-being. Enhancement of these physiological activities is vital for the psychological well-being of life-sentenced inmates in maximum-security prisons in Kenya. The study, therefore, established that there exists an influence of physiological stress coping strategies on the psychological well-being of

life-sentenced prison inmates in maximum-security prisons in Kenya.

**Recommendations:** Focusing on the physiological stress coping strategies could be helpful in the work of rehabilitation. For example, regular exercises, quality sleep, relaxation, games and recreational activities in prisons should be enhanced. In addition, prison services and other key players such as government agencies and non-governmental organisations could further explore the physiological stress coping strategies to improve the psychological well-being of life-sentenced inmates.

## REFERENCES

- Aday, H. R., & Dye, H. M. (2019). *Women Lifers: Lives Before, behind and Beyond Bars*, Rowman & Little field Publishing Group Inc.
- Barykbayeva, I., Amanzholova, D., & Macalesher, J. (2012). *The Abolition of the Death Penalty and its Alternative Sanction In Central Asia: Kazakhstan, Kyrgyzstan and Tajikistan*. Penal Reform International, 65 pp.
- Blackett, G. (2017). *Mind body intelligence*. Create Space Independent Publishing Platform
- Capers, B. (2012). *Defending Life without Parole: America's New Death Penalty?* New York University Press.
- Cherono, P. (2016, October 24). President commutes death row to life imprisonment. *The Star* p.1
- Cole, D. (2014). Turning the corner on mass incarceration? *Ohio State Journal of Criminal Law*, 9(1)27-51.
- Derek, C. C. (2015). Dialogues on historical justice and memory network, *Working Paper Series 5*, 2015
- Drancoli, V. (2015). The mental anguish of incarceration; *Good Therapy* <http://www.goodtherapy.org>
- Frankl, E. V. (2016). *Man's Search for Meaning*. Beacon.
- Fuster, J. M. (2020). *Personal Counselling*, (13<sup>th</sup> ed.). Better Yourself Books.
- Hamid, S. A., & Manan, N. A. (2013). Stress Coping Skills Among Diabetes Suferers in Sepang Selangor Malaysia. *International Journal of Education and Research*, 1(10), 1–10.
- Howes, J. (2009). Life goes on. Washington D.C: *The Sentencing Project Report*. 56-58.
- Hoyme, R. J. (2018). *The Complete Guide to Modern Massage: Step- By-Step Massage Basics and Techniques from Around the World*, Althea Press.
- Iddi, S., Obiri-Yeboah, D., Aboh, I. K., Quansah, R., Owusu, S. A., Enyan, N. I. E., Kodom, R. V., Nsabimana, E., Jansen, S., Ekumah, B., Boamah, S. A., Boateng, G. O., Doku, D. T., & Armah, F. A. (2021). Coping Strategies Adapted by Ghanaians During the COVID-19 Crisis and Lockdown: A Population-Based Study. *PLoS ONE*, 16(6), 1–21. <https://doi.org/10.1371/journal.pone.0253800>.

Doi: 10.51317/ecjpgc.v2i1.283

Volume: 03 Issue: 01 | Oct-2021 |

Received: 14.10.2021; Accepted 18.10.2021; Published: 30.10.2021 at [www.editoncpublishing.org](http://www.editoncpublishing.org)

Miring'u, P.N. et al., Editon Cons. J. Psychol. Guid. Couns. **Double –Blind Peer Reviewed Journal**

ISSN: 2664-0112

- Ithinji, G. (2001). *Stress Management*. (Unpublished paper presented to the Department of Psychology and Counselling, in partial fulfilment of Personality and interpersonal Relationships course) Egerton University.
- James, J., & Glaze, E. (2016). *Mental problems of prison and jail inmates*. Washington D.C., US Department of Justice Bureau 238-240.
- Johnson, B. R. (2011). Not by government or faith alone: rethinking prisoner re-entry. *Correctional Compendium*, 17-18.
- Kamoyo, J., Barchok H., Mburungu, B., & Yaga, V. (2015). Effects of imprisonment on depression among female inmates, *Research on Humanities and Social Sciences; Chuka University Institutional Repository*.
- Kara, G. (2015). Breakthrough in U.S. Drug Sentencing Reform, Washington: *The Sentencing*
- Kawa, N. P. (2016). Effects of Stress on Secondary School Teachers Job Performance in Tanzania: A case study of Sumbawanga Municipality. In *University of Dodoma Institutional Repository*.
- Kenya Human Rights Commission. (2018). *Civil and Political Reports*. [www.knhcr.org/Portals/o/civil and political reports/pp2](http://www.knhcr.org/Portals/o/civil_and_political_reports/pp2).
- Kenya Law Resource. (2016). *Abolition of the Death Penalty in Kenya* <https://content.next.westlaw/3-638-2529>
- Kenya Penal Code (2012). *Laws of Kenya*, National Council for Law Reporting. [www.kenyalaw.org](http://www.kenyalaw.org).
- Kenya Prison Service Standing orders; (CAP 90) Classification of prisons. Government Press.
- Kenya Prisons Service Strategic Plan (2008-2012). *Rehabilitation of offenders*. Government Press.
- Kenya Vision 2030. (2016, May 18). *Pillars of Development* <https://www.kenyavision2030.go.ke>
- Kubiak, S. (2004). The effects of PTSD on treatment adherence; drug relapse and criminal recidivism in a sample of incarcerated men and women, *Research on Social Work*, 14, 424,424.
- Langle, S., & Waurm, C. (2016). *Living Your Own Life: Existential Analysis in Action*. Karnac Books
- Leonard, J. (August 6, 2020). What are the effects of solitary confinement on health? *Medical News Today*. [https://www. Medical News today.com/articles/solitary.confinement.effects](https://www.MedicalNewsToday.com/articles/solitary.confinement.effects).
- Marquez, A. M. (2017). *The Longevity Revolution-Thalasso therapy*, Create Space Publishing Platform.
- McEvoy, B. (2016). Seven lessons learnt from Man's Search for Meaning by Victor E. Frankl 1942, Book Review. <https://www.benjaminmcevoy.bookreview.com>
- Mitchell, R., Larson, R., & Melgosa, B. (2000). *People in Organization: An Introduction to Organizational Behaviour* (3<sup>rd</sup> ed.). McGraw-Hill, Inc.
- Moody, A. (2017). *Riding on a Tiger; Autobiography*, Moran Publishers.
- Moruf, M., Olaposi, A., & Akin, O. (2016). Unresolved Jurisprudence of Crime against Humanity under Article 7 of the Rome statute of the *International Criminal Court*. [https://www.org/journal/paper/information/apsx? Paper ID=73202andutn](https://www.org/journal/paper/information/apsx?PaperID=73202andutn)
- National Alliance on Mental Illness (NAMI). (2016). *Psychotherapy*. [www.nami.org/Learn-More/Treatment/Psychotherapy](http://www.nami.org/Learn-More/Treatment/Psychotherapy)
- Nyandoro, H. T. (2013). *Blind Justice: A True Story of An Innocent Man Sentenced to Hang, and His Untiring Quest for Justice*. Global Africa Corporation Ltd.



- Ogeto, N. A. (2009). *The impact of Prison Reforms on the Inmate's Rehabilitation Programs in Kenya: A Case Study of Kamiti and Langata Prisons*. (Published Masters Thesis), Nairobi University.
- Ogosia, K. (2008, July 2). I was all out to reform Kenyan jails. *The Daily Nation*, p. 30.
- Ondieki, E. (2016, October 24). President Uhuru commutes death row sentences. *The Daily Nation*, 1, 3.
- Paluch, J. (2004). *A life for a Life: Life Imprisonment: America's other Death Penalty*, Los Angeles, Roxbury Publishing Co.
- Petersilia, J. (2018). *When Prisoners Come Home. Parole and Prison Re-Entry*. Oxford: Oxford University Press.
- Porter, N. (2014). On the chopping block: state prison closings, *the Sentencing Project News*, 7 (5) 23-25. Project. 30(12), 52-55.
- Rosser, M. (2004). *Body Massage Therapy Basics*. Hodder Education.
- Shwartz, S. M. & Andrasik, F. (2017). *Biofeedback: A Practitioners Guide*, The Guildford Press.
- Skowronski, L. B., & Talik, E. (2018). Coping with stress and the sense of the quality of life in inmates of correctional facilities. *Psychiatry-Pol*; 52(3), 525-542 <https://doi.org/10.12740/pp/77901>.
- State law office (2018). Life sentence, Kenya state law office, <http://www.statelaw-go.ke/wp>
- Steptoe, A. (2019). Happiness and Health. *Annu Review Public Health* 40, 339-359. <https://doi.org/10.1146/040218.04414150>
- Tucker, L. (2013). *Introductory guide to massage*, (3<sup>rd</sup> ed.). EMS Publishing.
- Welch, M. (2014). *A Social History of Punishment and Corrections" A Critical Approach*. Routledge Press.
- Willis, K. A., & Zaitzow, H. B. (2015). "Doing life": A glimpse into the long-term incarceration experience, *Laws* 4, 559-578.
- Yaa, E. (2015, November 17). Prison reforms. *The star*, (4).
- Yedemie, Y. Y. (2018). Factors Influencing Stress and Coping Strategies among High School Teachers in the Case of Amhara National Regional State, North Wollo Zone, Woldia Town, General High School. *The Internet Journal Language, Culture and Society*, 1(47), 39–46.