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Virginia Satir's Model Treatment and Reduction of Post-Traumatic Stress Disorder Symptoms among 2007/08 Post Election Violence Integrated Internally Displaced Persons in Thika Sub - County, Kenya

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ABSTRACT
Kenya experienced post-election violence in 2007/2008; leaving 1,113 people dead and over 650,000 people displaced from their homes. Those who settled in urban areas became known as Integrated Internally Displaced Persons (IIDPs)..Out of the recorded 640 Integrated Internally Displaced Persons living in Thika Sub County, 345 showed Posttraumatic Stress Disorder (PTSD) after a baseline survey on psychological impact of the displacement was conducted by Community Counseling Resource Centre in 2012.The baseline survey recommended follow up trauma specific assessment on PTSD and trauma recovery counseling for the IIDPs. It was against these recommendations, that the researcher tested the IIDPs for PTSD using adapted modified Harvard Trauma Questionnaire for adults and applied Virginia Satir's Model in trauma recovery intervention. The study used quasi-experimental research design in which the researcher used Solomon's Four Non – equivalent Control Group Design. The researcher sampled 125 participants from the accessible 240 Integrated Internally Displaced Persons from Kiandutu, Kiganjo, Gachagi and Umoja slum villages in Thika Sub County who formed the four groups of study. Quantitative methods of data analysis involving the use of Analysis of Variance

and t-test was used to list statistical significant difference within and among means in the posttest scores for the groups. Hypotheses were tested at an alpha of 0.05 (α=0.05) level of significance. The researcher established that Virginia Satir's Model as an effective tool for reducing PTSD symptoms among the IIDPs in Thika Sub County

Key Words: Virginia Satir Model, Integrated Internally Displaced Persons, Post-Traumatic Stress Disorder Symptoms, Post-Election Violence

1.0 Introduction

At least 100 million Africans have been victims of war, violence, sexual abuse or natural disasters or witnessed horrific acts of terror and now suffer from post-traumatic stress disorder (Shapiro, 2015). War in the African continent is a common phenomenon. Examples are many and include the M-23 in The Democratic Republic of Congo (DRC), refugees in Northern Uganda, the Al Qaeda insurgence in Mali, the military coup in the Central African Republic, the instability in South Sudan, Boko Haram in Nigeria, Al-Shabaab and African Mission defense forces in Somalia (AMISOM), the unrest in North Africa among other inter- ethnic and political wars in most of the countries. In all countries in Africa, war trauma leaves massive destruction to property, human resource, diseases and mass displacement of persons labored with post traumatic disorder(Nshemeriwe, Nasinyama, & Twabaze, 2013).

Kenya has experiencing rapid increase in election related wars and violence but 2007/08 was the worst in Kenya(Waki, 2008). The Post-Election Violence of 2007/08 had adverse effects that disrupted the normal functioning of individuals and families as well as the entire society. A study that focused on a random community-based sample of 552 impoverished youth (aged 6–18 years) within an informal settlement in Nairobi, Kenya showed that the youth experienced war-like violence for a month following the contested presidential election of 2007.Six months after the violence ended, 99 (18%) had PTSD according toUniversity of California Los Angeles Post Traumatic Stress Disorder Reaction Index (Harder, Khasakhala, Mutiso, Ndetei, & Burke, 2012). Some people suffered direct injury, bereavement, displacement (650,000 people were displaced) or loss of property while others witnessed the suffering and death of loved ones (1,133 people died) and others haunted by disturbing images in the media (Waki, 2008).

According to a study done by the African Mental Health Foundation, 18% of the youth in Kibera developed chronic PTSD after PEV 2007/08. About 600 people were killed in North Rift Kenya. Those who witnessed the atrocities like torching of houses and other properties, murder of innocent people and children were highly traumatized (Waki, 2008). PEV 2007/08 remains the most traumatic post - election violence in Kenya.

Following the PEV 2007/08, many displaced people took refuge in camps, police stations and churches. However, a group of the displaced persons took refuge in urban centres and became officially known as Integrated Internally Displaced Persons (IIDPs). Four years after PEV 2007/08, more than 300,000 families had been resettled in their farms, homeland or sold property they owned, bought land elsewhere and resettled. Their only hope was the introduced law - The Prevention, Protection and Assistance to Internally Displaced Persons and Affected Communities Act, 2012. However, in Thika Sub County, a total number of 640 Integrated Internally Displaced Persons (IIDPs) were recorded and about 330 have since been integrated

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fully into the local community with majority living in slum villages around Thika town(Community Counseling Resource Centre, 2012). Waki's Report (2008) revealed mass traumatic events but few studiesshow how the traumatized people received mental health intervention.Therefore, this study assessed the effectiveness of Virginia Satir's Model treatment in their trauma recovery of 2007/08 IIDPs in Thika Sub County. It was against this background that this study sought to assess VSM's effect on the reduction of IIDPs Post Traumatic Stress Disorder symptoms.

2.0 Literature Review

Virginia Satir Model (VSM) also referred to as Human Validation Process Model focuses not just on systems of people but also on individual people. The model promotes systems change and change of old ways of solving problems by embracing new ideas and behaviors(Satir V. , 2009).Virginia Satir (VSM founder) believed a healthy family life involved an open and reciprocal sharing of affection. VSM's genuine warmth and caring was evident in natural inclinations to incorporate feelings and compassion in the therapeutic relationship. Unlike most therapies that advocate talking back or ignoring feelings, VSM offers exercises for viewing one's negative self-talk as a useful and productive indicator of hurting emotions, and shows clients how to take control of them in a more meaningful way (Evans, Turner, & Trotter, 2012). VSM treatment in this study allowed the respondents to narrate their traumatic experiences without judgment of their thoughts, emotions and behavior (Jordan, Campbell, & Follingstad, 2010).

VSM therapy wholeheartedly supports the importance of love and nurturance as being the most important healing aspects of therapy. VSM therapists take clients through an insightful journey of self-discovery and transformation. People learn how to acknowledge, understand, and manage many challenges and in doing so, open up a world of possibilities for themselves (Lubin & Johnson, 2008). VSM presents innovative concepts and techniques conducive to changing one's habits of communication and to establishing open, constructive, and life-enhancing modes of contact and communication within family relationships (Satir, 2009). A compilation of VSM's meditations and essays that illuminate and guide readers about VSM ideas on the complex interplay of mind, body, emotions, and spirit make the model suitable for trauma clients who experience a mixture of negative, thoughts emotions (Levers, Seem, & Fallon, 2012). VSM has highly readable meditations for use with individuals or with groups(Satir & Dengo, 2001). VSM believes in boosting one's self - esteem as part of healing. Self-esteem can be raised by using eloquent and uplifting words. The goal is to enhance renewed hope, broader possibilities, and positive feelings about oneself (Satir, 2009).

VSM therapy as applied in this study allowed the respondents to share about their traumatic experience freely. This sharing made them feel a sense of belonging and enhanced interpersonal relationships with raised self-esteem. This experience motivated the respondents to share more deeply during the sessions. Two basic concepts of small group dynamics that influence family therapy are: the distinction between the process and content of group discussions, and (b) role theory - how family members communicated was very significant (Satir, 2009). In this study the group of IIDPs is likened to a family system as understood in VSM. Most resettled persons in post conflict regions suffer from disorientation from normal routine during the conflict and post conflict period. Going back to their displaced homes or being

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resettled to different areas is a big challenge emotionally, socially, spiritually and psychologically. It is the concern of every community member to facilitate a smooth resettlement of those wounded people (Jordan, Campbell, & Follingstad, 2010). Consequently, a systemic community based approach is holistic and effective in reconstructing the lives of the resettled persons. This study considered the IIDPs as a family unit. In this study the experimental groups formed a system or a family of IIDPs. Together they worked out their traumatic experience through sharing and support from the research assistants. Reduction of PTSD symptoms using VSM intervention would signify recovery for the IIDPs. From the findings therefore VSM helped reduce PTSD symptoms among the respondents (Witting, Jensen, & Brown, 2016).

A study done in 2016 employed several methodological improvements, to identify risk factors that would account for a greater proportion of variance in later disorder than prior studies. In a sample of 129 traumatically injured hospital patients and family members of injured patients, the researchers focused on pre-trauma, time of trauma, and post-trauma psychosocial risk and protective factors hypothesized to influence responses to traumatic experiences and posttraumatic (PT) symptoms (including symptoms of PTSD, depression, negative thinking, and dissociation) two months after trauma. The risk factors were all significantly correlated with later PT symptoms, with post-trauma life stress, post-trauma social support, and acute stress symptoms showing the strongest relationships. A hierarchical regression, in which the risk factors were entered in six steps based on their occurrence in time, showed the risks accounted for 72% of the variance in later symptoms. Most of the variance in PT symptoms was shared among many risk factors, and pre-trauma and post-trauma risk factors accounted for the most variance. The significant effect reported in this study therefore showed that VSM intervention was effective in reducing IIDPs PTSD symptoms (Carlson, Palmier, Field, Dalenberg, Macia, & Spain, 2016).

One meta-analytic study examining the effectiveness of solution-focused brief therapy (SFBT) was done in 1988 to 2005. This meta-analysis included a sample of twenty-two distinctive studies. Findings from this meta-analysis demonstrated small but positive treatment effects favoring SFBT group on the outcome measures (d = 0.13 to 0.26). Only the magnitude of the effect for internalizing behavior problems was statistically significant at the p <.05 level, thereby indicating that the treatment effect for SFBT group is different than the control group. Two reviews of controlled outcome studies of SFBT were undertaken in 2000 and 2009 respectively. Each of these reviews noted the methodological limitations of the studies examined, but there was a consistent finding for the efficacy of SFBT (Levers, Seem, & Fallon, 2012). Report in regard to about 50 percent of the studies reviewed showed improvement over alternative conditions or no-treatment control. Three randomized control studies were also located pertaining to the effectiveness of SFBT(Corcoran & Pillai, 2009).This study review correlates with the findings because the experimental groups (Kiandutu and Gachagi respondents) showed reduction of PTSD symptoms against the control groups (Umoja and Kiganjo respondents).

Other models of treatment have been used in the reduction of trauma signs and symptoms. A randomized control trial (RCT) has been useful in controlled treatment studies. RCT is a systematic evaluation of suspected relationships—between an exposure and a health outcome. In Uganda it was used to assess the reduction of PTSD in child soldiers (Nshemeriwe,

Nasinyama, & Twabaze, 2013). RCT seeks to establish: what the intervention seeks to achieve or address; what is needed to achieve the treatment objective(s) or goals; how the objectives or goals will be achieved and how they will be measured after the treatment. This study assessed IIDPs trauma symptomsbefore and after the study using HTQ to identify any significant difference between the experimental and control groups results. The study findings showed that the experimental group reported reduced PTSD symptoms therefore supporting that VSM was effective in reducing IIDPs PTSD symptoms.

Two marriage and family therapy based studies in 2011 and 2016 consecutively emphasized that through the use of both modern and post-modern models, marriage and family therapists may use emotion regulation strategies to assist clients in overcoming the negative repercussions of traumatic events. They suggested that the nature of emotional arousal which accompanies trauma alters the physical process by which the body regulates future affective stimuli in ways that are potentially detrimental to human relationships. They proposed thorough selection of MFT models that contain strategies that promote reconnection to self (Witting, Jensen, & Brown, 2016).These models should be utilized with greater precision, ultimately to target the physiological symptoms of trauma-altered emotion regulation processes among the traumatized population (Saul, 2014). VSM is a marriage and family based therapy model that from the study findings, it has reduced the IIDPs PTSD symptoms. This means VSM can be applied in trauma counseling as well because it is effective in reduction of PTSD symptoms.

3.0 Methodology

This study was a quasi-experimental research that used Solomon's Four Non – equivalent Control Group Design suitable for pretest and posttest studies (Kothari, 2004).A baseline survey on IIDPs living in Thika that was conducted by Community Counseling Resource Centre in 2012 showed 340 IIDPs had PTSD symptoms. The study recommendation suggested further trauma specific assessment and trauma focused intervention. This suggestion helped shape the relevant study design (Kamau, Githii, & Njau, 2014) .This study was informed by the recommendation and therefore focused on evidence based trauma intervention for the IIDPs using VSM.

3.1 Research Design

Solomon's Four Non-equivalent Control Group Design partially eliminates the initial difference between the experimental and control groups (Martyn, 2009). This design is also considered rigorous enough for experimental and quasi-experimental studies (Thayer & Martha, 2009). This is because it provides effective and efficient tools for determining cause and effect relationship and also provides adequate control of other variables that may interfere with the validity of the study (Abbott & McKinney, 2013).

How Solomon Four Non-equivalent Group Designs was used in the study is shown in Figure 3.

Group	Pre-test	Treatment	Post-test
Experimental Group 1	0_1	X (Kiandutu)	0_2
Control Group 2	0_3	- (Kiganjo)	0_4
Experimental Group 3	-	X (Gachagi)	0_5
Control Group 4	-	- (Umoja)	0_6

Source: Shuttle Worth (2009)

Figure 3. Solomon Four non-equivalent control -Group Design

3.3 Population of the Study

The participants comprised of survivors of PEV 2007/08 Integrated Internally Displaced Persons aged 18 years. The study used adapted and modified and standardized Harvard Trauma Questionnaire that is suitable for adults and diverse cultural groups. These IIDPs were the ones who neither went back to the eviction site nor to their ancestral homes after the 2007/08 political violence in Kenya. The recorded IIDPs population stood at 640 but the researcher targeted the accessible population of 240 IIDPs who tested positive for PTSD during a baseline survey carried out by a local Non- Profit organization (Community Counseling Resource Centre, 2012). This background informed the researcher's decision to carry out an experimental study on assessment of effectiveness of VSM on trauma recovery of IIDPs living in Thika Sub County. A sample of 125 IIDPs from this baseline survey population was randomly selected.

3.4 Sampling Procedures and Sample Size

The researcher used pretest on two groups, treatment for two groups and posttest on all groups. The actual sample size of the study is shown in Table 1.

Table1

Sample Size

Village	Number of Respondents
Kiandutu	32
Kiganjo	34
Gachagi	30
Umoja	29
Total	125

3.4 Data Analysis

Inferential statistics was used to analyze, interpret and support decisions based on the results (Nassiuma, 2000). In this study,data was analyzed using both descriptive and inferential statistics. Descriptive data was analyzed using means, standard deviation and percentages so as to meaningfully describe the distribution of the measurements. Quantitative methods of data analysis involving the use of Analysis of Variance and t-test was used to list statistical significant

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difference within and among means in the posttest scores for the groups exposed to VSM and those exposed to regular counseling model respectively (Kothari, 2004).

4.0 Results and Discussion

Table 6

Post - Test Means of Respective Villages

Posttest Scores			
Residence Village	Mean	N	Std. Deviation
Kiandutu	64.06	32	11.856
Kiganjo	38.90	31	13.878
Gachagi	61.90	30	11.716
Umoja	35.11	27	13.194
Total	50.50	120	18.101

The analysis of post test results from respondents from across the four villages of study in Table 6 shows that the experimental village groups, Kiandutu and Gachagi had a higher mean (64.06 and 61.90) respectively. The control village groups Kiganjo and Umoja had relatively low means (38.90 and 35.11). Kiganjo village respondents had taken the pre-test but did not go through the VSM treatment. Gachagi respondents did not take the pre-test but received VSM treatment with a posttest score mean (61.90) with Gachagi while Kiandutu respondents had the pre-test with posttest score mean (64.05). This shows that the pre-test did not have significant effect on the treatment process. The high mean scores from Kiandutu and Gachagi show that VSM treatment was effective in trauma recovery of the respondents than the regular counseling received by Kiganjo and Umoja (control groups) with lower mean scores (38.90 and 35.11).

The results of the effect of VSM treatment on post-traumatic stress as indicated in PTSD symptoms, personal responsibility, rational thinking and coping mechanisms are presented in Table 7.

Table 7

	Sum of Squares	Df	Mean Square	F	P Value
Between Groups	20348.040	3	6782.680	42.201	.000
Within Groups	18643.951	116	160.724		
Total	38991.992	119			

Results in Table 7 reveal that the differences in post-traumatic stress in the four groups were not significant ($F(3,119) = 42.20$, $P<0.05$). To determine where the differences existed in the different groups; Least Significant Difference (LSD) post hoc comparisons was used.

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Table 8 shows the results of Least Significant Difference (LSD) post hoc comparisons. The results are shown in Table 8.

Table 8

Least Significant Difference Post Hoc Comparison

(I) Residence Village	(J) Residence Village	Mean Difference (I-J)	Std. Error	Sig.
	Kiganjo	25.15927*	3.195	.000
Kiandutu	Gachagi	2.16250	3.222	.503
	Umoja	28.95139*	3.313	.000
	Kiandutu	-25.15927*	3.195	.000
Kiganjo	Gachagi	-22.99677*	3.247	.000
	Umoja	3.79211	3.337	.258
	Kiandutu	-2.16250	3.222	.503
Gachagi	Kiganjo	22.99677*	3.247	.000
	Umoja	26.78889*	3.363	.000
	Kiandutu	-28.95139*	3.313	.000
Umoja	Kiganjo	-3.79211	3.337	.258
	Gachagi	-26.78889*	3.363	.000

Table 8 results show that the pairs of VSM-posttest mean scores of group 1 and 2, 1 and 4, 2 and 3 and 3 and 4 were statistically different at 0.05 α level. However, the results for experimental group 1 (Kiandutu Village) and 3 (Gachagi Village) and control group 1 (Kiganjo Village) and 4 (Umoja Village) were not statistically significant.
In the view of these findings, analysis of scores based on objectives was necessary. The results are presented in Table 9.

Table 9

ANOVA of Post-Traumatic Stress Disorder Scores for IIDPs

	Sum of Squares	Df	Mean Square	F	P Value
Between Groups	9.899	3	3.30	.054	.98
Within Groups	7286.702	119	61.23		
Total	7296.602	122			

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The scores above show that there was statistical significant difference on the effect of VSM treatment on reducing the IIDPs PTSD symptoms at p value of .98. The hypothesis that stated there is no statistical significant effect of VSM on reducing IIDPs PTSD symptoms was therefore not supported. Therefore, VSM treatment was effective in reducing PTSD symptoms among IIDPs.

Conclusion and Recommendation

The study findings showed statistical significant effect of Virginia Satir's Model on reduction of Integrated Internally Displaced Persons Post Traumatic Stress Disorder symptoms.VSM is therefore an effective intervention model for reducing PTSD symptoms among the IIDPs living in Thika Sub County following the 2007/08 Post Election Violence in Kenya. The study findings revealed VSM as an effective trauma intervention model for reducing IIDPs PTSD symptoms. It is against these findings that the researcher recommends VSM for trauma interventions for displaced traumatized people and other populations threatened by post traumatic experiences like police officers, war veterans, traumatized children and victims of other forms of violence.

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