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Research Article

Homicide Offenders With or Without Psychotic Disorder: Post-Traumatic Symptoms, Guilt and Shame, and Coping in the Post-Offence Period

Agnes Lehoczki[1]* and Tamas Halmai[2]

[1]Department of Corrections, National University of Public Service, Hungary
[2]Clinical Research Department of Mental Health, Semmelweis University, Hungary

*Corresponding author
Agnes Lehoczki, Department of Corrections, National University of Public Service, Budapest, Farkasvölgyi street 12, 1121, Hungary, Tel: +36308578463; E-mail: lehoczki.agnes@gmail.com

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Abstract

Background: Post - offence reactions are a rarely investigated area, and comparison of these reactions in convicted homicide offenders and offenders with serious mental illness (SMI) is without substantial antecedent.

Aims: We sought to compare post - offence emotions and the applied coping mechanisms in offenders with a diagnosis of a psychotic disorder and those without such a diagnosis. We also explored these areas in regard of the relationship with the victim.

Methods: We applied questionnaires to measure general proneness to anxiety and state anxiety after the perpetration of the crime, preferences in coping strategies, crime-related traumatization symptoms and feelings of guilt and shame related to the homicidal act.

Results: There were no significant differences found on any of the scales measuring post - offensive reactions and coping between the two samples. A marked difference in post - offensive reactions in regard to relationship with the victim was found.

Conclusions: Our results confirm that committing homicide causes severe anxiety in most perpetrators and substantial part of the offenders report severe symptoms with no significant difference between prisoners and NGRI patients. A marked difference was found in prisoners with more variable post - offensive reactions in regard to relationship with the victim.

ABBREVIATIONS

SMI: Serious Mental Illness; PTSD: Post - Traumatic Stress Syndrome; NGRI: Not Guilty By Reason Of Insanity; STAI: State - Trait Anxiety Inventory; CPQ: Coping Preferences Questionnaire; ORSGQ Offence - Related Shame and Guilt Scale; ORS: Offence Related Shame; ORG: Offence - Related Guilt; OR PTSD: Offence - Related PTSD Symptoms; PO STAI State: Post - Offence Anxiety Measured By STAI State

INTRODUCTION

Emotional responses to committing homicide in perpetrators with and without a serious mental illness (SMI)

Based on criminal record surveys and retrospective accounts made by offenders, committing homicide in most cases involves an elevated level of stress [1,2]. It also generally involves a negative, in some cases, a positive affective state [3]. The perpetrator has to find a way to cope with a stressful, emotionally and often, physically challenging situation and its consequences.

Due to the elevated level of stress, negative affect and the overall, frequently alarming circumstances, committing homicide may lead to feelings of anxiety, guilt and shame in the perpetrator and may in certain cases in fact traumatize him/her. In an earlier study, Fraser [4] found symptoms of pathological bereavement and traumatization in a group of homicide offenders. Pollock [5], in a study involving 80 homicide perpetrators found a prevalence of offence - related post - traumatic stress syndrome (PTSD) symptoms in some 52%.

In a sample of mentally ill homicide offenders, Papanastassiou et al., [6] found a lifetime prevalence of 58% of full -scale post - traumatic stress disorder (PTSD) with a further 21% of partial PTSD in subjects. In a different sample of mentally ill homicide

offenders, Crisford, Dare and Evangeli [7] found that some 40% suffered from current post -traumatic symptoms.

Studies indicate that cognitive and affective appraisals resulting in intensive guilt may play a significant part in the phenomenology of post - offence traumatization [6,7]. However, it is possible that shame, being another significant moral emotion, may have a more decisive impact on traumatization considering the significant overlap in their symptomatology (avoidant behaviour, hiding, and heightened sensitivity to confrontation with key stimuli).

While guilt involves the negative evaluation of an act and hence results in a desire for reparation of the damage and seeking forgiveness from the victim. Shame involves the negative evaluation of the self and results in feelings of humiliation and inferiority. This triggers tendencies of hiding, and involves a dominant and threatening behaviour that aims at restoring the position in the social hierarchy or bypassing the painful experience of shame [8].

A number of relevant studies show that homicidal offenders with a diagnosis of serious mental illness (SMI) show differences from those without such a diagnosis in the antecedents and motivations of the crime, and acute psychotic symptoms largely determine their appraisal of the entire situation and their behaviour [9]. Even though a number of studies have explored post - offence behaviours and emotions in homicide offenders with SMI and other studies in offenders without SMI, previous studies did not make comparisons between the post - offence behaviours and emotions of the two perpetrator groups. In our study, we set out to explore differences in the post - offence behaviour and feelings of guilt, shame, post - offence coping mechanisms, post - offence emotional responses as well as traumatization in these two groups of offenders.

The different patterns in post-offence emotions and behaviours have significant implications for therapeutic interventions in the period of their incarceration/treatment. Our goal was to explore these differences that may serve as the basis for treatment priorities for the members of both groups.

Our study addresses the following issues:

1) Do homicide offenders (including those with and without a diagnosis of SMI) experience homicide as a stressful event?

2) Do homicide offenders with a diagnosis of SMI apply different coping mechanisms, experience stress, shame and guilt and PTSD symptomsin the post-offence period from those perpetrators without such a diagnosis?

3) Are these dimensionsinterrelated with each other in the studied populations?

MATERIALS AND METHODS

Participants

The sample consisted of 81 subjects all incarcerated for homicide (n = 66) or attempted homicide (n = 15) (see Table 1). We asked a total of 83 subjects to participate in the study, only 2 (2.4%) of whom declined. We collected no data on the two subjects who did not wish to participate in our study. Participation in the study was voluntary and individuals with acute psychosis or alliteration were excluded. All participants gave informed consent.

57 prisoners[1] were drawn from three Hungarian high - security correctional institutions and 24 individuals were recruited from Institute of Forensic Psychiatry. These former individuals were found not guilty by reason of insanity (NGRI) based on their severe mental illness, and their involuntary treatment[‡] was ordered by jury/court[2].

Descriptive data of the sample (gender, age, length of incarceration, education, marital status, residence) are specified in Table (1).

Instruments

For the assessment of general proneness to anxiety and state anxiety after the perpetration of the crime we used the State - Trait Anxiety Inventory (STAI) [10]. Both scales of the self-report questionnaire consist of 20-20 items. Items are measured on four - point Likert scale. We applied the State scale with modified instructions changing the aimed time - frame from previous week to time period after the perpetration of the crime[3]. Though STAI

Table 1: Descriptive data of the participants.

Participants	**Convicts** N = 57	**Psychiatric patients (involuntary treatment)** N = 24
Age at the time of homicide	t = 28.43 (SD 9.84)	t = 33.46 (SD 10.62)
Time elapsed since homicide (months)**	t = 106.3 (SD 57.79)	t = 77.54 (SD 49.72)
Length of time incarcerated	t = 103.89 (SD 60.41)	t = 79.5 (SD 47.95)
Attempted homicide	5	10
Homicide	52	14
Education		
• Less than primary school	5	0
• Primary school	25	7
• Profession without high-school qualification	15	3
• Secondary school	7	9
• University, college	1	4
Marital status		
• Single	21	15
• Non-marital relationship	0	1
• Married, common-law marriage	31	2
• Divorced	3	6
Residence		
• Capital	13	5
• County centre	11	3
• Town	14	8
• Village	16	6
• Farmstead	1	0

is a widely used and accepted as a reliable instrument [10] in this population reliability measure of the test were weak.

For the assessment of preferences in coping strategies we used the Coping Preferences Questionnaire (CPQ) [11]. The test consists of 80 items which measure coping preferences in anxiety - provoking situations on 8 scales. Items are measured on a four - point Likert scale. We applied this tool changing the standard instruction: once general time - frame to the time after the perpetration of the crime, and twice investigating coping in relation of the perpetration of the crime. Reliability of the scales were good in general (Table 2).

The first scale of the CPQ is Problem - centric reaction, where the goal of the individual is to change the situation and prevent the threat. The scale of Social support seeking refers to a coping strategy where the individual tries to change the situation and prevent the threat as well but requires cooperation in the process. The next scale is Pressure control which refers to efforts the individual makes to stabilize his personality while not giving up the possibility of changing the situation. During this process the focus is shifted from the external threat to the self. The fourth scale is Distraction which is a protective strategy where the individual steps out of the situation and procrastinate the intervention. Emotion focus is the strategy where the efforts of the individual are solely aimed at shaking off the negative emotions caused by the stressful situation. The Emotion discharge scale shows a coping strategy where the individual discharges the pressure caused by the threatening situation through uncontrolled and aimless reactions and acting - out, anger out behaviours. Self - punishment shows a tendency of the individual to interpret the negative situations as justified responses to his or her mistakes and undesirable behaviour. The last scale is Deference where the individual uses external locus of control and tries to accept the negative situation without making efforts to change it.

For the assessment of crime related traumatization symptoms, we used a modified version of the Posttraumatic Diagnostic Scale [12]. It only consisted of the 17 items estimating the presence and severity of the symptoms after committing the crime and in relation to the homicidal act.

Finally, we used the Offence - Related Shame and Guilt Scale (ORSGQ) [8] which consists of 5-5 items to assess feelings of guilt, and shame related to the homicidal act. The main difference between the two emotions is specified above. Reliability of the scales was good in general (Table 2).

SPSS 17.0 software was used for the statistical analysis.

[*]Note

[1]Prisoners is our sample may have some kind of psychiatric conditions, but they had not suffered from severe mental illness at the time of the commission of the homicide. Cases where a severe mental illness appeared during conviction were excluded from our study.

[‡]Involuntary psychiatric treatment is a criminal justice provision in Hungary. It is applied to offenders who 1) committed a violent crime or pose a threat to the public and 2) due to an pathological mental condition or impaired mental state are not to be held responsible for their actions and 3) reiteration of a crime is considered possible and who 4) if held responsible, would be sentenced to a minimum of one year imprisonment. (Büntető Törvénykönyv {Penal Code of Hungary}. 74. §).

[2]Involuntary treatment has no definite time limit in Hungarian law. It lasts until the Institution of Forensic Psychiatry, two specialists and the judge agree that further treatment is unnecessary.

[3]Due to the great variance in experiences we defined this time frame broadly.

Proposed analysis

After analyzing the sample's descriptive data on the measures variables we conducted independent sample t - tests to compare the post - offence reactions and coping mechanisms of the prisoner and the NGRI subjects for the following scales: STAI Post - offensive State, CPQ scales, crime related PTSD Scale and scales of ORSGQ.

A Pearson correlation coefficient was computed to assess the relationship between offence - related PTSD symptoms (OR

Table 2: Data of scales used in our study.

	N	Minimum	Maximum	Mean	SD	Cronbachα
STAI TRAIT	77	39.00	57.00	45.078	2.928	0.366
PO STAI State	68	24.00	80.00	63.044	13.180	0.600
PO CPQ Problem centric reaction	70	13.00	41.00	27.686	7.072	0.834
PO CPQ Social Support seeking	71	7.00	32.00	15.254	5.736	0.846
PO CPQ Pressure control	67	20.00	57.00	39.642	7.627	0.721
PO CPQ Distraction	67	17.00	50.00	30.597	7.171	0.784
PO CPQ Emotion focus	68	12.00	40.00	24.559	5.703	0.713
PO CPQ Emotion discharge	71	8.00	24.00	14.197	3.786	0.581
PO CPQ Self-punishment	72	5.00	20.00	13.903	4.159	0.834
PO CPQ Deference	70	5.00	20.00	11.714	3.418	0.623
OR PTSD	64	18.00	62.00	37.063	11.158	0.888
OR Guilt	70	5.00	20.00	14.729	4.488	0.803
OR Shame	69	5.00	20.00	11.174	4.608	0.845

PTSD) and offence related shame (ORS), offence - related guilt (ORG) and post - offence anxiety (PO STAI State). The coefficients were computed separately for the prisoner and NGRI populations.

RESULTS AND DISCUSSION

Results

Scales: Average level of trait - anxiety (M = 45.08; SD = 2.928) falls within the average range for the Hungarian population (Male sample: M = 40.96; SD = 7.78; Female sample: M = 45.37; SD = 7.87) and even for the subsample of subjects with antisocial personality disorder in a previous study (M = 41.4; SD = 6.3) [10]. Mean post - offensive state - anxiety (M = 63.04; SD = 13.810) in our sample is much higher and is outside of the average range for the Hungarian population (Male sample: M = 38.47; SD = 10.66; Female sample: M = 42.64; SD = 10.79). These results suggest that though homicide perpetrators are not more prone to anxiety than normal subjects, the anxiety experienced after the homicidal act is more variant among individuals but is, on average, high.

After the homicidal act, Pressure control (M = 39.642; SD = 7.627), Distraction (M = 30.597; SD = 7.171) and Problem centric reaction (M = 27.686; SD = 7.072) are the mechanisms most commonly used by perpetrators, while Deference (M = 11.714; SD = 3.418), Self - punishment (M = 13.903; SD = 4.159) and Emotion discharge (M = 14.197; SD = 3.786) are the least preferred coping mechanisms in the post - offence phase. Emotion focus (M = 24.559; SD = 5.703) and Social support seeking (M = 15.254; SD = 5.736) are in the middle range.

Mean scores of offence - related PTSD among homicide offenders (M = 37.063; SD = 11.158) were between "medium" and "medium - severe" symptoms. Distribution of PTSD symptom severity categories are the following for the full sample: severe in 7 (11%), medium - severe in 19 (29,.7%), medium in 23 (40.6%) and mild PTSD symptoms in 15 (23.6%) of the participants. We found severe symptoms in 7 (14.9%), medium - severe in 14 (29.8%), medium in 13 (27.7%) and mild in 13 (27.7%) of the convicted offenders. We found severe PTSD symptoms in none (0%), medium - severe in 5 (29.4%), medium in 11 (58.8%) and mild PTSD symptoms in 2 (11.8%) of the NGRI offenders.

These results suggest that homicide offenders do experience traumatization symptoms related to their homicidal act, moreover, four perpetrators out of ten experience severe or medium - severe symptoms.

Offence - related guilt (M = 14.729; SD = 4.488) was found to be significantly higher than offence - related shame (M = 11.174; SD = 4.608).

Comparing post-offensive reactions and coping of convicted and NGRI samples: Independent sample t - tests were conducted to compare scores of post - offence reactions and coping mechanisms of the prisoner and the NGRI subjects for the following scales: STAI Post - offensive State, CPQ scales, crime related PTSD Scale to compare level of homicide - related post - traumatic symptoms in convicted and NGRI perpetrators, for scales of ORSGQ to compare level of post - offensive guilt and shame. There were no significant differences found on any of the scales between the scores of convicted and NGRI perpetrators.

Correlation between PTSD scale and offence-related shame (ORS) and guilt (ORG), experienced post -offence anxiety: A Pearson correlation coefficient was computed to assess the relationship between offence - related PTSD symptoms (OR PTSD) and offence related shame (ORS), offence - related guilt (ORG) and post - offence anxiety (PO STAI State). The coefficients were computed for the whole population, and separately for the prisoner and NGRI populations which can be seen in the Table (3).

In the prisoner sample, OR PTSD was strongly correlated with each of the above mentioned variables. There was a correlation between OR PTSD and offence - related guilt ($r = 0.681$; $p < 0.01$), offence - related shame ($r = 0,678$; $p < 0.01$) and post - offence anxiety ($r = 656$; $p < 0.01$). Furthermore, there was a correlation between offence - related shame and offence - related guilt ($r = 0.777$; $p < 0.01$), offence - related shame and post - offence anxiety ($r = 0.526$; $p < 0.01$), offence - related guilt and post - offence anxiety ($r = 0.728$; $p < 0.01$). These results suggest that, among prisoners, all of these variables, namely offence - related PTSD symptoms, shame, guilt and anxiety are interrelated, similarly to the full sample.

In the NGRI sample, OR PTSD was correlated with only two of the scales. There was a correlation between OR PTSD and post - offence anxiety ($r = 0.616$; $p < 0.05$) and with offence - related shame ($r = 0,585$; $p < 0.05$). Furthermore, there was a correlation between offence - related shame and offence - related guilt ($r = 0.544$; $p < 0.05$), offence - related shame and post - offence anxiety ($r = 0,535$; $p < 0.05$), and offence - related guilt and post -offence anxiety ($r = 0,483$; $p < 0.05$). These results suggest that offence - related PTSD symptoms correlate with post - offence anxiety and offence - related shame but not with offence - related guilt, so this pattern is different from the full sample or from the prisoner sample. Also, offence - related shame, guilt and anxiety were all interrelated.

Discussion

Contrary to our hypothesis, we found no significant differences in the post - offence emotions between convicts and NGRI participants on any scale.

Homicide perpetrators are no more prone to anxiety than the

Table 3: Results of correlation coefficients computed to show relation between PTSD scale and offence-related shame (ORS) and guilt (ORG), experienced post-offence anxiety.

	PO PTSD	PO STAI State	ORG
PO PTSD			
PO STAI State	**,656****		
	,616*		
ORG	**,681****	**,728****	
	,366	**,483***	
ORS	**,678****	**,526****	**,777****
	,585*	**,535***	**,544***

**Correlation is significant at the 0.01 level (2-tailed).
*Correlation is significant at the 0.05 level (2-tailed).
b. Cannot be computed because at least one of the variables is constant.
Prisoner sample; NGRI Sample

general Hungarian population. However, the anxiety experienced after homicide showed a significant increase. There was no difference in the levels of post - offence anxiety for convicted and NGRI perpetrators. This confirms that homicide is a very stressful and anxiety - provoking event for all perpetrators which impairs their problem - centric, rational problem - solving mechanisms. At the same time, however, they are unable to escape the situation and stall finding a solution. They withdraw socially, which may be the result of narrowing the focus or characteristics of the situation itself in which they had committed something that may not be shared with anyone. Also, sharing it might put the perpetrator himself at risk of a number of negative consequences. In this phase, emotions and thoughts of self - blame emerges and negative feelings cannot be voluntarily relieved.

We also found that homicide offenders can experience symptoms of traumatization in relation to their homicidal action. In fact, four out of ten perpetrators experienced severe or medium - severe symptoms. It concurs with the previous findings [4-7,13,14].

Our results suggest that offence - related shame, guilt and anxiety are interrelated. Offence - related post - traumatic symptoms are correlated with anxiety experienced after and in relation to the homicide and offence - related shame. Among prisoners, post - traumatic symptoms correlated with guilt as well. In this area, our results deviate from previous findings which emphasize offence - related PTSD symptoms being correlated to offence - related guilt.

CONCLUSION

In our study, we set out to compare the emotional and behavioural responses to committing homicide in offenders with an SMI and those without it.

Committing homicide is an extreme experience causing severe stress and anxiety in most perpetrators.

Their pattern of post - offensive coping are characterized with the heightened anxiety and special characteristics of the situation hindering their ability to effectively apply them. Problem - centric, rational problem - solving mechanisms decrease, they are unable to escape the situation and stall finding a solution, they withdraw socially as part of their self - defense. Self - blame is high in this phase. Significant difference in regard to this pattern between prisoners and NGRI patients were not found.

Our results confirm previous findings that homicide offenders can experience symptoms of traumatization due to their crime and substantial part of the offenders report severe symptoms. In addition to result of earlier studies which suggested relation between offence - related PTSD and guilt our results show that shame may have an even stronger relation to PTSD. This is not surprising considering the significant overlap in their symptomatology (avoidant behaviour, hiding, heightened sensitivity to confrontation with key stimuli).

Certainly further analysis is in order to look into the post - offence reactions, traumatization, feelings of guilt and shame in relation to the characteristics of the committed homicide, for example relationship to the victim, used weapon, method of killing, etc.

LIMITATIONS

Certainly there are considerable limitations to our study.

Firstly, all limitations concerning the use of questionnaires versus interviews certainly applies to our study as well. However, homicide is a highly sensitive subject and it may be difficult to discuss even in good therapeutic relationship. The direct exposure in a face-to-face interview may be an impediment in the disclosure, while the anonimosity and facelessness provided by questionnaires may enable giving more detailed information.

Secondly, a significant event like homicide may be subject to a number of distortions. All memories fade and, due to the constructive nature of memory, change with time and the intense emotions related to the crime may very well interfere with the encoding as well as the retrieval of information. The retrospective design of our study itself brings the element of recall bias in perpetrators: they are asked to remember feelings and behaviours connected to an event from their past. However, considering the fact that we intended to explore the emotional factors of committing homicide as well as the characteristics of the post - offence period, a prospective design was not possible.

Thirdly, social desirability may cause subjects to give answers that are closer to norms that are acceptable, regardless of the actual facts, in order to appear more favourable. In the case of a universally unaccepted behaviour like homicide, we must by all means take into account the distorting effect of social desirability.

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