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Quality of life and associated variables of life-sentenced inmates in Jos maximum security prison

Abstract

Background: People serving life sentences must make prison their homes forever. They will never again have the thousands of freedoms many of us take for granted. The miserable environment of prison means people with life sentences have to preserve even the tiniest privileges towards making big differences in their quality of life. This study assessed the relationship between quality of life and sociodemographic and mental health variables of life-sentenced inmates. **Material and methods:** A cross-sectional descriptive study was carried out among 26 life-sentenced prisoners who consented to be studied out of a total of 30. Each of the participants completed the sociodemographic, forensic, and mental health variable questionnaire and WHOQoL-BREF. The data was analysed using the Statistical Package for Social Sciences Version 21. **Results:** All participants were males and majority were <45 years in age (65.4%). Majority of the participants rated state of prison welfare as poor (65.4%), were visited only once while in prison (57.7%), have low social support (53.8%), and have low resilience (65.4%). Participants who were visited once and those with positive family history of mental illness had poor perception to their overall quality of life on WHOQoL-BREF. **Conclusion:** The results showed that majority of prisoners on life sentence rated the state of prison welfare as poor, had only one visit in prison with poor social support and low resilience characteristics. Inmates visited once and those with family history of mental illness have poor perception of their overall quality of life.

Keywords: Freedom. Environment. Mental Health. Social Support. Resilience. Nigeria.

Aishatu Yusha'u Armiya'u[1],
Tajudeen Abiola[2],
Lubuola Issa Bamidele[3],
Charles Nnameka Nwoga[4],
Francis John Davou[5]

[1]*Forensic Unit, Department of Psychiatry, Jos University Teaching Hospital, Jos, Plateau State, Nigeria,* [2]*Medical Services Unit, Federal Neuropsychiatric Hospital, Barnawa-Kaduna State, Nigeria,* [3]*Forensic Unit, Department of Psychiatry, Jos University Teaching Hospital, Jos, Plateau State, Nigeria,* [4]*Department of Psychiatry, University of Jos/Jos University Teaching Hospital, Jos, Plateau State, Nigeria,* [5]*Department of Psychiatry, College of Health Sciences, University of Abuja, Abuja, Nigeria*

Correspondence: Aishatu Yusha'u Armiya'u, Jos University Teaching Hospital, University of Jos P.M.B 2084 Jos, Plateau State, Nigeria. Post code: 930001. aarmiyau@gmail.com

INTRODUCTION

Forensic mental health is an area of specialisation which operates in the criminal arena. Its functions involve assessment and treatment of individuals with mental disorder and those whose behaviour led or could lead to offending. Once an individual offends and sentenced, the next focus of forensic mental health is to ensure that the wellbeing angle of the triad purpose of imprisonment (i.e. punishment, deterrence, and rehabilitation) are achieved.[1] A way of measuring and ensuring this is through ascertaining the quality of life (QoL) of inmates.

QoL has become an important topic in psychiatry and medicine because, the accuracy of morbidity and mortality as classical outcome measures of medical assessment/intervention has been criticised. Hence, QoL plays the role of quantifying the perception of individuals' situations with respect to their life aspirations in the context of their culture and value systems.[2] To this end, QoL stands out as an outcome measure of inmates' adjustments/reactions to imprisonment and/or rehabilitation processes going on within the correctional facilities.

In Nigerian correctional facilities, many variables exist that seemed to impair good inmates' adjustment and hence, their QoL. Foremost of these variables is overcrowding where the prison occupancy rate as at 2016 was 125.9%, representing an increase of five per cent over the last six years.[3,4] Often associated with such overcrowding is bullying, violence, loss of autonomy, and poor social network.[4,5] In spite of this alarming rate, there are few studies on the mental health of the Nigerian prisons' inmates,[6-9] not to mention inmates on life sentence.

This study identified barely three per cent of the over 1800 sentenced inmates in Nigerian correctional facilities. These three per cent are the neglected segment of convicts in Nigerian prisons who had no option of parole.[3] This subgroup referred to as lifers is bound to lose thousands of freedoms many of us take for granted. Not to mention the attendant negative impact on their psychosocial experience and wellness.[10]

Undoubtedly, lifers would have to persevere more miserable environment of prison in order to enjoy the tiniest of privileges that might make a big difference to their

QoL. Such harrowing reality experienced by life-sentenced prisoners has been given relatively little attention even with the understanding that these people must make prison their homes forever.[4] Consequently, this study aimed at assessing QoL of life-sentenced inmates in a maximum security prison in Jos, North Central Nigeria. In addition, it determined the relationship between the inmates' QoL and their other variables (i.e. sociodemographic/forensic characteristics, resilience, and social support).

METHODS AND MATERIALS

Study population and area

Study population includes 26 life-sentenced prisoners who consented to be studied out of a total of 30 life-sentenced inmates in the Jos maximum security prison, Plateau State, Nigeria. All the participants filled the study instruments after obtaining informed consent from them.

Data collections instruments

Each of the participants completed the study instruments consisting of self-developed sociodemographic, forensic, and mental health variables questionnaires. In addition, they also completed the three-item Oslo Social Support (OSS-3) scale, the Resilience Scale (RS), and the World Health Organization (WHO) QoL instrument.

Sociodemographic and forensic variables questionnaire

The sociodemographics comprised age, religious affiliation, marital status, educational status, and employment status before imprisonment and the forensic variables accessed were type of offence, duration of imprisonment, subjective assessment of state of prison's welfare, past psychiatric illness history, family history of mental illness, and use of psychoactive substances.

Oslo Social Support scale

The social support was assessed by OSS-3. The brief OSS-3 measures social functioning which is a good predictor of mental health.[11] It measures both the structural and functional aspects of social support by reporting the number of people the respondent feels close to, the interest and concern shown by others, and the ease of obtaining practical help from others.[12] Its brevity and normative data are the strength of this measure over its less documented reliability (Cronbach's alpha of 0.58–0.60).[11-13]

Resilience Scale

Resilience was measured by RS. RS is a 25-item measure of psychological resilience which as a personal trait help individuals experience less harm from difficult challenges and bring about good functioning thereafter.[14] RS has good validity and reliability (Cronbach's α range of 0.72–0.94) from several studies[14,15] and it is scored on a Likert scale of one to seven, grouping respondents' total scores into low, moderate, or high resilience. In this study, RS was used to report the trait resilience of the participants, by categorising

them into high or low resilience characteristics as designated by the originator of this measuring scale.

WHOQoL-BREF

This instrument was used to collect data on the objective QoL of all consenting participants. It is a short version of the self-report questionnaire (WHOQoL-100) designed by WHO to measure the perception of individual's with respect to their position in life as it relates to their culture and value systems in which they live and also how it relates to their goals, expectations, concerns, and standards.[2] WHOQoL-BREF is a 26-item abbreviated version of WHOQoL-100 containing items that were extracted from the WHOQoL-100 field trial data. WHOQoL-BREF contains one item from each of the 24 facets of QoL included in WHOQoL-100, plus two 'benchmark' items from the general facet on overall QoL and general health (not included in scoring). WHOQoL-BREF is currently scored in four domains- domain 1: physical health, domain 2: psychological, domain 3: social relations, and domain 4: environment, with all facet items scored as part of their hypothesised domain.[2] The instrument has a scoring sheet with a score of one to five points using Likert scale.

As a measure of the scale's internal consistency, Cronbach's α were acceptable (0.7) for domains 1, 2, and 4, i.e. physical health domain 0.82, psychological domain 0.81, and environment 0.80, but marginal for social relationships, 0.68 for the total population. Discriminant validity was best demonstrated in the physical domain, followed by the psychological, social, and environment domains.[2] A review of all the item-total correlations in the total population showed generally good results overall.[2] Summary Pearson correlation (one-tailed test) between domains for the total sample were strong, positive, and highly significant ($p<0.0001$), ranging from 0.46 (physical vs. social) to 0.67 (physical vs. psychological). All the measuring scales used in this study had been validated for use in Nigeria.

Procedure

Each participant who gave consent completely filled the study instruments comprising of sociodemographic, forensic, social support, resilience, and QoL questionnaires. In filling the study instruments, any participants who had difficulty completing the questionnaires received help from the first and third authors.

Ethical consideration

Ethical approval was obtained from the Jos University Teaching Hospital and the Controller of the Nigeria Prison Service, Jos. Written informed consent was obtained from each of the participant.

Data analysis

The Statistical Package for Social Sciences (SPSS) version 21.0 software package was used to analyse the data. Simple descriptive analysis was used to summarise sociodemographic variable using frequency count and percentage. The chi-square test and student t-test were used to investigate the relationships between QoL and other inmates' variables. The value of $p<0.05$, two-tailed was considered statistically significant.

RESULTS

Sociodemographic variables

All participants were males and majority were <45 years of age (65.4%). More than half of the participants had only primary school education, married, and employed before incarceration (53.8%) (Table 1).

Forensic variables

As shown in Table 2, majority of the participants had been in prison for over six months (76.9%), spent less than two months before conviction (65.4%), rated state of prison welfare as poor (65.4%), and were visited only once while in prison (57.7%). Table 2 also shows that more than four in ten were incarcerated for murder (46.2%) and similar number had drug abuse problems (42.3%).

Mental health variables

Table 3 showed the mean distributions of the participants' QoL, social support and resilience. Also shown in Table 3 is that more than half of the participants had poor social support (53.8%) and low resilience characteristics (65.4%).

WHOQoL-BREF

Some variables were significantly related to QoL (Tables 4 and 5). This included belonging to the Christian faith in terms of physical health and enjoying good welfare in prison for psychological health. The perceived QoL was related to both having been visited more than once by relations and the absence of family history of mental illness. Both social support and resilience were not significantly related to QoL among the study participants.

Table 1: Sociodemographic variables of the participants

Variables	Frequency (n)	Percentages (%)
Age		
Less than 45 years	17	65.4
45 years and above	9	34.6
Religion		
Christianity	21	80.8
Islam	5	19.2
Marital status		
Currently married	14	53.8
Currently single	12	46.2
Education status		
Nil	6	23.1
Primary	14	53.8
Secondary	6	23.1
Employment status		
Unemployed before sentencing	12	46.2
Employed before sentencing	14	53.8

Table 2: Forensic variables of the participants

Variables	Frequency (n)	Percentages (%)
Duration of imprisonment		
Less than 6 months	6	23.1
6 months	20	76.9
Duration of imprisonment before conviction		
Less or equal to 2 months	17	65.4
More than 2 months	9	34.6
Type of offence		
Murder	12	46.2
Others	14	53.8
State of welfare in prison		
Good	9	34.6
Poor	17	65.4
Visits from relation		
Once	15	57.7
More than once	11	42.3
Past history of mental illness		
Yes (before & after imprisonment)	3 (2 & 1)	11.5
No	23	88.5
Family history of mental illness		
Yes	2	7.7
No	24	92.3
Drug abusing status		
Yes (6=alcohol; 2=marijuana; 2=cigarette; 1=heroine; 6=multiple users)	11	42.3
No	15	57.7

Table 3: Distribution of participants' quality of life, social support and resilience characteristics

Quality of life (α=0.818)	Mean (SD)
Perceived	3.19 (1.4)
General	3.69 (1.1)
Domain 1 (physical health)	12.86 (3.0)
Domain 2 (psychological)	12.26 (2.5)
Domain 3 (social relationship)	12.15 (3.4)
Domain 4 (environment)	9.63 (2.6)
Social support	8.35 (1.81)
Low (n/%) [14 (53.8%)]	
Moderate (n/%) [12 (46.2%)]	
Resilience	98.08 (32.28)
Low (n/%) [17 (65.4%)]	
Moderate-high (n/%) [9 (34.6%)]	

Table 4: Mean distribution of quality of life according to the participants' sociodemographics

Variables	Quality of life					
	Perceived	General	Domain 1	Domain 2	Domain 3	Domain 4
Age						
<45 years	3.18 (1.5)	3.53 (1.1)	12.30 (3.1)	12.08 (2.5)	12.17 (3.3)	9.38 (2.5)
≥45 years	3.22 (1.4)	4.00 (0.9)	13.90 (2.6)	12.59 (2.4)	12.14 (3.8)	10.11 (2.9)
Religion						
Christianity	2.80 (1.3)	4.20 (0.8)	15.31 (2.1)*	13.33 (2.1)	13.33 (4.5)	11.50 (2.9)
Islam	3.29 (1.5)	3.57 (1.1)	12.27 (2.9)*	12.00 (2.5)	11.87 (3.1)	9.19 (2.4)
Marital status						
Married	3.43 (1.4)	3.43 (1.1)	12.86 (2.3)	11.86 (2.7)	11.23 (2.7)	9.64 (2.9)
Single	2.92 (1.5)	4.00 (1.0)	12.86 (3.7)	12.72 (2.3)	13.22 (4.0)	9.63 (2.4)
Education status						
Nil	2.67 (1.2)	3.83 (1.2)	14.38 (1.4)	12.44 (3.6)	11.33 (2.5)	10.25 (2.1)
≤12 years	3.35 (1.5)	3.65 (1.0)	12.40 (3.2)	12.20 (2.2)	12.40 (3.7)	9.45 (2.8)
Employment status						
Unemployed	3.33 (1.6)	3.58 (1.0)	11.81 (3.8)	11.78 (2.4)	12.56 (4.6)	9.46 (3.2)
Employed	3.07 (1.4)	3.79 (1.1)	13.76 (1.6)	12.67 (2.5)	11.81 (2.0)	9.79 (2.2)
Duration of imprisonment						
<6 months	2.83 (1.5)	3.50 (1.0)	13.43 (2.3)	11.56 (2.2)	10.58 (2.9)	4.67 (1.4)
6 months	3.30 (1.5)	3.75 (1.1)	12.69 (3.2)	12.63 (3.7)	9.35 (2.5)	3.75 (1.5)
Duration of imprisonment before conviction						
≤2 months	3.18 (1.3)	3.76 (1.0)	13.04 (2.4)	13.04 (2.4)	12.31 (3.3)	9.74 (2.6)
>2 months	3.22 (1.7)	3.56 (1.1)	12.51 (3.9)	12.15 (2.6)	11.85 (3.9)	9.44 (2.8)
Type of offence						
Murder	3.08 (1.6)	3.75 (1.1)	12.86 (2.3)	12.00 (2.8)	12.00 (2.8)	10.13 (2.6)
Others	3.29 (1.3)	3.64 (1.1)	12.86 (3.5)	12.48 (2.2)	12.28 (4.0)	9.21 (2.7)
State of welfare in prison						
Good	2.56 (1.7)	3.33 (1.2)	11.42 (3.2)	10.59 (2.3)*	10.51 (3.4)	8.56 (2.9)
Poor	5.53 (1.2)	3.88 (0.9)	13.61 (2.6)	13.14 (2.1)*	13.02 (2.1)	10.21 (2.3)
Visits from relation						
Once	2.67 (1.5)*	3.73 (1.2)	13.30 (2.3)	11.91 (2.7)	12.35 (2.7)	9.27 (2.4)
> Once	3.91 (0.9)*	3.64 (0.9)	12.26 (3.7)	12.73 (2.2)	11.88 (4.4)	10.14 (3.0)
*p <0.05						

DISCUSSION

The means of the four domains of QoL of participants in this study was lower than that reported in general adult population. This was not surprising considering that the rate of mental distress was higher among inmates[8,9] compared to the non-incarcerated adult population.[3]

The significant sociodemographic variables that affect the lifers' overall QoL were being visited once by relation since incarceration and having history of family mental illness. Having one visitor since incarceration brought to the fore the loss of freedom to visit others when they could not visit them. This element of social support appeared to provide some insight into how QoL was perceived by prisoners sentenced for life and the probable high suicide rate and speculated increase in misconduct reported among this category of inmates.[16,17] Another angle to this observed greater loneliness might be from the immutable design of the maximum security prison to impose the highest degree of deprivation to the inmates which visitation should reduce.[18,19].

The role of family history of mental illness did relate to the genetic vulnerability of concerned inmates not to enjoy good QoL. Also worth noting here will be poor provision of general health services not to mention specialised ones like psychiatry[20,21] that relates well to all the four domains of quality living.

Low resilience in inmates was found to be associated with poor overall general health, social relationship, and environmental domains of participants. This is supported by the social bonding and social capital support which argues that positive family relationships are important for resilience.[22] In this case, these participants from the study had poor social support with limited visitation by family and/or friends.

Table 5: Mean distribution of diagnosis and quality of life according to the participants' mental health variables

Variables	Quality of life					
	Perceived	General	Domain 1	Domain 2	Domain 3	Domain 4
Past history of mental illness						
Yes	4.00 (0.0)	4.00 (0.0)	13.33 (1.7)	12.22 (2.1)	12.00 (3.5)	9.50 (3.3)
No	3.09 (1.5)	3.65 (1.1)	12.79 (3.1)	12.26 (2.6)	12.17 (3.5)	9.65 (2.6)
Family history of mental illness						
Yes	1.00 (0.0)*	3.50 (2.1)	14.00 (2.0)	12.00 (2.8)	12.67 (0.9)	10.25 (1.1)
No	3.38 (1.3)*	3.71 (1.0)	12.76 (3.0)	12.28 (2.5)	12.11 (3.6)	9.58 (2.7)
Drug abusing status						
Yes	2.91 (1.6)	3.91 (1.0)	13.56 (2.2)	12.55 (2.3)	12.36 (2.7)	9.23 (2.1)
No	3.40 (1.4)	3.53 (1.1)	12.34 (3.4)	12.04 (2.6)	12.00 (3.9)	9.93 (3.0)
Social support						
Low	3.36 (1.2)	3.64 (0.9)	12.37 (3.3)	12.33 (2.0)	11.43 (3.3)	9.07 (2.8)
Moderate	3.00 (1.7)	3.75 (1.2)	13.43 (2.5)	12.17 (3.0)	13.00 (3.5)	10.29 (2.4)
Resilience						
Low	3.36 (1.2)	3.64 (0.9)	12.37 (3.3)	12.33 (2.0)	11.43 (3.3)	9.07 (2.8)
Moderate-high	3.00 (1.7)	3.75 (1.2)	13.42 (2.5)	12.17 (3.0)	13.00 (3.5)	10.29 (2.4)
*p <0.05						

Christian faith was significantly associated with physical health domain of QoL in the study. Studies have reported that people who are religious tend to think in ways that are healthy. Faith gives people a sense of meaning and purpose in life, which is linked to better health. The brain controls every aspect of our bodies, so how we think affects our bodies' work. Studies also reported that religion reduces stress in a number of ways. Prayer, worship, and other spiritual activities can balance out stress response by enhancing the body's relaxation response. Having religious friends is even better; one study found that "church membership was the only type of social involvement that predicted greater life satisfaction and happiness", according to Harold Koenig.[23]

The study reported that positive psychological health on QoL was linked to good welfare enjoyed in the prison by participants. This could be adduced because people who are treated better, encounter less anger, and perceive more pity if they are judged by others as not being responsible for their circumstances.

Conclusion

The results showed that majority of prisoners on life sentence rated the state of prison welfare as poor, had only one visit in prison with poor social support and low resilience characteristics. Inmates visited once and those with family history of mental illness have poor perception of their overall QoL. These provided opportunities for intervention.

Limitation

The cross-sectional nature of the study design did not permit causality to be drawn and future study should be prospective to allow inference to be made. The lifers are a very small peculiar group among the inmates and hence, future study should attempt to study all of them to strengthen findings and their generalisability to similar category of prisoners.

Recommendation

The Nigerian Prison Service should take action by allowing for an early and specialist diagnosis of life-sentenced prisoners who are, or who become mentally disturbed and to provide them with adequate treatment. The judiciary, in concert with the Nigerian Prison Service should take action towards ensuring life-sentenced prisoners are provided with a regime tailored to their needs and help them reduce the level of risk they pose, minimise the damage caused by their sentence, to keep them in touch with the outside world, and offer them the possibility of parole.

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