Reducing Self-Harm Tendency: The Efficacy of Dialectical Behavioural Therapy among Inmates of a Nigerian Prison

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Abstract
Self-harming has been reported among prison inmates globally; it often starts with the urges. Empirical evidences from developed countries have shown Dialectical Behavioural Therapy (DBT) to be efficacious in reducing self-harm urges. There appears to be no evidence of the use of DBT in Nigeria either for research or therapeutic purposes. This study therefore tested the efficacy of DBT Nigeria. A total of 135 inmates randomly selected from Uyo Prison participated in the study which adopted pre-test post-test quasi-experimental design. Inmates’ Self-Harm Urges Scale, modified DBT, and Diary Cards were used to gather data. Results showed that inmates who were exposed to DBT continuously reported reduced self-harm urges post-test and 3-months follow-up stages. They also showed lower self-harm urges at post-test and follow-up stages compared to those who did not participate in DBT. It was recommended that DBT be used as a psychological adjunct in prison inmates’ rehabilitation.

INTRODUCTION
Self-harm, described as an intentional and acute physical self-injury without intent to die (Wexler, Weissman & Kasl, 1978), has been given different names by different authorities. Such names include self-mutilation, suicidality, parasuicide, deliberate self-harm (DSH), and cutting (Connor, 2010). This variety of terminology constitutes problems for its conceptualization and inhibits the gaining of clear epidemiological information about the condition. However, self-harming often comes in form of cutting or severely scratching one’s skin, burning or scalding oneself, hitting oneself or banging one’s head, punching things, throwing one’s body against walls and hard objects, sticking objects into one’s skin, intentionally preventing wounds from healing, taking overdose alcohol and other drugs, and swallowing poisonous substances or inappropriate objects. It can also come in less obvious ways of hurting oneself or putting oneself in danger, such as driving recklessly, binge drinking, taking too many drugs, and having unsafe sex (Smith & Segal, 2015). Self-harm is different from suicide; the major difference between self-harm and suicide lies in the intent; in suicide, there is intention to die while in self-harm, there is no intention to die. Also, self-harming is often done by cutting (which explains why self-harm is often described as “cutting”, as used in this study), but only a minority of individuals attempt suicide by cutting (Wexler, et al., 1978). Indeed, self-harming basically entails a direct and deliberate destruction of body tissues with no thoughts about suicide and thoughts about injuring oneself but without actually doing so, which may be regarded as a precursor to actual self-injuring behaviour. Such thought is often described as self-harm urges which precedes and often determines the tendency for actual self-harm acts; self-harming generally starts with the urges to do so (Connor, 2010).

Self-harm has been described as a major public health problem in many countries (Brown, 2005; Green, Wood, Kerfoot,Trainor, Roberts, Rothwell, Woodham, Ayodeji, Barrett, Byford & Harrington, 2011; Kapur, 2005). For Nock (2010), self-harm is not a new problem but is as old as human nature itself. It is associated with recurrent psychosocial problems (Hawton, Houston & Shepperd, 1999), poor long term outcome (Fergusson & Lynskey, 1995), emerging personality disorder (American Psychiatric Association, 2013; Brent, Johnson, Bartle, Bridge, Rather & Matha, 1993), and psychological variables such as hopelessness, distress and anger (Kinyanda, Hjelmeland & Musisi, 2005) and depression (Bennum & Phil, 1983; Gould, Shaffer & Greenberg, 2003). It is known to be pleasurable, capable of making the individual less sensitive to pain (Mental Health Foundation, 2012), providing expression of negative thoughts and feelings that cannot be put into words and self punishment (Serani, 2012), and providing relief from emotionally overwhelming situations (National Health Services, 2015), thus making it impulsive, repetitive, and habitual (Mental Health Foundation, 2012), and difficult to manage or treat. It is a global problem cutting across, cutting across all social strata (Adopegbe, 2013; Mental Health Foundation, 2012).

The incidence of self-harm (and even completed suicide – the ultimate self-harm) has been found to be on the increase in prisons globally (The Howard League for Penal Reform, 2012) and in general population (Adopegbe, 2013; Odejide, Williams, Ohaeri & Ikuesan, 1986). Also, empirical report had included prison inmates in the group of people who are highly prone to self-harming (Timms, 2012). Weiderman & Pryor (1996)
found that self-harm is a serious behavioural problem with a tendency for increasing prevalence. Reports show that across Canada, the incidents of self-injury climbed to 958 in 2007 from 271 in 2006; the Prairies, the incidents have grown ten-fold, from 45 to 465 in the five-year period, with prison inmates self-harming by slashing, burning, banging their heads, and choking themselves (Staff, 2012). In Nigeria, mental health experts had raised alarm about the risk of self-harm and other disorders among Nigerian prison inmates (Oguntola, 2012). More so, a survey of the Kuje, Kirikiri, and Calabar prisons revealed that the inmates exhibited serious self-harming behaviours among other psychological disturbances (Adepegba, 2013). Giving reasons for self-harming among prison inmates, Lehnert (2011) reported that some prison inmates may feel that their problems are magnified and possibly more than they feel they can cope with, and that sometimes prison inmates may be so desperate that they may feel like harming themselves.

It is acknowledged that the clinical evaluation of patients following self-harm is one of the most complex assessments in mental health (Isacsson & Rich, 2001). Until lately, there was haphazard service provision (Bennewith, Gunnel & Peeters, 2004) and a lack of research-based evidence which has posed challenges to the mental health service providers on the management of self-harm (Kapur, 2005). Howbeit, some psychological interventions have been provided and found efficacious for clients presenting with self-harm urges and acts, in some parts of the world (Linehan, 1993). Few factors have been found to influence the efficacy of such interventions (therapies). For instance, in a study investigating the attitude of prison staff towards inmates who self-harm, it was found that most staff perceived self-harming as non-genuine and viewed those who do so as ‘rational manipulators’, self-harming to achieve particular ends. The staff disclosed their feelings of resentment towards such inmates (Short, Cooper, Shaw, Kenning, Abel & Chew-Graham, 2009). This attitude may affect the inmates’ willingness to verbalize whenever they experience such urges for the fear of being misunderstood or being kept under surveillance, yet the urges continue and may lead to full-blown self-harm acts if they continue unchecked. This may explain why two sets of guidelines were published by National Collaborating Centre for Mental Health (2004) and The Royal College of Psychiatrists (2004) demanding that the prefix ‘deliberate’ be dropped from ‘self-harm’ in response to the heterogeneous nature of the phenomenon and the concerns of service users. The guidelines held that what needed to be emphasized is that self-harm includes both self-poisoning and self-injury. The dropping of the prefix “deliberate” was due to the understanding that it tended to blame people for their self-harm (Timms, 2012). Such “blame” can make clients feel guilty/condemned, not willing to cooperate, and thus tampering with the efficacy of a therapy. Also, it has been found that to some people, self-harm is unbelievable (indeed, nonexistent) and to others, it is “senseless” and “irrational”. This is because they cannot imagine themselves involving in such under any circumstance (Nock, 2010); but it does exist in others who, generally would nurse such urges for some time before implementing the act (Connor, 2010). Hence, the need to provide intervention for such urges to prevent manifestation as full-blown self-harm act (behaviour).

Linehan’s (1993) Bio-psychosocial Theory provided the theoretical basis for this study; it explains self-harm as a function of personality disorder. The theory describes chronic negative emotions and self-invalidation as primary factors that predispose Borderline Personality Disorder (BPD) individuals to self-mutilation and suicide attempts. The theory holds that emotion dysregulation results from a combination of high sensitivity or reactivity to emotional stimuli and a deficit in emotion regulation skills (e.g., inability to distract). According to Linehan, BPD is primarily a disorder of emotion dysregulation and emerges from transactions between individuals with biological vulnerabilities and specific environmental influences. However, the literature on the biology of psychological disorders was extremely limited when Linehan first articulated her theory (Crowel, Beauchaine & Linehan, 2009). Linehan’s bio-psychosocial theory further explains that, negative emotions contribute to chronic parasuicide (self-harm) in BPD in three ways: (1) the reduction of emotional arousal following parasuicide negatively reinforces the behaviour, (2) anger, contempt, and shame interfere with problem solving and emotional processing, and (3) shame-related emotions directly lead to self-punishment, or an extreme desire to hide or disappear (i.e., lose consciousness or die). By this theory, self-harming is majorly a personality (BPD) problem. Therefore experiencing self-harm urges is symptomatic of a personality problem characterized by emotion dysregulation and self-invalidation.

The existence of self-harm acts among Nigerian prison inmates (Adepegba, 2013; Oguntola, 2012) is indicative of the existence of self-harm urges, since self-urges basically start with the urges (Connor, 2010). As clear as this point may be, very little or nothing has been done in terms research and intervention in Nigeria. So there is generally dearth of indigenous literature (in research and intervention) in self-harm (Ineme & Osinowo, 2015a). Also, this study employed Dialectical Behavioural Therapy (DBT); this was because DBT has been found to be efficacious in the reducing self-harm urges (the cutting tendency) and self-harm acts (behaviour) but in other parts of the world (Dietz, 2003; Linehan, 1993). There appears to be no record intervention using DBT in Nigeria, hence, the need for this study which tested the efficacy of DBT in reducing self-harm urges (the cutting tendency) among inmates of a Nigerian prison.

It was therefore hypothesized that:
1. There will be no significant difference in the level of self-harm urges between control and experimental groups prior to DBT intervention.

2. Prison inmates who participate in DBT will continuously report significantly reduced level of self-harm urges at post-test and follow-up stages compared to at pre-test stage.

3. Prison inmates who participate in DBT will report significantly reduced level of self-harm urges than those who do not participate at post-test and at follow-up stages.

OPERATIONAL DEFINITION OF TERMS

1. **Cutting tendency:** Self-harm urges i.e. the internal push to hurt oneself. It was determined using the Inmates’ Self-Harm Urges Scale by Ineme & Osinowo (2015b). It is a 19-item instrument used to measure prison inmates’ urges/tendency to self-harm. The scale has a Nigerian norm of 37; scores below the norm show low self-harm urges while scores above the norm show high self-harm urges (and qualified the individual for intervention in this study).

2. **Efficacy of DBT:** The ability of DBT to reduce self-harm urges.

METHOD

**Design:** Quasi experimental design (a pre-test-post-test within and between group designs) was adopted in this study. The pre-test post-test design offered the opportunity for participants with high self-harm urges (in the experimental group) to be tested for three times (within group) and to be tested in comparison with those in the control group (between group).

**Setting:** The setting for this study was Uyo prison. Uyo is the Capital of Akwa Ibom State; situated at 5.03° North latitude, 7.93° East longitude and 196 meters elevation above the sea level. The population of Uyo is 309,573 (National Population Commission, 2006). The prison yard is located along Willington Bassey Way (former Barracks Road) less than 1 kilometre from the Government House. Uyo Prison shares boundary with the “A” Division Police Station/Barrack. Uyo prison is a medium security prison, established in 1954; it is the number one prison in Akwa Ibom State. As at the time of this study, it accommodated an average of 928 inmates (14 days average).

**Sampling method:** Multi-stage sampling method was used in this study; the cells formed the clusters from where participants were drawn, random sampling method (balloting) was used to select 15 cells from the 28 cells in the prison and to select the initial participants from each cell, purposive sampling method was used to select the actual participants – only those with high self-harm urges were selected, and random sampling method (balloting) was used to assign participants to the two treatment groups – Experimental and Control Groups. The Experimental Group being Group A had initial 68 participants (65 males and 3 females) while the Control Group being Group B had initial 67 participants (63 males and 4 females).

**Participants:** The study started with 135 inmates from Uyo Prison who reported high self-harm urges, having scored 36 and above on Inmates’ Self-Harm Urges Scale (IS-HUS), the number reduced to 114 at the end of the 6 months DBT intervention, and further reduced to 95 at three months follow-up. Summary of the participants in the study was as follows:

- Total no. selected (sample size) = 233
- No. with low self-harm urges = 98
- No. with high self-harm urges = 135 (scoring 36 – 76) for experimental and control groups
- Experimental Group (A) = 68 – 12 = 56 (completed the sessions)
- Control Group (B) = 67 – 9 = 58 (available as at the end of the sessions)
- Follow up (Experimental Group) = 56 – 7 = 49 (available at follow-up, three month after)
- Follow up (Control Group) = 58 – 13 = 46 (available at follow-up, three month after)
- Total attrition rate = 37 (27.41%)
- Control Group after follow-up = 41 (available to benefit from DBT)

This information is presented in Figure 1.
Figure 1: Showing assignment of participants to treatment conditions and attrition pattern

**Instruments:** Three instruments were used in this study.

1. **Inmates’ Self-harm Urges Scale (IS-HUS):** This is a 19-item developed and validated for use in Nigeria by Ineme & Osinowo (2015b) to measure prison inmates’ urges/tendency to self-harm. It was administered to the participants in the two treatment groups (Experimental and Control Groups) for three times (pre-test, post-test, and follow-up phases). The general Cronbach’s coefficient of the scale was .93. The scale has a Nigerian norm of 37; scores below the norm showed low self-harm urges while scores above the norm showed high self-harm urges (and qualified the individual for intervention in this study).

2. **Modified DBT package (manual):** The initial DBT package (Linehan, 1993) was modified and used as an intervention for prison inmates with high self-harm urges. To ensure effective modification, focus group discussion (FGD) and in-depth interview (IDI) were conducted in Agodi prison during which regular themes emerged. The themes were used to modify the original DBT manual (Linehan, 1993). It was then subjected to the scrutiny and contributions of two clinical psychologists to ensure its validity, culture-sensitivity, and to make it population-specific. Their independent contributions aided the modification (rewording and rearranging) the new (modified) version of the DBT used in this study. This was in line with the developer’s recommendation that the milieu or the culture of the group involves plays a key role in the effectiveness of DBT and that the actual packaging of the modules should take into consideration the cultural realities and peculiarities of the place.
it is to be used (Linehan, 1993). Bass, Nevel & Swarts (2014) upheld that DBT is a distinct therapy with superior performances (though it may build on the foundation laid by CBT).

iii. Diary Card: This is a specially formatted card for tracking therapy-interfering behaviours (TIB) that distract or hinder a patient's progress (Linehan, 1993). This card was kept for each group and the TIBs such as lateness to sessions, sleep, discussions with fellow inmates, standing up frequently, looking outside frequently, etc were identified, noted, and tackled accordingly.

Procedure: A pilot study (FGD and IDI) was conducted in Agodi prison. Ethical approval was obtained from the Oyo State Research Ethical Review Committee (for pilot study) and Akwa Ibom State Research Ethical Review Committee (for main) and a formal permission from the Controllers of Prison, Oyo and Akwa Ibom States Commands. A total of 233 inmates were randomly selected from the 15 cells (1 cell at a time); they were brought to the Prison Chapel on cell basis with the help of the research assistants (1 male and 1 female staff). The IS-HUS was administered to them and 135 inmates reported high self-harm urges. Using their tags, they were assigned to the two treatment groups – A and B by randomization (balloting). The 68 participants in the Experimental Group took part in DBT for 6 months (2 times a week), at end of which period, 56 participants remained in the Experimental Group while the 67 in the Control Group were given placebo within the 6-month period (to maintain contact); at the of the 6-month period, 58 participants remained in the Control Group, and were present for the post-test. Members of the Experimental Group were further randomly assigned to 4 sub-treatment groups for convenience of meeting. Each group began with 17 participants; they were given equal meeting opportunities in terms of time and duration. Participants were given tags used for identification.

Follow-up measures (scores) were taken from the 2 groups 3 months later to further test the efficacy of the therapy; the number present as at the follow-up time were 49 and 46 for Experimental Group and Control Group respectively. This implies that, the sample mortality (or attrition) rate was 21 (12 and 9 for Experimental and Control Groups respectively). Of the said number (21), 4 voluntarily withdrew from the study for personal reasons while 17 left the prison either on completion of jail terms or on being discharged by the court. However, the same DBT package was administered to those in the Control Group after the follow-up measures were taken; 41 of them were present to benefit from the package. This was done for ethical reasons, having found the therapy to be efficacious. All selections, administration of instruments, and interventions took place in the Prison Chapel. The two prison staff who were assigned to serve as research assistant were always present (in mufti). Their responses were analyzed using SPSS (Version 20.0).

Inclusion/Exclusion criteria: All inmates in the selected prison were given equal opportunities to participate in the study. But only inmates with high self-harm urges were actually included in the study. Also, only inmates who voluntarily consented participated. Inmates with clinically diagnosed psychotic symptoms, severe medical conditions, and overtly unstable behaviours were excluded from the study. Equally, inmates who showed objection to participation were excluded. Staff of the prison and visitors were not included in the study.

Ethical approval: In addition to undertaking and completing Basic Course/1 on Human Subject Research Curriculum from West African Bioethics Training Programme of Collaborative Institutional Training Initiative (CITI), due permissions were obtained from the States Controllers of Prisons. Ethical approval was obtained from Oyo State Research Ethical Review Committee and Akwa Ibom State Research Ethical Review Committee. The major ethical considerations were: confidentiality of data, translation to and use of local language, beneficence to participants, and the right to decline from the study at any point in time.

Statistics: T-test for independent samples was used to test for hypotheses 1 and 3, while One-Way ANOVA (for repeated measures) was used to test for hypothesis 2 and Post-hoc test (LSD) was used as further statistics to show the least differences existing between each treatment time.

RESULTS
Hypothesis one stated that there will be no significant difference in the level of self-harm urges between control and experimental groups prior to DBT intervention. This was tested using t-test for independent samples and the summary of results presented in 1.

Table 1: t-test summary table showing the differences between the control and experimental groups in the levels of self-harm urges prior to DBT intervention

<table>
<thead>
<tr>
<th>Groups</th>
<th>N</th>
<th>( \bar{X} )</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>67</td>
<td>39.88</td>
<td>7.33</td>
<td></td>
<td>133</td>
<td>1.72</td>
</tr>
<tr>
<td>Experimental</td>
<td>68</td>
<td>40.29</td>
<td>6.97</td>
<td></td>
<td></td>
<td>&gt;0.05</td>
</tr>
</tbody>
</table>

The result on Table 1 shows that prior to intervention, there was no significant difference in the level of self-harm urges reported by inmates in the two groups (control and experimental) prior to intervention (\( t = 1.72, \ p > .05 \)). This indicates inmates in the control group (\( \bar{X} = 39.88, \ \text{S.D}= 7.33 \)) were not significantly
different in the level of self-harm urges compared to those in the experimental group (\( \overline{X} = 40.29, \text{ S.D} = 6.97 \)). This result implies that inmates in the two groups were statistically identical in their level of self-harm urges before the DBT intervention. Therefore, the hypothesis was confirmed.

Hypothesis two stated that prison inmates who participate in DBT will continuously report significantly reduced level of self-harm urges at post-test and follow-up stages compared to pre-test stage. This tested using One-Way ANOVA for repeated measures and summary of results presented in Table 2.

**Table 2: Summary of One-Way ANOVA for repeated measures showing differences in the level of self-harm urges in the experimental group based on the stages of experimental conditions – pre-test, post-test and follow-up**

<table>
<thead>
<tr>
<th>Stages</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>F</th>
<th>Sig.</th>
<th>Wilks' Lambda</th>
<th>Ƞ²</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>6009.12</td>
<td>1</td>
<td>6009.12</td>
<td>23.02</td>
<td>.000</td>
<td>.82</td>
<td>.19</td>
</tr>
<tr>
<td>Time*treatment</td>
<td>4965.33</td>
<td>1</td>
<td>4965.33</td>
<td>19.02</td>
<td>.000</td>
<td>.81</td>
<td>.19</td>
</tr>
<tr>
<td>Error(Time)</td>
<td>8480.23</td>
<td>56</td>
<td>75.72</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As shown in Table 2, Mauchly’s test indicated that the assumption of sphericity had been violated, \( \chi^2 (2) = 62.56, p = <.05 \), therefore degrees of freedom were corrected using Greenhouse – Geisser estimates of sphericity (\( \varepsilon = .70 \)). There was a substantial main effect of treatment, Wilks Lambda = .82, F (1, 112) = 23.02, p < .01, partial eta squared = .19, where the experimental group showed a reduction in self-harm urges scores across the three treatment conditions. The main effect of time was significant, Wilks Lambda = .82, F (1, 112) = 19.02, p = <.05, partial eta squared = .19. The 3-month follow-up score was significantly lower than the pre-test score and the post-test score; the post-test score was significantly lower than the pre-test score; and the pre-test score was significantly higher than the pre-test and 3-month follow-up scores. Thus, the hypothesis was confirmed.

Further statistical analysis using a post-hoc test (LSD) was conducted and summary of result presented in Table 3.

**Table 3: Showing the post hoc analysis showing mean differences based on treatment time**

<table>
<thead>
<tr>
<th>TIME</th>
<th>Mean</th>
<th>Std. Error</th>
<th>Multiple comparison test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Pre test</td>
<td>40.29</td>
<td>1.27</td>
<td>7.26*</td>
</tr>
<tr>
<td>Posttest</td>
<td>26.62</td>
<td>.64</td>
<td>-6.82*</td>
</tr>
<tr>
<td>Follow-up</td>
<td>24.60</td>
<td>.46</td>
<td></td>
</tr>
</tbody>
</table>

* The mean difference is significant at the .05 level.

On Table 3, the post-hoc (LSD) analysis looking at the effects of time within the treatments shows significant main effect of time and interaction of time with treatment. The self-harm urges significantly differ at the pre-test, post-test and follow-up stages within the experimental group; there was significant decrease in self-harm urges from pre-test stage to post-test stage, and from post-test stage to follow-up stage in the experimental group. This further confirmed the hypothesis.

Hypothesis three stated that prison inmates who participate in DBT will report significantly reduced level of self-harm urges than those who do not participate at post-test and at follow-up stages. This was tested using t-test for independent samples and summary of results presented on Table 4.

**Table 4: t-test summary table showing differences in level of self-harm urges between experimental group and control group at pre-test, post-test and three months follow-up stages.**

<table>
<thead>
<tr>
<th>Treatment stage</th>
<th>Group Type</th>
<th>N</th>
<th>Mean (( \overline{X} ))</th>
<th>SD</th>
<th>df</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-test</td>
<td>Experimental</td>
<td>68</td>
<td>40.29</td>
<td>7.33</td>
<td>133</td>
<td>1.72</td>
<td>&gt;0.05</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>67</td>
<td>39.88</td>
<td>6.97</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Post-test</td>
<td>Experimental</td>
<td>56</td>
<td>26.62</td>
<td>6.82</td>
<td>112</td>
<td>7.48</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>58</td>
<td>38.63</td>
<td>8.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Follow-up</td>
<td>Experimental</td>
<td>49</td>
<td>24.60</td>
<td>5.89</td>
<td>93</td>
<td>-15.88</td>
<td>&lt;0.01</td>
</tr>
<tr>
<td></td>
<td>Control</td>
<td>46</td>
<td>39.54</td>
<td>7.96</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The results of the t-test as presented in Table 4 shows that the treatment (DBT) had a significant effect on the level of self-harm urges of the inmates at post-test stage \([t (112) = 7.48, p<.01]\) and at follow-up stage \([t(93) = -15.88, p<.01]\) respectively. It shows that at post-test stage, inmates in the Experimental Group (who were exposed to DBT) reported significantly reduced self-harm urges (\( \overline{X} = 26.62, \text{ S.D.} = 6.82 \)) compared to those in the Control Group who were not exposed to the treatment (\( \overline{X} = 38.63, \text{ S.D.} = 8.08 \)). At follow-up stage (three months after the treatment), the result shows that inmates in the Experimental Group (who where not exposed to DBT) continued to report significantly lower level of self-harm urges (\( \overline{X} = 24.60, \text{ S.D.} = 5.79 \)) than
those in the Control Group were not exposed to the treatment ($\bar{X} = 39.54$, S.D. = 7.96).

However, the t-test result [$t(133) = 1.72$, $p > .05$] reveals that there was no significant difference between the two groups in the level of self-harm urges at the pre-test stage (before the intervention was introduced to the experimental group). The result shows that inmates in the experimental group ($\bar{X} = 40.29$, S.D. = 7.33) were not significantly different in their levels of self-harm urges compared with those in the control group ($\bar{X} = 39.88$, S.D. = 6.97). Therefore, the hypothesis was accepted. The graphical representation of their mean scores is presented in Figure 2.

![Graph showing the mean scores of experimental and control groups across three treatment conditions](image)

**Figure 2:** Graph showing the mean scores of experimental and control groups across three treatment conditions

Figure 2 shows a graphical representation of the mean scores of the experimental and control groups across the three treatment conditions. At pre-test stage, the mean scores of the two groups were not significantly different (40.29 and 39.88 for experimental and control groups respectively). At post-test, the difference between the two groups became significant as the means became 26.62 and 38.63 respectively, with a mean difference of 12.01; and at follow-up (three months after) the difference still remained significant as the means were 24.60 and 39.54 respectively, with a mean difference of 14.94.

**DISCUSSION/CONCLUSION**

This study found that prison inmates in the Experimental Group who were exposed to Dialectical Behavioural Therapy (DBT) reported significantly reduced levels of self-harm urges at post-intervention and three-month follow-up stages compared to their counterparts in the Control Group who were not exposed to the therapy. Those who were not exposed to the therapy maintained relatively similar levels of self-harm urges across the three-time measurements – pre-intervention, post-intervention, and follow-up measurements (stages). This showed the efficacy of DBT in reducing self-harm urges among prison inmates in Nigeria. This finding supported the findings of earlier studies which found DBT helpful and efficacious in the treatment of self-injuring patients and those with self-harm urges (Dietz, 2003; Holmes, Georgescu & Liles, 2005; Linehan, 1993).

It is plausible that the efficacy is due to the peculiar nature of DBT; the four modules are designed in such a way that they sequentially deal with self-harm urges and provide lasting solutions. The *mindfulness skills* expose the participants to “what” and “how” of the their problems thus creating insight and awareness, the second module helps to *tolerate distress painfully* (especially, where the source of such distress cannot changed), the third module helps in *emotion regulation*, and the fourth module teaches *interpersonal effectiveness skills*. According the to the Linehan’s Bio-psychosocial Theory, which is the theoretical base of DBT, emotion dysregulation and self-validation which may be biologically or psychologically caused, are major reason for self-harming (Linehan, 1993). The first three modules of DBT deal with these causes and the last module provides the skill to cope in events of their possible appearances. Also worthy of note is that, according to Linehan’s Bio-psychosocial Theory, self-harming is a personality problem, hence, may be enduring, repetitive, compulsive, obsessive, and habitual. DBT by its nature is a long-term therapy (Dietz, 2003; Linehan, 1993) and therefore has the ability to deal steadily with the cause(s) of self-harm urges and forestall its relapse – this further explains the reason for its efficacy.

In conclusion, this study has introduced the use of DBT in Nigeria and has found it effective in the management and treatment of self-harm urges. DBT has already been used and found efficacious in some other societies. This study has therefore initiated the use of DBT and so diversified, or added to, the conventional and
frequently used psychotherapies in Nigeria such as cognitive behavioural therapy (CBT). But it should be noted that this study was conducted among suspected and confirmed criminals. Thus its findings have forensic implications – implications for the management of forensic and security settings. It therefore increases the relevance of psychology in prison management in Nigeria, that is, the need for more psychologists in the Nigerian prison system and other security settings – it is primarily the duty of psychologists to administer DBT and any other psychotherapies. It is therefore recommended that DBT be used as a psychological adjunct prison inmates’ rehabilitation. Already, Bass, Nevel & Swarts (2014) had found DBT to be a distinct therapy with superior performances.

REFERENCES


