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Death of the Magnate: Life Expectancy of the Magnaterii in the Polish-Lithuanian Commonwealth Versus the Demography of the Western European Elites in the Early Modern Age*

Śmierć magnata. Oczekiwana długość życia magnaterii w Rzeczypospolitej Obojga Narodów a demografia elit zachodnioeuropejskich w epoce wczesnonowoczesnej

Abstract

The aim of the article is to present life expectancy calculations for magnates, the elite of the nobility (but not an exact equivalent of European aristocracy) from the Polish-Lithuanian Commonwealth in the 16th–18th centuries (life tables for women and men). The paper also contains a comparison with the results previously obtained for Western European aristocracy. The author tried to verify if there were

Abstrakt

Celem artykułu jest zaprezentowanie obliczeń oczekiwanej długości życia magnaterii – elity stanu szlacheckiego Rzeczypospolitej Obojga Narodów w XVI–XVIII wieku (skonstruowano tablice trwania życia dla kobiet i mężczyzn na podstawie bazy danych uwzględniającej informacje genealogiczne odnośnie do 8 rodów koronnych i 9 litewskich). Zamieszczono w nim też porównanie uzyskanych

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differences in life expectancy between men and women from two parts of the Commonwealth: The Kingdom of Poland and the Grand Duchy of Lithuania. Because only a small amount of data was collected, 95% confidence intervals were calculated from the sample. The calculations were based on genealogical data collected for 8 families from the Kingdom of Poland and 9 Lithuanian families.

Keywords

life expectancy, life tables, aristocracy, magnaters, elites, the Polish-Lithuanian Commonwealth

wyników z wartością oczekiwaną długości życia wyliczonej wcześniej dla arystokracji zachodnioeuropejskiej. Dokonano również próby sprawdzenia, czy zachodziły różnice między oczekiwaną długością życia magnatów i magnatów z obu części Rzeczypospolitej: Korony i Wielkiego Księstwa Litewskiego. Ze względu na niewielką liczbę przypadków, na podstawie których dokonano kalkulacji, obliczono też 95% przedziały ufności.

Słowa kluczowe

oczekiwana długość życia, tablice trwania życia, arystokracja, magnateria, elity, Rzeczpospolita Obojga Narodów

Introduction

There is nothing in the world more certain than death, but a man is not sure when his time will come. People pass away from this world: some in old age, some in middle age, some at an immature age; and many of them barely see the light of the sun and at a very young age, for various reasons, they are called upon by God. And this happened with my beloved children, who were a gift from God, and then, much to my great regret, He took them away. Because of that, we have experienced more sorrow from having our children than joy.

The last will of Jerzy Radziwiłł, castellan of Troki (1578–1613).¹

Life expectancy is one of the demographic parameters closely related to the biological standard of living of individuals and social groups.² Unfortunately,

¹ The last will published by Urszula Augustyniak, *Testamenty ewangelików reformowanych w Wielkim Księstwie Litewskim w XVI–XVIII wieku* (Warszawa: Semper, 2014): 140–148.

² *The Decline of Infant Mortality in Europe 1800–1950. Four National Case Studies*, ed. C.A. Corsini and P.P. Viazzo (Florence: Unicef, 1993); Paul Huck, “Infant Mortality and Living Standards of English Workers During the Industrial Revolution,” *Journal Of Economic History* 55, no. 3 (1995): 528–550; Simon Szreter, Graham Mooney, “Urbanization, Mortality, and the Standard of Living Debate: New Estimates of the Expectation of Life at Birth in Nineteenth-Century British Cities,” *Economic History Review* 51, no. 1 (1998): 84–112; Richard U. Steckel, “Biological Measures of the Standard of Living,” *Journal of Economic Perspectives* 22, no. 1 (2008): 129–152; Jan Luiten Van Zanden et al., *How was life? Global Well-Being since 1820* (OECD publishing,

systematic studies on life expectancy in the Polish-Lithuanian Commonwealth in the 16th–18th centuries, have, so far, been concentrated on lower estates, especially peasants.³ This was determined, foremost, by the availability of the statistical material – mainly in the form of parish registers and census-like sources.⁴ In terms of the social elite of the Kingdom of Poland and the Grand Duchy of Lithuania, the matter was barely broached, although some research was done during the interwar period. According to Tadeusz Furtak, in the 16th century, average age at death was 59, in the 17th century 58.9, and in the 18th century 61.8,⁵ but his studies were carried out for the nobility and magnatery together, were based on heraldic material of different substantive value and covered a small number of cases. Such an approach means that these calculations are wholly inadequate for any comparison with the aristocratic elites of European countries. The same comments can apply to Egon Vielrose's research. He calculated the average life expectancy to be 50. In the 16th century it was 18.1 years (102 observations), in the 17th century, 19.4 years (but only on the basis of 70 observations), and in the 18th century, 19.6 years (210 observations). As the author himself noted, these numbers are, however, too high for the entire nobility.⁶

An interesting polemic, well known in Polish historiography, on the biological condition of the Polish-Lithuanian magnatery from the 16th–18th centuries, emerged at the turn of the 1960s and 1970s. It began with an article by Zbigniew Kuchowicz, who referred to the degeneration of the particular magnate houses by the end of the 18th century.⁷ In response to this article, Emanuel Rostworowski calculated the average age of death for adults at the time of death based on the

2014); Richard A. Easterlin, "The Worldwide Standard of Living since 1800," *Journal of Economic Perspectives* 14, no. 1 (2000): 7–26.

³ Regarding other social groups or other centuries, it is necessary to mention E. Piasecki's and M. Kędelski's works: Edmund Piasecki, "Próba sporządzenia okresowych tablic życia na podstawie ksiąg ruchu naturalnego w XVIII–XX w.," *Przeszłość Demograficzna Polski* 16 (1985): 139–151; Piasecki, *Ludność parafii bejskiej (woj. kieleckie) w świetle ksiąg metrykalnych z XVIII–XX w. Studium demograficzne*, Wrocław–Warszawa: PWN, 1990), 281–304; Mieczysław Kędelski, "Piramida wieku i tablice trwania życia ludności Śląska w 1864 roku," *Przeszłość Demograficzna Polski* 20 (1997): 49–71; Kędelski, "Ewolucja umieralności i trwania życia ludności miasta Poznania w wiekach XIX i XX," *Studia Demograficzne* 83 (1986): 3–26; Kędelski, "Umieralność i trwanie życia w Wielkopolsce w latach 1816–1875," *Przeszłość Demograficzna Polski* 16 (1985): 109–138; Kędelski, *Umieralność i trwanie życia ludności Wielkopolski w XIX wieku* (Poznań: Akademia Ekonomiczna w Poznaniu, 1996).

⁴ Mikołaj Sołtysek, *Rethinking East-Central Europe: Family Systems and Co-Residence in the Polish-Lithuanian Commonwealth* (Bern: Peter Lang, 2015): 245–265.

⁵ Tadeusz Furtak, "Kilka zagadnień z demografii historycznej szlachty polskiej," *Roczniki Dziejów Społecznych i Gospodarczych* 4 (1937): 41.

⁶ Egon Vielrose, "Przyczynek do demografii szlachty polskiej," *Przegląd Statystyczny* 1 (1938): 333.

⁷ Zbigniew Kuchowicz, "Społeczne konsekwencje postępującej degeneracji możnowładztwa polskiego w XVII–XVIII w.," *Kwartalnik Historyczny* 76, no. 1 (1969): 21–43; Kuchowicz,

lifespan of secular and clergy senators in the 16th–18th centuries.⁸ In the first half of the 16th century this came to 52 years, while in the 18th century the average age was approaching 58 years! The author of the article used these results as evidence of the good state of health of Polish magnates. However, from the point of view of demographic analysis, calculating the average age at death does not tell us much about the standard of living or the level of health of the population. Unfortunately, neither Kuchowicz nor Rostworowski calculated life expectancy at the moment of birth (e_0 – very difficult to obtain, as we write below), nor life expectancy at, e.g., the ages of 20 or 50.

The age of adults at the time of death was also discussed in works on other, non-demographic issues⁹ and articles of a demographic nature, but not directly related to life expectancy.¹⁰ However, research into life expectancy began to be carried out on the Western European aristocracy some decades ago. The topic emerged as an object of research interest for several acclaimed historical demographers such as Sigismund Peller,¹¹ Thomas H. Hollingsworth,¹² Louis Henry,

“Jeszcze o zdrowiu i niezdroziu magnatów XVII–XVIII w.,” *Kwartalnik Historyczny* 77, no. 2 (1970): 394–403.

⁸ Emanuel Rostworowski, “Zdrowie i niezdrozie polskich magnatów XVI–XVIII wieku,” *Kwartalnik Historyczny* 76, no. 4 (1969): 865–886.

⁹ Anna Lesiak, *Kobiety z rodu Radziwiłłów w świetle inwentarzy i testamentów (XVI–XVIII w.)* in *Administracja i życie codzienne w dobrach Radziwiłłów XVI–XVIII wieku*, “Fasciculi Historici Novi,” vol. IX, ed. Urszula Augustyniak (Warszawa: Wydawnictwo DiG, 2009): 119–130; Raimonda Ragauskienė, *Mirties nugalėti nepavyko: Biržų ir Dubingių Kunigaikščių Radvilų biologinė istorija (XV a. pabaiga–XVII a.)*, (Vilnius: Lietuvos edukologijos universiteto leidykla, 2017) (concerns the Calvinist side of the Radziwiłł family).

¹⁰ Marzena Liedke, “Śmierć magnata, czyli co liczby mogą powiedzieć o konsekwencji śmierci mężczyzny w rodzinie magnackiej w Wielkim Księstwie Litewskim w XVI–XVIII w.,” *Kwartalnik Historii Kultury Materialnej* 60, no. 2 (2012): 271–282 (Radziwiłłs, Ogińskis, Chodkiewicz).

¹¹ For articles on mortality and fertility among the members of ruling houses in Europe, see Sigismund Peller, “Studies on Mortality since the Renaissance,” *Bulletin of the History of Medicine* part 1: 13 (1943): 422–461, part 2: 16 (1944): 362–281; Peller, “Mortality, Past and Future,” *Population Studies* 1, no. 4 (1948); Peller, “Births and Deaths among Europe’s Ruling Families since 1500,” in *Population in History. Essays in Historical Demography*, eds. David V. Glass and David E.C. Eversley (London: E. Arnold, 1965), 87–101.

¹² Publications of Thomas H. Hollingsworth on the demography of British dukes and the whole peerage (e.g., infant mortality and life expectancy in particular age cohorts of men and women): Thomas Henry Hollingsworth, “A Demographic Study of the British Ducal Families,” *Population Studies* 2, no. 1 (1957): 4–26 (hereafter: *A Demographic Study of the British Ducal Families* (1)) and reprint in: Hollingsworth, *Population in History: Essays in Historical Demography*, London: E. Arnold, 1965): 354–378; Hollingsworth, “The Demography of the British Peerage,” *Population Studies* 18, no. 2 (1964) (Supplement): 1–108; Hollingsworth, “Mortality in the British Peerage Families since 1600,” *Population* 32, no. 1 (1977): 323–352.

Claude Levy,¹³ and, recently, Paul A. David, S. Ryan Johansson, Andrea Pozzi,¹⁴ Neil Cummins¹⁵ and, in relation to the life expectancy of members of the Austrian Academy of Sciences, Gustav Feichtinger, Maria Winkler-Dworak, Inga Freund and Alexia Prskawetz.¹⁶

Aims of the Article, Terminology, Sources and Methods

As I was aware of the existence of a serious research gap in Polish historiography (but also in Lithuanian, Belarussian or Ukrainian), in 2015, 2016 and 2019¹⁷, I calculated the life expectancy of magnates (e18, e20, e50). In this article, I have taken my research further by preparing “life tables” (from e20). I also compared the results of my research with the results obtained for the Western European aristocracy.

At this point, it should be noted that the magnatery was not an exact equivalent to the European aristocracy.¹⁸ Most of its members did not use aristocratic titles. The “Magnatery” consisted of lords who had entered the political elite by the ruler’s decision, descendants of ancient genuine *knyazes* of various origins (in the Grand Duchy of Lithuania) and magnates who did use aristocratic titles but had obtained them from foreign monarchs. Thus, people who had been politically promoted from the middle nobility quite frequently became members of this group. They received high offices and land grants. Therefore, they did not have

¹³ Article characterizing demographically the stratum of French dukes and peers (e.g., mortality among men and women, life expectancy of people of a certain age): Louis Henry, Claude Levy, “Ducs et pairs sous l’ancien régime: Caractéristiques démographiques d’une caste,” *Population* 15 (1960): 807–830.

¹⁴ Studies referring to the life expectancy of the members of the British ruling families: Paul A. David, S. Ryan Johansson, Andrea Pozzi, “The Demography of an Early Mortality Transition: Life Expectancy, Survival and Mortality Rates for Britain’s Royals, 1500–1799,” *University of Oxford Discussion Papers in Economic and Social History* 83 (2010): 1–59.

¹⁵ Studies raising the problem of life expectancy in the European elites: Neil Cummins, “Lifespans of the European Elite, 800–1800,” *The Journal of Economic History* 77, no. 2 (2017): 406–439.

¹⁶ Gustav Feichtinger, et al., “On the Age Dynamics of Learned Societies – Taking the Example of the Austrian Academy of Sciences,” *Vienna Yearbook of Population Research*, Vienna Institute of Demography, Austrian Academy of Sciences (2007): 107–131.

¹⁷ Marzena Liedke, “Demografia rodziny magnackiej w Wielkim Księstwie Litewskim na tle elit zachodnioeuropejskich. Wybrane problemy,” *Przeszłość Demograficzna Polski* 37, no. 1 (2015): 37–70; Liedke, *Rodzina magnacka w Wielkim Księstwie Litewskim. Studium demograficzno-społeczne* (Białystok: Instytut Badań nad Dziedzictwem Kulturowym Europy, 2016); Liedke, “Rodzina magnacka” in *Rodzina i jej gospodarstwo na ziemiach polskich w geografii europejskich struktur rodzinnych do połowy XIX wieku*, eds. P. Guzowski and C. Kuklo (Białystok: Instytut Badań nad Dziedzictwem Kulturowym Europy, 2019), 173–218.

¹⁸ See for example: Jerzy Lukowski, *The European Nobility in the Eighteenth Century* (New York: Palgrave Macmillan, 2003).

to be born into this group, as was usual for aristocrats,¹⁹ at least at the beginning of their lives, e.g., their biological condition could have been different, referring to the condition of the middle nobility.²⁰

The magnatery was an informal social group which, nonetheless, had the most important impact on the home and foreign policies of the state, and this social group was, formally, part of a numerous nobility (6–7% of society) – politically, magnates had the same rights and privileges as common nobles, but it was mainly their representatives that held the highest positions in the state and were members of the Senate (the higher chamber of the parliament of the Polish-Lithuanian Commonwealth). Their lifestyle was also different from that of nobles. In accordance with the informal name of the group (derived from Latin “magnus”), they were also the economically best-off part of society. Therefore, I have to analyze this group separately from the nobility.

The calculation of the life expectancy parameter values was made on the basis of genealogical facts, such as the birth and death dates of the members of families such as (in the Polish Kingdom): the Leszczyńskis, Opalińskis, Ossolińskis, Ostrogskis/Zasławskis, Lubomirskis, Branickis, Sieniawskis, Zborowskis and (in the Grand Duchy of Lithuania): the Radziwiłłs, Chodkiewiczzes, Paces, Ogińskis, Kiszkas, Pocięjs, Hlebowiczzes, Tyszkiewiczzes, Sapiehases (the number of cases: over 365 adult men and 173 adult women; extreme dates of birth for the cohort are, in the case of men: 1457–1800 and women: 1499–1796). The information was scattered over many publications and archival sources. They were acquired foremost from genealogical works and published materials referring to particular families, biographies of particular people, and also biographies published in the *Polski słownik biograficzny* (Polish Biographical Dictionary), monographs of families, articles dedicated to these families and their members, as well as already-published sources, such as wills, letters and memoirs. Certain data were complemented or corrected as a result of archive query.²¹

¹⁹ Usual, because aristocratic titles could also be obtained.

²⁰ The biological condition of the middle nobility is considered to be the best among all the social groups of the Polish-Lithuanian Commonwealth – see Zbigniew Kuchowicz, *O biologiczny wymiar historii* (Łódź: Łódzkie Towarzystwo Naukowe, 1972), 112+.

²¹ Foremost: Central Archives of Historical Records in Warsaw (including the Archive of the Radziwiłłs, dz. IV, V, XI), National Archive in Krakow (including the Młynowskie Archive of the Chodkiewiczzes), the Lithuanian State Historical Archive in Vilnius (e.g. fond 1177, description 1 referring to the Ogińskis); genealogical works: W. Dworzaczek, *Genealogia*, vol. 2 (tables), (Warszawa 1959); Józef Wolff, *Kniazowie litewsko-ruscy od końca XIV w.* (Warszawa, 1895); Józef Wolff, *Pacowie. Materyjały historyczno-genealogiczne*, St. Petersburg 1885; *Sapiehowie. Materiały historyczno-genealogiczne i majątkowe. Wydane nakładem rodziny*, eds. K. Ożarowski and B. Gorczak, vols. 1–3, St. Petersburg 1890–1894; Stanisław Mackiewicz, *Dom Radziwiłłów*, Warszawa 1990; *Materyjały historyczno-genealogiczne do monografii domu Tyszkiewiczów*, ed. M. Tyszkiewicz, vol. 1: wieki XV i XVI (1413–1599), Warszawa 1911; biographies (e. g.)

Unfortunately, it was not possible to collect the relevant data on all the family members.²² Due to incomplete data regarding children born and those who never reached adulthood, as well as the low number of documented cases of a magnate's birth and death date, it was difficult to calculate the life expectancy at the moment of birth. We have well-documented data for very few families. The example of the Radziwiłłs shows how important they are. In the case of this family, almost half the offspring did not reach adulthood (Table 1).

Table 1. Children born and children who survived to adulthood
(the case of the Radziwiłłs)

Marriages	Specification	Children born	Children surviving to adulthood
First	Total	115.0	63.0
	On average per marriage	5.4	3.0
	Sons	64.0	32.0
	Daughters	51.0	31.0
Subsequent	Total	14.0	7.0
	On average, per marriage	4.7	2.3
	Sons	6.0	2.0
	Daughters	8.0	5.0
Total		129.0	70.0

Source: Marzena Liedke, database.

Henryk Wisner, *Janusz Radziwiłł 1612–1655*, Warszawa 2000; Tomasz Kempa, *Mikołaj Krzysztof Radziwiłł Sierotka (1549–1616). Wojewoda wileński*, Warszawa 2000; Marek Ferenc, *Mikołaj Radziwiłł Rudy (ok. 1515–1584). Działalność polityczna i wojskowa*, Kraków 2008; memoirs (including) *Genealogia imienia naszego [Genealogia Imienia Pocięjów] wypisana z Manuskryptów Jaśnie Wielmożnego Pana Ludwika Kon: na Włodawie i Rożanie Pocięja Wojewody Wileńskiego Hetmana Wgo Xa Litewskiego, Szerszowskeigo, Puńskiego, Ratyńskiego, Stolińskiego etc. Starosty*, "Przegląd Poznański" 30, 1860, 210–228; Albrycht Stanisław Radziwiłł, *Pamiętnik o dziejach w Polsce* vol. 1 (1632–1636), vol. 2 (1637–1646), vol. 3 (1647–1656), published by A. Przyboś, R. Żelewski, Warszawa 1980; B. Radziwiłł, *Autobiografia*, ed. T. Wasilewski, Warszawa 1979; *Hieronima Floriana Radziwiłła Diariusze i pisma różne*, ed. and introduced by M. Brzezina, Warszawa 1998; Marcin Matuszewicz, *Diariusz życia mego*, ed. B. Królikowski, vol. 1 (1714–1757), Warszawa 1986; Marcin Matuszewicz, *Diariusz życia mego*, vol. 2, ed. B. Królikowski (1758–1764), Warszawa 1986 and, e.g., unpublished, Michał Kazimierz, Radziwiłł's diary (Archiwum Główne Akt Dawnych w Warszawie, Archiwum Radziwiłłów, dział VI, sygn. II–80 a). For a list of literature and manuscript sources see also: Marzena Liedke, "Demografia rodziny magnackiej," 41–42.

²² Such difficulties refer not only to Polish and Lithuanian works, but also those from Western Europe. S. Peller, dealing with the demography of European reigning families, also indicated incompleteness in the data; for instance, in the 16th century, in the genealogical tables of the family of Isenburg, the information on the age at the moment of marriage of 6% men and 29% women is missing: Sigismund Peller, "Mortality, Past and Future," 405.

It was impossible to examine the e_0 parameter, but we managed to calculate the life expectancy, in order to facilitate comparisons with Western European elites, at the ages of 20 and 50. Life tables were also constructed starting from the age of 20 (Tables 2 and 3). On account of the relatively small number of cases, the entire group was adopted as the cohort constituting the basis for constructing the life tables.

Table 2. Life tables of magnate males in the Polish-Lithuanian Commonwealth in the early modern period

Age	Parameters						
	dx	lx	qx	Lx	mx	Tx	ex
1	2	3	4	5	6	7	8
20	2	365	0.00547945	364.0	0.00549451	11,971.5	32.80
21	3	363	0.00826446	361.5	0.00829876	11,607.5	31.98
22	3	360	0.00833333	358.5	0.00836820	11,246.0	31.24
23	4	357	0.01120448	355.0	0.01126761	10,887.5	30.50
24	2	353	0.00566572	352.0	0.00568182	10,532.5	29.84
25	3	351	0.00854701	349.5	0.00858369	10,180.5	29.00
26	5	348	0.01436782	345.5	0.01447178	9,831.0	28.25
27	8	343	0.02332362	339.0	0.02359882	9,485.5	27.65
28	2	335	0.00597015	334.0	0.00598802	9,146.5	27.30
29	6	333	0.01801802	330.0	0.01818182	8,812.5	26.46
30	6	327	0.01834862	324.0	0.01851852	8,482.5	25.94
31	3	321	0.00934579	319.5	0.00938967	8,158.5	25.42
32	4	318	0.01257862	316.0	0.01265823	7,839.0	24.65
33	6	314	0.01910828	311.0	0.01929261	7,523.0	23.96
34	4	308	0.01298701	306.0	0.01307190	7,212.0	23.42
35	5	304	0.01644737	301.5	0.01658375	6,906.0	22.72
36	3	299	0.01003345	297.5	0.01008403	6,604.5	22.09
37	7	296	0.02364865	292.5	0.02393162	6,307.0	21.31
38	7	289	0.02422145	285.5	0.02451839	6,014.5	20.81
39	5	282	0.01773050	279.5	0.01788909	5,729.0	20.32
40	5	277	0.01805054	274.5	0.01821494	5,449.5	19.67
41	6	272	0.02205882	269.0	0.02230483	5,175.0	19.03
42	6	266	0.02255639	263.0	0.02281369	4,906.0	18.44
43	6	260	0.02307692	257.0	0.02334630	4,643.0	17.86
44	7	254	0.02755906	250.5	0.02794411	4,386.0	17.27
45	7	247	0.02834008	243.5	0.02874743	4,135.5	16.74
46	10	240	0.04166667	235.0	0.04255319	3,892.0	16.22
47	10	230	0.04347826	225.0	0.04444444	3,657.0	15.90
48	6	220	0.02727273	217.0	0.02764977	3,432.0	15.60
49	7	214	0.03271028	210.5	0.03325416	3,215.0	15.02
50	8	207	0.03864734	203.0	0.03940887	3,004.5	14.51

1	2	3	4	5	6	7	8
51	5	199	0.02512563	196.5	0.02544529	2,801.5	14.08
52	3	194	0.01546392	192.5	0.01558442	2,605.0	13.43
53	9	191	0.04712042	186.5	0.04825737	2,412.5	12.63
54	7	182	0.03846154	178.5	0.03921569	2,226.0	12.23
55	7	175	0.04000000	171.5	0.04081633	2,047.5	11.70
56	8	168	0.04761905	164.0	0.04878049	1,876.0	11.17
57	9	160	0.05625000	155.5	0.05787781	1,712.0	10.70
58	10	151	0.06622517	146.0	0.06849315	1,556.5	10.31
59	7	141	0.04964539	137.5	0.05090909	1,410.5	10.00
60	12	134	0.08955224	128.0	0.09375000	1,273.0	9.50
61	8	122	0.06557377	118.0	0.06779661	1,145.0	9.39
62	8	114	0.07017544	110.0	0.07272727	1,027.0	9.01
63	14	106	0.13207547	99.0	0.14141414	917.0	8.65
64	6	92	0.06521739	89.0	0.06741573	818.0	8.89
65	6	86	0.06976744	83.0	0.07228916	729.0	8.48
66	10	80	0.12500000	75.0	0.13333333	646.0	8.08
67	6	70	0.08571429	67.0	0.08955224	571.0	8.16
68	3	64	0.04687500	62.5	0.04800000	504.0	7.88
69	4	61	0.06557377	59.0	0.06779661	441.5	7.24
70	8	57	0.14035088	53.0	0.15094340	382.5	6.71
71	3	49	0.06122449	47.5	0.06315790	329.5	6.72
72	6	46	0.13043478	43.0	0.13953488	282.0	6.13
73	7	40	0.17500000	36.5	0.19178082	239.0	5.98
74	5	33	0.15151515	30.5	0.16393443	202.5	6.14
75	1	28	0.03571429	27.5	0.03636364	172.0	6.14
76	3	27	0.11111111	25.5	0.11764706	144.5	5.35
77	4	24	0.16666667	22.0	0.18181818	119.0	4.96
78	6	20	0.30000000	17.0	0.35294118	97.0	4.85
79	1	14	0.07142857	13.5	0.07407407	80.0	5.71
80	3	13	0.23076923	11.5	0.26086957	66.5	5.12
81	2	10	0.20000000	9.0	0.22222222	55.0	5.50
82	2	8	0.25000000	7.0	0.28571429	46.0	5.75
83	0	6	0.00000000	6.0	0.00000000	39.0	6.50
84	0	6	0.00000000	6.0	0.00000000	33.0	5.50
85	1	6	0.16666667	5.5	0.18181818	27.0	4.50
86	0	5	0.00000000	5.0	0.00000000	21.5	4.30
87	1	5	0.20000000	4.5	0.22222222	16.5	3.30
88	0	4	0.00000000	4.0	0.00000000	12.0	3.00
89	2	4	0.50000000	3.0	0.66666667	8.0	2.00
90	0	2	0.00000000	2.0	0.00000000	5.0	2.50
91	0	2	0.00000000	2.0	0.00000000	3.0	1.50
92	2	2	1.00000000	1.0	2.00000000	1.0	0.50

Source: Marzena Liedke, database.

Table 3. Life tables of magnate women in the Polish-Lithuanian Commonwealth in the early modern period

Age	Parameters						
	dx	lx	qx	Lx	mx	Tx	ex
1	2	3	4	5	6	7	8
20	3	169	0.01775148	167.5	0.01791045	5,257.5	31.11
21	3	166	0.01807229	164.5	0.01823708	5,090.0	30.66
22	0	163	0.00000000	163.0	0.00000000	4,925.5	30.22
23	1	163	0.00613497	162.5	0.00615385	4,762.5	29.22
24	5	162	0.03086420	159.5	0.03134796	4,600.0	28.40
25	1	157	0.00636943	156.5	0.00638978	4,440.5	28.28
26	3	156	0.01923077	154.5	0.01941748	4,284.0	27.46
27	9	153	0.05882353	148.5	0.06060606	4,129.5	26.99
28	4	144	0.02777778	142.0	0.02816901	3,981.0	27.65
29	2	140	0.01428571	139.0	0.01438849	3,839.0	27.42
30	2	138	0.01449275	137.0	0.01459854	3,700.0	26.81
31	2	136	0.01470588	135.0	0.01481482	3,563.0	26.20
32	3	134	0.02238806	132.5	0.02264151	3,428.0	25.58
33	3	131	0.02290076	129.5	0.02316602	3,295.5	25.16
34	2	128	0.01562500	127.0	0.01574803	3,166.0	24.73
35	4	126	0.03174603	124.0	0.03225807	3,039.0	24.12
36	1	122	0.00819672	121.5	0.00823045	2,915.0	23.89
37	4	121	0.03305785	119.0	0.03361345	2,793.5	23.09
38	5	117	0.04273504	114.5	0.04366812	2,674.5	22.86
39	4	112	0.03571429	110.0	0.03636364	2,560.0	22.86
40	3	108	0.02777778	106.5	0.02816901	2,450.0	22.69
41	4	105	0.03809524	103.0	0.03883495	2,343.5	22.32
42	4	101	0.03960396	99.0	0.04040404	2,240.5	22.18
43	0	97	0.00000000	97.0	0.00000000	2,141.5	22.08
44	5	97	0.05154639	94.5	0.05291005	2,044.5	21.08
45	1	92	0.01086957	91.5	0.01092896	1,950.0	21.20
46	1	91	0.01098901	90.5	0.01104972	1,858.5	20.42
47	3	90	0.03333333	88.5	0.03389831	1,768.0	19.64
48	4	87	0.04597701	85.0	0.04705882	1,679.5	19.30
49	3	83	0.03614458	81.5	0.03680982	1,594.5	19.21
50	4	80	0.05000000	78.0	0.05128205	1,513.0	18.91
51	0	76	0.00000000	76.0	0.00000000	1,435.0	18.88
52	1	76	0.01315790	75.5	0.01324503	1,359.0	17.88
53	2	75	0.02666667	74.0	0.02702703	1,283.5	17.11
54	2	73	0.02739726	72.0	0.02777778	1,209.5	16.57
55	2	71	0.02816901	70.0	0.02857143	1,137.5	16.02
56	3	69	0.04347826	67.5	0.04444444	1,067.5	15.47
57	0	66	0.00000000	66.0	0.00000000	1,000.0	15.15
58	1	66	0.01515152	65.5	0.01526718	934.0	14.15

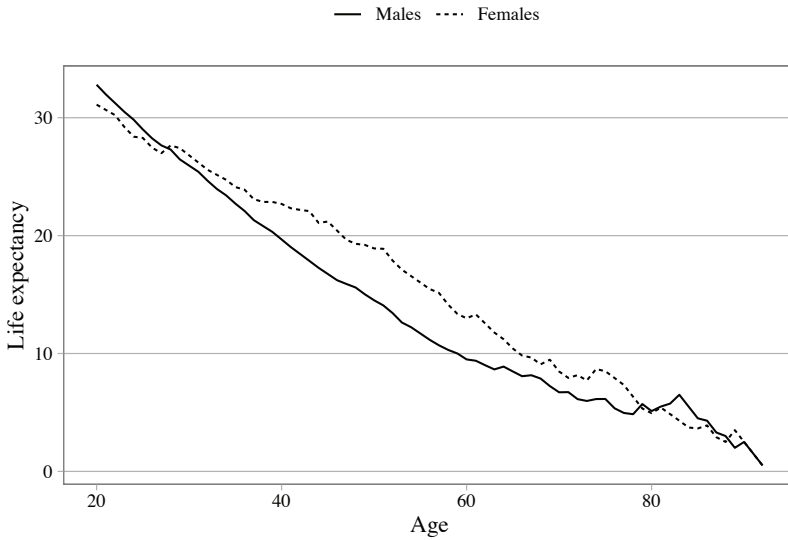
1	2	3	4	5	6	7	8
59	3	65	0.04615385	63.5	0.04724409	868.5	13.36
60	6	62	0.09677419	59.0	0.10169492	805.0	12.98
61	1	56	0.01785714	55.5	0.01801802	746.0	13.32
62	1	55	0.01818182	54.5	0.01834862	690.5	12.55
63	2	54	0.03703704	53.0	0.03773585	636.0	11.78
64	1	52	0.01923077	51.5	0.01941748	583.0	11.21
65	2	51	0.03921569	50.0	0.04000000	531.5	10.42
66	4	49	0.08163265	47.0	0.08510638	481.5	9.83
67	2	45	0.04444444	44.0	0.04545455	434.5	9.66
68	6	43	0.13953488	40.0	0.15000000	390.5	9.08
69	0	37	0.00000000	37.0	0.00000000	350.5	9.47
70	2	37	0.05405405	36.0	0.05555556	313.5	8.47
71	5	35	0.14285714	32.5	0.15384615	277.5	7.93
72	2	30	0.06666667	29.0	0.06896552	245.0	8.17
73	6	28	0.21428571	25.0	0.24000000	216.0	7.71
74	2	22	0.09090909	21.0	0.09523810	191.0	8.68
75	1	20	0.05000000	19.5	0.05128205	170.0	8.50
76	1	19	0.05263158	18.5	0.05405405	150.5	7.92
77	0	18	0.00000000	18.0	0.00000000	132.0	7.33
78	0	18	0.00000000	18.0	0.00000000	114.0	6.33
79	2	18	0.11111111	17.0	0.11764706	96.0	5.33
80	4	16	0.25000000	14.0	0.28571429	79.0	4.94
81	1	12	0.08333333	11.5	0.08695652	65.0	5.42
82	1	11	0.09090909	10.5	0.09523810	53.5	4.86
83	1	10	0.10000000	9.5	0.10526316	43.0	4.30
84	2	9	0.22222222	8.0	0.25000000	33.5	3.72
85	2	7	0.28571429	6.0	0.33333333	25.5	3.64
86	0	5	0.00000000	5.0	0.00000000	19.5	3.90
87	1	5	0.20000000	4.5	0.22222222	14.5	2.90
88	2	4	0.50000000	3.0	0.66666667	10.0	2.50
89	0	2	0.00000000	2.0	0.00000000	7.0	3.50
90	0	2	0.00000000	2.0	0.00000000	5.0	2.50
91	0	2	0.00000000	2.0	0.00000000	3.0	1.50
92	2	2	1.00000000	1.0	2.00000000	1.0	0.50

Source: Marzena Liedke, database.

As we can see, over the 16th–18th centuries, men's life expectancy at the age of 20 was almost 33 years, while at the age of 50 it was 14.5. On average, women who reached their 20s lived a further 31 years, and on reaching the age of 50 they still had 19 years to go.

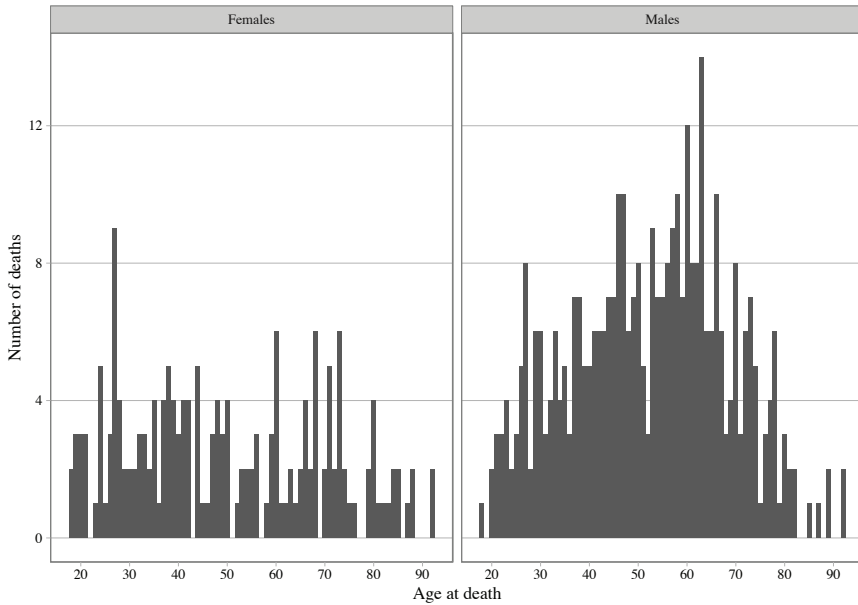
It might be expected that the life expectancy of women would also be higher at the age of 20, but it should be noted that high maternal mortality had a significant

Figure 1. Life expectancy for men and women in the Polish-Lithuanian Commonwealth (16th–18th centuries)



Source: Marzena Liedke, database.

Figure 2. Age at death of magnates in the Polish-Lithuanian Commonwealth (16th–18th centuries)

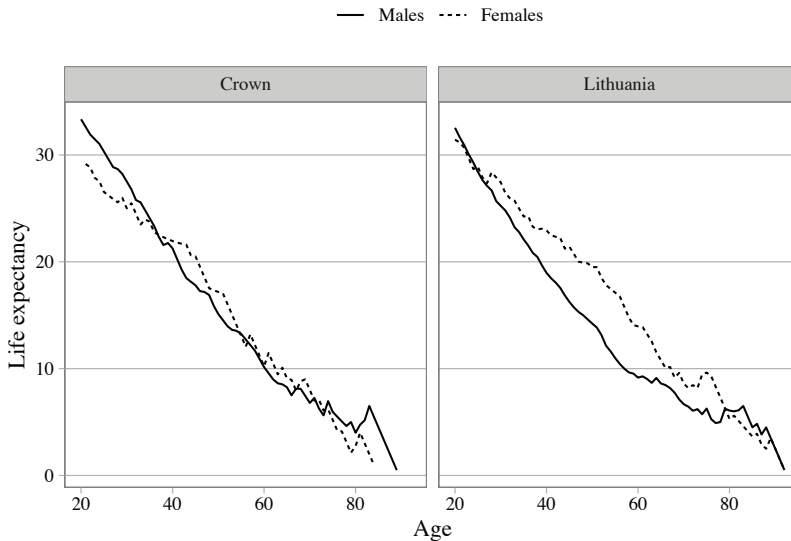


Source: Marzena Liedke, database.

impact on the value of this parameter (the value of men's life expectancy increases where they reach 30 years of age) and the calculations were made on a much smaller number of cases (poor data recording for women in sources) (Figures 1 and 2).

I also decided to find out if there were differences in life expectancy between men and women from different parts of the Commonwealth (Figure 3). These differences turned out to be minor.

Figure 3. Life expectancy of men and women in KP and GDL (16th–18th centuries)



Source: Marzena Liedke, database.

The slight differences that may be observed between the life expectancy of magnates from the Kingdom of Poland and the Grand Duchy of Lithuania may result from the small amount of data collected. Therefore, I decided to calculate 95% confidence intervals from my sample (Tables 4 and 5).²³

²³ Confidence intervals are based on 1,000 Monte Carlo simulations. They were performed according to the procedure suggested by Evgeny M. Andreev and Vladimir M. Shkolnikov, *Spreadsheet for Calculation of Confidence Limits for Any Life Table or Healthy-Life Table Quantity* (Max Planck Institute for Demographic Research Technical Report 2010-005, June 2010).

Table 4. Values of lower bound and upper bound confidence intervals for magnate males in the Grand Duchy of Lithuania and the Kingdom of Poland

Age	Grand Duchy of Lithuania			Kingdom of Poland		
	Ex	lower bound	upper bound	Ex	lower bound	upper bound
20	33.2	31.3	35.4	34.1	31.3	37.6
30	26.4	24.6	26.5	28.3	25.8	31.5
40	20.2	18.6	22.2	21.9	19.6	24.9
50	15.7	14.1	17.8	16.3	14.1	18.8
60	11.5	9.8	13.9	11.5	9.5	14.0
70	8.9	7.2	12.0	8.9	6.5	11.9

Source: Marzena Liedke, database.

Table 5. Values of lower bound and upper bound confidence intervals for magnate females in the Grand Duchy of Lithuania and the Kingdom of Poland

Age	The Grand Duchy of Lithuania			The Kingdom of Poland		
	Ex	lower bound	upper bound	Ex	lower bound	upper bound
20	32.7	29.3	36.2	31.0	25.6	36.9
30	27.9	24.6	31.7	27.3	22.6	33.7
40	24.0	20.9	27.5	23.8	19.4	28.9
50	20.9	18.2	24.3	16.5	13.2	21.6
60	15.7	13.2	18.5	12.7	9.7	17.2
70	10.1	7.6	13.4	8.1	5.8	11.7

Source: Marzena Liedke, database.

The differences are not statistically significant. Magnates living both in the Kingdom of Poland and in the Grand Duchy of Lithuania led a similar lifestyle, under very similar economic and environmental conditions. In addition, they were related to each other as a result of marriage between representatives of both states in the Polish-Lithuanian Commonwealth.

However, we can see bigger differences in relation to the Western European elites. Studies conducted by S. Peller, T.H. Hollingsworth and L. Henry and C. Levy referred to various cohorts and time periods, but the longer life expectancy for both men and women is clearly discernible, especially in the second half of the 17th and 18th centuries (Tables 6 and 7).

T.H. Hollingsworth calculated the value of e15 and e50 to compare the results with S. Peller's calculations referring to members of ruling families in Europe.²⁴ If, for the people who were born in the period 1480–1679 (both women and men),

²⁴ Thomas H. Hollingsworth, "A Demographic Study of the British Ducal Families," (1), 12.

the rate was more favorable for the continental ruling houses, for the cohorts 1680–1779 and 1780–1879 the reverse was true, in the case of life expectancy at the ages of both 15 and 50. In the first case, in the years 1680–1779 a duke's fifteen-year-old son lived on average 37.8 years, while in European families a year less. For dukes born in the years 1780–1879, life expectancy was 45 years, whereas for members of ruling houses in Europe it was 43.7. On the other hand, British ducal sons born in the period 1680–1779 who turned 50, still lived for, on average, 19.3 years, whereas in the continent they lived almost three years shorter. Within the following hundred years, the life expectancy of fifty-year-old members of the British elites was already another 20.5 years, while that of the representatives of European ruling families at the same age was nearly two years shorter.²⁵ The results of the 2010 studies on the life expectancy of members of the British royal families in the early modern period demonstrated that the life expectancy of men born in the 16th century was only 18.5, while it grew for those who were born in the period 1550–1649 to 34.8, and remained at that level for those born over the next hundred years (1650–1749), at 34.4 years. People born in the 18th century lived, on average, up to 47.6 years.²⁶ Thus, we may conclude that the results are not basically different from the data obtained by T.H. Hollingsworth for British ducal families for the last two decades of the 17th century and the first quarter of the 18th century (e_0 : c. 33), as well as showing the lengthening tendency for the cohort of the 18th century (e_0 in the case of people born in the years 1730–79: c. 45 years). In France in the years 1640–1739, the further life expectancy of dukes and peers who turned 20 was 34.5 years.²⁷

In the case of women's life expectancy at 15, in British ducal families, daughters born in the years 1680–1779 lived for 41.6 years, while daughters and wives in ruling families in Europe only half as long. In the subsequent period, British fifteen-year-olds still reached nearly 50 (49.6) and the representatives of the continental Europe 45.6. Fifty-year-olds in British families in the cohort 1680–1779 on average died after 21.5 years, while women in the continent after nearly 18 years. Over the next century the former still lived for 24 years (24.2) whereas the latter for 21.²⁸ The studies of P.A. David, S.R. Johansson and A. Pozzi in 2010 on female members of British royal families showed that women born in the 16th century, at the moment of birth, lived on average 31 years, and those in the cohort 1550–1649, on average 27, whereas those born in the 17th century only lived to be 23. Rate e_0 grew for the women who were born in the years 1650–1749, again to 31 years,

²⁵ Thomas H. Hollingsworth, "A Demographic Study of the British Ducal Families" (1), 12.

²⁶ Paul A. David, S. Ryan Johansson, and Andrea Pozzi, "The Demography of an Early Mortality Transition," 57.

²⁷ Louis Henry, Claude Levy, "Ducs et pairs," 820.

²⁸ Thomas H. Hollingsworth, "A Demographic Study of the British Ducal Families," (1), 12.

and up to over 51 for the cohort 1700–99.²⁹ On the other hand, the life expectancy of French dukes and peers' daughters who turned 20 was, in the case of those born in the period 1640–1739, 33.6 years.³⁰

In the light of these data, the average lifespan of magnate daughters and wives was lower than in European female aristocrats. This may be explained by the inclusion of a lower number of women than men in the studies. Besides, for both men and women from the PLC, the standard of medical care seemed worse than in Western Europe (even though they had better access to services of physicians than other groups of the population). The magnates themselves complained about the questionable skills of doctors (e.g., Bogusław Radziwiłł or Krzysztof Opaliński).³¹ Incorrect diagnoses and inappropriate therapies sometimes caused a worsening of the disease and even the patient's death. Even if the knowledge and experience of doctors were considered satisfactory, it should be recalled that in the case of a standard visit, the doctor made a diagnosis based on observation of the patient, interview (often by letter!) and, possibly, an examination of the patient's discharges, and hardly any physical contact (except for taking the pulse).³² Similar remarks can be made for the medicines, which often made the patient's condition worse. However, it is difficult to find studies that would allow a clear comparison of the state of medical care in Western Europe and the Polish-Lithuanian Commonwealth, but studies/research on human capital (which could also reflect health awareness and medical knowledge) indicate that in Eastern Europe, the social level of this resource among the elite was even worse.³³

Furthermore, the results obtained for women could have been influenced by, for example, relatively high perinatal mortality. It was not until the second half of the 18th century that the idea of taking care of women during pregnancy and the puerperium (e.g., assisting a male doctor in childbirth or the use of forceps)

²⁹ Paul A. David, S. Ryan Johansson, and Andrea Pozzi, "The Demography of an Early Mortality Transition," 57.

³⁰ Louis Henry and Claude Levy, "Ducs et pairs," 826.

³¹ K. Stojek-Sawicka, "Rola i miejsce lekarzy w życiu elit politycznych Rzeczypospolitej w epoce staropolskiej," in *Relacje lekarz–pacjent w aspekcie społecznym, historycznym i kulturowym*, ed. B. Płonka-Syroka (series: Studia z Dziejów Kultury Medycznej, vol. 10), (Warszawa: Wydawnictwo DiG, Oficyna Wydawnicza *Arboretum* 2005), 127+.

³² Except for surgeons, of course – Jakub Węglorz, *Zdrowie, choroba i leczenie w społeczeństwie Rzeczypospolitej XVI–XVIII wieku* (Toruń: Wydawnictwo Adam Marszałek, 2015), 82.

³³ See Joerg Baten and Tom Keywood, "Elite Violence and Elite Numeracy in Europe from 500 to 1,900 CE: A Co-Evolution?" (2019), Discussion Papers from C.E.P.R. No. 14013. The situation was similar with regard to the lower social strata – see: Joerg Baten, Mikołaj Szoltysek, and Monika Campestrini "'Girl Power' in Eastern Europe? The Human Capital Development of Central–Eastern Europe in the Seventeenth to Nineteenth Centuries and its Determinants," *European Review of Economic History* 21, no. 1 (2017): 29–63.

first began to spread to England, then to Austria, then to other countries in Western Europe.³⁴ Judith Lewis's studies on perinatal mortality among British female aristocrats over the 16th–19th centuries indicate that, in that period, only approximately 4.8% of women died in, or as a result of, childbirth.³⁵ The highest percentage of deaths in childbirth was noted, however, for female aristocrats born in the years 1750–74 (9.2%). For the remaining cohorts, by the end of the 18th century, the percentage of deaths related to childbirth vacillated from 7.6% (1600–24) to 1.4 (1675–99), and on average hovered around 6%.³⁶ In the Radziwiłł family, of the 85 wives (16th–18th centuries), only 60 had children. Of these 60 wives, as many as 7 (about 12%) died due to perinatal complications; thus, it was, in any case, higher than the rate for British aristocrats.

Table 6. Life expectancy at 15 and 50 in British ducal families and European ruling families (16th–19th centuries)

Cohort of those born in the years	British ducal families				European ruling families			
	men		women		men		women	
	at 15	at 50	at 15	at 50	at 15	at 50	at 15	at 50
1480–1679	27.7	15.0	33.2	13.7	31.2	13.4	35.9	14.8
1680–1779	37.8	19.3	41.6	21.5	36.8	16.5	39.7	17.8
1780–1879	45.0	45.0	49.6	24.2	43.7	18.7	45.6	21.0

Source: Thomas H. Hollingsworth, *A Demographic Study of the British Ducal Families* (1), p. 12.

Table 7. Life expectancy at 20 in families of French and British dukes and peers, and in European ruling families in the 17th–18th centuries

Gender	French dukes and peers	Ruling families in Europe	English ducal families	
	1640–1739	1680–1779	1650–1699	1700–1749
Men	34.5	33.4	30.0	39.9
Women	33.6	36.2	35.4	44.2
Total	34.0	34.8	32.7	42.0

Source: Louis Henry, Claude Levy, “Ducs et pairs,” p. 826.

³⁴ Bożena Płonka-Syroka, *Medycyna w historii i kulturze*, Warszawa–Bellerive-sur-Allier: Wydawnictwo DiG, 2016, 246; see also T. Heimarh, “Przełomy w rozwoju nowożytnego położnictwa uwarunkowane nowymi metodami postępowania” in *Spoleczno-ideowe aspekty medycyny i nauk przyrodniczych XVIII–XX wieku*, ed. Bożena Płonka-Syroka (series: Studia z Dziejów Kultury Medycznej, vol. 5) (Wrocław: Oficyna Wydawnicza Arboretum, 2002): 211+.

³⁵ Judith Lewis, “‘Tis a Misfortune to be a Great Ladie’: Maternal Mortality in the British Aristocracy, 1558–1959,” *Journal of British Studies* 37, no. 1 (1998): 31–32.

³⁶ Lewis, 32.

The consequences of dying at a relatively young age were varied: social, psychological, economic or demographic, and we have to remember that at the time of the father's death, his offspring were often still underage. In order to determine the consequences of a magnate's death, it is important to consider the average age of marriage and to calculate the average length of marriage – on average, the magnate entered into marriage at the age of 27 or 28, and on average his marriage lasted about 16 years, which was too short for children, especially sons, to reach adulthood in all magnate relationships. It was very important, especially in the case of sons (a man in a magnate family often decided to marry after his father's death, whether following or disregarding his earlier suggestions as to the choice of wife). The early death of the father often meant that the care of the father's children was left in the hands of his relatives, especially if the widow remarried. In such cases, mothers used to lose custody of their children and thus their emotional bond with them was broken. Hence, one of the consequences of a magnate's death was that his widow had to choose between remarriage and keeping custody of her children and their property. The latter choice meant no further children for many young women. On the other hand, the death of one of the spouses would often result in the remarriage of the other (then, the problem of subsequent marriages and stepfamilies occurred).

It is very important to note that the death of a childless magnate led to the extinction of the family or one of its lines, which resulted in the transference of property to other families or lines. Therefore, the necessity to plan a family policy in such way that the family could be continued was indispensable.

Conclusion

In conclusion, it should be noted that the life expectancy of magnates in the Grand Duchy of Lithuania and their families was lower than that of the aristocracy in Western European countries.

The average lifespan of magnate females was lower than for European female aristocrats, although the result could have been influenced by high perinatal mortality and may have resulted from a smaller research sample. Magnates had better living conditions (access to high quality food, better housing conditions and higher chances of avoiding contagious diseases), than any other social group, did not usually die in battles (although they were army commanders), but suffered from diseases resulting from prosperity and high social and political position,

e.g., gout (podagra), obesity,³⁷ or psychological tensions resulting from their political involvement. Besides, as we have noted above, the standard of medical care was worse than in Western Europe.

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³⁷ Which was then a symbol of the status and virility of a man – see: Jakub Węglorz, *Zdrowie, choroba i lecznictwo w społeczeństwie XVI–XVIII wieku* (Toruń: Wydawnictwo Adam Marszałek, 2015), 72.

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Death of the Magnate: Life Expectancy of the Magnatery in the Polish-Lithuanian Commonwealth Versus the Demography of the Western European Elites in the Early Modern Age

Summary

The main purpose of the text was to obtain the life expectancy of the magnatery in the Polish-Lithuanian Commonwealth and compare it with the results from the Western European elites in the early modern age.

Calculation of the life expectancy parameter values was made on the basis of genealogical facts, such as dates of birth and death of the members of 17 families (365 adult men and 173 adult women). Life tables were constructed starting from the age of 20. On account of the relatively small number of cases, the entire group was adopted as the cohort constituting the basis for constructing the life tables (extreme dates of birth for the cohort are in the case of men: 1457–1800 and women: 1499–1796). Because there were slight differences that may be observed between the life expectancy of magnates from the Kingdom of Poland and the Grand Duchy of Lithuania, I decided to calculate 95% confidence intervals from my sample. Then I compared the value for the life expectancy of the magnatery with the value for the same parameter of the Western European aristocracy.

My database was constructed using information from genealogical works and published materials referring to particular families, biographies of particular people, and also biographies published in the Polish Biographic Dictionary, monographs of families, articles dedicated to these families and their members, as well as already-published sources, such as wills, letters and memoirs. Certain data were complemented or corrected as a result of an archive query.

Male life expectancy at the age of 20 was almost 33 years, and at the age of 50, 14.5. On average, women who reached their 20s carried on living for a further 31 years, and after reaching the age of 50, still had 19 years to go. Differences in life expectancy between men and women from different parts of the country turned out to be minor. The results of calculating 95% confidence intervals from my sample are not statistically significant. However, we can see bigger differences in relation to the Western European elites. Studies conducted by Western European historical demographers showed longer life expectancy for both men and women, especially in the second half of the 17th and 18th centuries.

The lower life expectancy of the magnatery might have been the result of worse medical care, and in a broader sense, a lower level of human capital.

The very small differences in life expectancy between men and women from different parts of the Polish-Lithuanian Commonwealth may have resulted from the small amount of data collected and, on the other hand, of a similar lifestyle and economic and environmental conditions. In addition, they were related to each other as a result of marriage between representatives of both states of the Polish-Lithuanian Commonwealth.

Śmierć magnata. Oczekiwana długość życia magnaterii w Rzeczypospolitej Obojga Narodów a demografia elit zachodnioeuropejskich w epoce wczesnonowożytnej

Streszczenie

Celem artykułu było ustalenie oczekiwanej długości życia magnaterii w Rzeczypospolitej Obojga Narodów i porównanie uzyskanych wyników z tymi, które obliczono dla elit zachodnioeuropejskich w okresie wczesnonowożytnym.

Obliczenia wartości tego parametru dokonano na podstawie faktów genealogicznych, takich jak daty urodzin i śmierci przedstawicieli 17 rodów (356 dorosłych mężczyzn i 173 dorosłe kobiety). Tablice wymieralności skonstruowano, zaczynając od wieku 20 lat. Ze względu na relatywnie niedużą liczbę przypadków, podstawą konstrukcji tablic była cała analizowana grupa mężczyzn i kobiet (skrajne daty urodzin dla kohorty w przypadku mężczyzn to 1457–1800, a w odniesieniu do kobiet – 1499–1796). Ponieważ zaobserwowano niewielkie różnice w oczekiwanej długości życia magnatów z Korony i Wielkiego Księstwa Litewskiego, zdecydowano obliczyć 95% przedziały ufności. Następnie dokonano porównania oczekiwanej długości życia magnaterii z wartością tego parametru obliczonego dla elit zachodnioeuropejskich.

Baza danych została skonstruowana na podstawie informacji zaczerpniętych z prac genealogicznych i opublikowanych materiałów odnoszących się do poszczególnych rodzin, z biografii poszczególnych osób i monografii rodzin, biogramów z *Polskiego Słownika Biograficznego*, artykułów poświęconych danym rodzinom i ich przedstawicielom oraz źródeł historycznych już opublikowanych, takich jak testamenty, listy i pamiętniki. Dane te uzupełniono lub skorygowano w wyniku kwerendy archiwalnej.

Oczekiwana długość życia magnatów w wieku 20 lat wyniosła prawie 33 lata, a w wieku 50 lat – 14,5 lat. Dwudziestoletnie kobiety zaś żyły jeszcze średnio 31 lat, a te w wieku 50 lat – jeszcze 19 lat. Różnice między oczekiwaną długością życia przedstawicieli obu części Rzeczypospolitej Obojga Narodów były niewielkie. Jednak możemy obserwować większe różnice w oczekiwanej długości życia między magnaterią a elitami zachodnioeuropejskimi, na korzyść tych ostatnich, szczególnie w drugiej połowie XVII i w XVIII wieku.

Niższa oczekiwana długość życia magnaterii mogła wynikać z gorszej niż na Zachodzie opieki medycznej, a w szerszym ujęciu – z niższego poziomu kapitału ludzkiego. Niewielkie różnice w wartości tego parametru między przedstawicielami Korony i Wielkiego Księstwa Litewskiego mogły wynikać z jednej strony z niewielkiej próby badawczej, a z drugiej – z podobnego stylu życia oraz warunków ekonomicznych i środowiskowych. Ponadto przedstawiciele obu głównych części Rzeczypospolitej byli ze sobą spokrewnieni na skutek koligacji małżeńskich.