

Effectiveness of Brief CBT in Reducing the Severity of Secondary Traumatic Stress among Probation Officers in Nairobi County, Kenya

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ABSTRACT: The purpose of this study is to establish the effectiveness of brief cognitive behavior therapy (Brief CBT) on the severity of Secondary Traumatic Stress (STS) among probation officers working in probation offices in Nairobi County, Kenya. The research design was a single group pre and posttest quasi-experiment. The target population was 108 probation officers distributed across 8 locations. The study used purposive sampling to select 84 probation officers who met criteria for inclusion. Screening was done using Secondary Traumatic Stress Scale (STSS). The eligible respondents then underwent a 6-week Brief CBT program. On the conclusion of the 6-week treatment, the researcher re-administered the STSS to 45 participants who successfully completed the brief CBT program. Quantitative data was analyzed using mean and standard deviation scores, percentage frequencies, paired samples t-test, cross-tabulation analysis, and chi-square tests. Results showed a statistically significant decline in the prevalence of Secondary Traumatic Stress $t(44) = 12.45, p < .01$. The Cohen d score was 1.86, 95% CI (1.37, 2.35), signifying that the intervention effect was likely very large. A mean percentage change of 50.26% (SD = 15.68) was observed, suggesting that, on average, Secondary Traumatic Stress decreased by approximately half after the intervention. It was concluded that the Brief CBT program was potentially effective in reducing the severity of Secondary Traumatic Stress among the study participants. Thus, probation officers should actively participate in CBT-based programs and consistently apply learned coping strategies. Clinical psychologists should integrate Brief CBT into trauma management programs for probation officers. Policymakers should invest in structured CBT-based workshops and supervision frameworks to ensure sustainable trauma management across the

KEYWORDS: Brief CBT, Probation Officers, Secondary Traumatic Stress, Secondary Traumatic Stress Scale, Trauma Symptoms

I. INTRODUCTION

Probation officers play an essential role in the criminal justice system by providing courts with vital information, supervising offenders on non-custodial sentences, and supporting rehabilitation and reintegration into society (Omodanisi, 2025; Wafula, 2024). In the course of their duties, they frequently interact with offenders, victims of crime, and individuals with histories of substance abuse, mental illness, and other traumatic experiences (Gillani & Anjum, 2024; Ko & Memon, 2023). Inevitably, the exposure to clients' traumatic experiences, puts them at risk of secondary traumatic stress (STS)- defined as trauma-related psychological symptoms that arise from indirect exposure to the traumatic experiences of others, often manifesting in ways similar to direct trauma exposure (Tsirimokou et al., 2023). Prolonged exposure to distressing client experiences can alter cognitive schemas, emotional regulation, and behavioral responses, thereby impairing mental health and work performance. If left unaddressed, STS may progress to burnout, compassion fatigue, poor decision-making, and reduced quality of life (Songu-Mbriwa, 2024). Within institutional settings, these effects may also contribute to reduced staff morale, low productivity, and increased turnover (Eryalçın & Eryalçın, 2025).

Globally, STS among probation officers and other trauma-exposed professionals has emerged as a major occupational health concern. Studies in countries such as the United States, Ireland, Scotland, Poland, and Canada report substantial prevalence of secondary trauma among justice and human service workers (Ogińska-Bulik et al., 2021). Trends have been observed among service providers in the United States and the United Kingdom, where repeated exposure to survivors' traumatic experiences significantly increases susceptibility to STS (Kim et al., 2022).

In Kenya, evidence also points to a substantial burden of STS among professionals working in high-stress helping roles. Oduor et al. (2023) found that among prison officers, 9.2% experienced severe STS while 35.8% reported moderate symptoms. Similarly, police officers frequently experience trauma due to being the first point of crime reporting, often leading to empathy fatigue

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(Righa, 2022). Among medical professionals, Tarigo and Ndanu (2022) reported that 10% experienced severe trauma symptoms while 49.2% showed moderate symptoms, with intrusive recollections and trauma reliving being common. These findings suggest that trauma exposure is widespread in Kenyan helping professions, yet probation officers remain underexplored despite facing comparable occupational demands.

Among psychological interventions used to address trauma-related distress, Cognitive Behavioral Therapy (CBT) has received considerable empirical support. CBT focuses on the interrelationship between thoughts, emotions, and behaviors, aiming to modify maladaptive cognitions that contribute to psychological distress (Beck, 2021; Beshai, 2024). Brief Cognitive Behavioral Therapy (Brief CBT), a condensed form of traditional CBT delivered in approximately 4–8 sessions rather than 12–20, offers a structured and time-efficient intervention suitable for occupational settings (Rakitzki, 2023; Shafran et al., 2021). Brief CBT commonly incorporates psycho-education, cognitive restructuring, and relaxation training to improve coping, reduce maladaptive beliefs, and enhance emotional regulation (Lodha, 2022; Nagi et al., 2025).

The therapeutic components of Brief CBT are particularly relevant for trauma-related symptoms. Psycho-education equips individuals with knowledge about symptoms, causes, and coping strategies, enabling self-management and improved treatment adherence (Onnela et al., 2021; Oliveira & Dias, 2023). Cognitive restructuring helps individuals identify and challenge distorted thoughts, replacing them with more adaptive and balanced beliefs that promote emotional well-being (Ali, 2024; Rezaeisharif et al., 2021). Relaxation training techniques such as deep breathing and muscle relaxation reduce physiological arousal and improve emotional regulation among trauma-exposed individuals (Banu, 2025; Yadav et al., 2025). Prior studies among GBV counselors and law enforcement officers found that Brief CBT significantly reduced emotional exhaustion, avoidance, hyperarousal, and irrational thinking, while improving mental health and productivity (Mwangi & Wambua, 2023; Anampiu, 2023).

Despite growing evidence supporting Brief CBT as an effective intervention for trauma-related distress, experiment-based studies examining its effectiveness among probation officers in Kenya remain scarce (Mwasala et al., 2024; Omboto, 2022). Most local studies have focused on prevalence rather than intervention, leaving a critical knowledge gap regarding evidence-based strategies for reducing STS in this population. Given the essential role probation officers play in offender rehabilitation and justice administration, addressing their psychological well-being is imperative. Therefore, this study sought to evaluate the effectiveness of Brief CBT in reducing the severity of STS symptoms among probation officers in Nairobi County.

II. METHODS

Quasi-experimental study design was used. Specifically, the study undertook a single-group pre-test/post-test quasi-experimental design was utilized to evaluate the preliminary efficacy of a 6-week Brief Cognitive Behavioral Therapy (CBT) group intervention among probation officers in Nairobi County, Kenya (Parvan et al., 2021). The choice of a single-group pretest-posttest quasi-experimental design was informed by the exploratory and applied nature of the study. Such designs are frequently used in feasibility studies, pilot interventions, and workplace mental health research where random allocation, control groups, and experimental manipulation may be constrained by ethical, administrative, and operational considerations (Spurlock, 2018; Wang et al., 2019). Random assignment of participants to treatment and non-treatment groups was not feasible in this study due to operational demands, staff deployment schedules, transfers, and the need to maintain continuity of Probation service delivery. The design allowed the researcher to measure changes in STS symptoms within the same participants over time. The single group quasi experiment was complemented with subjective post-intervention evaluation to corroborate the statistical findings by eliciting respondents' evaluation of effectiveness of the Brief-CBT intervention in their own words. The population comprised all probation officers working in Nairobi County. The total population of the study was 108, distributed in locations including Makadara Law Courts Probation Office, Makadara Probation Hostels, JKIA Law Courts Probation Office Kibera Law Courts Probation Office, Ngong Probation Office, Milimani Chief Magistrates Law Courts Probation Office Milimani High Courts Probation Office, and Mathari Probation Office. The population comprised 37 male and 71 female probation officers.

The study used purposive sampling to select probation officers who met the inclusion criteria. The first inclusion criteria was all probation officers who were available and willing to undertake the baseline test. This means that probation officers who were on leave or could not be available due to work commitments or any other unavoidable circumstance such as physical illness or distance at the time of the baseline test were excluded. The second exclusion criteria was probation officers whose pre-test revealed very severe STS and thus were not in the right psychological state to enroll in the short-term group study to ensure clinical safety. Such cases were referred to State Department for Public Service the public Service Counselling Wellness Directorate for Individual specialized care. Out of the total population of 108 probation officers, a total of 85 probation officers participated in the pretest, out of which, 84 met the eligibility criteria.

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The study used two sets of questionnaires to collect data. Secondary traumatic stress was assessed using validated questionnaire, Secondary Traumatic Stress Scale (STSS). The STSS has 17 items that was administered to measure the level of vicarious trauma before and after administering Brief CBT (Fumagalli et al., 2025). The items are classified into three categories, with the Intrusion Subscale having 5 items, the Avoidance Subscale having 7 items, and the Arousal Subscale having 5 items. The items are measured using a five-scale Likert scale ranging from 1, denoting "never"; 2, signifying "rarely"; 3, shown by "occasionally"; 4, represented by "often"; and 5, denoting "very often." An aggregated score of 28 or less showed little or no secondary traumatic stress, a score between 29 and 37 showing mild secondary traumatic stress, and a score between 38 and 43 showing moderate secondary traumatic stress. A computation yielding a score of 44-48 shows high STS, and a score of 49 or more shows severe secondary traumatic stress.

The other questionnaire was self-report, the sociodemographic questionnaire that entailed, age, caseload, gender, education level, training in trauma or mental health and access to workplace counselling, and the third questionnaire was on subjective post-intervention evaluation from the participants who completed the brief-CBT six-session intervention.

After the baseline assessment, participants then received a six-week Brief CBT intervention. This was delivered weekly in 90 minutes, and in group sessions (6-10 officers per group) and skills focused emphasizing practical tools. This intervention integrated core CBT principles (Beck, 1979) and evidence-based CBT technique for trauma related distress, including psycho education, emotional regulation, cognitive restructuring, grounding, compassion, and resilience strategies while respecting the time constraints, professional identity and real work stressors of probation officers (Williams et al., 2023). All sessions followed a standardized structure as follows: check in (10-15 minutes), psycho-educational content (20-25 minutes), Guided skill practice (20-25 minutes), group discussion/reflection (15-20 minutes) and homework assignment (5 minutes). The intervention was delivered by the researchers who had a background in clinical psychology. Materials, preparation, session handouts like thought records, self-care plans, grounding toolkits, worksheets, relation scripts were prepared in advance and were provided per session.

The first week, participants underwent psycho-education and normalization of STS. Activities during these first week encompassed STS awareness training, personal impact check in, introduction of the CBT model, and focus on the cognitive aspect of the model. Participants were also taken through thought record practice and assigned to fill stress and symptom tracker tool and complete two thought records using real work experiences. In the subsequent week, attention was directed to awareness of thoughts & emotional triggers which entailed, increase awareness of automatic thoughts, Identification of emotional triggers and begin using a Thought & Trigger Awareness Worksheet. The third week was on cognitive restructuring. Participants were helped on how to challenge unhelpful thoughts and develop balanced, realistic thinking which consequently would reduce emotional distress. Researcher introduced and reviewed thought record, and helped participants practice the evidence-based thinking. Participants were required to reframe two negative thoughts using the balanced thinking worksheet, participate in guided practice, and independently practice in session and later at home. The fourth session entailed Behavioral Strategies, Grounding & Relaxation. The Session Goal was to help participants understand the mind-body connection, learn grounding and relaxation techniques, practice regulating distress, grounding or breathing exercise once daily especially after stressful interactions. The fifth week focus was on boundaries, behavioral activation & compassion resilience. The Sessions Goal was to help participants, strengthen professional boundaries, build self-care and resilience and re-engage in positive behaviors. This comprised review of relaxation practice, setting boundaries vs detachment, compassion resilience plan, and relapse prevention plan, The, sixth week was the last session whose focus was on, reviewing of progress, reflection, appreciation, identification of resources, and undertaking post-intervention follow ups. On the conclusion of the 6-week treatment, the researcher administered the STSS again to those who successfully completed the treatment. This enabled the researcher to measure the change in the level of STS after administration of the Brief CBT.

Data was analyzed using both descriptive statistics and inferential analysis techniques. The data was first coded and entered into the Statistical Package for the Social Sciences (SPSS) version 27. Data cleaning and transformation was then performed before undertaking data analysis. To test statistical significance, attrition analysis was performed using Pearson's Chi-square test while a paired samples t-test was carried out to compare the mean STS before and after administration of Brief CBT. Statistical significance was determined at $p < .05$.

Ethical protocols were ensured through a series of deliberate measures. At the outset, ethical clearance was obtained from the United States International University's Ethics Review Board (ERB). A research permit was then obtained from the National Commission of Science, Technology and Innovation (NACOSTI). Subsequently, research authorization was obtained from the Ministry of Interior and National Administration's State Department for Correctional Services.

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Before administration of the study, informed consent was sought from the prospective participants. At the end of the study, a debrief form was completed by the participants who successfully completed the treatment program. The purpose of completing a debrief form at the end of the sixth Brief-CBT session was to ensure ethical closure, participant well-being, and quality assurance of the intervention. Throughout the administration of the study, the principles of confidentiality and anonymity were upheld. Measures were implemented to ensure the utmost privacy and respect for respondents. The data collected was de-identified before undertaking analysis. Results were reported in aggregated form to ensure non-traceability back to the individual participants.

III. FINDINGS

The study recorded an adequate response rate despite notable attrition during the intervention. Of the 84 participants who completed the pre-test, 63 (75.0%) commenced treatment, and 45 (71.4% of those who began treatment; 53.6% of pre-test participants) completed the intervention and post-test, with dropout largely attributed to occupational demands such as court attendance, field visits, workshops, transfers, and other work-related commitments.

An attrition analysis was conducted to determine whether participants who completed the Brief CBT intervention differed significantly from those who withdrew before completing the study. Pearson chi-square tests were used to compare completers and dropouts on selected baseline demographic characteristics. As shown in Table 1, there were no statistically significant differences between the two groups with respect to age, $\chi^2(3, N = 84) = 6.57, p = .087$; gender, $\chi^2(2, N = 84) = 1.89, p = .389$; level of education, $\chi^2(1, N = 84) = 1.06, p = .303$; or years of work as a probation officer, $\chi^2(4, N = 84) = 7.35, p = .119$. These findings indicate that participants who completed the intervention did not differ significantly from those who withdrew on the baseline characteristics examined, suggesting that attrition was random and unlikely to have introduced systematic bias into the study findings. However, it is also acknowledged that differences in motivation, symptom severity, and treatment adherence may still exist. This calls for consideration of the research results as preliminary rather than conclusive evidence of effectiveness of Brief CBT in mitigating STS among probation officers.

Table 1. Attrition Analysis

	Value	df	Asymptotic Significance (2-sided)
Age in years	6.572	3	.087
Gender	1.889	2	.389
Level of Education	1.062	1	.303
Years of Work as a Probation Officer	7.346	4	.119

Demographically, the majority of participants were female (61.9%), aged 30–39 years (50.0%), and held a Bachelor's degree (79.8%). Most were in their early to mid-career, with 28.6% having 4–6 years of work experience and 64.3% managing 1–10 cases. Additionally, most participants had not received prior trauma or mental health training (69.0%), lacked access to workplace counselling services (64.3%), and had not received professional psychological support for work-related stress (69.0%). Regarding case exposure, the majority primarily handled adult offenders (90.5%), alongside juvenile offenders (64.3%) and victims of crime (63.1%), indicating frequent exposure to potentially trauma-inducing client populations.

Diagnostic Tests

Table 2 presents the results of the Kolmogorov–Smirnov and Shapiro–Wilk tests of normality of the baseline, end-line, and change in STS scores. The test results in table 2 indicate that the distributions of baseline intrusion symptoms ($W = .960, p > .05$); baseline avoidance symptoms ($W = .968, p > .05$); baseline arousal symptoms ($W = .957, p > .05$); baseline STS index ($W = .971, p > .05$); end-line intrusion symptoms ($W = .976, p > .05$); end-line arousal symptoms ($W = .956, p > .05$); end-line STS index ($W = .969, p > .05$); and the change in STS scores ($W = .984, p > .772$), did not significantly deviate from normality ($p > .05$). However, the end-line avoidance symptoms showed a statistically significant deviation from normality, ($W = .947, p < .05$). The results suggest that all variables except one satisfied the assumption of normality. End-line avoidance symptom exhibited a slight deviation from a normal distribution. This violation was resolved through log transformation to minimize the potential effect of possible outliers in the dataset.

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Table 2. Tests of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Baseline Intrusion	.127	45	.066	.960	45	.120
Baseline Avoidance	.120	45	.108	.968	45	.254
Baseline Arousal	.126	45	.073	.957	45	.091
Baseline STS Index	.086	45	.200*	.971	45	.328
End-line Intrusion	.093	45	.200*	.976	45	.476
End-line Avoidance	.093	45	.200*	.947	45	.039
End-line Arousal	.121	45	.094	.956	45	.089
STS_Endline Composite	.096	45	.200*	.969	45	.277
STS_Change	.065	45	.200*	.984	45	.772

*. This is a lower bound of the true significance.

a. Lilliefors Significance Correction

Visualization of the test of outliers is presented in Figures 1 and 2. The figures show that the distribution of data for both baseline and end-line avoidance symptoms as well as end-intrusion symptoms, end-line arousal symptoms, and end-line STS index satisfied the assumption of no outliers. However, the distribution of the data for baseline avoidance, baseline arousal, and baseline STS index showed the presence of outliers, thus violating assumptions. Log transformation was undertaken to correct this

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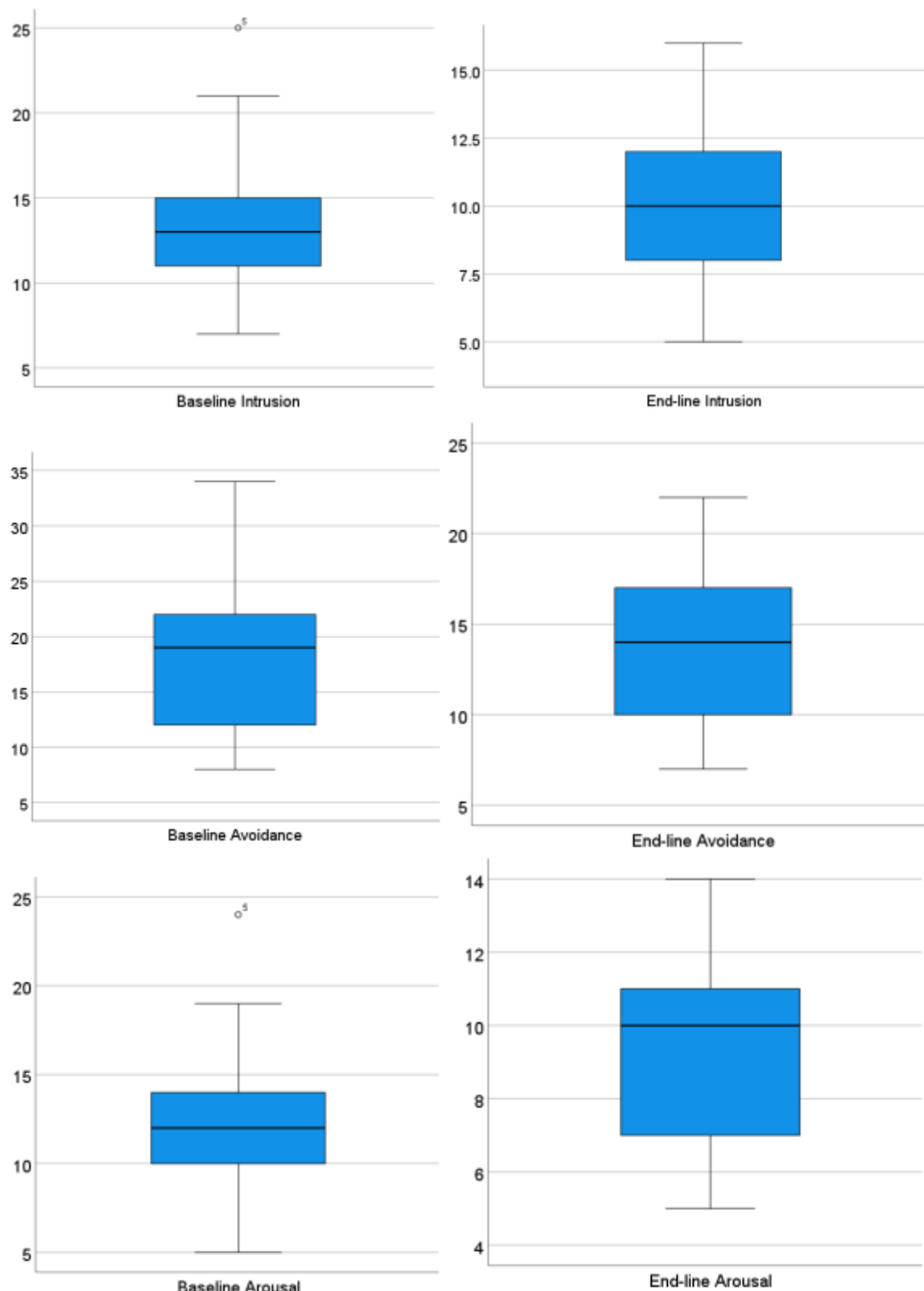


Figure 1 Boxplots for STS Symptoms at Baseline and End-line

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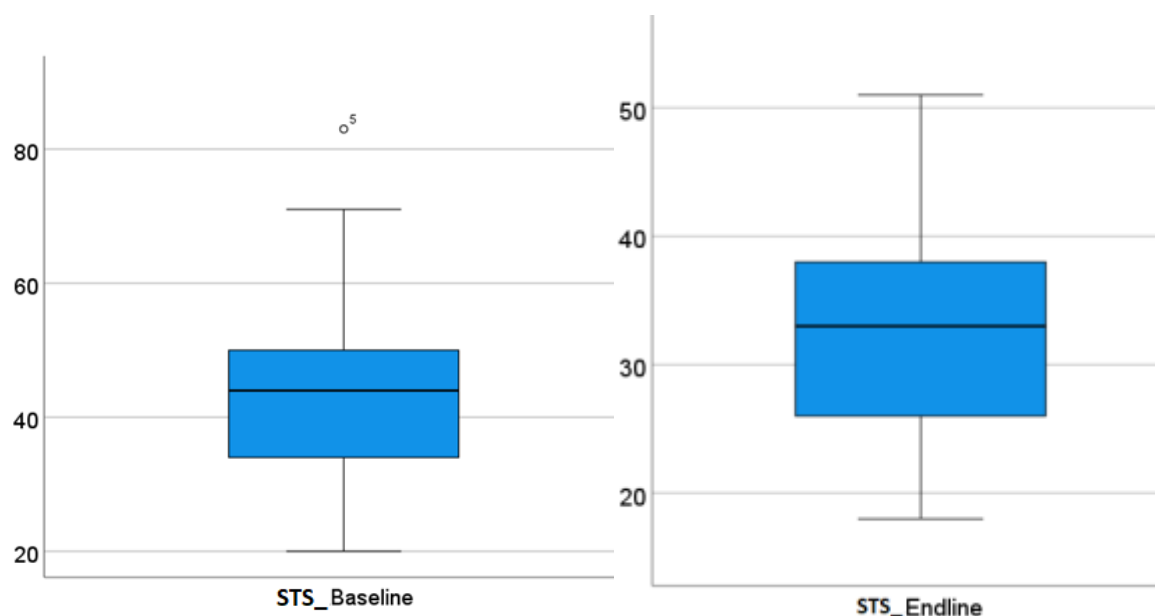


Figure 2 Boxplots for STS Index at Baseline and End-line

In order to test the assumption of no multicollinearity, Tolerance and Variance Inflation Factor (VIF) were checked. Table 3 presents the test statistics. Table 3 shows that the tolerance values ranged from .412 to .954, exceeding the minimum threshold of .20, while VIF values ranged from 1.048 to 2.429, which were below the maximum threshold of 5.00. These results suggests that the assumption of no multicollinearity was satisfied.

Table 3. Multicollinearity Tests

Coefficients ^a							
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	54.902	23.637		2.323	.026		
Age	-3.821	4.711	-.185	-.811	.422	.413	2.423
Gender	-7.222	4.939	-.219	-1.462	.152	.954	1.048
Education	-.245	6.234	-.006	-.039	.969	.954	1.048
Work Experience	.632	3.272	.044	.193	.848	.412	2.429
Caseload	-8.334	3.659	-.347	-2.278	.028	.921	1.085

a. Dependent Variable: STS_Change

Table 4 presents a comparison of participants' STS Index at baseline and end-line following the Brief CBT intervention. The descriptive statistics indicate a substantial reduction in STS levels over time. At baseline, participants had STS index ranging from 20 to 83, with a median of 44 and a mean score of 43.91 (SD = 13.10). At endline, STS index decreased markedly, ranging from 11 to 31, with a median of 21 and a mean score of 20.51 (SD = 5.18). The notable decline in STS signals that Brief CBT was potentially effective.

Table 4. Comparison of STS Index at Baseline and End-line

	N	Min	Max	Median	Mean	Std. Deviation
Baseline STS Index	45	20	83	44	43.91	13.095
Endline STS Index	45	11	31	21	20.51	5.177

Figure 3 presents the comparison of STS prevalence among participants at baseline and endline following the Brief CBT intervention. The findings indicate a substantial decline in the prevalence of STS over the course of the Brief CBT intervention. At

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baseline, only 6.7% of participants reported no STS, while the majority (93.3%) experienced STS, indicating a high initial burden of STS. At endline, the proportion of participants with no STS increased markedly to 57.8%, whereas those experiencing STS decreased to 42.2%. This shift suggests that Brief CBT was associated with a notable reduction in the prevalence of STS, with more than half of the respondents showing no evidence of STS after the intervention.

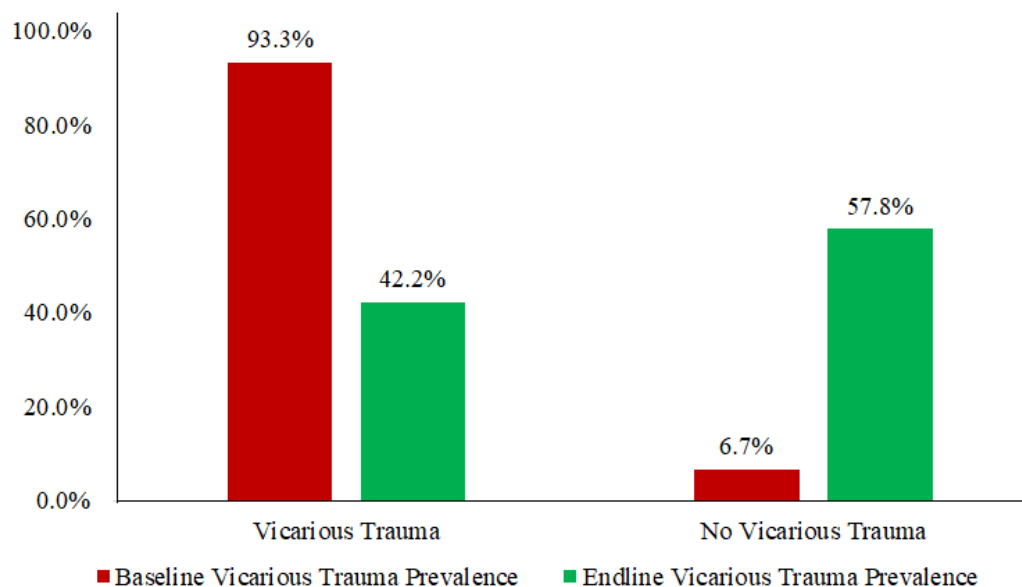


Figure 3 Comparison of STS Prevalence at Baseline and Endline

Figure 4 presents the distribution of STS severity levels among participants at baseline and endline following the Brief CBT intervention. The results show a clear and substantial shift toward lower severity levels over duration of the brief CBT treatment. At baseline, only 13.3% of the respondents reported little or no stress, while 17.8% experienced mild stress, 15.6% moderate stress, 15.6% high stress, and the largest proportion (37.8%) reported severe stress, indicating that most participants were initially experiencing moderate to severe levels of STS. At end-line, there was a marked improvement in severity distribution, with 57.8% of participants reporting little or no stress and 33.3% reporting mild stress. Only 8.9% remained in the moderate stress category, while no participants reported either high or severe stress (0.0%). These findings demonstrate a substantial reduction in both the intensity and severity of STS following the intervention, suggesting that Brief CBT was potentially highly effective in shifting probation officers from higher to lower stress categories.

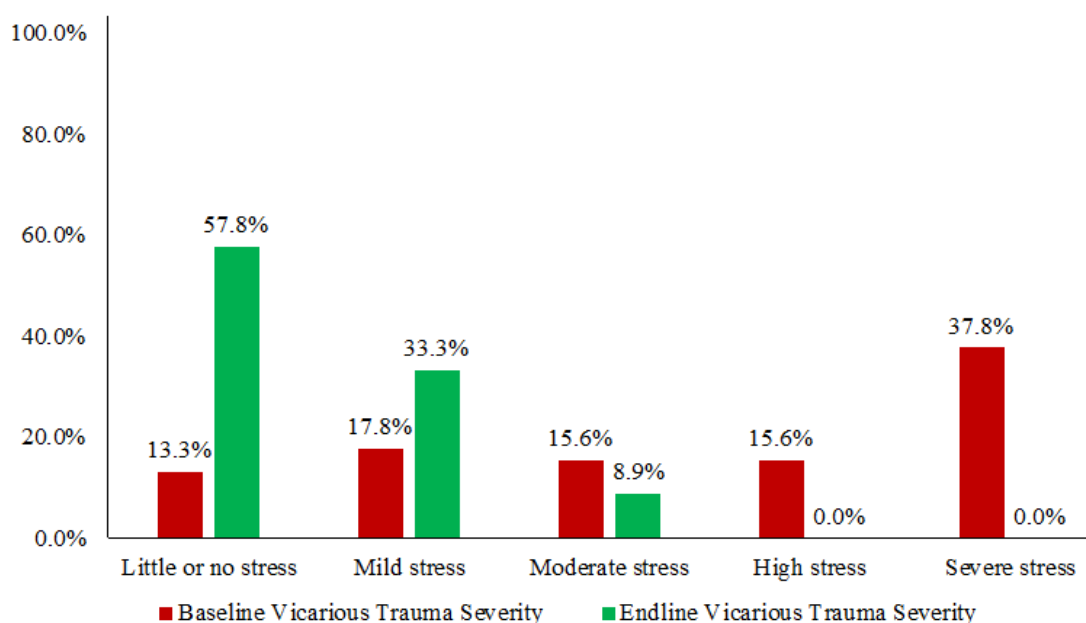


Figure 4 Comparison of STS Severity at Baseline and at Endline

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Table 5 presents the descriptive statistics for the percentage change in STS among participants following the Brief CBT intervention. The results indicate that participants experienced a substantial reduction in STS, with a mean percentage change of 50.26% (SD = 15.68), suggesting that, on average, STS decreased by approximately half after the intervention. The 95% confidence interval for the mean ranged from 45.55% to 54.97%, indicating that the true mean percentage reduction in the population is likely to fall within this range. The median percentage change was 54%, while percentage reductions ranged from 10% to 79%, reflecting high variability in probation officer's responses to the intervention. The findings suggest that Brief CBT was associated with a considerable and relatively consistent reduction in STS across all severity levels.

Table 5 Descriptive Analysis of change in STS in Percent

			Statistic	Std. Error
Percentage Change in STS	Mean		50.26	2.337
	95% Confidence Interval for Mean	Lower Bound	45.55	
		Upper Bound	54.97	
	5% Trimmed Mean		50.73	
	Median		54.00	
	Variance		245.74	
	Std. Deviation		15.68	
	Minimum		10	
	Maximum		79	
	Range		69	
	Interquartile Range		22	
	Skewness		-.431	.354
	Kurtosis		-.114	.695

A paired samples t-test was carried out to compare the mean STS before and after administration of Brief CBT. Statistical significance was determined at $p < .05$. Table 3 presents the results of the paired-samples t-test comparing participants' baseline and end-line STS Index following the Brief CBT intervention. The analysis revealed a statistically significant reduction in STS scores from baseline to end-line, indicating that Brief CBT was associated with lower levels of STS among participants. The mean difference between baseline and end-line scores was 23.40 (SD = 12.61, SE = 1.88), with a 95% confidence interval ranging from 19.61 to 27.19, suggesting that the true mean reduction in STS scores lies within this range. The difference was statistically significant, $t(44) = 12.45$, $p < .01$, indicating strong evidence against the null hypothesis. Therefore, the findings suggest that Brief CBT significantly reduced probation officers' STS levels.

In order to test the effect size, Cohen's *d* was computed based on the Standard Deviation of the difference scores. The computation yielded a Cohen *d* score of 1.86, 95% CI (1.37, 2.35), signifying that the intervention effect was likely very large. This large average reduction in scores indicate that probation officers experienced changes likely to strengthen emotional functioning and capacity to cope with continued exposure to traumatic client experiences. However, it is acknowledged that the large Cohen *d* may also be due to possible inflation due to absence of control group. Therefore, the findings provide preliminary rather than conclusive evidence that Brief CBT may significantly reduce probation officers' STS levels.

Table 6 Paired Samples Test

		Paired Differences					t	df	Sig. (2-tailed)
		Mean	Std. Dev.	Std. Error	95% Confidence Interval of the Difference				
					Lower	Upper			
Pair 1	Baseline STS Index - Endline STS Index	23.40	12.61	1.88	19.61	27.18	12.45	44	.000

Figure 5 presents the distribution of participants according to percentage change in STS following the Brief CBT intervention, categorized into low improvement and high improvement groups. The findings indicate that the majority of probation officers

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experienced positive change in STS, with 57.8% showing substantial improvement after the intervention, while 42.2% demonstrated low improvement. These results suggest that Brief CBT was effective for most participants, with over half experiencing marked improvement in STS levels after treatment.

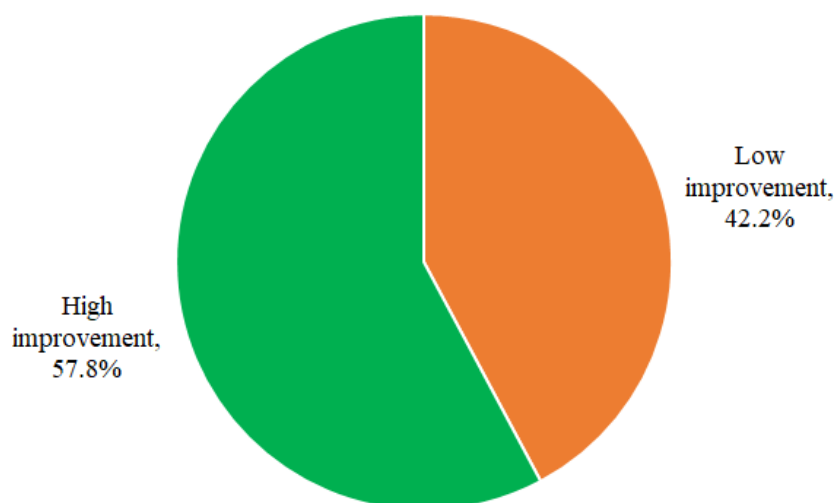


Figure 5 Distribution of Respondents by Change in STS

IV. DISCUSSION

The study established that Brief CBT significantly reduced the severity of STS, with mean scores decreasing from 43.91 at baseline to 20.51 at end-line and trauma levels reducing by approximately 50.26%. This finding affirms empirical literature showing that psychoeducation, cognitive restructuring, behavioral activation, and relaxation reduce trauma-related symptoms (Taylor, 2024). The significant decline in mean STS scores agrees with studies by Bryant et al. (2022), Lewis et al. (2021), and Williams and Shchaefer (2024), which established Brief CBT as an effective intervention for reducing trauma-related symptoms such as PTSD, anxiety, and depression. The findings further converge with Huey et al. (2023) and Sprang et al. (2024), who reported substantial symptom reduction among police officers, health professionals, and other frontline workers following CBT interventions. Similarly, Dumornay et al. (2022) found CBT effective among probation and correctional workers, reinforcing the present study's conclusion that Brief CBT significantly reduces STS.

Participants with no STS increased from 6.7% at baseline to 57.8% at end-line, while severe stress reduced from 37.8% to 0.0%, indicating strong treatment effectiveness. These results agree with Alshahrani et al. (2022), and Steensma-Young and Berle (2025), all of whom found CBT highly effective in reducing secondary trauma and PTSD symptoms. However, the findings diverge slightly from Robinson et al. (2022), who reported that CBT produced stronger improvements in emotional and somatic symptoms than cognitive symptoms, suggesting that some trauma-related thought patterns may require longer interventions. Inconsistency is also observed in Nespola (2023), where a CBT-based mobile intervention failed to significantly improve mental health outcomes. These differences may be explained by potential variations in intervention delivery mode, therapist involvement, and participant characteristics.

The significant reduction in STS among probation officers' mirrors findings by Talabi et al. (2024) in Nigeria, which reported meaningful reductions in trauma-related symptoms following CBT interventions. Within Kenya, the present results particularly agree with Mwangi and Wambua (2023), who found six sessions of Brief CBT effective in reducing emotional exhaustion, avoidance, and hyperarousal among GBV counselors, as well as Mutiso (2024), who reported reduced occupational stress and STS among health professionals. However, the present study extends these findings to probation officers, a relatively understudied group.

Theoretically, these findings strengthen Cognitive Behavioral Theory by affirming that cognitive, emotional, and behavioral change mechanisms are transferable across professions and cultural contexts. This corroborates Mwangi and Wambua (2023), who held that brief CBT significantly reduces trauma-related distress, emotional exhaustion, and hyperarousal among trauma-exposed professionals. The intervention led to significant reductions in trauma scores, prevalence, and severity, with trauma levels reducing by approximately half on average. The findings provide compelling evidence that the statistical reductions in trauma were driven by the cognitive and behavioral mechanisms proposed by CBT theory rather than by external or incidental factors. Thus, the results provide a theoretically consistent account of therapeutic change, offering robust evidence that Brief CBT

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potentially reduced STS by transforming the cognitive, emotional, and behavioral processes through which probation officers experience and respond to repeated trauma exposure.

V. CONCLUSIONS

Brief CBT is a potentially effective intervention for reducing both the prevalence and severity of STS among probation officers in Nairobi County. The high baseline prevalence and severity of STS demonstrate that many probation officers operate under substantial psychological strain, which may impair judgment, emotional regulation, and professional effectiveness. Brief CBT produces a significant therapeutic effect in reducing both the prevalence and severity of STS, confirming that trauma-related distress among probation officers is modifiable. This validates the assumptions of Cognitive Behavioral Theory that maladaptive cognitive appraisals mediate emotional distress and that restructuring such cognitions leads to measurable psychological improvement. Thus, integrating structured Brief CBT interventions within probation services could strengthen psychological resilience, improve occupational functioning, and enhance the overall effectiveness of offender rehabilitation and justice service delivery in Kenya.

Probation officers should actively participate in CBT-based wellness programs and consistently apply learned coping strategies such as cognitive restructuring, emotional regulation, stress management, and boundary setting in their daily professional practice. Continued use of these skills can help sustain gains achieved through intervention and reduce long-term vulnerability to STS. Clinical psychologists should integrate Brief CBT into trauma management programs for probation officers, given its demonstrated potential in reducing STS symptoms. They should also consider blended delivery models combining group and individual sessions to maximize accessibility, peer support, and individualized therapeutic care. Policymakers should incorporate Brief CBT into staff wellness and employee assistance programs within probation and correctional services. Investment should be made in structured CBT-based workshops, supervision frameworks, and mental health capacity-building initiatives to ensure sustainable trauma management across the workforce.

Another methodological limitation of this study was the usage of single-group pretest post-test design. The absence of a control group constrains the degree to which causal claims can be made due to the likelihood of selection bias. Further, post-test occurred immediately after treatment. Thus, it is not clear whether gains persisted beyond the treatment period. Thus, while the design provided a practical approach given the ethical and logistical reasons characterizing probation office work, findings can only provide preliminary evidence of effectiveness of Brief CBT intervention. This limitation also provides impetus for future research extension.

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