

Determination of the Prevalence of Depression, Anxiety, Conduct Disorder, Post Traumatic Stress Disorder (PTSD) and Attention Deficit Hyperactivity Disorder (ADHD) of Adolescence Girls Incarcerated at Kirigiti and Dagoretti Rehabilitation Schools

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ARTICLE INFO

Article history:

Received: 26 April 2017;

Received in revised form:
6 September 2017;

Accepted: 18 September 2017;

Keywords

Behavioral Problems,
Rehabilitation Schools.

ABSTRACT

Behavioral problems have remained a critical problem among girls incarcerated in rehabilitation schools. The study adopted a quasi-experimental research design with the two rehabilitation schools being randomly assigned into either treatment or control group. Quantitative method was used to collect the data through the use of questionnaire and Achenbach youth self-report (YSR) (11-18 years). Baseline data was first collected in the two sites. The data was analyzed using SPSS version 21. T-test, Chi square, Anova as well as Ancova tests were carried. The prevalence rates for depression, anxiety disorder and conduct disorder were 66.7%, 70.5% and 55% respectively. In the experimental group the study shows statistically significance difference in mean differences scores at both post-treatment one and two ($p < 0.001$). Therefore this is an indication that MST had an impact on post treatment one and two among juvenile delinquents in experimental as opposed to control groups. The results provide significant insights into effectiveness of MST on selected behavioral problems among Juvenile girls incarcerated in rehabilitation schools.

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Introduction

One of the most important issues in crime today is juvenile delinquency (UNICEF, 2011). Till the 19th century, children who committed crime faced about the same punishment as adults thus towards the end of the 19th century, some reforms worked to develop new system of justice designed to protect abused children from harm (Vitulano, Fite, & Rathert 2010). The first court of justice for children was established in 1899 in state of Illinois in America (Wilderman, 2010).

The challenge of juvenile crime in developed countries is not different from that of developing countries. Juvenile crime presents a fundamental challenge in Africa. In South Africa children aged between 12 and 22 years have been shown to constitute a considerable percentage of both victims and perpetrators of crime (Bella, Atiola, & Omlogobodum, 2010). The number of children imprisoned in South Africa across all categories declined rapidly from 4500 to 846 in February 2010 (Miemsie, Badenhorst, & Kamper, 2010). Approximately 3600 adolescents were incarcerated in rehabilitation centres in Nigeria (UNO, 2012)

Exposure to severe or cumulative stressors and responses to them are strongly associated with risk-taking behavior, including delinquency (Bordium, 2011). Stressors are conditions that elicit strong negative responses and that are perceived as uncontrollable and unpredictable (Kikivi, 2012). Such conditions produce alterations in the body's stress responses that disrupt cognitive and emotional process,

thereby increasing the likelihood of risky behaviors in vulnerable adolescents (Siegel, 2010). Although this is true for both boys and girls, studies have identified some gender differences in rates and types of exposure to stressors. For example, although girls in juvenile justice system are more likely to have a history of abuse and neglect than non-justice involved girls (Wildemann, 2010), there is further evidence that girls more often experience certain types of trauma (e.g. sexual abuse and rape) than boys (Kikivi 2012).

A study by Maru, Kathuku, and Ndeti (2003) on psychiatric morbidity among children and the young persons appearing in the Nairobi Juvenile Court in Kenya indicated that prevalence of psychiatric morbidity among children was high. The study participants were 90 (64 males and 26 females) aged 8 to 18 years classified as criminal offenders. Bordium (2011) recommended that those in juvenile delinquency would benefit from mental health treatment as stipulated in section 18 of cap 141 of laws of Kenya, and the Children and Young Persons' Act. The act stipulates that all children have a right to mental health including those incarcerated in rehabilitation centres (GOK, 2010).

ADHD is the most commonly diagnosed childhood disorder, affecting an estimated 3 to 5 percent of school age children (Siegel, 2010). It occurs more often in boys than girls, in some studies by a 5:1 ratio (Cheung & Cheung, 2010). Research suggests that the condition may have a genetic components because ADHD is diagnosed more frequently in

children who have close biological relatives with ADHD than in the general population (Bella et al., 2010).

The core symptoms of ADHD include; inattention, hyperactivity, and impulsivity (Siegel, 2010). Children who are inattentive and easily distractible have difficulty focusing on a task and may become bored after only a few minutes (Barley, 2007). They often initiate a number of tasks but fail to complete them. Hyperactive children seem to be constantly in motion. They have difficulty sitting still, may wander around the room, squirm in their seats, or repeatedly tap a pencil (Lewin, 1990). Impulsive children tend to act without thinking and often seem unable to control their immediate reactions to people, event, or even their own thoughts and feelings. As a result, they may seek without thinking or dash into the street without looking for traffic (Jongsma, 2006).

Most children (and adults) experience transient episodes of these symptoms, perhaps due to stress or in response to certain medications. Younger children tend to be more active and have shorter attention spans than older ones (Siegel, 2010). These symptoms indicate ADHD appears in different settings; and occurs at a level that is both performance impairing and developmentally inappropriate (Lewin, 1990). A thorough and comprehensive evaluation for ADHD should include input from both parents and teachers (Skelton, 2010).

Children with ADHD may appear functionally impaired in many areas and may engage in a broad array of a problem behavior that frustrates and disrupts family, school, and peer relationships. Their inability to sit still and pay attention in class may lead to school failure, truancy, and dropping out (Siegel, 2010). For many individuals, the effects of untreated ADHD continue into adolescent and adulthood. As they grow older, children with untreated ADHD often in combination with oppositional-defiant and conduct disorders may abuse drugs or alcohol, engage in antisocial behavior, and suffer physical injury at a higher rate than the general population (Olivia, 2013). Later impairment can include vocational and social problems, low self-esteem, and a higher incidence of automobile accidents. Boys with ADHD are at increased risk for engaging in delinquent and antisocial behavior (Olivia, 2013). Researchers know less about the longterm consequences of ADHD in girls because of lack of relevant longitudinal research; however, current studies suggest that ADHD can also have long-term negative effects on girls (Siegel, 2011).

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A preliminary study carried out by the researcher at Kirigiti Rehabilitation School in 2013 found out several problems encountered by adolescents incarcerated in rehabilitation schools. For example, the process of admission in these schools had no fixed time; with admission taking place throughout the year. The researcher noted confusion occasioned by classes having children of mixed ages and

levels of education. This was mainly due to the shortage of teachers which slowed down the learning process while frequent transfer of teachers affected the learning and rehabilitation process.

Methodology

This study used quasi-experimental design with one girls' rehabilitation school being an experimental site and the other the control site. In the experimental site, the researcher administered MST and tested its efficacy in managing the behavioural and emotional problems of girls incarcerated in the rehabilitation schools. Kirigiti and Dagoretti have similar study populations. After conviction, girls can either join Kirigiti or Dagoretti depending on availability of space. There is no significant difference between the two schools ($p < 0.005$). The quasi-experimental research design used in the study enabled the researcher to compare the control and the experimental sites in order to determine the effectiveness of MST. In order to mitigate the feelings of the girls where MST was not used, the researcher briefed the administration as well as the study participants.

The researcher carried out the study at Kirigiti and Dagoretti girls' schools both of which are the only two girls' government correctional and rehabilitation schools in Kenya. While working in girls rehabilitation centers, the researcher observed that a number of juvenile girls had emotional and behavioral problems. Hence the researcher was prompted to carry out a study on girls' rehabilitation schools. Kirigiti is approximately 16 km from Nairobi city via Kiambu road and is in Kiambu County. Dagoretti on the other hand, is approximately 20km from Nairobi city via Dagoretti road in Nairobi County. The centers accommodate girls who have criminal records as well as those who are in need of care and protection. Apart from providing rehabilitation, the two schools provide the regular government 8-4-4 primary education system. The centers provide vocational skills which include tailoring, hair dressing and agriculture as well. The catchment area for Kirigiti and Dagoretti is the entire country.

During the struggle for independence, Kirigiti served as a concentration camp for freedom fighters (Mugo et al., 2006). But after independence in 1963, the institution was used as a transit point for freedom fighters from the then Central Province who had been released from prison. In 1964, the institution became an approved school, charged with rehabilitation of child offenders. The institution was gazetted as an approved school in the same year. The same year Kirigiti received 10 girls from Kalimoni Mission, most of who were children of prisoners under the care of Catholic nuns. Currently Kirigiti engages in provision of life skill training such as, decision making, problem solving and conflict resolution mechanism. It also provides spiritual directions to the child through religious instructions. Above all, Kirigiti provides academic education to ensure that committal to rehabilitation school does not adversely affect the schooling (Mugo et al., 2006). Academic education and vocational training run concurrently. Girls in these centers are convicted for stealing, truancy, prostitution, drugs and substance abuse as well as running away from home, while others are victims of crime or neglect by their families. On arrival at the center, children are received by the school manager. After they are enrolled in the school, they are given uniform and assigned to a class equal to their previous levels of education. Girls stay in this center for a maximum of three years.

After sitting for KCPE, they are released to go home to continue with secondary education. The entire population for this study consisted of two rehabilitation schools. The researcher purposively sampled the two girls' rehabilitation schools.

Table 1 illustrates the rehabilitation schools establishments.

School	Year Established	Gender	(10-18yrs) population of adolescents with conflict with the law	Regions
Nairobi	1978	Male	125	Nairobi
Getathuru	1959	Male	098	Nairobi
Wamumu	1975	Male	150	Eastern
Othaya	1959	Male	130	Central
Likoni	1963	Male	120	Coast
Kericho	1972	Male	101	Western
Kakamega	1965	Male	118	Western
Kabete	1910	Male	180	Nairobi
Kirigiti	1964	Female	101	Central
Dagoretti	1957	Female	103	Nairobi
TOTAL			1230	

Source: Kenya Probation Service Department, 2014.

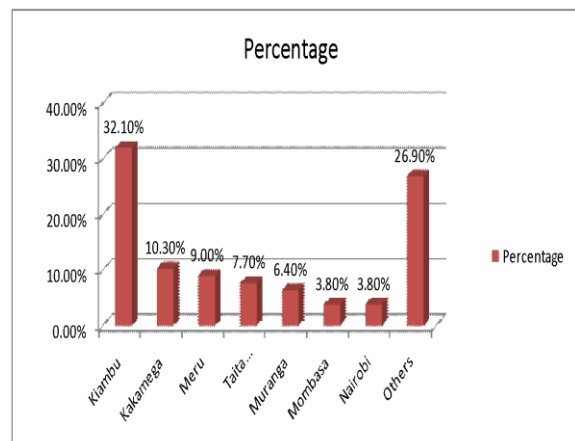


Figure 1. Distribution of Girls Incarcerated at Rehabilitation Centers per County (N=78).

Figure 1 presents the county distribution of girls incarcerated in the experimental and control groups. Others counties not included in the figures were included Samburu, Kisumu, Migori, Kajiado, Bungoma, Busia, Nyandarua, Nandi, Nyeri, Machakos, Makeni, Kirinyaga, and Nakuru counties.

Table 2. Comparison between Experimental and Control Groups at Baseline in Terms of Social-Demographic Factors.

Background	Experimental	Control	P Value
Age	14.3674 (95% CI: 14.3674 – 15.2542)	14.8684 (95% CI: 14.4628 – 15.2740)	0.001
Class (mean)	5.73 (95% CI: 5.31 – 6.15)	5.82 (95% CI: 5.43 – 6.20)	0.002
Class (median)	6.00	6.00	0.021
Religion			
Catholic	16/38 (42.1%; 95% CI: 26.4% to 57.8%)	19/40 (47.5%; 95% CI: 32.02% to 62.98%)	0.0374
Protestants	16/38 (42.1%; 95% CI: 26.4% to 57.8%)	20/40 (50.0%; 95% CI: 34.51% to 65.49%)	
Islam	6/38 (15.8%; 95% CI: 4.2% to 27.4%)	1/40 (2.5%; 95% CI: -2.34% to 7.34%)	
School dropouts			
Yes	24/38 (63.2%; 95% CI: 47.87% to 78.53%)	22/40 (55.0%; 95% CI: 39.58% to 70.42%)	0.0464
No	14/38 (36.8%; 95% CI: 21.47% to 52.13%)	18/40 (45.0%; 95% CI: 29.58% to 60.42%)	
Disadvantaged Family Social Economic Status			
Yes	30/38 (78.9%; 95% CI: 65.93% to 91.87%)	34/40 (85.0%; 95% CI: 73.93% to 96.07%)	0.486
No	8/38 (21.1%; 95% CI: 8.13% to 34.07%)	6/40 (15.0%; 95% CI: 3.93% to 26.07%)	
Single Families			
Yes	24/38 (63.2%; 95% CI: 47.87% to 78.53%)	28/40 (70.0%; 95% CI: 55.8% to 84.2%)	0.522
No	14/38 (36.8%; 95% CI: 21.47% to 52.13%)	12/40 (30.0%; 95% CI: 15.8% to 44.2%)	

Table 3. Comparison between Experimental and Control Groups at Baseline in Terms of Behavioural Problems.

Background	Experimental	Control	P-value
Anxiety disorders	5.8378 (95% CI: 4.9969 – 6.6788)	3.7895 (95% CI: 2.9277 – 4.6512)	0.011
Conduct disorders	7.3784 (95% CI: 5.6996 -9.0572)	7.2632 (95% CI: 6.0341 – 8.4923)	0.003
Affective Problems – Depression	10.2973 (95% CI: 9.0650 – 11.5295)	7.1579 (95% CI: 6.1658 – 8.1500)	0.004
Attention deficit Hyperactivity Disorder (ADHD)			
Yes	21/38 (55.3%; 95% CI: 39.49% to 71.11%)	28/40 (70.0%; 95% CI: 55.8% to 84.2%)	0.178
No	17/38 (44.7%; 95% CI: 28.89% to 60.51%)	12/40 (30.0%; 95% CI: 15.8% to 44.2%)	
Post-traumatic Stress Disorder(PTSD)			
Yes	34/38 (89.5%; 95% CI: 79.75% to 99.25%)	31/40 (77.5%; 95% CI: 64.56% to 90.44%)	0.0156
No	4/38 (10.5%; 95% CI: 0.75% to 20.25%)	9/40 (22.5%; 95% CI: 9.56% to 35.44%)	

According to Figure 1, 32% (n=25) of the girls were from Kiambu County, 10% (n=8) from Kakamega County, 9% (n=3) from Meru County, 7.7% (n=6) From Taita Taveta, 3.8% (n=3) from Mombasa and Nairobi counties. Figure 4.1 shows that the simple majority of the respondents came from Kiambu County because Kirigiti School is located in Kiambu County, while Dagoretti borders Kiambu County.

According to Table 3, the age of the respondents in the two groups were comparable; 14.3 and 14.8 years respectively. Class mean in both groups was almost the same, at 5.73 in the experimental and 5.82 in the control group. Standard six was the median class in both groups. Girls who came from disadvantaged socio-economic status in the experimental and control groups were 78.9 and 85% respectively. The majority of the girls came from single parent families, 63.2% in the experimental group and 70% in the control group. Half of the girls had dropped out of school prior to admission at rehabilitation schools, 63.2% in experimental group and 55% in the control group.

The study shows that respondents who had ADHD were 44.7% in the experimental group and 30 % in the control group. In addition, those who had PTSD were 89.5% and 77.5% in the experimental and control groups respectively. ADHD and PTSD were equally distributed in the two groups. These results indicate that ADHD and PTSD were confounders in the study. Respondents in the experimental group who came from disadvantaged socio-economic status were 78.9%, while those in the control group were 85.0%. A significant number of the respondents in both groups originated from single parent families as well as disadvantaged socio-economic status. The two study sites had similar characteristics as shown in Table 3. According to the

table, religions in the two groups were comparable. There was no significant difference among respondents religions. Respondents' religions were equally distributed in the two groups. The two sites were similar in that the differences occurred as a result of chance.

Table 4 presents the prevalence of behavioural and emotional problems of adolescent girls incarcerated at Dagoretti and Kirigiti rehabilitation schools. According to the table, girls who exhibited depression in the experimental and control groups were 78.9% and 55% respectively. Anxiety prevalence rate in the experimental and control groups were 86.8% and 55.0% respectively. In addition, the prevalence rate for conduct disorder in the experimental and control groups were 52.6% and 57.5% respectively. Overall prevalence of depression, anxiety and conduct disorder were 66.7%, 70.5% and 55.1% respectively. Table 4 further depicts that the prevalence of depression and anxiety disorder was higher in the experimental group as compared to the control group.

In Table 5, Pearson's bivariate correlation coefficient shows a low positive linear relationship between the affective-problems depression and anxiety disorders ($r = 0.326$) that was statistically significant from zero ($p < 0.0001$). The results demonstrate that respondents' affective-problems depression and anxiety disorders were positively correlated in the study population.

Table 6 presents Pearson bivariate correlation between affective problem depression and conduct disorders among the study population. Pearson bivariate correlation coefficient shows a low positive linear relationship between the affective-problems disorders and anxiety depression ($r = 0.125$) that was marginally significant from zero ($p=0.03$).

Table 4. The Prevalence of Internalizing and Externalizing Problems of Adolescent in the Experimental and Control Groups.

Internalizing Problems

	Pre of Depression (n, %); 95%CI	Pre of Anxiety disorder (n, %); 95%CI	Prevalence of PTSD (n, %); 95%CI	Pre of Conduct Disorder (n, %); 95%CI	Prevalence of ADHD (n, %); 95%CI
Overall Prevalence	52/78 (66.7%; 95%CI 56.24% to 77.16%)	55/78(70.5%; 95%CI 60.38% to 80.62%)	65/78(83.3%);95%CI 73.5% to 90.0%	43/78(55.1%;95%CI) 44.06% to 66.14%	29/78(37.2%);95%CI 27.3% to48.3%
Study experimental Site	30/38(78.9%;95%CI 65.93% to 91.87%)	33/38(86.8%;95%CI 76.04% to 97.56%)	34/38(89.5);95%CI 75.9% to 95.8%	20/38(52.6%;95%CI 36.72% to 68.4%)	17/38(44.7%);95%CI 30.2% to 60.3%
Control Group	22/40(55.0%;95%CI 39.58% to 70.42%)	22/40(55.0%;95%CI 39.58% to 70.42%)	31/40(77.5%);95%CI 62.5% to 87.7%	23/40(57.5%;95%CI 42.18% to 72.82%)	12/40(30.0);95%CI 18.1% to 45.4%

Table 5. Bivariate Correlation between Affective Problem-Depression and Anxiety disorders.

		A.. Affective problems-depression	Anxiety disorders (score)
A..Affecti Problems-Depression	Pearson Correlation	1	0.326**
	Sig. (2-tailed)		(< 0.001)
	N	234	234
Anxiety disorders (score)	Pearson Correlation	0.326**	1
	Sig. (2-tailed)	(< 0.001)	
	N	234	234

** . Correlation is significant at the 0.01 level (2-tailed)

Table 6. Bivariate Correlation between Affective Problems-Depression and Conduct Disorders

		A.. Affective Problems-Depression	B. Conduct Disorder(score)
A.. Affective Problems-Depression	Pearson Correlation	1	0.125
	Sig. (2-tailed)		0.03
	N	234	234
B. Conduct Disorder(score)	Pearson Correlation	0.125	1
	Sig. (2-tailed)	0.056	
	N	234	234

Table 7. Bivariate Correlation between Conduct Disorder and Anxiety Disorders

		B. Conduct Disorder(score)	Anxiety disorders (score)
B. Conduct Disorder(score)	Pearson Correlation	1	
	Sig. (2-tailed)		< 0.0001
	N	234	234
Anxiety disorders (score)	Pearson Correlation		1
	Sig. (2-tailed)	< 0.0001	
	N	234	234

**. Correlation is significant at the 0.01 level (2-tailed).

The results demonstrate that the respondents' affective-problems depression and conduct disorders were positively correlated in the study population. One disorder may cause the other disorders by influencing developmental trajectory and placing an individual at increased risk for further difficulties. Comorbidity between the two disorders may be explained by shared underlying causal or risk factors that may underlie the occurrence of these two disorders.

Persons' bivariate correlation coefficient shows a low positive linear relationship between the affective-problems disorders and anxiety disorders ($r = 0.305$) that was statistically significant from zero ($p < 0.001$) table 7. The results demonstrate that respondents' conduct problems disorders and anxiety disorders were positively correlated in the study population.

The key findings of this research are as follows:

1. Prevalence of affective problem depression (APD), anxiety disorder (AD), and conduct disorder (CD) were 66.7%, 70.5 and 55.1% respectively in the study population.
2. Prevalence of the attention deficit hyperactivity disorder (ADHD) and the post traumatic stress disorder (PTSD) were 37.2% and 44.2% respectively among the respondents
3. Respondents' affective problems depression and anxiety disorder were positively correlated. The study population with affective problem depression were more likely to have anxiety disorders.

Summary. Findings from socio-demographic and psychological tool were presented and significant findings highlighted. The results of this study showed that MST was effective in treating depression, conduct disorder and anxiety.

Discussions

The first objective was to determine the prevalence of behavioural problems of adolescents girls incarcerated at Kirigiti and Dagoretti rehabilitation schools. The prevalence of affective problem depression (APD), anxiety disorder (AD) and conduct disorder (CD) ADHD and PTSD was 66.7%, 70.5 55% 37.2% and 83.3% respectively. The findings of this study indicate that most girls incarcerated in selected rehabilitation schools were depressed. This supports previous studies that confirmed existence of depressive disorder among incarcerated adolescents. Lafortune (2010) noted that rehabilitation centers are extremely stressful for incarcerated adolescents partly because they have little control of their environment. Incarcerated people have no freedom to do as they like. In addition research indicated that high level of depression and anxieties were common among inmates (Ahmad, & Mazlan, 2014; Olivia, 2013; Tomar, 2013). Entry shock is particularly evident in the initial stages of incarceration where adolescents with conflict with the law face disproportionate amount of stress (Olivia, 2013).

The prevalence of conduct disorder in this study was 55.1%. This finding agrees with Surup and Heather (2014)

who noted that conduct disorder is highly prevalent among juvenile incarcerated in rehabilitation schools. This study further reveals that adolescents involved in juvenile delinquency had psychological comorbidity between depression and anxiety. This study agrees with Ebesutani et al. (2011) who argued that conduct disorder often occurs with ADHD as well as PTSD.

The study indicated high presence of depression, anxiety and conduct disorder among girls incarcerated in rehabilitation schools. The finding in this study should stimulate clinical and epidemiological research on emotional and behavioral problems among adolescence in rehabilitation schools and community setting. Besides, there is need to be proactive in identifying emotional and behavioral problems among adolescents and youth in Kenya. In view of the large numbers of the population with depression, anxiety and conduct disorder in rehabilitation school, there is need to have in place simple self-administered screening test in all rehabilitation schools. In addition, these finding call for continuing education on mental health among incarcerated adolescents in rehabilitation schools.

Recommendations of the Study

From the findings of this study, the following recommendations are proposed;

There is need for psychological testing service in rehabilitation schools to enhance proper and accurate assessment, diagnosis and treatment of behavioural problems among incarcerated adolescents.

Conclusion

This study has shown that the majority of the adolescents in this study came from dysfunctional families where parents were low income earners. The main limitation noted in the institution of juvenile justice system included inadequately trained personnel and lack of professional counselors. From the outcomes of this study, it can be observed that there is need for more proactive involvement in the provision of mental and physical health of adolescents in rehabilitation schools. Qualified clinical psychologists can be assigned to the children's courts, to advice on the care of mentally disordered children.

References

- Ahmed, A., & Mazlan, N. H. (2014). Stress and depression. A comparison between men and women inmates in Peninsular Malaysia. *International Journal of Humanities and Social Sciences*, 14(2), 153-160.
- Barley, L. (2007). *Defiant child*. London: Guildford Press.
- Boden, J., Fergusson, D., Horwood, P., & Samson, J. (2010). Risk factors for conduct disorder and oppositional defiant disorder: Evidence from New Zealand birth cohort. *Journal of American Academy of Child and Adolescent Psychiatry and the Law*, 31(2), 1125-1133.

- Costello, J., Foley, D., & Angold, A. (2010). The epidemiology of child and adolescent psychiatric disorders: Developmental epidemiology. *Journal of Child Adolescent Psychiatry, 45*(1), 8-25.
- Dagoretti Rehabilitation School Management. (2013). *Dagoretti girls rehabilitation report*. Nairobi: Government Printer.
- Dawson, J., & Straus, M. (2011). Gender equality in the society and male predominance in crime by university students in two national settings. *Open Criminology Journal, 4*(1), 10-23.
- Dolan, M., McEwan, T., Doley, R., & Fritzon, K. (2011). Risk factors and assessment in juvenile five setting. *Psychiatry, Psychology and Law Journal, 18*(2), 378-394.
- Ebesutani, C., Bernstein, A., Martinez, J., & Chorpita, B. (2011). The youth self-report: Applicability and validity across younger and older youths. *Journal of Clinical Child & Adolescent Psychology, 40*(2), 333-346.
- Ebesutani, C., Bernstein, A., Martinez, J., Chorpita, B., & Weoz, J. (2012). The youth self-report: applicability and validity across younger and older youths. *Journal of Clinical Child & Adolescent Psychology, 45*(2), 1137-1141.
- Mugo, J., Musembi, I., & Kangethe, R. (2006). *Juvenile justice and management of child offenders in Kenya: An annotated bibliography of research 1958-2005*. Nairobi: Kenyatta University.
- Ngo, V. (2014). Test of facilitation VS "proximal process" moderator model for effects of MST on adolescent with severe conduct problem. *Journal of Abnormal Child Psychology, 9*(2), 201-220.
- OJo, M. (2012). The sociological review of issues on juvenile delinquency. *Journal of International Social Research, 5*(21), 465-482.
- Olivia, L. (2013). *Treatment of female offenders in Kenya*. 153rd International Senior Seminar Participants, Papers 145-149.
- Omboto, J., Ondiek, O., Odera, O., & Ayugi, M. (2013). Factors influencing youth crime and juvenile delinquency. *International Journal of Research and Socia Studies, 4*(2), 18-21.
- Onyango, O. J. (2013). The challenges facing rehabilitation of the prisoners kenya and mitigation strategies. *International Journal of Research in Social Sciences, 2*(2), 39-43.
- Petot, D. (2011). An Agreement between parent and self-reports of Algerians adolescents behavioural and emotional problems. *Journal of Adolescence, 2*(34), 977-986.
- Ross, A., Duck worth, K., Smith, D. J., Wyness, G., & Schoon, I. (2011) *prevention and reduction a review of strategies for intervening earlyto prevent or reduce youth crime and anti-social behaviour*. London: Department of Education.
- Schaeffer, C. (2010). Long-term follow-up randomized clinical trials of multisystemic therapy with serious and violent offenders. *Journal of Consultants And Clinical Psychology, 73*(3), 445 – 453.
- Siegel, L. (2010). *Criminology: Theory, patterns, and typologies*. Australia: Wadsworth.
- Skelton, A. (2010). Juvenile justice in Kenya courts. *Journal of International Child and Youth Care, 90*(1), 310-350.
- Surup, R., & Heather, G. (2014). Community engagement for reentry success of youth from juvenile justice: Challenges and opportunities. *Education and Treatment of Children Journal, 4*(1), 713-734.
- Sawyer, A., & Borduin, C. (2011). Effects of multisystemic therapy midlife: A 21.9 year follow up to a randomized clinical trial with a serious and violent juvenile offenders. *Journal of Consulting and Clinical Psychology, 79*(1), 643-652.
- Shaw, C., & Mckay, H. (1982). *Juvenile delinquency and urban areas*. Chicago: University of Chicago Press.
- UNO. (2012). *World report on young people*. New York: UN.
- Vitulano, M., Fite, P., & Rathert, J. (2010). Major delinquent peer influence on childhood delinquent: moderating effect of impulsivity. *Journal of Psychopathology and Behavioural Assessment, 32*(1), 315-322.
- Watindi, J. (2012). The very late childhood and adolescent externalizing and internalizing Psychopathology in rural public secondary schools in western Kenya. *Journal of Emerging Trends in Educational Research and Policy Studies, 3*(6), 113-118.
- Wildeman, J. (2010). The paternal incarceration and the children's physically aggressive behaviours: Evidence from the fragile families and child well-being study. *A Social Forces Study Journal, 89*(2), 285-310.