Factors Associated with Homicides in Psychiatric Expertise in Togo

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Abstract

Background: In most societies, homicide or murder is a crime that often leads to imprisonment. Studies around the world have sometimes found cases of mental illness (schizophrenia spectrum disorders) as an explanation for some homicides. The aim of this study was to determine the factors associated with homicide in the Togolese context. **Methods:** This was a descriptive and analytical cross-sectional study of pre-trial psychiatric expertise reports from January 31st, 2019 to January 30th, 2022. **Results:** Out of 704 defendants appraised, 206 (29.3%) had committed homicide. Males accounted for 91.7% of Homicide defendants (HD). Their average age was 31.6 ± 12.2 years, with extremes of 16 and 74 years. Factors associated with homicide were female gender, age between 30 and 45 years, married or cohabiting status and occupation as a farmer/fisherman/breeder. Psychoactive substance use (PAS), mental illness and psychiatric history were not associated with homicide. **Conclusion:** Preventing delinquency and interpersonal conflict, and promoting social cohesion, could significantly reduce homicides in Togo.

Keywords

Homicide, Associated Factors, Forensic Psychiatry, Togo

1. Introduction

In most societies, homicide or murder is a crime that often leads to imprison-

ment. The fear it can generate often makes it incomprehensible outside of any mental illness. Studies around the world have sometimes found cases of mental illness (schizophrenia spectrum disorders) as an explanation for some homicides [1] [2] [3] [4] [5]. This has led to an increasing number of pre-trial psychiatric assessments. These enable the role of mental illness in homicide to be determined. In western France, for example, in 2016, expert assessments of some 5.0% of major offenders concluded that the abolition of discernment and control of acts was due to a schizophrenia spectrum disorder or a paranoid delusional disorder in 85.3% of cases [2]. In Tunisia, Feki *et al.* [3] found that 97 young adults underwent criminal law assessments, with antisocial personality (49.5%), intellectual disability (24.7%) and schizophrenia (11.3%). Dementia in the legal sense (abolition of discernment and control of acts at the time of the incident) was found in 29.9%. In a study of forensic patients in KwaZulu Natal, South Africa, Houidi A and Paruk S. [4] found 14.3% homicides, and these forensic patients were intellectually impaired in 36.3% of cases. Among forensic patients at the Zébé Psychiatric Hospital de (ZPH) in Togo, homicide accounted for 53.6% of cases, and schizophrenia spectrum disorders for 78.6% [5]. However, in Togo, no assessment has yet been carried out in search of any link between mental illness and homicide. For this reason, we felt it important to carry out this study, the aim of which was to determine the factors associated with homicide in the Togolese context.

2. Framework and Method

2.1. Study Framework

The study was based on data available from expert psychiatrists. Togo currently has five (05) psychiatric experts accredited by the Togolese Courts of Appeal. Of the five (05) experts, three (03) had been selected at random, and their expert reports had been retained for the survey. The three experts selected had provided the research team with copies of their various expert reports concerning all the jurisdictions they had visited during the study period, namely:

- the Lomé Court of Appeal for the courts of Lomé, Notsè, Atakpamé, Badou, Aného, Taligbo, Danyi and Kpalimé;
- the Kara Court of Appeal for the courts of Dapaong, Kara, Sokodé, Bafilo, Niamtougou, Blitta, Mango, Bassar, Mandouri, Guérin Kouka, Tchamba and Tandjoaré.

2.2. Study Method

Type and period of study

This was a descriptive and analytical cross-sectional study of pre-trial psychiatric expertise reports from January 31, 2019 to January 30, 2022, or a 3-year period.

Study population

The study covered accused persons throughout Togo who had received a

pre-sentence psychiatric assessment during the period of study. Sampling was random in the first degree and exhaustive in the second degree. Our study included the expert reports of the accused drawn up by the three (03) approved psychiatric experts selected at random.

Data collection

A preliminary harmonization process had enabled us to select the data common to the various expert reports, which could be included in a survey form. Once the survey form had been designed in the Kobo Collect application (version 2022.4.4), the data contained in the expert reports was collected digitally using this application by a team of ten investigators who had been formed and trained beforehand. The data collected included:

- socio-demographic data: age, sex, nationality, education, profession, marital status;
- forensic data: jurisdiction, reason for incarceration, personal history (medical, psychiatric and legal), symptoms, diagnosis, expert opinion;
- use of psychoactive substances;
- biography.

Data analysis

The data collected were analyzed using R 4.0.2 statistical software. From a descriptive point of view, the variables were presented in the form of frequency tables. The search for associations between homicide and the various factors was carried out using the chi^2 test (significance threshold of 5%). Multivariate logistic regression was used to identify factors independently associated with homicide.

Ethical aspects

Anonymity and confidentiality were respected.

3. Results

3.1. Socio-Demographic Data

A total of 206 (29.3%) of the 704 defendants assessed had committed homicides. Homicide defendants (HD) were male in 91.7% of cases, with a sex ratio of 11.1. Their average age was 31.6 ± 12.2 years, with extremes of 16 and 74 years. The HD were under 45 years of age in 79.6% of cases. They were Togolese in 93.2% of cases. HDs had an average of five brothers and/or sisters, with extremes ranging from one to 13. They were the eldest sibling in 27.7% of cases, and the youngest in 72.3%. Ninety-nine HD (48.0%) had no schooling, 53 (25.7%) had primary education. Agro-pastoralists (farmers, fishermen, breeders) accounted for 60.7% of HD. One hundred and fifty-five HD (75.2%) were married or cohabiting. They had an average of three children, with extremes ranging from one to 14 children. Table 1 presents the socio-demographic data.

3.2. Medico-Legal Aspects

The Kara Court of Appeal accounted for 73.3% of HD cases. Forty-seven homicide cases (22.8%) came under the court of Dapaong. Among the HD, 57.3%

Table 1. Distribution of homicide defendants by socio-demographic data.

	Number (N = 206)	Percentage (%)
Gender		
Male	189	91.7
Female	17	8.3
Age range		
[15-30[	87	42.2
[30-45[	77	37.4
≥45	42	20.4
Nationality		
Togolese	192	93.2
Others (Benin, Nigeria, Burkina Faso, stateless Fulani, Ghana, Niger, Côte d'Ivoire, Mali)	14	6.8
Education		
No schooling	99	48.0
Primary	53	25.7
Secondary	50	24.3
University	4	2.0
Profession		
Farmer/Fisherman/Breeder	125	60.7
Reseller/Dealer	13	6.3
Unemployed/Housewife	11	5.3
Private and public employees	6	3.0
Artisan	5	2.4
Other	46	22.3
Marital status		
Married/Cohabiting	155	75.2
Single	42	20.4
Divorced/Widowed	9	4.4

were users of at least one psychoactive substance (PAS). Alcohol was the most commonly used substance (52.9%). Eleven HD (5.3%) had a psychiatric history. Psychotic disorders were the most common psychiatric history (2.9%). Thirty-one HD (15.0%) suffered from a mental disorder. Among HD, the main psychiatric symptoms were insomnia (11.2%), aggression (10.2%) and delirium (9.2%). Schizophrenia spectrum disorders accounted for 7.3% of HD. Table 2 presents the medico-legal aspects.

Table 2. Distribution of homicide defendants according to forensic aspects.

	Number (N = 206)	Percentage (%)
Kara Court of Appeal	**151**	**73.3**
Court of Dapaong	47	22.8
Court of Kara	40	19.4
Court of Niamtougou	13	6.3
Court of Mango	11	5.3
Other	40	19.5
Lomé Court of Appeal	**55**	**26.7**
Court of Notsè	26	12.6
Court of Lomé	11	5.3
Court of Aného	5	2.4
Other	13	6.4
Use of psychoactive substances		
Yes	118	57.3
No	88	42.7
Psychoactive substances consumed*		
Alcohol	109	52.9
Tobacco	26	12.6
Cannabis	3	1.5
History		
No antecedents	195	94.7
Psychotic disorders	6	2.9
Mood disorders	5	2.4
Psychiatric examination		
Normal	175	85.0
Abnormal	31	15.0
Psychiatric manifestation*		
Insomnia	23	11.2
Physical/verbal aggression	21	10.2
Delirium and incoherent speech	19	9.2
Hallucinations	17	8.3
Thymic lability	12	5.8
Oddities	7	3.4
Other	21	10.2

Continued

Detected mental disorder		
Schizophrenia spectrum disorders	15	7.3
Bipolar disorder	9	4.4
Substance use disorders	7	3.4

*Combination of several parameters possible.

3.3. Factors Associated with Homicide

The proportion of women HD (47.2%) was greater than that of men HD (28.3%). This difference was statistically significant (p = 0.015).

The proportion of HD aged over 45 years (35.9%) was greater than that of HD aged under 30 years (31.8%) and those aged 30 to 45 years (24.6%). This difference was statistically significant (p = 0.037).

There was a statistically significant difference between different levels of education (p < 0.001). The lower the level of education, the more likely the defendant was to have committed homicide.

The proportion of married HD (33.7%) was greater than that of divorced or widowed HD (26.5%) and single HD (20.0%). This difference was statistically significant (p = 0.001).

There was a statistically significant difference between the different professions (p = 0.001). The more informal the occupation, such as farmers, fishermen and herders, or even housewives and the unemployed, the more likely it was that the defendant had committed homicide.

The proportion of homicides from the Kara Court of Appeal (32.3%) was higher than that of homicides from the Lomé Court of Appeal (23.2%). This difference was statistically significant (p = 0.012).

The proportion of PAS user HD (29.6%) was higher than that of PAS unuser HD (28.9%). This difference was not statistically significant (p = 0.8).

The proportion of HD without a psychiatric history (29.3%) was greater than that of HD with a psychiatric history (28.9%). This difference was not statistically significant (p = 0.97).

The proportion of mentally ill HD (31.3%) was greater than that of HD without mental illness (28.9%). This difference was not statistically significant (P = 0.628). Table 3 presents the results of the chi^2 test.

Multivariate logistic regression analysis (Table 4) showed that homicide was independently associated with female gender (ORa = 3.04; p = 0.004), 30 to 45 years age group (ORa = 0.52, p = 0.002), marital status as married/cohabiting (ORa = 2.3, p = 0.001) and occupation as farmer/fisherman/breeder (ORa = 2.1 p = 0.003).

4. Discussion

4.1. Homicide Rate

In our study, 29.3% of the accused appraised had committed a homicide. This

Table 3. Univariate analysis.

	Homicide		Chi² tests p-value
	No	**Yes**	
Gender			0.015
Male	479 (71.7%)	189 (28.3%)	
Female	19 (52.8%)	17 (47.2%)	
Age range			0.037
[15 - 30[	187 (68.2%)	87 (31.8%)	
[30 - 45[	236 (75.4%)	77 (24.6%)	
≥45	75 (64.1%)	42 (35.9%)	
Study level			<0.001
University	25 (86.2%)	4 (13.8%)	
Secondary	188 (79.0%)	50 (21.0%)	
Primary	127 (70.6%)	53 (29.4%)	
Out of school	158 (61.5%)	99 (38.5%)	
Marital status			0.001
Married	305 (66.3%)	155 (33.7%)	
Single	168 (80.0%)	42 (20.0%)	
Divorced/widowed	25 (73.5%)	9 (26.5%)	
Profession			0.001
Farmer/Fisherman/Breeder	226 (64.4%)	125 (35.6%)	
Reseller/Dealer	47 (78.3%)	13 (21.7%)	
Unemployed/Housewife	35 (76.1%)	11 (23.9%)	
Private and public employees	50 (89.3%)	6 (10.7%)	
Artisan	20 (80.0%)	5 (20.0%)	
Other	120 (72.3%)	46 (27.7%)	
Jurisdiction			0.012
Kara Court of Appeal	316 (67.7%)	151 (32.3%)	
Lomé Court of Appeal	182 (76.8%)	55 (23.2%)	
Use of psychoactive substances			0.8
Yes	281 (70.4%)	118 (29.6%)	
No	217 (71.1%)	88 (28.9%)	
Psychiatric history			0.97
Yes	27 (71.1%)	11 (28.9%)	
No	471 (70.7%)	195 (29.3%)	
Mental illness			0.628
Yes	68 (68.7%)	31 (31.3%)	
No	430 (71.1%)	175 (28.9%)	

Table 4. Multivariate logistic regression analysis.

	Univariate			Multivariate		
	OR	95% CI	p-value	ORa	95% CI	p-value
Gender			0.020			0.005
Male	—	—		—	—	
Female	2.27	1.14, 4.46	0.018	3.04	1.41, 6.56	0.004
Age range			0.037			0.007
[15 - 30[	—	—		—	—	
[30 - 45[	0.70	0.49, 1.01	0.055	0.52	0.35, 0.79	0.002
≥45	1.20	0.76, 1.89	0.42	0.76	0.45, 1.27	0.29
Study level			<0.001			0.077
University	—	—		—	—	
Out of school	3.92	1.47, 13.6	0.014	2.25	0.79, 8.08	0.16
Primary	2.61	0.95, 9.18	0.088	1.94	0.68, 7.04	0.25
Secondary	1.66	0.61, 5.84	0.37	1.34	0.47, 4.82	0.61
Marital status			0.001			0.001
Single	—	—		—	—	
Divorced/Widowed	1.44	0.60, 3.22	0.39	1.59	0.61, 3.85	0.32
Married /Cohabiting	2.03	1.39, 3.03	<0.001	2.30	1.45, 3.68	<0.001
Profession			0.001			0.003
Artisan	—	—		—	—	
Other	1.53	0.58, 4.82	0.42	1.71	0.62, 5.59	0.33
Farmer/Fisherman/Breeder	2.21	0.87, 6.78	0.12	2.10	0.78, 6.69	0.17
Private and public employees	0.48	0.13, 1.83	0.27	0.58	0.15, 2.30	0.42
Reseller/Dealer	1.11	0.36, 3.82	0.86	0.78	0.24, 2.84	0.69
Unemployed/Housewife	1.26	0.40, 4.46	0.71	1.02	0.29, 3.88	0.98
Jurisdiction			0.011			0.066
Lomé Court of Appeal	—	—		—	—	
Kara Court of Appeal	1.58	1.11, 2.28	0.012	1.43	0.98, 2.10	0.069
Mental illness			0.63			0.32
No	—	—		—	—	
Yes	1.12	0.70, 1.76	0.63	1.30	0.77, 2.16	0.32

OR = Rough Odd Ratios; ORa = Adjusted Odd Ratios; 95% CI = 95% Confidence interval.

rate is close to that of Feki *et al.* [3] in Tunisia, who found 25.7% homicides and attempted homicides in their sample of 97 appraised young adults. By contrast, in western France, Jamet *et al.* [2] in 2016 found a homicide rate of around

10.0%. Our higher homicide rate in the expert reports can be explained by the fact that, sometimes, other offences did not benefit from expert reports, whereas expert reports are systematic in cases of homicide in Togo.

4.2. Socio-Demographic Aspects

Despite the predominance of males (91.7%) among HD, we found that while almost half of the women were charged with homicide, it was around a quarter of the men who were charged with homicide, with a statistically significant difference. Women were three times more likely to commit homicide. This could be explained by women's daily experience of self-defence. According to Dassa *et al.* [6], in our environment, women are the targets of domestic and/or conjugal violence and are often deprived of assets, knowledge and power. HD under 45 years of age (79.6%) predominated in our study, with an average age of 31.6 ± 12.2 years. Although the young age of our sample was in keeping with the youthfulness of the Togolese population [7], it appeared in this study that the 30 to 45 years age group was associated with homicide, and that advanced age over 45 years was a protective factor against homicide; hence the low representation of over-45 years in our sample.

According to our results, marital status was significantly associated with homicide, and married/partnered people were twice as likely to commit homicide as single people. Rivalries of all kinds, family and/or couple conflicts, sometimes combined with the professional difficulties experienced by married people, could be the reason.

Occupation could be both a risk and a protective factor, according to the logistic regression analysis of our study. Public/private functions were protective against homicide because these professions are practiced by managers. Generally speaking, because of their high level of education, they are familiar with the law. On the other hand, being a farmer, fisherman or stockbreeder was a risk factor for homicide. In Togo, the occupation of farmer/fisherman/breeder was often practiced by people with a low level of education, who were unaware of the laws. These less-educated people tended to resolve their disputes through violence [5]. Moreover, in our study, HD with no schooling (48.0%) and HD with primary education (25.7%) predominated. This is in line with the literature, which reports a low level of education among detainees and forensic patients [3] [5] [8].

4.3. Medico-Legal Aspects

Homicide was more frequent in the Kara court of appeal than in the Lomé court of appeal, with a statistically significant difference. Among the courts, the Dapaong court recorded the highest number of homicides (22.8%), because this court largely covers rural localities where farmers, fishermen and breeders predominate. In addition, the Dapaong court area shares borders with three countries (Benin, Burkina Faso and Ghana), making it vulnerable to cross-border crime involving psychoactive substances and terrorism. Although the proportion

of PAS user HD was higher than that of PAS unuser HD, the difference was not statistically significant. However, studies have reported a link between serious road accidents with fatalities and the use of PAS by drivers [9] [10] [11]. It is possible that our result is linked to under-reporting of PAS use by HD, for fear of a heavier sentence. Similarly, we found no link between psychiatric history, mental illness and homicide. Only 15.0% of HD suffered from a mental disorder in our study. Although studies have often found mentally ill people among the perpetrators of homicides [1] [2] [3] [4] [5] [8] [12] [13], there are still few in this category. Finally, we could say that, contrary to popular belief, homicide is rare in psychiatry. It is often the result of a premeditated act, self-defence or an accident.

4.4. Study Strengths and Limitations

Our study covered 704 psychiatric expert reports, including 206 homicide cases, collected throughout Togo during the study period by three psychiatric experts. The strength of this study lies in the large number of expert reports used, which were carried out in all jurisdictions by the majority of experts (3 experts out of 5). The results can be generalized to all experts, and the data are representative of all the country's realities. Nevertheless, these expert reports from different experts had different models and writing styles. This necessitated prior harmonization work, in order to identify a common skeleton that could be used as the basis for a survey form. This harmonization resulted in a loss of data, due to the fact that the data retained were those common to all three experts. This was a limitation of our study.

5. Conclusion

We carried out a descriptive and analytical cross-sectional study, using pre-trial psychiatric reports to compare HD data with those of accused persons who had not committed homicide, in order to determine the factors associated with homicide in Togo. The study revealed that female gender, the 30 to 45 years age group, married/cohabiting status and occupation as a farmer/fisherman/breeder were risk factors. PAS use, mental illness and psychiatric history were not associated with homicide. Preventing delinquency and interpersonal conflict, and promoting social cohesion, could significantly reduce homicides in Togo.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

References

[1] Bénézech, M., Le Bihan, P. and Bourgeois, M.L. (2002) Criminologie et psychiatrie. Encyclopédie médico-chirurgicale (Editions scientifiques et médicales Elsevier SQS, Paris, tous droits réservés), Psychiatrie, 37-906-A-10, 15 p.

[2] Jamet, L., Neveux, P., Senon, J.L. and Nabhan-Abou, N. (2020) Abolition du dis-

cernement: État des lieux des pratiques des experts psychiatres dans l'ouest de la France. *Annales Médico-Psychologiques, Revue Psychiatrique*, **178**, 105-109. https://doi.org/10.1016/j.amp.2018.04.016

[3] Feki, I., Zouari, L. and Omri, S. (2016) Criminalité chez le jeune adulte: À propos de 97 cas d'expertise psychiatrique pénale. *Journal de l'information Médicale de Sfax*, **24**, 42-48.

[4] Houidi, A. and Paruk, S. (2018) Profile of Forensic State Patients at a Psychiatric Unit in KwaZulu Natal, South Africa: Demographic, Clinical and Forensic Factors. *The Journal of Forensic Psychiatry & Psychology*, **29**, 544-556. https://doi.org/10.1080/14789949.2018.1425471

[5] Salifou, S., Agbobli, Y.A., Kanekatoua, S., Wenkourama, D., Batcha, A., Affo, C. and Dassa, K.S. (2022) Profile of Forensic State Patients Admitted to Zebe Psychiatric Hospital (Togo). *Open Journal of Psychiatry*, **12**, 1-10. https://doi.org/10.4236/ojpsych.2022.121001

[6] Dassa, S.K., Balaka, B., Douti, N.K., Agbèrè, A.R., Ahyi, R.G. and Ferrari, P. (2005) Connaissances et perceptions des violences domestiques à Lomé (Togo). *Neuropsychiatrie de l'Enfance et de l'Adolescence*, **53**, 432-436. https://doi.org/10.1016/j.neurenf.2005.10.004

[7] Togolaise, R. (2010) Ministère de la planification, du développement et de l'aménagement du territoire. Quatrième recensement général de la population et de l'habitat. Direction générale de la statistique et de la comptabilité nationale, Lomé.

[8] Charfi, N., Omri, S. and Zouari, L. (2016) Expertise psychiatrique pénale des malades atteints de troubles de l'humeur: À propos d'une expérience tunisienne. *La Revue de Médecine Légale*, **7**, 97-104. https://doi.org/10.1016/j.medleg.2016.05.001

[9] Domingo-Salvany, A., Herrero, M.J., Fernandez, B., *et al.* (2017) Prevalence of Psychoactive Substances, Alcohol and Illicit Drugs, in Spanish Drivers: A Roadside Study in 2015. *Forensic Science International*, **278**, 253-259. https://doi.org/10.1016/j.forsciint.2017.07.005

[10] Ahlner, J., Holmgren, A. and Jones, A.W. (2014) Prevalence of Alcohol and Other Drugs and the Concentrations in Blood of Drivers Killed in Road Traffic Crashes in Sweden. *Scandinavian Journal of Public Health*, **42**, 177-183. https://doi.org/10.1177/1403494813510792

[11] Salifou, S., Ekpaï, E., Wenkourama, D., Kanekatoua, S., Affo, C. and Dassa, K.S. (2021) Facteurs associés à la consommation de substances psychoactives par les conducteurs de taxi-moto à Lomé. *Health Sciences and Disease*, **22**, 63-67.

[12] Le Bihan, P., Floris, E., Teterel, J., *et al.* (2019) L'unité pour malades difficiles de Cadillac en Gironde: Données d'activité, pathologies et approches thérapeutiques. *Annales Médico-Psychologiques*, **177**, 916-920. https://doi.org/10.1016/j.amp.2019.08.013

[13] Bouhlel, S., Nakhli, J., Ben Meriemb, H., Ridha, R. and Ben Hadj Ali, B. (2014) Les facteurs liés aux actes d'homicide chez les patients tunisiens atteints de schizophrénie. *L'Évolution Psychiatrique*, **79**, 611-618. http://dx.doi.org/10.1016/j.evopsy.2013.07.004