
**AN ASSESSMENT OF THE NEEDS OF POLICE OFFICIALS REGARDING
TRAUMA AND TRAUMA INTERVENTION PROGRAMMES: A QUANTITATIVE
APPROACH****P. J. Boshoff¹ and H. Strydom²**

ABSTRACT

As a result of the critical nature of police officials' work, it is of utmost importance that they have direct access to support. The efficacy of the present trauma intervention programmes in the South African Police Service (SAPS) are questioned, because despite the implementation of these programmes, police officials still present high levels of acute and behavioural problems. The objective of this article was to explore the uniqueness of the South African Police Service as a profession, by discussing the continuum of trauma and stress, from the traumatic incidents, basic psychological symptoms, coping mechanisms the exhibition of pathological responses and the experience of trauma intervention programmes in the SAPS. This exploration is important to create guidelines and to make certain recommendations with regard to client-focused programmes for police officials attached to the specialist units in the North-West Province. For purposes of this article, the researcher will firstly concentrate on the problem statement with reference to trauma exposure and trauma intervention programmes in the SAPS, where after the purpose of the study will be explained. The researcher then presents a summary of the research methodology applicable to this study. This article is part of a preliminary study (situation analysis and information collection) that will form the basis for the development, implementation and evaluation of a client-oriented psychosocial therapeutic trauma intervention programme, within the context of the SAPS.

Key words: *Assessment, police officials, trauma, trauma intervention programmes*

INTRODUCTION

Despite the fact that Employee Health and Wellness (EHW) in the South African Police Service (SAPS) apply a multi-professional team approach to provide trauma intervention, statistics confirm that there is still a high occurrence of stress-related problems among police officials. Recent research on trauma and stress within the SAPS was done by Jorgensen and Rothmann (2008), Louw and Viviers (2010), and Young, Koortzen and Oosthuizen (2012). However, few articles have been written on a comprehensive holistic profile of police trauma in combination with the additive and interactive effects of stressors as well as the effectiveness of current trauma intervention programmes in supporting traumatized police officials.

The aim of this study was to explore the uniqueness of the SAPS as profession, by discussing the continuum of trauma and stress, from the traumatic incidents, basic psychological symptoms, coping mechanisms, exhibition of pathological responses and the experience of trauma intervention programmes in the SAPS. This exploration is important to create guidelines and to make certain recommendations with regard to client-focused programmes for police officials attached to the specialist units in the North-West Province. The specialised units in the SAPS refer to specially-trained police officials and units designed to provide maximum response efficiency in a variety of customary and unusual situations for example Public Order Policing (POP), responsible for crowd management, Tactical Response Unit (TRT) rendering specialised operational support, Family Violence, Child Protection and

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Sexual Offences Unit (FCS) providing assistance and support to woman and children that are victims of sexual offences, the Local Criminal Record Centre (LCRC) responsible for taking forensic samples, analyses of exhibits and the presentation of expert evidence as well as the Police Emergency Services (PES): 10111 Centres and Flying Squad, providing a twenty-four-hour immediate emergency telephone service and immediate response to all priority/serious crimes in progress.

PROBLEM STATEMENT

Police officials are exposed to trauma and stressors on a daily basis. Kassen and DiLalla (2008: 263) are of the opinion that South Africa is seen as the world's crime capital where crime assumes serious proportions. The South African crime statistics for 2013/2014 confirm that crime remains at unacceptably high levels. The police official is therefore continuously exposed to unique, demanding and unpleasant traumatic work incidences for example murders, rape, violent crowds, car accidents, vehicle hijackings, etc. Combine this with the general stressful work circumstances as well as personal problems, and it might over time negatively influence the police officials' feeling of well-being.

According to the DSM-5 the term trauma in itself is not a diagnosable disturbance. It does, however, refer to and define a traumatic event as any situation that is beyond those of an individual's daily experiences. Qualifying traumatic events are for example actual death threatening or serious injury, or any other threat to one's physical integrity; witnessing an event that involves death, injury, or a threat to the physical integrity of another person; or learning about unexpected or violent death, serious harm, or threat of death or injury experienced by a family member or other close associate, which causes unusually strong emotional or physical reactions which might include extreme fear, helplessness, and/or horror. Traumatic incidents are explicit as to whether they were experienced directly, witnessed, experienced indirectly or repeatedly (American Psychiatric Association, 2013: 265).

Although trauma in the SAPS is distinct from other traumas, the above explanation greatly corresponds with traumatic events within the police work environment. Police officials are actively engaged in peacekeeping activities. These traumas arise from police officials' active participation in combat activities, but also result from passive acts, such as witnessing acts of violence inflicted on colleagues and civilians. Trauma in the SAPS occurs on a continuum of physical and psychological sequelae that range from mild to severe (Westwood, Nickason & Hoover, 2012: 394). Major types of traumatic incidents in the SAPS might include child abuse, mass interpersonal violence, natural disasters, motor vehicle accidents, witnessing or being confronted with the homicide or suicide of another person, intimate partner violence, torture, or crime, to name but a few (Briere & Scott, 2013: 8; Courtious & Ford, 2013: 22).

According to Godbout and Briere (2012: 485), and McNally (2012: 341), the exposure to trauma is strongly associated with psychological difficulties. In some instances police officials experience an array of stress-response syndromes that occur after exposure to a traumatic event rather than clinically significant distress which symptoms do not meet criteria for a more discrete disorder (American Psychiatric Association, 2013: 812). If these stress response syndromes are not constructively handled, during the emotional aftermath of traumatic incidents, the above syndromes might develop into trauma and stress-related disorders. For example, PTSD, depressive-, somatic symptoms and related disorders. According to the American Psychiatric Association (2013: 265), exposure to a traumatic event is listed explicitly as a diagnostic criterion.

In addition to the afore-mentioned, there is a high incidence of police suicides, family murders and excessive use of force by members of the police. According to Steyn and Nel (2008: 11 & 13) the suicide rate in the SAPS is more than double the national rate of suicides.

According to Mthethwa (2013) 73 members of the SAPS committed suicide in 2009. In 2010 this figure rose to 97 and in 2011 dropped to 85. In 2012, 98 members took their own lives and by June 2013, 34 police members had already committed suicide. Unfortunately the researcher was not able to obtain official figures regarding the extent of psycho-social problems, as well as the present suicide rate in the SAPS.

In spite of the availability of EHW and the services offered by them, the National Instruction 18/1998 and the different trauma intervention programmes, statistical information as mentioned, confirm that police officials still experience a very high degree of psycho-social problems that have a negative impact on their productivity at work (SAPS Annual Report, 2013). If the extent, subjective experience, impact of trauma and police officials' specific needs with regards to trauma and trauma intervention programmes are known, a purposeful psycho-social trauma intervention programme might be developed to address the problems as explained in this section.

With reference to the above statement, this article will attempt to answer the following research question:

- What are the extent, subjective experience, the impact of trauma and police officers' specific needs with regard to trauma intervention programmes within the larger population of the SAPS specialist units in the North-West Province.

AIM

The aim of this study was to do a quantitative situational analysis to explore police officials' working conditions, more specifically the extent, subjective experience, impact of trauma and their specific needs with regard to trauma intervention programmes.

RESEARCH METHODOLOGY

The researcher made use of the exploratory sequential mixed methods design as part of the first and second phase of the intervention research model (Creswell, 2014: 225). For the purpose of this article the researcher concentrated on the quantitative approach as the second phase of the exploratory sequential design, to understand the meaning that police officials representing the larger population ascribe to trauma and trauma intervention programmes presented by EHW in the SAPS.

The researcher made use of an exploratory survey method as a research strategy to measure police officials' opinions, knowledge, attitudes, beliefs, behaviours, reactions and attributes concerning certain concepts regarding trauma and trauma intervention programmes. According to Rubin and Babbie (2010: 384), the exploratory design is linked to the purpose of the study, with the main aim to explore a topic and to provide a certain level of familiarity with it. The data in this phase of the study was collected by means of a self-developed questionnaire. The questionnaire was structured according to the themes of the first qualitative phase namely: the meaning of trauma, response to trauma, coping and trauma intervention programmes. The aim of the second quantitative phase of the study was to test the identified themes, sub-themes and categories of sub-themes arising from the qualitative study within the total population, in other words, to quantitatively verify the opinions and experiences of those police officials who participated in the three focus groups.

Since this was an untested instrument the researcher firstly conducted a pilot study as a procedure for testing and validating the questionnaire by administering it to a small section of police officials from the specialised police units in the North-West Province. The researcher exposed five cases that were similar to the planned main inquiry to exactly the same procedures as planned for the main investigation in order to modify the questionnaire. The completion of these questionnaires by means of a pilot study also intended the training of the fieldworkers, in this case the social workers responsible for the different specialised units. This process assisted the researcher to remove any inconsistencies and redundancies to

improve the clarity in the formulation of items in the questionnaire to ensure validity, reliability and sensitivity (Strydom, 2011: 237).

Following the above process the questionnaire was administered to a sample of the larger population. According to Kreuger and Neuman (2006: 259) the survey is the most widely used data gathering technique in social work. Surveys are applicable to research questions about self-reported beliefs or behaviours. During the process of quantitative data collection the researcher used the purposive sampling method in order to select 332 participants stationed at six specialist units (Strydom & Delpport, 2011: 392) representing nine of the eleven police clusters in the North-West Province. Police officials were purposefully chosen considering their exposure to traumatic events, resultant symptoms of PTS and their participation in trauma intervention programmes. The researcher made use of the group administered method during which the respondents had to complete a questionnaire, whilst the field worker and researcher were present to give certain instructions and to clarify any points of uncertainty (Delpport & Roestenburg, 2011: 189).

As part of the process of quantitative data analysis, the researcher used Exploratory Factor Analysis (EFA) to establish construct validity and to identify underlying empirical dimensions of measurement in the measure used, whilst Cronbach's Alpha was employed to establish the reliability of the measure used. The Principal Component factoring technique was used with Direct Oblimin rotation, whilst Measures of Sampling Adequacy (MSA) and Correlation Tables were used to select high correlating variables. Each factor was utilized separately to assess group comparisons in respect of different biographical variables by means of the Spearman's rank order correlation test (Spearman's rho), Analyses of variance (ANOVA), the Tukey post hoc procedure (HSD) and a Statistical hypothesis test (T-Test) (Cook & Beckman, 2006: 9 & 11; Treiman, 2009: 242-243). The EFA rendered 28 factors grouped into five categories of questioning. The researcher provides an overview of the different factors achieved per category under the names they were given.

Babbie (2007: 62) and Strydom (2011: 114) define ethics as the preferences that influence behaviour in human relations, conforming to a code of principles, the rules of conduct, the responsibility of the researcher and the standards of conduct of a given profession. The researcher, for the purposes of this study, firstly obtained ethical approval from the North-West University's human research ethics committee. Permission was obtained from the SAPS in order to undertake the research study among police officials.

The questionnaire was based on strict scientific guidelines, purposely designed according to the data arising from the focus groups, structured theoretical knowledge and research questions, to prevent any damage to participants in the research study or to the SAPS as an organisation. EHW responsible for the specialist units in the different clusters in the North-West Province, were trained as field workers in order to facilitate the completion of the questionnaires by means of the group administered method. Selected police officials were informed of the purpose, method, possible risks and expectations of the research, after which they were allowed to make an informed choice to participate or not in the research. Selected police officials were assured of confidentiality and their anonymity, especially with reference to the processing of the data. No identification particulars were requested or recorded.

DISCUSSION OF THE FINDINGS

Biographical information

The following table give an overview of the total population referring to the nine police clusters and the six specialist units included in the study. The table furthermore give an overview of the total number of police officials selected in comparison to the total number of employees per cluster and specialist unit.

Table 1: Total population versus sample

UNIT/* CLUSTER	BRS	WMS	RTB	POTCH	MMK	VB	KD	LB	MHK	Total	Total % selected per unit	Total % as per pop %
LCRC	21	-	31	26	11	12	28	15	18	162	62 (38.2%)	4.3%
FCS	16	10	33	16	8	13	21	14	16	147	52 (35.3%)	3.6%
PES	2	-	52	54	-	11	13	11	57	200	31 (15.5%)	2.2%
POP	-	-	78	114	-	-	-	-	101	293	57 (19.4%)	3.9%
TRT	-	-	100	-	-	-	70	-	-	170	16 (9.4%)	1.1%
DET	48	47	49	50	47	48	50	48	48	435	90 (20.6%)	6.2%
Other	-	-	-	-	-	-	-	-	-	25	25 (100%)	1.7%
Total	87	57	343	260	66	84	182	88	240	1432	-	23%

*Note: BRS = Brits; WMS = Wolmeranstad; RTB = Rustenburg; POTCH = Potchefstroom; MMK = Mmakau; VB = Vryburg; KD = Klerksdorp; LB = Lichtenburg; MHK = Mahikeng.

*Note: LCRC = Local criminal record centre; FCS = Family, child and sexual offences unit; PES = Police emergency services; POP = Public order policing unit; TRT = Tactical response unit; DET = Detective unit.

The total population consists of 1432 police officials attached to six specialist units, representing nine of the eleven clusters in the North-West Province as discussed in the first paragraph of this article. The specific specialist units were included due to the extreme nature of their work and the probability of exposure to traumatic incidents. The different clusters were included as the specialist units mentioned above were fairly represented. The total number of participants selected was 332 (23%) of the entire population. Please take note that the above table distinguishes between the total percentages of participants selected per unit as opposed to the total percentage selected per population.

Table 2: The biographical information of participants included in the samples

ITEM	CATEGORY	FREQUENCY	PERCENTAGE
Age Frequency missing = 0 N = 332	21-25	3	0.90
	26-30	23	6.93
	31-39	138	41.57
	40+	168	50.60
	TOTAL	332	100.00
Rank Frequency missing = 8 N = 324	Constable	105	31.60
	Sergeant	52	15.70
	Warrant Officer	114	34.30
	Officer	53	16.00
	TOTAL	424	97.60
Gender Frequency missing = 0 N = 332	Male	254	76.5
	Female	78	23.5
	TOTAL	332	100.00

Race Frequency missing = 1 N = 331	White	47	14.20
	Coloured	8	2.40
	Indian	1	0.30
	African	275	82.80
	TOTAL	331	99.70
Marital Status Frequency missing = 0 N = 332	Married	193	58.1
	Committed relationship	34	10.2
	Single	78	23.50
	Divorced	21	6.30
	Widow/er	6	1.90
TOTAL	332	100.00	
Years' service Frequency missing = 0 N = 332	1-4	23	6.92
	5-9	82	24.70
	10-14	60	18.07
	15-19	7	2.10
	20-24	77	23.19
	25+	83	25.00
TOTAL	332	100.00	
Specialised Units Frequency missing = 9 N = 323	LCRC	62	18.70
	PES	31	9.30
	FCS	52	15.70
	POP	57	17.20
	TRT	16	4.80
	Detectives	90	27.10
TOTAL	323	92.80	

Responsibilities at work

The researcher wanted to obtain an overview of the type of work in which police officials are involved and also wanted to determine whether the type of work they do has an effect on their experience of trauma. Most of the respondents (77.7%) indicated that they are often to almost always busy with administration while 74.2% indicated that they are busy with investigations and 66.2% are attending to complaints. The above is a clear indication of the major responsibilities of police officials stationed at the specialised units in the North-West Province. Other additional responsibilities mentioned by the respondents are the attendance of court cases, hostage negotiations, and searching for missing persons, management, training dogs, reconstruction, escorts and lab work.

The major causes of stress within the SAPS

Data loaded onto four factors measuring major causes of stress within and outside the work place. These factors are provided in Table 2. The Cronbach's Alpha for these four factors range between .83 and .92, which according to recognized standards (Pietersen & Maree, 2007: 215) is considered a high level of reliability. Mean scores and standard deviations of the major causes of police stress within, outside the work situation, the work itself and personal stressors are provided for each factor in Table 3.

Table 3: Cronbach's Alphas, Means, and Standards Deviations for Major causes of Stress (MCS-SCALE)

NO	FACTOR	N	CRONBACH'S ALPHA	MEAN	SD
1	SWWS	332	.92	2.05	.59
2	SOWS	332	.88	1.93	.66
3	SOWI	332	.83	2.04	.63
4	PS	332	.91	2.35	.65

Note. SWWS = Stressors within the work situation, SOWS = Stressors outside the work situation, SOWI = Stressors originating from the work itself and PS = Personal stressors.

SWWS (Alpha = .92) measured the extent to which police officials are exposed to stress within the work situation. Aspects such as a huge work load, accountability for decisions taken under immense pressure and the exposure to human loss, reflect some of the aspects measured by this factor. The second factor, SOWS (Alpha = .88) measure the extent to which police officials are exposed to stress outside the work situation. Aspects such as the offensiveness of the community towards the SAPS, the expectations of the SAPS opposed to those of the community, the criminal justice system and politics, reflect some of the aspects measured by this factor.

The third factor, SOWI (Alpha = .83) measured the extent to which police officials are exposed to stress as a result of the work itself. Aspects such as workload, accountability for decisions taken under immense pressure, the responsibility for the safety of others and exposure to human loss, reflect some of the aspects measured by this factor.

The fourth factor, PS (Alpha = .91) measured the extent to which police officials are exposed to personal stress. Aspects such as financial pressure, inability to find a work-life balance, fear for the unknown and relationship problems, reflect some of the aspects, measured by this factor.

The mean score for factor SOWS ($M = 1.93$, $SD = .66$) was significantly higher compared to the other major causes of stress within the SAPS as reflected in the above construct. The result is an indication that SOWS, specifically referring to the offensiveness of the community towards the SAPS, the expectations of the SAPS opposed to those of the community and the criminal justice system are experienced to be very stressful.

Analyses of variance (ANOVA) and the Tukey post hoc procedure (HSD) were conducted to establish if there are significant differences between rank, marital status, place of work and the factors indicated in Section B of the questionnaire. The results indicated a significant correlation between the specialised unit and stress within the work situation at the $P < .05$ level for the three conditions [$F(5, 302) = 2.09$, $P = .066$]. Post hoc comparisons using the Tukey HSD test indicated that the mean score for those stationed at the detective unit ($M = 1.94$, $SD = .54$), effect size ($R = .74$) are significantly different compared to the other places of work. Secondly the results indicate a significant correlation between marital status and stress outside the work situation at the $P < .05$ level for the three conditions [$F(3, 328) = 4.01$, $P = .008$]. Post hoc comparisons using the Tukey HSD test indicated that the mean score for those in committed relationships ($M = 1.68$, $SD = .60$), effect size ($R = .67$) was significantly different compared to the other forms of relationships.

The researcher also wanted to determine whether stress does have an impact on the police officials' experience of trauma. The question was included in a three point scale varying from a lesser to a greater extent to determine to what extent stress does have an impact on police officials experience of trauma. The majority of police officials (85%) indicated that stress does have a reasonable to a greater impact on the manner to which they experience trauma.

In conclusion the results indicated that stress outside the work situation is experienced to be very stressful. The results furthermore indicated that members stationed at the detective unit experience more stress within the work situation. Those police officials within committed relationships also experienced more stress outside the work situation. Police officials indicated that the stressors that they are being confronted with on a daily basis have an impact on the manner in which they experience trauma.

The major causes of trauma within the SAPS

Data was loaded onto two factors measuring major causes of trauma referring to the frequency of exposure and degree of traumatisation. These factors are provided in Table 4. The Cronbach's Alpha for these two factors ranged between .90 and .98, which according to recognised standards (Pietersen & Maree, 2007: 215) is considered to be a high level of reliability. Mean scores and standard deviations of traumatic incidents, and more specifically the frequency of exposure and degree of traumatisation are provided for each factor in the following Table 5.

Table 4: Cronbach's Alphas, Means, and Standards Deviations for Major Causes of Trauma (MCT-SCALE)

No	FACTOR	N	CRONBACH'S ALPHA	M	SD
1	FET	331	.90	2.22	.69
2	IET	324	.98	2.16	.83

Note. No = Number, N = Total number in a sample, M = Mean, SD = Standard deviation, FET = Frequency of exposure to trauma and IET = Intensity of exposure to trauma.

The *FET* (Alpha = .90) measured the extent to which police officials are exposed to specific traumatic incidents within the work situation. Aspects such as how often police officials are exposed to dealing with corpses, attending horrific accident scenes and attending murder scenes, reflect some of the aspects measured by this factor. The second factor, *IET* (Alpha = .98) measures the degree to which police officials are traumatised as a result of their frequent exposure to trauma. Aspects such as the degree to which they are traumatised by managing violent crowds, exposure to suicide scenes and involvement in a hostage situation, reflect some of the aspects measured by this factor.

The mean score for factor *IET* (M = 2.16, SD = .83) was significantly higher compared to the other major causes of trauma within the SAPS as reflected in the above construct. The result is an indication that the *FET* does have an impact on the *IET*, specifically referring to attending a murder scene, attending a horrific accident scene and exposure to dealing with corpses were found to be very traumatic.

A *Spearman's rank-order* correlation was run to determine the relationship between age, years of service and responsibilities within the SAPS and the factors indicated in Section C of the questionnaire. There was a positive correlation between age ($r_s(8) = .199, p = .000$), and years of service within the SAPS ($r_s(8) = .317, p = .000$), and the frequency of exposure to trauma, which was statistically significant. Secondly there was a positive correlation between those police officials doing vehicle and foot patrol ($r_s(8) = .194, p = .004$), those attending complaints ($r_s(8) = .241, p = .000$), police officials' attending post mortems ($r_s(8) = .342, p = .000$), and the frequency of exposure to trauma which was statistically significant.

Analyses of variance (ANOVA) and the Tukey post hoc test (HSD) were conducted to establish if there were significant differences between rank, marital status, the specialised unit and the factors indicated in Section C of the questionnaire. The results indicated a significant correlation between rank on the frequency of exposure to trauma at the $P < .05$ level for the three conditions [$F(3, 319) = 6.17, P = .00$]. Post hoc comparisons using the Tukey HSD test indicated that the mean score for constable (M = 2.02, SD = .61), effect size (R = .69) are

significantly different compared to the other rank structures. Secondly the results indicated a significant correlation between the specialised unit on the frequency of exposure to trauma at the $P < .05$ level for the three conditions [$F(5, 301) = 3.99, P = .002$]. Post hoc comparisons using the Tukey HSD test indicated that the mean score for the family and child sexual offences unit ($M = 1.97, SD = .61$), effect size ($R = .71$) and the tactical response unit ($M = 1.99, SD = .55$) effect size ($R = .67$) were significantly different compared to the other specialised units. Lastly the results also indicated a significant correlation between the specialised unit on detective services at the $P < .05$ level for the three conditions [$F(5, 295) = 3.42, P = .005$]. Post hoc comparisons using the Tukey HSD test indicated that the mean score for LCRC ($M = 1.94, SD = .79$), effect size ($R = .61$) were significantly different compared to the other specialised units.

A *T-Test* was conducted to establish if there were significant differences between gender, race and the factors indicated in the questionnaire. The results indicated a significant difference between gender on the frequency of exposure to trauma, (0.40, 95% CI [0.57 to 0.23], $t(33) = 4.589, p < .05 = 0.00$). More specifically the effect size of males ($R = .59$) indicate that this group is more likely to be influenced by the frequency of exposure to trauma. The results furthermore indicate a significant difference between race on the frequency of exposure to trauma, (0.58, 95% CI [0.79 to 0.37], $t(32) = 5.519, p < .05 = 0.00$). More specifically the effect size of white police officials ($R = .86$) indicated that this group is more likely to be traumatised as a result of the frequency of exposure to trauma.

In conclusion the results indicated that police officials were exposed to different traumatic incidents that could be directly associated with the work itself. They have mostly been exposed to murder scenes, horrific accident scenes, dealing with corpses, suicide scenes and the sexual/physical abuse involving a female as the victim. The results furthermore indicated that the frequency of exposure to trauma does have an impact on the intensity of the experience of traumatic events. Older police officials, constables, males, those stationed at the Family, Child and Sexual Offences- and the Tactical Response Units, are more frequently exposed to trauma. The results also indicated that white police officials and those stationed at the Criminal Record Centre are more intensely traumatised as a result of their frequent exposure to traumatic incidents.

The response to trauma

Data was loaded onto six factors measuring the response to trauma referring to re-experience, avoidance, hyperarousal, complex post traumatic outcomes, social and behavioural risk factors and poor productivity. The Cronbach's Alpha for these six factors ranged between .91 and .97, which according to recognised standards (Pietersen & Maree, 2007: 215) is considered a high level of reliability. Mean scores and standard deviations for each of the above factors are provided in Table 9.

Table 5: Cronbach's Alphas, Means, and Standards Deviations for Response to trauma (RTT-Scale)

No	FACTOR	N	CRONBACH'S ALPHA	M	SD
1.1	RE	330	.95	2.44	.90
1.2	A	330	.97	2.56	.72
1.3	H	329	.97	2.49	.73
2	CPTO	329	.92	1.51	.53
3	SBR	327	.91	1.28	.44
4	PP	330	.94	1.82	.63

Note: No = Number, N = Total number in a sample, M = Mean, SD = Standard deviation, RE = Re-experience, A = Avoidance, H = Hyperarousal, CPTO = Complex posttraumatic outcomes, SBR = Social and Behavioural risk factors and PP = Poor Productivity.

RE (Alpha = .95) measured the extent to which police officials were re-experiencing traumatic events. Aspects such as flashbacks, bad dreams, nightmares and intrusive re-experiences of the traumatic event, reflect some of the aspects measured by this factor.

The second factor, *A* (Alpha = .97) measured the degree to which police officials are avoiding the detail of traumatic events. Aspects such as avoiding thoughts, feelings, activities, places, people or conversations that might arouse recollections of the trauma, difficulty trusting and interpersonal conflicts and arguments, reflect some of the aspects measured by this factor.

The third factor, *H* (Alpha = .97) measured the extent to which police officials experience alterations in arousal and reactivity that began or worsened following exposure to traumatic events. Aspects such as anger, irritability, headaches, backaches and chest pain, reflect some of the aspects measured by this factor.

The fourth factor, *CPTO* (Alpha = .92) measured the extent to which police officials develop psychopathology as a result of their exposure to traumatic events. Aspects such as post-traumatic stress disorder, depression and anxiety disorder reflect some of the aspects measured by this factor.

The fifth factor, *SBR* (Alpha = .91) measured the extent to which police officials develop social and behavioural risk factors in response to exposure to traumatic events. Aspects such as aggressive behaviour, domestic violence and suicide are some of the aspects measured by this factor.

The sixth factor, *PP* (Alpha = .94) measured the extent to which police officials productivity at work are influenced as a result of their exposure to traumatic events. Aspects such as a low morale, reduced level of job performance and absenteeism are some of the aspects measured by this factor.

The mean scores for factor *RE* ($M = 2.44$, $SD = .90$), *H* ($M = 2.49$, $SD = .73$) and *A* ($M = 2.56$, $SD = .72$) were significantly higher compared to the other responses to trauma as reflected in above construct. The result is an indication that the symptoms reported by the respondents following exposure to trauma, namely *RE*, and *H*, largely resemble that of PTSD.

Analyses of variance (ANOVA) and the Tukey post hoc test (HSD) were conducted to establish if there were significant differences between rank, marital status specialised unit and the factors indicated in Section D of the questionnaire. The results indicated a significant correlation between marital status on complex posttraumatic outcomes at the $P < .05$ level for the three conditions [$F(3, 325) = 3.78$, $P = .011$]. Post hoc comparisons using the Tukey HSD test indicated that the mean score for committed relationship ($M = 1.37$, $SD = .39$), effect size ($R = .80$), single ($M = 1.44$, $SD = .53$) effect size ($R = .66$) and married ($M = 1.51$, $SD = .51$) effect size ($R = .53$) were significantly different compared to the other forms of relationships.

Secondly the results indicated a significant correlation between rank on poor productivity at the $P < .05$ level for the three conditions [$F(3, 318) = 2.71$, $P = .045$]. Post hoc comparisons using the Tukey HSD test indicated that the mean score for constable ($M = 1.73$, $SD = .59$), effect size ($R = .46$) were significantly different compared to the other ranks.

In conclusion, the results indicated that re-experience, avoidance of stimuli and hyper arousal, were the responses mostly experienced by police officials following their exposure to traumatic events. Therefore, those police officials in committed relationships and those who are single are more likely to develop complex post traumatic outcomes. Lastly the results indicated that constables are more prone to poor productivity.

Coping with trauma (CWT-scale)

Data was loaded onto three factors measuring coping styles, action orientated coping and avoidance coping. These factors are provided in Table 11. The Cronbach's Alpha for these three factors ranged between .77 and .97, which according to recognised standards (Pietersen & Maree, 2007: 215) is considered a high level of reliability. Mean scores and standard deviations for each of the above factors are provided in Table 11.

TABLE 6: Cronbach's Alphas, Means, and Standards Deviations for Coping with Trauma (CWT-Scale)

No	FACTOR	N	CRONBACH'S ALPHA	M	SD
1	CS	329	.97	2.49	.73
2	AOC	332	.90	2.15	.64
3	AC	332	.77	2.58	.55

Note. No = number, N = Total number in a sample, M = Mean, SD = Standard deviation, CS = Coping style, AOC = Action orientated coping and AC = Avoidance Coping.

CS (Alpha = .97) measured the extent to which police officials either utilise an action-oriented CS, specifically referring to action-oriented coping mechanisms. This would include participation in pro-active programs, seeking support from important others and participation in relaxation activities as opposed to that of avoidance coping, isolation, internalisation of symptoms, avoiding reminders – just to name a few.

The second factor, AOC (Alpha = .90) measured the manner in which police officials use AOC mechanisms in an attempt to cope after exposure to traumatic events. Aspects such as seeking support from important others, participation in relaxation activities and confidence in God, all reflect some of the aspects measured by this factor.

The third factor, AC (Alpha = .77) measured the manner in which police officials made use of AC after exposure to traumatic events. Aspects such as socialising with friends, keeping emotions to one self, avoidance of reminders of trauma, reflect some of the aspects measured by this factor.

The mean score for factor AOC (M = 2.16, SD = .54) was significantly higher compared to the other coping styles reflected in the above construct.

Firstly, the *Analyses of variance (ANOVA)* and the *Tukey post hoc test (HSD)* were conducted to establish if there are significant differences between rank, marital status, specialised unit and the factors indicated in Section E of the questionnaire. The results indicated a significant correlation between the specialised unit on action oriented coping mechanisms at the $P < .05$ level for the three conditions [$F(5, 302) = 2.29, P = .046$]. Post hoc comparisons using the Tukey HSD test indicated that the mean scores for public order policing (M = 1.92, SD = .62), effect size (R = .72) were significantly different compared to the other placements.

Secondly the results indicate a significant correlation between the specialised unit on avoidance coping mechanisms at the $P < .05$ level for the three conditions [$F(5, 302) = 2.88, P = .015$]. Post hoc comparisons using the Tukey HSD test indicated that the mean score for the local criminal record centre (M = 2.66, SD = .50), effect size (R = .64), public order policing (M = 2.71, SD = .55) effect size (R = .73) and police emergency services (M = 2.71, SD = .56) effect size (R = .74) were significantly different compared to the other placements.

A *statistical hypothesis (T-Test)* was conducted to establish if there were significant differences between gender, race and the factors indicated in Section E of the questionnaire. The results indicate a significant difference between race on action oriented coping mechanisms (0.41, 95% CI [0.61 to 0.21], $t(32) = 4.120, P < .05 = 0.00$). More specifically

the effect size of white police officials ($R = .63$) indicated that this group is more likely to adopt action oriented coping mechanisms to manage the impact and consequences of trauma. In conclusion the results indicated that police officials mostly adopt action oriented coping styles to cope as a result of their exposure to traumatic events.

Firstly, the results furthermore indicated that white police officials are more likely to adopt action oriented coping mechanisms to manage the impact and consequences of trauma. Secondly, that police officials attached to the Public Order Policing unit are more likely to adopt action oriented coping styles. In contrast with the last mentioned the results indicated that members attached to the Local Criminal Record Centre and the Police Emergency Services are more likely to make use of avoidance coping mechanisms.

Experience of current trauma intervention programmes

The researcher wanted to determine whether police officials are familiar with the trauma intervention programmes presented by EHW in SAPS, and if so to what extent they participated in these programmes. Most of the participants were familiar with the stress management programme (44%) but only 28 percent participated in critical incident stress debriefing (42%). Only 30 percent participated in the suicide prevention programme (33%) as opposed to only 20 percent who did not participate. Programmes least participated in were: psychotherapy (51%); Crisis intervention (47%); and suicide prevention (41.9%). A total of 17 percent of the respondents indicated that they were neither familiar nor participated in any of the above programmes.

The researcher also wanted to determine the attitude and mind set of police officials towards consulting EHW and the participation in trauma intervention programmes and the impact of this mind set on their experience of these programmes. More than half of the respondents (62%) indicated that confidentiality was not always maintained. Approximately 57 percent of the respondents were of the opinion that all personal details are kept on file, whilst almost 50 percent of the respondents indicated that the possibility for future promotions would be at risk should they consult EHW as a result of exposure to trauma.

The rest of the data in Section F of the questionnaire were loaded onto six factors measuring the police culture, trauma intervention by EHW, experience of trauma intervention programmes, reasons for non-participation, preferences regarding format of trauma intervention programmes and preferences regarding content of trauma intervention programmes. These factors are provided in Table 5. The Cronbach's Alpha for these six factors range between .71 and .96, which according to recognised standards (Pietersen & Maree, 2007: 215) is considered a high level of reliability. Mean scores and standard deviations for each of the above factors are provided in Table 15.

Table 7: Cronbach's Alphas, Means, and Standards Deviations for experience of trauma intervention programmes (ETIP-scale)

No	FACTOR	N	CRONBACH'S ALPHA	M	SD
1	PC	332	.89	1.95	.50
2	EHW	332	.71	1.85	.71
5	ETIP	262	.96	2.26	.72
6	NPTIP	323	.90	2.41	.60
7	PFTIP	332	.88	2.12	.58
8	PFCTIP	329	.97	1.85	.50

Note. No = number; N = Total number in sample; M = Mean; SD = Standard deviation; PC = Police culture; EHW = Employee Health and Wellness; ETIP = Experience of trauma intervention programmes; NPTIP = Non-participation in trauma intervention programmes; PFTIP = Preferences regarding format of trauma intervention programmes; PCTIP = Preferences regarding content of trauma intervention programmes.

The *PC* (Alpha = .89) measured the extent to which PC influences the manner to which police officials are willing to participate in trauma intervention programmes. Aspects such as the image of the police as “cowboy’s don’t cry”, – this is linked to the perception that police officials that do show emotion are usually labelled as weak – being emotionless and the projection of a facade of competence while harbouring feelings of insecurity, reflect some of the aspects measured by this factor. The second factor, *TI (EHW)* (Alpha = .71) measured the manner in which police officials experience EHW in facilitating trauma intervention programmes. Aspects such as the quality of service delivery, trust and confidentiality reflect some of the aspects measured by this factor.

The third factor, *ETIP* (Alpha = .96) measured the manner in which police officials experience trauma intervention programmes presented by EHW. Aspects such as the content of the programme, the time and duration of programmes, and adherence to specific needs on ground level are some of the aspects measured by this factor.

The fourth factor, *RNP* (Alpha = .90) measured some of the reasons for police officials hesitance to participate in trauma intervention programmes. Aspects such as ineffective marketing, limited time available to attend and the non-participation in the development of prospective programmes are some of the aspects measured by this factor.

The fifth factor, *PFTIP* (Alpha = .88) measured the police officials preferences with regard to the format of trauma intervention programmes. Aspects such as individual opposed to group intervention, interventions at the end of a shift and a structured group intervention on a regular basis are some of the aspects measured by this factor.

The sixth factor, *PCTIP* (Alpha = .97) measured the police officials’ preferences with regard to the content of trauma intervention programmes. Aspects such as psycho-education, relaxation therapy, re-integration into the working environment and couple and family therapy are some of the aspects measured by this factor. The mean score for factor PC (M = 1.95, SD = .50) and EHW (M = 1.85, SD .71) were significantly higher compared to the other experiences of trauma intervention programmes in above construct.

In addition, the researcher wanted to determine police officials’ preferences or needs regarding the content of trauma intervention programmes presented by EHW in SAPS. The researcher included all the topics that transpired as a result of the first qualitative phase and the respondents had to answer on a four point scale from strongly agree to strongly disagree. Most of the participants (89%) indicated a need for psycho-education specifically referring to trauma, stress, reactions and coping, dealing with fear (88%), relaxation therapy (87%), re-integration into the working environment (87%), psycho-education specifically referring to trauma, stress, reactions and coping (86%), behavioural risk factors, referring to anger, rage and suicide ideation (86%), problem solving techniques (86%), the impact of stress on the body (86%), spiritual guidance (84%), resilience (83%), re-integration into the community (82%), how to deal with flashbacks (82%), identification of inner resources (81%) and couple therapy (80%). Police officials were the least interested in retelling the incident in as much detail as possible (65%) and the modification of negative biased beliefs (69%).

Analyses of variance (ANOVA) and the *Tukey post hoc test (HSD)* were conducted to establish if there were significant differences between rank, marital status, specialised units and the factors indicated in Section F of the questionnaire. The results indicated a significant correlation between the specialised unit on police culture at the $P < .05$ level for the three conditions [$F(5, 302) = 3.60, P = .004$]. Post hoc comparisons using the Tukey HSD test indicated that the mean score for the local criminal record centre (M = 1.78, SD = .56), effect size (R = .77) and detectives (M = 1.82, SD = .51) effect size (R = .68) were significantly different compared to the other placements. Secondly, the results indicated a significant correlation between the specialised unit on employee health and wellness at the $P < .05$ level for the three conditions [$F(5, 302) = 2.810, P = .017$]. Post hoc comparisons using the Tukey

HSD test indicated that the mean score for public order policing ($M = 1.63$, $SD = .55$), effect size ($R = .77$) were significantly different compared to the other placements.

A T-Test was conducted to establish if there were significant differences between race, gender and the factors indicated in section F of the questionnaire. The results indicated a significant difference between race and the reasons for not consulting EHW, (0.54, 95% CI [0.76 to 0.33], $t(32) = 5.071$, $P < .05 = 0.00$) which represented the value of EHW in the SAPS. More specifically the effect size of white police officials ($R = .79$) indicated that this group is more likely to value EHW in the SAPS and the trauma intervention programmes presented by them as an important resource to render support following exposure to trauma. These results also indicated a significant difference between race and preferences regarding the format of the programmes (0.28, 95% CI [.46 to .10], $t(32) = 3.097$, $p < .05 = 0.00$). More specifically the effect size of white police officials ($R = .49$) indicated that this group is more likely to have specific preferences regarding the format of trauma intervention programmes.

In conclusion the results indicated that police officials were mostly aware of the stress management and the critical incident stress debriefing programmes. The results also indicated that although police officials were aware of the trauma intervention programmes they did not necessarily participate in these programmes. The reasons indicated are the result of prevailing police culture, the perceptions regarding EHW in the SAPS and police officials' experience of trauma intervention programmes. Police officials attached to the Local Criminal Record Centre and the Detectives were mostly affected by the police culture. Members attached to the Public Order Policing unit mostly indicated that they doubt consulting EHW or participating in programmes presented by EHW. White police officials are more likely to value EHW and the trauma intervention programmes. The result indicated that this group has more specific preferences regarding the format of trauma intervention programmes. The last mentioned might be an explanation for this group's non-participation of programmes.

DISCUSSION

A discussion of the findings is given to present a logical conclusion of the combined research approach. The latter will be presented in the logical order of the various themes, namely the meaning of trauma, response to trauma, coping and trauma intervention programmes.

The major causes of stress within the SAPS

The findings indicated that police officials experience stressors outside the work situation as much more significant compared to the other major causes of stress within the SAPS. The result is an indication that stressors outside the work situation, specifically referring to the offensiveness of the community towards the SAPS, the expectations of the SAPS opposed to those of the community and the criminal justice system are experienced to be very stressful. The group comparisons in respect of the different biographical variables contained in the questionnaire indicated that police officials within committed relationships experience more stress outside the work situation, specifically referring to the offensiveness of the community, the expectations of the SAPS opposed to those of the community and the criminal justice system. Miller (2005: 101) and Morash, Haarr and Kwak (2006: 26) concur with the above and are of the opinion that the bureaucratic structure of the SAPS, policing within the community, a lack of respect for police officials, the criminal justice system and personal circumstances are major stressors that might have an impact on the manner in which police officials experience trauma.

Major causes of trauma within the SAPS

Most police officials are exposed to different traumatic incidents that can be directly associated with the work itself that they do. Respondents were most frequently exposed to scenes of murder; horrific accidents; suicide and the sexual/physical abuse involving a female as the victim. Pienaar and Rothman (2005: 58) support the above findings and specifically

refer to police officials' exposure to violence, crisis and dangerous life threatening situations, originating within the work situation.

The results also indicated a clear relationship between frequency and intensity of specific types of trauma exposure, specifically referring to murder scenes and horrific accident scenes which were found to be extremely traumatic. Leshner, Kelly, Schutz and Foy (2012: 572) and Papazoglou (2012:122), concur with the above conclusion and emphasises that the severity of traumatic events constitutes risk factors. According to the authors such traumatic events are comprised of the frequency, duration, intensity, cumulative exposure, and re-victimisation of the traumatic event. It has been found to cause reactions that are more severe.

The group comparisons in respect of the different biographical variables contained in the questionnaire indicated a significant correlation between the rank of the police officials and the frequency of exposure to trauma. Especially constables are more frequently exposed to trauma. Constables, being the lowest in the rank structure of SAPS, are mainly working on ground level, doing vehicle and foot patrol and attending crime scenes and are therefore more frequently exposed to traumatic incidents. It was also found that especially those members stationed at the family child and sexual offences unit, and the tactical response unit are more frequently exposed to trauma than the other specialised units. This might be attributed to the increase in serious crimes involving, woman and children (FCS), as well as more complex criminal activities (TRT) that are more frequently attended too. The results indicated that members from the LCRC experience their exposure to traumatic incidents to be more intense than those of the other specialised units. Police officials from this unit are mostly re-traumatised as a result of the prolonged investigation process, during which they are repeatedly exposed to the details of the trauma.

The response to trauma

The results indicated that re-experience, avoidance of stimuli and hyperarousal, are the responses mostly experienced by police officials following their exposure to traumatic events. These factors more specifically refer to flashbacks, bad dreams and nightmares, trouble falling or staying asleep, avoiding thoughts, feelings, activities, places, people or conversations that might arouse recollections of the trauma, difficulty trusting, interpersonal conflicts and arguments, anger, headaches, backaches, chest pains and irritability. The result is an indication that the above symptoms reported by the respondents following exposure to trauma, largely resemble that of post-traumatic stress disorder. The above findings are in accordance with the four cluster symptoms as proposed by the DSM-5, which are described as re-experiencing, avoidance, negative cognitions and mood, and arousal (American Psychiatric Association, 213: 265; Godbout and Briere 2012: 485).

The group comparisons in respect of the different biographical variables contained in the questionnaire indicate a significant correlation between marital status and complex post traumatic outcomes. It was found that especially those police officials who are single and those in committed relationships are more likely to develop complex post traumatic outcomes for example depression and PTSD. The results indicated a significant correlation between rank and poor productivity. The productivity of constables especially appears to be poor. Constables fall within the category of police officials who are mostly involved in the frontline of duty, thereby mostly confronted with traumatic incidents over a long period of time.

Coping with trauma

The results indicated that police officials mostly adopt action-oriented coping styles to cope as a result of their exposure to traumatic events. The result is an indication that an action orientated coping style, specifically referring to support from important others; participation in relaxation activities and putting one's confidence in God are mostly adopted by police

officials to cope as a result of their exposure to traumatic events. Louw and Viviers (2010: 3) and Taylor and Stanton (2007: 377) confirm that action-oriented coping strategies are used to confront the problem and to control the situation or improve one's resources in the hope of reducing the imbalance.

The group comparisons in respect of the different biographical variables contained in the questionnaire indicated that white police officials are more likely to adopt action oriented coping mechanisms to manage the impact and consequences of trauma. The results also indicated that there is a significant correlation between the specialised units and coping styles. Especially police officials attached to the Public Order Policing unit are more likely to adopt action oriented coping styles. These groups indicated that they participate in relaxation activities, seek support from important others especially family members, and participate in pro-active programmes presented by EHW.

Experience of trauma intervention programmes

Some of the police officials indicated that they are not familiar nor participated in any of the trauma intervention programmes before. Trauma interventions programmes, with which they are mostly familiar, are the critical incident stress debriefing and stress management programmes. As an explanation for the above the results indicated that there is a significant correlation between the police culture, the perceptions regarding EHW in SAPS and police officials experience of trauma intervention programmes. Kotler and Armstrong (2014: 312) refer to the above as psychological cost factors. The result is an indication that the police culture and the negative perception regarding EHW in SAPS are two very important aspects which have a direct impact on police officials' experience of trauma intervention and the consequent non-participation. Stevens (2009: 540) confirms the significance of the police culture with the following quote "...after a gunfight, we'd have a few beers and call it a night". The negative perception regarding EHW is mainly contributed to police officials' perception that confidentiality is not always maintained. According to Kirschman, Kamena, and Fay (2014: 22), confidentiality is the foundation of managing the therapeutic alliance. Here the authors strongly emphasise that it takes a good deal of trauma for police officials to actually seek help but very little to turn them off.

The group comparisons in respect of the different biographical variables contained in the questionnaire indicated the following correlations: Firstly police officials attached to the Local Criminal Record Centre and the Detectives are mostly affected by the police culture. They indicated amongst others that culture is deeply embedded into every element of SAPS that police officials have to adhere to objectivity and neutrality and that the police culture value action instead of feeling.

Secondly the results indicated that members attached to the Public Order Policing unit doubt consulting EHW or participating in programs presented by EHW. The indication is that confidentiality is not always maintained, personal details are kept on file and future promotions might be at risk.

Thirdly the results indicated that white police officials are more likely to value EHW and the trauma intervention programmes presented by them as an important resource to render support following exposure to trauma. This group indicated that there is a need for intervention by EHW, immediately after exposure to traumatic events and that an ordinary police official can gain by visiting a psychologist, social worker or chaplain.

Fourthly, the results indicated that white police officials have more specific preference regarding the format of trauma intervention programmes. These preferences include individual intervention during the initial aftermath, structured group intervention on a regular basis and group intervention during parades at unit level. The researcher therefore concluded that white police officials do value EHW and the programmes presented by them.

They do, however, not always participate in these programmes as their preferences and specific needs regarding the content and the format of these programmes are not met.

Lastly, the following topics were identified during the second quantitative phase: psycho-education; re-integration into the community; coping with trauma with less avoidance and denial and dissociation; cognitive and behavioural risk factors; relaxation therapy; the impact of stress on the body and family; and parental guidance. All of these can be used as indicators for the development of a purposeful psycho-social trauma intervention programme to address the problems regarding trauma in the SAPS. The findings did not indicate a significant correlation between biographical variables and the content of the programme.

CONCLUSION

In this article the findings of the second quantitative phase of the study, namely the questionnaire survey, were discussed. The findings were structured according to the themes of the qualitative study's findings namely: the meaning of trauma, response to trauma and coping and trauma intervention programmes. The aim of the second quantitative phase of the study was to test the identified themes, sub-themes and categories of sub-themes arising from the qualitative study within the total population, in other words, to quantitatively verify the opinions and experiences of those police officials who participated in the three focus groups. The findings of the second quantitative phase confirmed that the data arising from the three focus groups in the first qualitative phase can to a great extent be generalised to the larger sample of police officials stationed at the specialist units within the North-West Province.

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