

Art Therapy As A Treatment For Depression: Case of Control Group at Langata Women's Prison Nairobi - Kenya

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Abstract:- Objective was to assess effectiveness of art therapy as treatment for depression among incarcerated women at Langata Women Prison using Bandura's social learning theory and cognitive behavioral theory. Unit of analysis was imprisoned women and Becks Depression Inventory (BDI-II) 21-item self-report scale was given to a sample of 217 prisoners to identify presence and severity levels of depression. Research was done with remands because prisoners had on-going programs. BDI-II (pre-test) questionnaires were distributed to determine levels of depression of 113 remands based on their levels of depression and 55 responded. Control did not get any art therapy treatment during the six sessions that treatment group underwent. After six weeks, control group was subjected again to BDI-II test and results indicated that most of incarcerated women had severe depression. From analysis, there was no significant reduction of depression among control group. Based on the results, at time of arrest, mental assessment should be done and those that require further assessment need to be referred to a psychiatrist and a psychologist; special attention should be given to new mothers; and for those who end up in prison. The results should be generalized with caution to other prisons in Kenya.

I. INTRODUCTION

Prison populations continue to soar in much of the world and well over 11 million people are held in penal institutions throughout the world (Walmsley, 2018). Even though men, for a long time, have constituted a larger proportion of the prison population worldwide, the number of women in prisons has continued to rise. Since the year 2000, for instance, the male prison population has increased by 18 percent whereas that of women has increased by 50 percent (Walmsley, 2016). This increase in female prisoners has been recorded in the United States of America, China, Russia, Thailand, Brazil, and Vietnam. In Sub-Saharan Africa, the number of women prisoners ranges from one to four percent of the total prison population, (Walmsley, 2016) and since 2000, there has been a notable 22 percent increase of women prisoners in Sub-Saharan African prisons. The Ugandan Bureau of Statistics report (2017) indicates that there was an increase in women in prison from 2,196 in 2016 to 2,579 in 2017. The Kenya National Bureau of Statistics' Economic Survey Report (2018) indicates that in 2012 there were 5,809 women prisoners. This figure almost doubled to 10,644 in 2016, but reduced to 8,004 in 2017.

Despite the general trend towards the rise in the number of persons being imprisoned, the focus appears to have been placed more on containing prisoners within prison walls rather than focusing on rehabilitating them (Johnson, 2008). Indeed, even though prisons are perceived to exist globally with the intent of punishing, rehabilitating and reforming prisoners (Johnson, 2008), whatever effort that has been invested in rehabilitation has been fashioned for and directed at men, who have for a long time constituted the larger number of the prison population worldwide (Greifinger, 2007). Such effort has involved teaching prisoners skills such as carpentry, welding and motor repair (Greifinger, 2007).

In Kenya, the focus on women's rehabilitation has been on basic literacy skills and the teaching of crafts as required by the United Nations standard minimum rules (1955 & 2010) of treatment of prisoners. Generally, the rehabilitative services in prisons aim at accomplishing several goals such as providing basic education to ensure a minimum level of literacy, meaningful educational activities that challenge prisoners' antisocial behavior and inherently offer life skills (Bangkok Rules 2010). These rehabilitative efforts may actually fall short of meeting their mark since extant studies have indicated that an estimated three quarters of the incarcerated women in the USA have comorbid diagnosis for mental health issues such as depression and substance abuse (James & Glaze 2006; Wu, Schairer, Dellor, & Grella, 2010.)

With specific reference to Kenya, the current rehabilitative efforts barely address mental health issues. Prison studies done in Kenya by Agasa (2015), Wekesa (2012) and Muteti (2008) have focused on rehabilitation and not on mental health with special regard to women. Agasa (2015) found that out of 58 respondents, 24 female and 34 male, only 16 were screened for chronic illnesses such as diabetes, high blood pressure and Human Immunodeficiency Virus (HIV) and none were screened for mental health issues despite the fact that 87 percent of female prisoners versus 73 percent of male prisoners exhibited symptoms of mental stress. An earlier study by Muteti (2008) did point out that Kenya Prison Service (KPS) needed professional mental health workers following observations made by the Ministry of Home Affairs in 1998. This call was reiterated by Wekesa (2012) who also ascertained that there was no systemic counselling program in KPS or adequately trained personnel. This gap then suggests

that the mental health issues that may be preexisting or/and develop during imprisonment may not be attended to, thereby, possibly exacerbating mental health issues such as depression, which is common in women prisons (Zweben, 2011).

Problem Statement

The above mentioned studies appear to point to the fact that a sizeable number of prisoners suffered psychologically and recommended that KPS needs to hire additional professional mental health workers such as psychologists, counsellors and psychiatrists to attend to a large population of prisoners who were found to be overwhelmingly depressed. Besides, there are currently no studies done in the country on how emotional and psychological issues are being effectively dealt with within KPS system with special regard to women. In Kenya, generally the rehabilitative services in prisons aim at accomplishing several goals such as providing basic education to ensure a minimum level of literacy, meaningful educational activities that challenge prisoners' antisocial behavior and inherently offer life skills (Bangkok Rules, 2010). Very little, if anything at all, is documented in the area of how emotional and psychological issues, especially depression, are dealt with in KPS with special regard to women.

That was an increase of 546 prisoners from 2015 to 2017. The Kenya National Bureau of Statistics' Economic Survey Report (2018) indicates that in 2012 there were 5,809 women prisoners. This figure almost doubled to 10,644 in 2016, but reduced to 8,004 in 2017

Objective

The objective of this paper was to determine whether there was a significant difference among the control group with respect to the level of depression when BDI-II test was done at the beginning and at the exit of the research period.

II. LITERATURE REVIEW

Studies show that prisoners have a high prevalence of mental disorders for example self-harming behavior and suicide attempts; completed suicides are the foremost cause of death in prison (Opitz-Welke & Konrad, 2012). Death by suicide in prison is greater compared to the general population (Konrad 2007). Earlier projections by World Health Organization (WHO) estimated that globally, the total number of people with depression was estimated to surpass 300 million in 2015. Similarly, almost the same number of persons has varied anxiety disorders and experiences both conditions simultaneously (WHO, 2017). Depression is ranked by WHO (2017) as the single largest contributor to global disability. Yusuf and Adeoye (2011) observed that there is a pervasiveness of depression and unanimously consider it a global problem. The WHO report of 2017 indicates that depression is more common among females (5.1 percent) than males (3.6 percent). Among the incarcerated population, female prisoners have been found to be more susceptible to suicide ideation, suicide attempts and self-harm behavior (Marzano, Hawton, Rivlin, & Fazel (2011); Marzano,

Ciclitira, & Adler (2012)). Psychotic disorders, major depression and personality disorders have been found to be more common in incarcerated women than male prisoners (Fazel & Baillargeon, 2011).

The benefits of art therapy with regard to the prison environment are numerous as cited in exploratory studies of art programs in prison settings, which have indicated there is a direct relationship of reduced violence and improvement in the compliance of prison rules. Gussak's (2004) pilot study 'Art Therapy with Prison Inmates' was done in a male prison within a medium to maximum security facility where the art forms involved visual arts and drawing. The objective of the study was to evaluate improvement of problem solving skills, changes in mood, socialization with inmates and cooperation with facility rules and prison staff as well as changes in the prisoner's attitude and behavior. The results indicated that there was a reduction of depressive symptoms and improvement in all other areas except problem solving skills. In a follow up study with male prison inmates at a medium to maximum security facility, Gussak (2006) set out to identify if there would be changes in the prisoners' socialization, interactions, mood, attitude, behavior and amenability to prison jurisdiction. Results were mixed with those from Formal Elements Art Therapy Scale (FEATS) did not show improvement in mood, whereas those captured by Becks Depression Inventory-Short Form (BDI -II) indicated noticeable change in mood. There were no changes in problem solving skills or socialization.

In another study by Gussak (2007) examined the effectiveness of art therapy in reducing depression in prison populations. The study focus was to assess the changes in mood and locus of control in the participants and combined data from the pilot study 2004 and 2006. The results of this study revealed a substantial reduction in depressive symptoms of the participants of the study. In a subsequent study, Gussak (2009a) compared the effects of art therapy on both male and female inmates in two medium to maximum security facilities where the program involved visual art therapy. The study focus was to evaluate the locus of control and changes in mood among the participants. The study also sought to find out the differences in outcomes between the different genders. The result was improved locus control and mood for both female and male participants. However, the mood improvement was noted to be higher among the women. In the same year Gussak, (2009b) conducted a further study, which was carried out in two medium to maximum security prisons. Qualitative and quantitative data was obtained from both the control and experimental group that involved pre-test/post-test assessments using Adult Nowicki Strickland (ANS) locus of control scale, BDI-II and FEATS. The results showed that ANS and BDI II supported the premise that art therapy was effective in reducing depression, results from FEATS did not provide supportive data.

In Kenya, Muigai (2014) undertook a study in LWP, Nairobi, Kenya, on the prevalence of alcohol use disorders and

depression among recent inmates (1 to 12 months). The Alcohol Use Disorders Identification Tool (AUDIT), 10 item was used to identify the level of alcohol use, alcohol related problems and dependence whereas BDI test was used to ascertain the level of depression. The results of the study indicated that there was a strong relationship between alcohol use and depression and the study recommended screening inmates for alcohol disorders and depression on admission to prison, offering a program within the prison service to manage these two areas and facilitating psycho-education on both the disorders.

Kamoyo, Nyaga, Barchok, Mburugu & Chuka (2015) examined the effects of imprisonment on depression among female inmates in selected prisons in Kenya. They found that imprisonment had a moderate effect on depression among female inmates in selected prisons in Kenya. The findings showed that there were substantial effects of incarceration on depression amongst women prisoners and these findings are consistent with previous studies about the presence of depression in prison populations (Gunter, Chibnall, Antoniuk, Philibert, & Hollenbeck (2011) particularly among women, in prison (Boothby & Durham, (1999); Ahmad & Mazlan (2014). The recommendations included the need for the prison service to offer psychiatry services to ensure accurate assessment, diagnosis and treatment of depression among incarcerated women, recruit professional counsellors and reevaluate the psychological, social and physical prison environment to reduce depression.

Miriti and Kimani (2017) did an analysis of prisons rehabilitation programs on behaviour reformation of offenders at Kisumu's main prison. The findings of the study indicated that educational training courses made positive impact on prisoners' rehabilitation agenda in reforming behavior and socio-psychological training programs had a minimal impact on reforming the behavior of prisoners. Recommendations for improving behavior reformation of prisoners included training programs in the area of education, vocational skills, and religious programs.

III. METHODOLOGY

At the time of this, the population of LWP was about 500 women prisoners and this constituted the paper's units of analysis. For this paper with a population of 500, the sample size was determined as 217 using Krejcie and Morgan (1970) table for determining sample size for research activities (see Appendix I). The BDI-II 21-item self-report scale statements in English was given to 217 randomly selected women prisoners in-order to obtain their degree of agreement with a statement or set of statements, which were then used to identify the presence and levels of depression. The BDI-II tool was translated into Kiswahili and the rates symptoms of depression in terms of severity range are as shown in Table 1 below.

Table 1 Psychological Evaluation and Intervention Levels

Levels	Status of Depression
0 to 13	Minimal depression
14 to 19	Mild depression
20 to 28	Moderate depression
29 to 63	Severe depression

Out of the 217 respondents, 104 were those in prison and 113 in remand and their age ranged from 19 to 65 years. The BDI-II questionnaire was distributed among the prisoners and remands and they were informed that the exercise was voluntary. To participate they were, however required to give consent by signing the form by initializing or signing but no names were to be written - this was to ensure confidentiality as well as protect their identity. The prison administration was categorical that the research could only done with those in remand (ordinary and capital offenders) as those in the prison had on-going programs that would be disrupted if they were to be engaged in the research. Out of 113 remands, 55 or about 49 percent responded and under the prison circumstances, this was a good response rate. After analyzing the responses to BDI II, all respondents with severe depression and suicidal ideation were referred to the counselor officer in charge of the remands for further management.

All questionnaires were analyzed in-order to identify the different levels of depression so that the control group would be determined guided by various levels of depression using Table 1 above. The sample was drawn of 60 respondents who had mild and moderate depression and the control members were randomly selected. However, due to various reasons, for example some remands had court cases, 55 (28 treatment and 27 control group members) out of 60 remands were selected. The control group completed BDI-II questionnaire at the beginning of six weeks and at the end (exit) of six weeks' sessions.

Quantitative data was used for data analysis and questionnaires were used to collect quantitative data, such as BDI-II assessment. In-order to analyze the data, graphical, descriptive and paired t-test analyses were done. The t-test approach was utilized so as to determine whether there was significant difference at the beginning and at the exit point for the control group at LWP, that is, is not undergoing art therapy significantly different at the beginning and at the end.

An analysis of variance and specifically correlated paired t-test was done in-order to compare two population means (beginning and exit). In this case, the paper sought to find out if at the beginning differences in scores have a mean that was significantly different from zero and if the mean was significantly different, it would suggest that depression improved at the exit. The null hypothesis was therefore, the depression level at the beginning was not significantly different from at the exit versus alternative hypothesis that depression level at the beginning was significantly different

from at the exit. Formally, the dependent paired sample t-test was used to compare BDI-II results at the beginning and at the exit of the research and the null hypothesis was defined as:

$H_0: \mu_{\text{beginning}} - \mu_{\text{exit}} = 0$, that is the true mean difference is equal to zero

Assuming un-equal variances; dependent variable was continuous (interval/ratio); observations were independent of one another; dependent variable was approximately normally distributed; and the dependent variable did not have any outliers, the t-dependent statistic can be, respectively stated and calculated as:

t-statistic = {observed difference at the beginning and the exit sample means (\bar{d})} - {expected difference at the beginning and the exit population means (μ_d - if null hypothesis is true)} / {estimate of the standard error of at the beginning and the exit sample means $\{[(s_{d1}^2/n_1) + (s_{d2}^2/n_2)]\}$ or

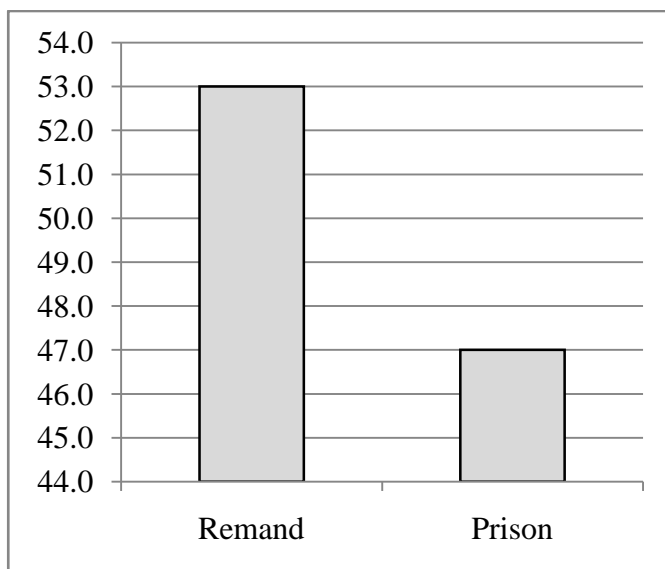
$$t\text{-statistic} = \frac{(\bar{d}_{\text{beginning}} - \bar{d}_{\text{exit}}) - (\mu_{\text{beginning}} - \mu_{\text{exit}})}{\sqrt{[(s_{\text{beginning}}^2/n_{\text{beginning}}) + (s_{\text{exit}}^2/n_{\text{exit}})]/2}}$$

The alpha (α) value was taken as 0.05 and degrees of freedom were taken as $n_1 + n_2 - 2$.

IV. RESULTS AND DISCUSSION

The BDI-II was given to the sample size of 217 women prisoners' in-order to identify the presence and severity levels of depression. Out of the 217 respondents, 17 responses were spoilt leaving 106(53 percent) and 94 (47 percent) responses from those in remand and prison, respectively as shown in Figure 1 below. This indicated that there was more remands under depression because their cases had not been determined.

Figure 1 Number Respondents in Remand and Prison (Percent)



The ages of those interviewed ranged from 19 to 65 years and BDI II was used to determine the levels of intensity of depression among incarcerated women at LWP and the results are shown in Figure 2 below. From Figure 2 below, 14.5

percent, 10.5 percent, 32 percent and 43 percent of the incarcerated women had minimal, mild, moderate and severe levels of depression, respectively – indicating that most of the incarcerated women suffered from severe depression.

Figure 2 Overall Assessment of the Intensity of Depression (Percent)

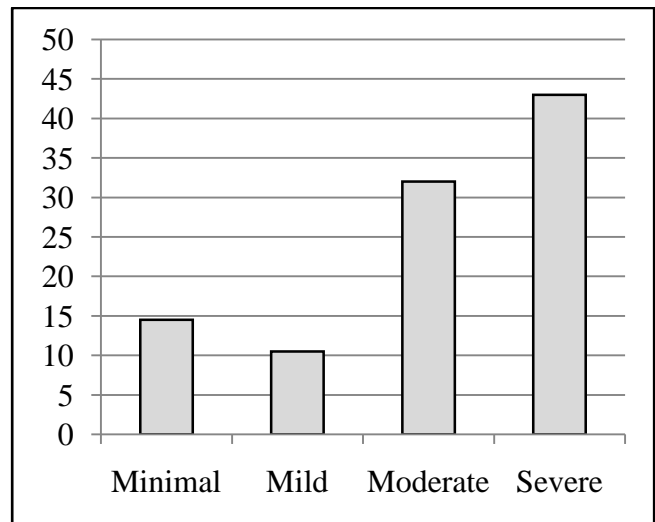


Table 2 and Figure 3 below further categorized those in remand and those in prison into the various levels of depression. As Table 2 and Figure 3 shows, there were more severe depression cases in both remand (24 percent) and prison (19 percent) but less cases under mild depression with respect to remands (4.5 percent) and prisoners (6 percent), which further indicates that the difference was minimal. However, there was a marked difference (19 percent versus 13 percent) of moderate levels of depression between remands and prisoners, with those in remand having a higher level of moderate depression. Further analysis indicated that those who were suicidal (severe) were 48(24 percent) in remand and 38(19 percent) in prison - this is in line with the statistics of WHO 2018 that indicate that the highest incident of depression is found in remand.

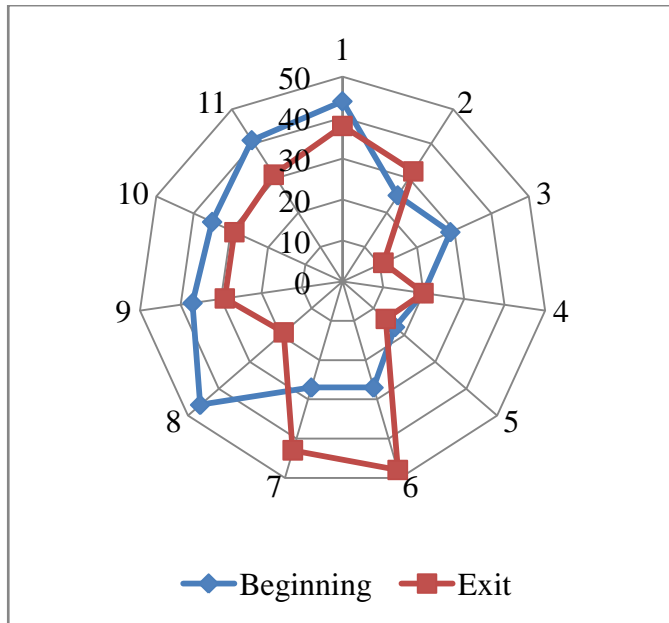
Table 2 Overall Depression Rates Between Remands and Prisoner

Levels of Depression	Remands		Prison	
	Frequency	Percent	Frequency	Percent
Minimal	11	5.5	18	9.0
Mild	9	4.5	12	6.0
Moderate	38	19.0	26	13.0
Severe	48	24.0	38	19.0
Total	106	53.0	94	47.0

The paper sought to test whether there was significant difference in the control group. Before the dependent two-sample t-test could be done, data was displayed in spider diagram as shown in Figure 4 below. From Figure 4, there was no, on the average, marked difference at the beginning

and at the exit, which suggested that there could be no significant difference.

Figure 4 Spider Plot of Becks Depression Inventory II Results at the Beginning and at the Exit



In addition, the data was checked for extreme values and outliers as well as tested for normality using Box-Whiskers plot and Shapiro-Wilk test, respectively. Figure 5 below shows that there were no outliers or extreme values, median BDI-II median scores were almost the same whereas Table 3 below shows that data was normally distributed since p-values were greater than α value of 0.05 (p -values > 0.05).

Figure 5 Box-Whiskers Plot of Becks Depression Inventory II Results at the Beginning and at the Exit

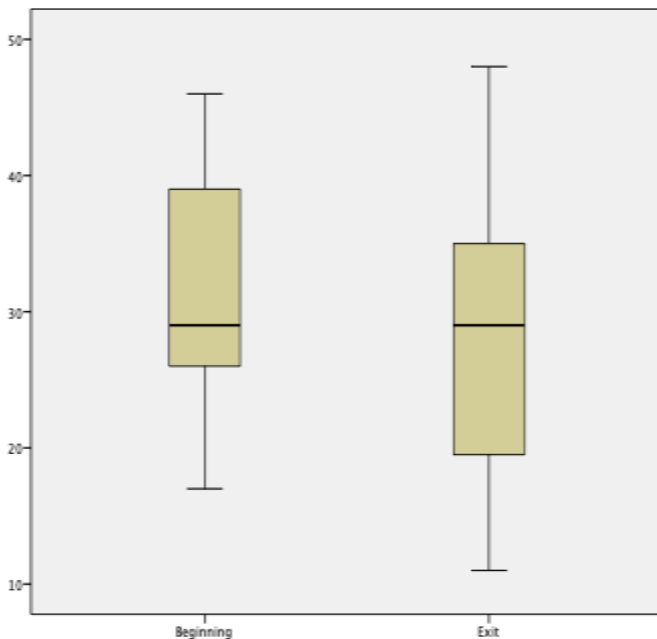


Table 3 Shapiro-Wilk Test for Normality

	Shapiro-Wilk		
	Statistic	Degrees of Freedom	P-value
Beginning	0.955	11	0.703
Exit	0.966	11	0.839

The paper also sought to establish whether there was significant difference within the control group at the beginning and at the exit. From Table 3 below, the paired t-test indicates that the p-value was 0.479, which was more than alpha (α) value of 0.005 ($0.479 > 0.05$). Since, the p-value was greater than α -value, it can be concluded that there was no significant difference among the control group at the beginning and at the exit of the research and therefore, the null hypothesis was not rejected that there was no difference in level of depression at the beginning and at the exit.

Table 3 Beginning and Exit Paired Sample Statistics

		Mean	N	Standard Deviation
Pair 1	Beginning	32	11	9.65
	Exit	29	11	11.74
		t-value	Degrees of Freedom	P-value
Pair 1	Beginning Exit	0.736	10	0.479

V. CONCLUSION AND RECOMMENDATIONS

Results indicated that most of the incarcerated women severed from severe depression; there were more remands under depression; there were more severe depression cases in both remand and prison but less cases under mild depression. However, there was a marked difference of moderate levels of depression between remands and prisoners, with those in remand having a higher level of moderate depression.

Based on the results from this paper and at the time of arrest, mental assessment should be done and those that require further assessment need to be referred to a psychiatrist as well as support from a psychologist; special attention should be given to mothers; and for those who end up in prison, periodic screening should be undertaken together with counselling and alternative therapy. In addition, legal system should escalate court matters to avoid prolonged stay in remand, which causes those arrested to be at high risk of developing depressive symptoms and other mental disorders, besides enhancing public awareness on mental health.

The analysis also indicated that there was no significant reduction of depression at the beginning and at the exit among the control group and therefore interventions, such as art therapy should be considered. There is need to adopt and implement other intervention, such as a transition plan for prisoners with severe mental health issues where family, public health providers are included in this process, this may

help reduce recidivism and improve better health management. Increase in public awareness on mental health will lead to stigma reduction because it would encourage uptake of medical care; and offer alternative support systems such as art therapy, and peer support groups.

On the limitations of the paper, the paper focussed on depression among incarcerated women at LWP. The results from this paper should, therefore be generalized with caution because other women prisons in different locations in Kenya could have peculiar characteristics, such rural versus urban settings. In addition, working with the remands had its own limitations as far as attendance was concerned. This was due to circumstances such as court attendance, being assigned chores by officers who were not aware of the program, and some remands were released on bail. As a result, some these remands did not participate in the study up to the end. Another limitation was privacy and confidentiality, which was limited because of the nature of the set-up. Most of the respondents, for example preferred to keep their work with the primary researcher after each session to avoid further discussion with cellmates and did not want their cellmates to know whether they were depressed or not.

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