
TRANSILVANICA

Quantitative Perspective on Violent Deaths in Transylvania between the Mid–19th Century and the End of the First World War Tentative Findings

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Introduction

VIOLENT DEATH is a specific subcategory of mortality that comprises deaths resulting from external causes (e.g., accidents, suicide, and homicide). In recent periods, the rates of violent deaths in the European Union and in Romania have been significant.¹ For example, records for Romania in the period 2015 to 2017 show a high rate of suicides, followed by numbers of casualties in road accidents and homicides.² In today's Transylvania the incidence of these types of death has declined from 5 per cent in 2007 to 3.8 per cent in 2018, with the numbers of suicides and traffic casualties slightly higher than in the rest of Romania in 2015–2017.³

Historians who study death from a quantitative perspective must face a

few hurdles. For 19th century Transylvania, the most limiting challenges are the incomplete nature of the available sources and the lack of a centralized database of death records from parish registers. After 1867, the Hungarian state compiled statistics that allow observation and analysis at macro-historical levels (across Transylvania's entire territory), at mezzo-levels (per county) and even at micro-levels (death causes per individual localities) for the period 1901–1910.⁴

For a long time, historians wishing to pursue micro-historical research had to grapple with the fact that until 1895, when civil registration records were introduced, parish registers had been the only sources that had recorded causes of death. A milestone was reached in 2014, when the first database of Transylvania's historical demography was initiated. The Historical Population Database of Transylvania⁵ (hereafter HPDT) now includes a considerable number of vital events originally recorded in parish registers. Data collected from parish death records and registered in the HPDT allow for a more precise quantitative analysis of death rates in Transylvania in the second half of the 19th century and the early 20th century, including violent deaths, which are the focus of the present study.

The study starts with a brief overview of the way in which causes of death were recorded in Transylvania's parish registers before proceeding to a macro-, mezzo-, and micro-historical analysis of violent deaths. More specifically, the data available for micro-level study have allowed for a more thorough analysis of violent deaths and of the circumstances which led individuals to such outcomes in Transylvania between 1850 and 1918.

Parish Registers and the Statistics of Causes of Death

THE CAUSE of death had been entered sporadically in Transylvanian parish registers starting in the 18th and early 19th centuries, but this became a rule when printed forms for registration records were introduced around 1850. These forms included a heading on the “manner/type of death” for all the deceased persons entered therein. The regularity and accuracy of these entries varied from one parish to another, but priests were required to pass on the data to the civil authorities, who centralized the information. This was done chiefly to identify the foci of epidemics⁶, but later also to compile statistics on natural demographic trends and public health.

The printed register forms of Roman-Catholic parishes had rubrics which sometimes included an official classification of causes of death, comprising deaths from disease (common diseases, epidemics, smallpox, rabies) and violent deaths (suicide, accidents, homicide). The causes of death were not always established by experts,⁷ hence we often find under the heading “manner of death”

terms such as fever, coughing, spasms, headaches, etc. In many cases, the entries complied with official classifications and recorded types of deaths as “natural,” “common,” or “ordinary,” meaning that the death was not caused by contagious disease or triggered by external causes.

Violent deaths were highly unusual and were recorded emphatically as unexpected and often shocking events. Often, there were graphic descriptions in the idiom of the region and of the period. For example, this is how the Orthodox parish register described a homicide that took place in the village of Rusu Bârgăului in 1875: “They killed him with an axe to his head, splitting his head open at the top so his brains all spilled out.”³⁸

The publications of the Royal Hungarian Office for Statistics (*Országos Magyar Királyi Statisztikai Hivatal*), set up in Budapest in 1871, included centralized datasets for causes of death. These became increasingly consistent and detailed in the new series of the statistical yearbook, which started in 1894. Moreover, after 1895, when the state took control of civil status records, data on causes of death improved considerably.

The Dynamics of Violent Deaths in Historic Transylvania under the Dual Monarchy

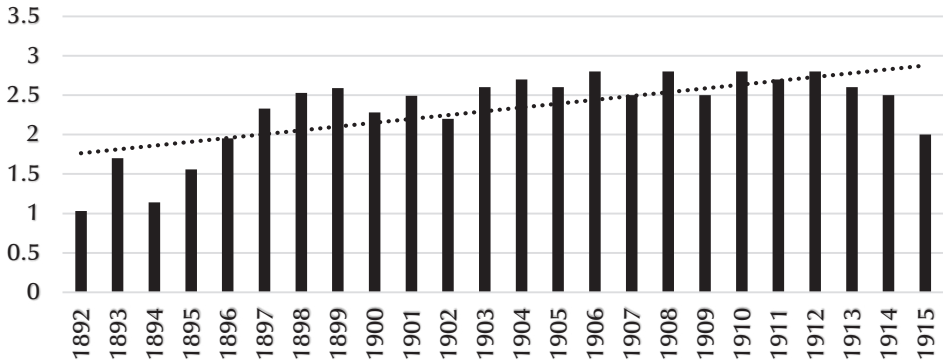
THE FIRST official, centralized statistical survey of violent deaths in Transylvania was compiled for the year 1865 (table 1). An analysis of the percentages of violent deaths by gender shows that the count was higher among men than for women, and almost three quarters of violent deaths were caused by accidents. Unfortunately, the available data do not indicate the socioeconomic status or other characteristics of those who lost their lives from extraordinary causes.

TABLE 1. VIOLENT DEATHS IN HISTORIC TRANSYLVANIA (1865)

	Suicide	Rabies	Accident	Manslaughter	Murder	Death sentence	Unknown violent causes	Total violent deaths	Natural causes of death	All deaths	Violent deaths (%)
Males	83	4	341	28	60	3	49	568	25,919	26,487	2.1
Females	37	1	124	8	3	0	30	203	24,672	24,875	0.8
TOTAL	120	5	465	36	63	3	79	771	50,591	51,362	1.5

SOURCE: *Magyar Statisztikai Évkönyv* (Buda: Országos Magyar Királyi Statisztikai Hivatal, 1872), 44–45.

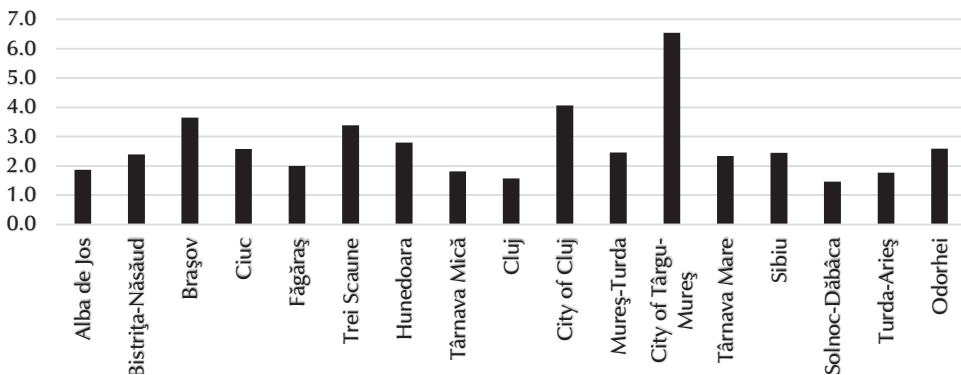
FIG. 1. THE DISTRIBUTION OF VIOLENT DEATHS IN TRANSYLVANIA (1892–1915)



SOURCE: *Magyar Statisztikai Évkönyv*, new ser. (Budapest: Országos Magyar Királyi Statisztikai Hivatal, 1894–1918).

For the 1892–1915 interval, the data available in the *Hungarian Statistical Yearbook* (*Magyar Statisztikai Évkönyv*) present the count of violent deaths by county, but no breakdown by gender or manner of death. The average value across all Transylvanian counties was 2.3 per cent of total deaths; after 1897, the annual figure never went below 2 per cent (fig. 1). Furthermore, the small rise of the count of violent deaths in time was closely linked to the effects of economic development and modernization, which affected Transylvania, too.

FIG. 2. BREAKDOWN OF VIOLENT DEATHS BY COUNTY (1892–1915)



SOURCE: *Magyar Statisztikai Évkönyv*, new ser. (Budapest: Országos Magyar Királyi Statisztikai Hivatal, 1894–1918).

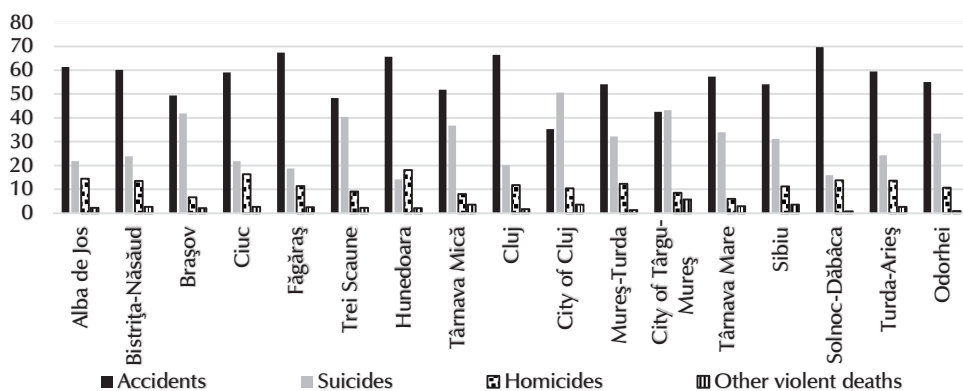
If we consider the distribution of violent deaths by county as well as in the free royal cities Cluj (Kolozsvár, Klausenburg) and Târgu-Mureș (Marosvásárhely, Neumarkt) (fig. 2), we notice that the count was higher in urban areas: the rate

of violent deaths in Târgu-Mureş was 6.5 per cent and in Cluj 4.1 per cent. The higher number of deaths due to external factors in urban agglomerations⁹ is not surprising: urban lifestyles created conditions for higher rates of industrial and road accidents, as well as of criminality and suicides.

Differences in the incidence of violent deaths in different counties are also observable: the rate in Alba de Jos, Făgăraş, Târnava Mică, Cluj, Solnoc-Dăbâca, and Turda-Arieş was under 2 per cent, in Bistriţa-Năsăud, Ciuc, Hunedoara, Mureş-Turda, Târnava Mare, Sibiu, and Odorhei it was between 2 and 3 per cent, in Braşov and Trei Scaune over 3 per cent.

Turning now to the types of violent death in counties and in the two aforementioned free cities in the 1900–1910 interval (fig. 3), it is noteworthy that the rate of suicides was higher than that of deaths in accidents only in the two cities. In the counties, without exception, accidents were predominant. Thus, in Cluj suicides represented 50.6 per cent of all violent deaths, homicides 10.5 per cent, accidents 35.3 per cent, and the rest were violent deaths from unspecified causes. Higher rates of suicide were recorded for Braşov, Trei Scaune, Târnave, Odorhei, and Mureş-Turda. Braşov excepted, all the other counties as well as the two free cities had a sizable Hungarian population: the relevant literature has demonstrated a greater inclination to suicide among members of this community, due to genetic susceptibility, but also due to their higher literacy rates, their urbanite lifestyles, and their Protestant faith.¹⁰ Surprisingly, the highest homicide rates were recorded in the Ciuc and Hunedoara counties rather than in the two cities.¹¹

FIG. 3. BREAKDOWN OF HOMICIDES, SUICIDES, AND ACCIDENTS BY COUNTY (1901–1910)



Source: *A Magyar Szent Korona országainak 1901–1910. évi népmozgalma községeinkint*, Magyar Statisztikai Közlemények, new ser., vol. 46 (Budapest: Magyar Kir. Központi Statisztikai Hivatal, 1913), 671–714.

A Closer Look at Violent Death in Transylvania Data

THE DATA were extracted from the Historical Population Database of Transylvania and were collected from 76 death registers belonging to Orthodox, Greek-Catholic, Reformed, Roman-Catholic, and Israelite communities in 25 localities from 7 counties (Alba, Cluj, Mureș, Sălaj, Harghita, Hunedoara, and Bistrița-Năsăud). In total there were 31,075 deaths over the 1850–1918 interval.

Before being included in the analysis, the information on the casuistry of deaths underwent a series of procedures of standardization. In a first phase, the causes of death were standardized linguistically before being standardized in English and being allocated codes within the ICD-10 system. This system has been used widely in studies of historical demography, but it is a very complex structure comprising 21 categories and an equally detailed and complex taxonomy, which are all better suited to the contemporary realities for which the system was designed. We therefore decided in the second phase to use a more limited system, comprising 8 main categories: (1) infectious diseases, (2) chronic and acute non-infectious diseases, (3) diseases originating in the perinatal period, (4) diseases related to pregnancy, childbirth, and childbed period (5) old age-related diseases, (6) violent deaths, (7) symptoms, signs and abnormal findings, and (8) ill-defined and unknown causes of mortality.¹² We believe that this framework is better suited to our analysis of causes of historic deaths and to the realities of Transylvania in the modern period. Thus, the category of violent deaths, the focus of the present study, includes mainly accidents, suicides, and homicides.

Many violent deaths occurred in occupational contexts such as industrial work, or work in mines and the railway industry, as described in our sources: “killed at the mine”; “killed on the railway”; “crushed by the train.” Other deaths occurred during agricultural or domestic work: “fell off a horse into a ravine”; “died from being hit by a bull”; “from falling down from the hayloft”; “from the axe accidentally cutting [his] leg off”; “from scalding with hot water”; her “chemise caught fire.” Environmental and geographic factors, including the proximity of rivers, were also conducive to accidental deaths, notably by drowning: “drowned in the waters of Mureș River”; “drowned in the waters of Gurghiu”; “drowned in waters at Déésiu.”

Suicides were often recorded in ways which expressed doubts about the sanity of those who had decided to end their own lives: “being insane, he hanged himself at home”; “as if out of her mind she killed herself by hanging.” Homi-

cides were recorded as having occurred either “in war,” “a hero’s death as a prisoner in Russia,” or as penal offences: “beaten to death by her husband”; “stabbed by her husband”; “clubbed to death.”

TABLE 2. BREAKDOWN OF DEATHS BY CATEGORY (1850–1918)

	Cases	%
Infectious diseases	7,967	28.4
Chronic and acute non-infectious diseases	1,857	6.6
Diseases originating in the perinatal period	1,297	4.6
Diseases related to pregnancy, childbirth, and the childbed period	195	0.7
Old age-related diseases	989	3.5
Violent deaths	663	2.4
Symptoms, signs, and abnormal findings	1,738	6.2
Ill-defined and unknown causes of mortality	13,329	47.5
TOTAL	28,035	100.0
Missing causes of death	3,040	10.0
TOTAL CASES	31,075	

SOURCE: HPDT (authors’ calculation).

Table 2 indicates the fact that the percentage of violent deaths in the period from the mid–19th century to the end of WWI was very similar to the realities recorded across all of Transylvania over the 1892–1919 period, when the average for this type of death was 2.3 per cent. Many violent deaths were as the consequence of drowning and of accidents such as burns or falls. Suicides represented a significant proportion (table 3).

TABLE 3. BREAKDOWN OF VIOLENT DEATHS (1850–1918)

	Cases	%
Collision with vehicles	30	4.5
Different types of falls	79	11.9
Burns	82	12.4
Drowning	134	20.2
Suicide	71	10.8
Homicide	68	10.2
Alcoholism	28	4.2
Other accidents	93	14.0
Unspecified accidents	78	11.8
TOTAL	663	100.0

SOURCE: HPDT (authors’ calculation).

Methodology and Variables Used

IN THE following section of the present study, we attempt to present more information about those who met violent deaths. We examined the extent to which gender, ethnicity, civil status, socioeconomic background, and type of residential area had an impact on individuals' decision to end their own lives violently in Transylvania's past. As a methodology we employed the binary logistic regression with the cause of death as dependent variable: this was allocated the value 1 for persons who had a violent death, and 0 for deaths from other causes. Our working sample consisted of 2,059 cases (deaths) for which we had well-defined, specific data. We excluded deaths from ill-defined and unknown causes, as well as missing causes.

VARIABLES

Gender. This variable comprises two main categories: males and females.

Ethnicity. It was only in a small number of cases that the ethnicity of the deceased was recorded in death registers. Consequently, we constructed this variable on the basis of confessional identities. Thus, we decided to classify individuals of the Orthodox and Greek Catholic denomination as Romanians,¹³ whereas Roman Catholics, Calvinists, Unitarians, Lutherans, and Jews were entered separately under 'Others.'

Locality type. The economic profile of the deceased's area of residence was the main criterion for the inclusion of the locality in one of three categories: industrial, agro-industrial, and agricultural. For example, Ocna-Mureș was entered in the category of industrial localities, because it had a long tradition in the extraction of salt: there were major investments in this sector after 1881, which turned Ocna-Mureș into Transylvania's most up-to-date salt mine. A factory producing crystallized and calcined salt opened here in 1896; in 1910 it added caustic soda to the range of its products.¹⁴

In contrast, the 1910 census data for Ocna-Dej indicate that, although over half of those in employment worked in the salt mines, a significant proportion of the population continued to be occupied in agriculture.¹⁵ Likewise, at Războieni the inauguration of the Cluj–Războieni railway line and of the local train station in 1873 gave an opportunity to many residents to seek employment in transport, but even there the majority still worked in agriculture. In the village of Gurghiu there were several factories producing porcelain, cellulose, alcohol, and several sawmills operated on the Gurghiu River, yet a significant proportion of the locals worked in farming. In the village of Glăjărie there was a glazier operating until 1871. When this closed down, some inhabitants continued with their activities at the sawmills, while others specialized in stonecutting, the produc-

tion of coal, and farming.¹⁶ For these reasons, Ocna-Dej, Războieni, Gurghiu, and Glăjărie have been included in the group of localities with an agro-industrial profile. The last category includes localities where residents were primarily engaged in agriculture.¹⁷

Marital status. The three categories in this variable comprise the unmarried, the married and the previously married (widowed and divorced individuals).

Socioeconomic status. The occupations recorded in death registers were first coded according to the Historical International Standard of Classification of Occupations model (HISCO)¹⁸ and thereafter ranked according to the Social Power class scheme (SOCPO).¹⁹ However, we opted for a more restricted variant, comprising only the model's two main categories: Low- and Medium-high levels.²⁰ Thus, the 'Low' category included day laborers, domestic servants, coal miners, millers, railway workers, workers at the soda factory, and beggars. In the Medium-high group we included agriculturalist, carpenters, blacksmiths, shoemakers, tanners, locksmiths, landowners, students, officers, noblemen.

TABLE 4. BREAKDOWN OF DEATHS BY GENDER, ETHNICITY,
LOCALITY TYPE, MARITAL AND SOCIOECONOMIC STATUS (1850–1918)

Cases		Other deaths		Violent deaths		TOTAL	
		Cases	%	Cases	%	Cases	%
Gender	Male	1,408	72.8	115	91.3	1,523	74.0
	Female	525	27.2	11	8.7	536	26.0
Ethnicity	Romanians	1,030	53.3	74	58.7	1,104	53.6
	Others	903	46.7	52	41.3	955	46.4
Locality type	Industrial	384	19.9	22	17.5	406	19.8
	Agro-industrial	981	50.8	35	27.8	1,016	49.3
	Agricultural	568	29.3	69	54.7	637	30.9
Marital status	Unmarried	221	11.4	30	23.9	251	12.2
	Married	1,213	62.8	71	56.3	1,284	62.4
	Previously married	499	25.8	25	19.8	524	25.4
Socioeconomic status	Low	671	34.7	56	44.4	727	35.3
	Medium-high	1,262	65.3	70	55.6	1,332	64.7
	TOTAL	1,933	100.0	126	100.0	2,059	100.0

SOURCE: HPDT (authors' calculation).

Table 4 shows the distribution of events and the variables used in our analysis. What emerges very visibly is the much higher rate of deaths among males. The overall data on all deaths entered so far in the HPDT indicate 51.5 per cent of male deaths against 48.5 per cent of female deaths. In our analysis, this dispro-

portion is primarily due to gaps in data on occupation, which were the basis for the construction of the variable on socioeconomic status, as well as to the fact that women were rarely registered as having had a lucrative occupation. However, even with these discontinuities in the recording of information, the rate of violent deaths among males as higher than among females—a situation that is replicated across all Transylvania for the year 1865 (see table 1).

In terms of ethnic composition, the data included in our analysis are a very close fit to the overall reality across Transylvania between 1850 and 1910, when the proportion of ethnic Romanians was 57 per cent.²¹ With regard to types of locality and their economic profile, the data in the analysis also correspond closely to Transylvania-wide realities: the province had a socio-professional structure that can be described as a transitional (agro-industrial) one, wherein many people continued to earn a living from agriculture despite the fact that Transylvania had made significant progress in industrialization.²² One notable finding shows that nearly 55 per cent of violent deaths occurred in localities with a predominantly agrarian profile. The breakdown by marital status indicates that among those who lost their lives in violent circumstances over 56 per cent had been in a matrimonial partnership. Almost 65 per cent of the deceased had had, at the moment of death, a socioeconomic status subsumable to the 'Medium-high' category.

Results of the Logistic Regression Model

TABLE 5 shows the results of the bivariate logistic regression used for testing the probability of a violent death, with explanatory variables being simultaneously introduced in the analysis. The findings show that women were less likely to die a violent death. In contrast, men were more exposed, due to their greater mobility, as they went to markets or the mill in nearby localities or sought employment across wider areas.²³ In addition, men were more likely to die in accidents because of improper working conditions and mercilessly long hours. For example, in the salt mine of Ocna-Dej around 1850, the working day was 8 hours, from 4 in the morning to 12, on top of which miners had to take part in road repairs and other tasks in the community. The harsh working conditions and inadequate salaries led workers in salt mines at Ocna-Dej, Ocna-Mureș, Praid, and Turda to initiate a number of strikes and protest movements: there were 10 such actions between 1854 and 1856.²⁴ Moreover, the men were conscripted and took part in armed political-military conflicts that exposed them to drinking and made them prone to violent behavior.²⁵

TABLE 5. RESULTS OF THE LOGISTIC REGRESSION MODEL

		Odds Ratio	p value
Gender	Male (ref.)		
	Female	.231	.000***
Ethnicity	Romanians (ref.)		
	Others	.970	.881
Locality type	Industrial (ref.)		
	Agro-industrial	.813	.467
	Agricultural	3.299	.000***
Marital status	Unmarried (ref.)		
	Married	.466	.002**
	Previously married	.514	.024*
Socioeconomic status	Low (ref.)		
	Medium-high	.610	.015*
Nagelkerke R Square 0.111			
Cox and Snell R Square 0.041			
-2 Log likelihood 861.968			

SOURCE: HPDT (authors' calculation).

***. $p < 0.001$.

** . $p < 0.01$.

*. $p < 0.05$.

When considering ethnic affiliation, the model used in our analysis did not indicate any difference between Romanian individuals who met a violent death and the members of other ethnic groups.

Locality type played an important role in the occurrence of a violent death: the analysis suggests that individuals living in a locality with an agricultural profile were 3 times more likely to meet this kind of death compared to those from industrial milieus. In fact, a closer look at the typology of violent deaths by area indicates that most deaths in this category occurred in agrarian regions (table 6). There was an important proportion of death through drowning: these occurred in predominantly agricultural regions, where the proximity of a river had a major impact on chances of survival. Burns were also major causes of death: fires were quite frequent in Transylvania and the press often reported on such events and the loss of lives and material damage they caused.²⁶ Other causes of death in agricultural areas were falls (“fell off a pear tree,” “fell off an oak tree,” “fell down from a hayloft,” “slipped off a fence”) and injuries sustained from falling objects (“hit by a piece of timber in the forest,” “crushed by a piece of wood,” “crushed by a tree”)²⁷.

TABLE 6. TYPES OF VIOLENT DEATHS ACCORDING TO LOCALITY TYPE, 1850–1918

	Industrial		Agro-industrial		Agricultural		TOTAL	
	Cases	%	Cases	%	Cases	%	Cases	%
Collision with vehicles	3	0.5	7	1.1	20	3.0	30	4.5
Different types of falls	15	2.3	23	3.5	41	6.2	79	11.9
Burns	13	2.0	27	4.1	42	6.3	82	12.4
Drowning	21	3.2	33	5.0	80	12.1	134	20.2
Suicide	19	2.9	25	3.8	27	4.1	71	10.7
Homicide	11	1.7	13	2.0	44	6.6	68	10.3
Alcoholism	6	0.9	7	1.1	15	2.3	28	4.2
Other accidents	20	3.0	29	4.4	44	6.6	93	14.0
Unspecified	4	0.6	34	5.1	40	6.0	78	11.8
TOTAL	112	16.9	198	29.9	353	53.2	663	100.0

SOURCE: HPDT (authors' calculation).

The probability of an accident being lower in an industrial area can be explained by the fact that the locality we included in this category benefitted—especially after 1881—from many legislative initiatives meant to support industry, as well as from considerable investment in technology and in the modernization of the local mine (table 5). Thus, for example, massive investment in equipment operated by steam, gas, or electric engines transformed mining at Ocna-Mureș, turning it into the most modern salt mining enterprise in Transylvania: its 3 steam engines of 106 horsepower each, its 2 gas engines of 300 horsepower each, and 20 electrical engines of 377 horsepower made it the second largest salt mine in the Kingdom of Hungary.²⁸ Until 1872 in galleries at this mine the exploitation of the salt was performed with rudimentary installations powered by horses, which lifted the blocks of salt to the surface. After that date steam, and even electrical, machinery was acquired for the mine.²⁹ Presumably, the modernization of the establishment and the ensuing improvement of working conditions reduced the probability of accidents.

When the analysis turned to the impact of marital status on the probability of individuals dying a violent death, the findings showed that, compared to the unmarried, individuals in marital unions and those previously married (widowed or divorced) were less likely to die from violent causes (table 5). It would appear that, in this case too, marriage had a protective effect, and this was because the marriage market was very selective and eliminated those with questionable habits, such as alcoholism or mental conditions, who were more exposed to the risk of violent death. For the same reason, persons who had been married previously, especially widows, and who lived on in the same household with their married

sons/daughters, were provided with a measure of safety and some protection against various risks, including violent death.³⁰

In terms of socioeconomic status, it was noted that those in the middle and high ranks were less likely to die violently than those in low-level categories (table 5). Therefore, status inequalities also had an impact on those with limited resources, making them more vulnerable to the risk of violent death as a result of changes in agricultural practices and industrialization.

Many of the poorer Transylvanian peasants were compelled to migrate towards industrial establishments: most became day laborers and performed hard jobs that exposed them to further risks of violent death. Many were victims of railway accidents or in salt mines, as the patterns of modernization were different even in localities with similar economic profiles. Whereas Ocna-Mureș fully benefitted from the effects of investment and improved technology, a locality such as Ocna-Dej started modernizing only after 1910, when electrification was introduced in the mine.³¹

Conclusions and Discussion

VIOLENT DEATHS have been, and still are, ubiquitous events. They are especially difficult to investigate and quantify for periods in the past. Our research on violent death in Transylvania has shown that the main challenges to the historian are the gaps in sources and the lack of a centralized repository of relevant data. Nevertheless, such difficulties are not insurmountable, and the present study outlines the preliminary results of an investigation of violent deaths carried out at macro-, mezzo-, and micro-level.

The available data suggest that, across all of Transylvania, the rate of violent deaths increased throughout the 19th century and until the early 20th century. However, there were uneven patterns at county level. For example, in places such as Alba de Jos, Făgăraș, Târnava Mică, Cluj, Solnoc-Dăbâca, and Turda-Arieș the rate of violent deaths remained under 2 per cent, in Bistrița-Năsăud, Ciuc, Hunedoara, Mureș-Turda, Târnava Mare, Sibiu, and Odorhei the percentage was 2–3 per cent, and in Brașov and Trei Scaune over 3 per cent. On the other hand, the incidence of violent death was higher in the free cities Cluj and Târgu-Mureș, where percentages were 4.1 per cent and 6.5 per cent, respectively.

The few available data at micro-level have shown that for the first decade of the 20th century, the highest rate of violent deaths across Transylvanian counties was due to accidents, followed by suicides. However, there was an inverse situ-

ation in the cities of Cluj and Târgu-Mureş. The data extracted from the publications of the Royal Hungarian Office for Statistics (*Országos Magyar Királyi Statisztikai Hivatal*) have not yielded much information on the personal circumstances of those who met violent deaths. This was to some extent compensated for by data from the HPDT. Thus, for the period 1850 to 1918, data show that men were more prone to violent deaths than women, as they were more likely to lose their lives in accidents, conflicts, or as a consequence of abuse. Likewise, individuals in matrimonial unions, but also those previously married, enjoyed a measure of protection against violent death. Socioeconomic status was also important: individuals on lower levels were found to be more exposed to the risk of violent death.

Our analysis was based chiefly on individual factors (gender, ethnicity, socioeconomic status), but also considered contextual factors related to the locales where the individuals lived. Locality type has shown that those in agricultural localities were much more likely to die a violent death, whereas higher levels of development and investment had a positive impact on workers' protection. We therefore suggest that this latter factor deserves further study: future explorations might consider the interaction between locality type and other variables and might provide further insights on violent death among the population in Transylvania's past.



Notes

1. Across the European Union the rate of deaths from external causes was 4.6 per cent in 2016 and in Romania 3.8 per cent, a value that remained stable until 2018. <http://statisztikak.erdelystat.ro/cikkek/halalozasok-es-halalokok-erdelyben-2012-2018/59>, accessed 28 Jan. 2021.
2. In the period 2015–2017, Romania had an annual average of 2,375 suicides, a rate of 12.1 per 100,000 inhabitants; the annual average of deaths from road injuries was 2,038, i.e., 10.3 per 100,000 inhabitants; murders averaged at 337, a rate of 1.7 per 100,000 inhabitants. *Ibid.*
3. In Transylvania suicides stood at 13.1, traffic casualties at 10.7, and homicide victims at 1.2 per 100,000, the latter value being slightly lower than for the rest of Romania. *Ibid.*
4. *A Magyar Szent Korona országainak 1901–1910. évi népmozgalma községenkint*, Magyar Statisztikai Közlemények, new ser., vol. 46 (Budapest: Magyar Kir. Központi Statisztikai Hivatal, 1913), 671–714.
5. Ioan Bolovan, Bogdan Crăciun, Diana Covaci, Luminița Dumănescu, Elena-Crinela Holom, Daniela Mârza, and Angela-Cristina Lumezeanu, “Historical Population

Database of Transylvania, A Database Manual,” *Studia Universitatis Babeş-Bolyai: Digitalia* 64, 1 (2019): 9–84; Angela Lumezeanu, “Insight into Designing and Building a Historical Population Database,” *Romanian Journal of Population Studies* 12, 2 (2018): 77–98.

6. For example, ordinance no. 5669 of 1854 required that offprints from death registers be sent to the local district court at the end of each month. Cluj County Directorate of National Archives (hereafter cited as DJCJAN), Registre parohiale coll., 177/10, fol. 44.
7. Law XIV of 1876 and the ordinance of the Interior Ministry on its application established in principle that only an expert (a doctor or a so-called “death inspector”—who was not medically trained) should be authorized to register a death. However, even after that date, parish registers still used vague, or ill-defined, vocabulary for describing symptoms or the duration of an illness, which shows that local communities still lacked trained personnel in sufficient numbers. For further information on the registration of causes of death in Hungary, see György Tóth, “Halottkémlés hazánkban a XIX.–XX. században,” *Hadmérnök* 12, 3 (2017): 306–311.
8. HPDT.
9. Cluj and Târgu-Mureş were well below the size of the large towns and cities of Western Europe, as well as below Budapest: in 1900 the population of Cluj was slightly above 50,000 and Târgu-Mureş had around 20,000 inhabitants. And yet even in these smaller urban agglomerations the frequency of deaths from external causes was noticeably high. See Traian Rotariu, ed., *Recensământul din 1900: Transilvania* (Bucharest: Staff, 1999).
10. For a comprehensive analysis of suicide in the Hungarian Kingdom, including historic Transylvania, see Lajos Bálint, “Suicide in the Hungarian Kingdom,” *Working Papers on Population, Family and Welfare* 25, Hungarian Demographic Research Institute (Budapest, 2016). The author uses a quantitative approach in an attempt to check whether Durkheim’s theories on suicide (selfish suicide, anomie) may be applied to the Hungarian Kingdom, but also taking into account ethnolinguistic and spatial criteria in understanding this phenomenon. For aspects related to suicide in Transylvania, see also Marius Rotar, “La limită sau moartea care iese din schemă: Sinuciderea în Transilvania în a doua jumătate a secolului al XIX-lea,” *Caiete de antropologie istorică* 3, 1–2/5–6 (2004): 159–202.
11. The link between higher literacy levels in urban areas and the incidence of suicide and homicide has been investigated by A. R. Gillis in “Literacy and the Civilization of Violence in 19th-Century France,” *Sociological Forum* 9, 3 (1994): 371–401. The conclusion of this study is that higher literacy leads to an increase in suicides and a decrease in rates of homicide but cannot repress violence per se.
12. Elena Crinela Holom and Nicoleta Hegedűs, “From ICD-10 to a New Nosological Classification of Causes of Death in Transylvania, 1850 and 1920,” Local Population Studies Society Spring Conference 2021, Local Population Studies Society and the Southampton Centre for Nineteenth-Century Studies, University of Southampton (17 April 2021).

13. Sorina Paula Bolovan and Ioan Bolovan, “Căsătoriile mixte în Transilvania la sfârșitul epocii moderne: Considerații demografice,” in *Căsătoriile mixte în Transilvania: Secolul al XIX-lea și începutul secolului XX*, edited by Corneliu Pădurean and Ioan Bolovan (Arad: Ed. Universității “Aurel Vlaicu,” 2005), 99-100; Elena Crinela Holom, *Individ, familie, comunitate: Comportament demografic, relații familiale interetnice și interconfesionale în satele din trecutul Albei (1850–1910)* (Cluj-Napoca: Mega, 2009), 92–93; Bogdan Crăciun, Daniela Mârza, and Mihaela Hărăguș, “Divorces in a Multiethnic and Multiconfessional Environment: A Case Study on the Transylvania in the 20th Century,” *Revista de historiografia* 26 (2017): 244.
14. Elena Crinela Holom, Oana Sorescu-Iudean, and Mihaela Hărăguș, “Beyond the Visible Pattern: Historical Particularities, Development, and Age at First Marriage in Transylvania, 1850–1914,” *History of the Family* 23, 2 (2018): 340; Elena Crinela Holom, Mihaela Hărăguș, and Ioan Bolovan, “Socioeconomic and Marital-Status Inequalities in Longevity: Adult Mortality in Transylvania, 1850–1914,” *Journal of Interdisciplinary History* 51, 4 (2021): 544.
15. Traian Rotariu, ed., *Recensământul din 1910: Transilvania*, vol. 2, *Populația după ocupații* (Cluj-Napoca: Presa Universitară Clujeană, 2006), 240–241.
16. Holom, Sorescu-Iudean, and Hărăguș, 342–343.
17. We are talking about Bucium-Cerbu, Bunești, Călărași, Cașva, Chileni, Uioara de Jos, Decea, Hodac, Ibănești, Liviu Rebreanu, Lunca Mureșului, Moldovenești, Muntele Rece, Nușfalău, Orman, Orșova, Rusu Bârgăului, Solovăstru, Spini and Voșlăbeni.
18. Marco van Leeuwen, Ineke Maas, and Andrew Miles, *HISCO: Historical International Standard Classification of Occupations* (Leuven: Leuven University Press, 2002).
19. Bart Van de Putte and Andrew Miles, “A Social Classification Scheme for Historical Occupational Data: Partner Selection and Industrialism in Belgium and England, 1800–1918,” *Historical Methods* 38, 2 (2005): 61–92.
20. Luciana Quaranta, “Scarred for Life: How Conditions in Early Life Affect Socio-economic Status, Reproduction and Mortality in Southern Sweden, 1813–1968,” *Lund Studies in Economic History* 59 (Lund: Lund University Media-Tryck, 2013), 97–98.
21. Ioan Bolovan, *Transilvania între Revoluția de la 1848 și Unirea din 1918: Contribuții demografice* (Cluj-Napoca: Fundația Culturală Română, Centrul de Studii Transilvane, 2000), 233.
22. *Ibid.*, 235.
23. *Ibid.*, 153.
24. Simona Cristina Albinetz, *Ocna-Dej: Studiu monografic* (Târgu-Lăpuș: Galaxia Gutenberg, 2010), 189–190.
25. Bolovan, 153.
26. *Ibid.*, 48.
27. HPDT.
28. Robert Nagy, *Capitalul—forță a transformării: Rolul capitalului german în industrializarea Transilvaniei (1880–1918)* (Cluj-Napoca: Presa Universitară Clujeană, 2011), 115.

29. Nicolae Dobra, *Oraşul Ocna-Mureş în documente, legende și amintiri: Monografie* (Cluj-Napoca: Napoca Star, 2007), 138.
30. Holom, Hărăguș, and Bolovan, 553.
31. Albinetz, 194.

Abstract

A Quantitative Perspective on Violent Deaths in Transylvania
between the Mid-19th Century and the End of the First World War:
Tentative Findings

This study presents the preliminary outcomes in the investigation of violent deaths in Transylvania from 1850 to 1918. The analysis was carried out on the threefold levels of macro-, mezzo-, and micro-historical investigation. The data on deaths due to external factors extracted from the Historical Population Database of Transylvania (HPDT) allowed for a more thorough analysis of the phenomenon. The variables used—some related to the individuals, such as gender, ethnicity, marital status, and socioeconomic level—but also contextual variables such a locality type, have revealed differences in the probability of violent death among the past population of Transylvania.

Keywords

Transylvania, HPDT, 1850–1918, causes of deaths, violent deaths, accidents, economic development