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**PUBLIC HEALTH STATUS OF HUNGARY BASED ON THE EARLY
HUNGARIAN MEDICAL JOURNALS**

Doctoral (PhD) thesis

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"Handbooks of public health in the future will include a new chapter anyway, relating the role and ways of usage of the journals."

(József Cavallier)

1. Introduction

To give an appropriate name accepted by everyone and to exactly define the science dealing with the prevention of diseases and the preservation of health has triggered ferocious debates in Hungary in the past and continues to do so even these days.

Since its turning up, the field of science called public hygiene in the journals of the past has aimed to deal with the condition and preservation of health of the whole society, and the prevention of diseases. It has always been a part of medical science, and it has considered almost all the fields of natural and social sciences, involving also library science, as its auxiliary scientific field.

Library science helps scientific research by revealing, structuring and publishing the knowledge stored in documents. One type of documents is constituted by periodicals. The most peculiar features of periodicals are publicity, periodicity, and relevance. Among these three features it is especially publicity, that is the ability of addressing, forming and making visible even the whole society, which supports best the aims and needs of public health.

In the present dissertation I have chosen one type of documents, that is learned journals, in order to present how they can support the goals of scientific fields. In the present case this field is public health that can be considered as a segment of preventive medicine.

By means of certain methods used in libraries, such as the usage of key terms, I had carried out a content-based analysis of learned journals on public health to which I added the information I have about the authors of the analysed articles. By means of the resulting database my aim is to prove that the learned journals called „the aids suitable for the promotion of our public health” are appropriate to present the health condition of Hungary, and they can even influence it.

2. Aims

The advent of medical journals in Hungarian and the creation of the scientific basis of national hygiene can be traced back to the same period, to the middle of the 19th century. As

it can be seen even in their inaugurals, almost each of the medical journals first appearing at that time considered the development of public health as its primary aim. Due to their features, that is publicity, relevance, and periodicity, learned journals seemed useful means to achieve this goal, indeed. They were able to convey relevant and up-to-date questions not only to the representatives of this profession on a regular basis, but also to inform and educate the public even on a larger scale. With their latter feature they supported public health, including the primary level of the prevention of diseases. In some journals there appeared separate sections in order to spread and develop this discipline, and other journals started with the same purpose.

During my research carried out into the issues mentioned above I was keen to get answers for the following questions:

- Did 19th century Hungarian public health have an influence on the medical journals?
- Were learned journals of the period written in Hungarian suitable for influencing and developing public health?
- Which questions concerning public health were dealt with in learned journals most frequently during the investigated period, that is from 1865 to 1918?

3. Tools and Methods

In my dissertation I analysed first those medical journals from the nearly 450 written in Hungarian in that period that deal with public health. From the 35 periodicals chosen this way 5 proved to be relevant.

During the concerned period the nowadays already well-known indexes, impact factor, h-index, Eigenfaktor used for evaluating learned journals did not exist yet, therefore the 5 relevant journals were chosen on the basis of other criteria. On the one hand, I was looking for those which could get to the majority of readers of the period interested in this field, on the other hand, for those published by organisations determining and influencing contemporary public health to the greatest extent.

The first-ranking learned journal in Hungarian written about this topic is ***Public Health and Legal Medicine*** (*Közegészségügy és Törvényszéki Orvostan*), published as an appendix of *Medical Weekly* between 1865 and 1897. It was edited by the greatest representatives of Hungarian public health right since its first appearance: by *Markusovszky* till 1881, by *József Fodor* (1843-1901) between 1882 and 1890 and between 1892 and 1897, and by *Endre Hőgyes* (1847-1906) in 1891.

In 1860, after stopping editing *Medical Weekly*, *Imre Poór* (1823-1897) founded the medical journal entitled *Therapeutics* with the aim to not only rival but to even have dominance over his former journal. From then on, in these two concurrent journals there appeared numerous scathing remarks and articles which undoubtedly divided the society of physicians into two opposing parts. However, despite the strong disapproval of posterity, this dividedness had a positive effect on the development of medical science. ***State Physician: the bulletin of medical practice of public health, administration and court of law (Államorvos)*** was published as the appendix of *Therapeutics* between 1869 and 1886.

The *Council of National Public Health (CNPH)* was founded in order to help the activities of the departments, and especially of the home office in 1868. ***Public Health (Közegészségügy)*** was published as the official journal of the *Council* between 1909 and 1918. Its editors were *Pál Klasz* (1856-1918) and *Imre Dóczy* (18??-19??). In *Public Health* the proceedings, dissertations, expertises and reports published by the *CNPH* appeared, but this journal also included questions about administration, laws concerning health, and questions in relation to health service.

The appendices of the *Physicians' Journal of Budapest* published between 1903 and 1944 covered almost every field of medical science. After one year the title of the appendix *Public Health* was changed into ***Review of Public Health and Legal Medicine (Közegészségügy és Törvényszéki Orvostan)*** in 1904. In the same year *Károly Minich* (1869-1938) became co-editor of *Henrik Schuschny* (1857-1929). Schuschny was the secretary of the *National Public Health Association*, professor of the *Faculty of Medicine in Budapest* and school doctor as well.

The ***Health (Egészség)*** – published from 1887, started and edited by *József Fodor* – was the official journal of the *National Public Health Association (NPAH)*. As its subtitle suggests, it was conceived to be an informing periodical: *Journal for Spreading Medical Skills for the Promotion of the Interests of Public Health*. This journal was chosen because of its informing feature. By the last decades of the 19th century the indifference of society towards this issue had become apparent, despite the efforts and results made in the field of public health. It became highly needed to win, apart the most significant public health educators, the entire educated society, including teachers, priests, industrialists, engineers, architects, etc. to this cause, so that they can have a beneficial influence on common people. A major group of the *NPHA* took part in this educating task. They were recruited from almost all the country. Their

journal, entitled *Health*, manifests the aspirations and goals of the era concerning health preservation and the prevention of diseases. The learned journal *Science of Health: Company of Hungarian Hygienics*, considered as the sequel of *Health*, is still even today an important organ of public health and epidemiology.

The period of 1865-1918, which I chose and observed in the dissertation, can be linked to the first four periodicals published for experts dealing mainly with health. The first date of publication of these periodicals is 1865, and the last one is 1918 when *Public Health* was published by the *Council of National Public Health*.

I arranged the more than 3000 articles published in them into a database, providing the articles with subject-headings according to their topics. Subject-headings made the selection of relevant articles possible.

Questing for and gathering the residences and workplaces of the authors and completing the data concerning the articles with them is an important, and as far as I know, a new aspect. Publications, biographical data, obituaries found in the periodicals, moreover encyclopaedias and internet sources served as sources. By investigating the data concerning the authors, one can get a clearer picture of the Hungarian health conditions and of the basic questions of public health from the aspect of those working in health.

Another fact not to be ignored is that possessing these data made the lists of subscribers of periodicals not yet found slightly replaceable.

The health conditions of Hungary of the period were presented on the basis of the processed bulletins, but it was impossible to show every detail.

From now on, I will use the terms public health and its derivations, such as public hygiene and public health, because in the mentioned period this discipline was referred to mainly in this way in the selected sources. Moreover, the other reason for my choosing these terms is that *József Cavallier* (1891-1970), known as a librarian, who graduated in Pécs, at the Faculty of Humanities, and who was competent also in natural sciences, used himself these terms in his definition which I chose as the motto of the dissertation.

3.1. Sources

The investigated field and the sources of the aspect of my choice:

1. There are 2307 bulletins concerning public health care among the 3166 articles published in all the volumes appeared among the 5 above mentioned periodicals between 1865 and 1918.

From the selected periodicals the 2nd volume of *State Physician* of the year 1870 is not available in any database of the libraries listed below. Only those articles published in this volume were not processed.

2. For the selection of the periodicals the bibliographies and library catalogues listed below needed to be compared to the compilation of *Gyula Batáry* which can be regarded as a start-up list. Furthermore, this list had to be completed with the items of those catalogues.

Bibliographies:

- Gyula Batári: Hungarian periodicals of medicine and health 1803-1944. (Bp. 1977.)
- Gyula Balta: The Hungarian medical literature in 1890. (Kolozsvar, 1891.)
- Medical bibliography of Hungary from 1472 to 1899. compiled by Tibor Györy
- Chronological overview of the contemporary Hungarian press and of the periodicals of Hungary from 1705 to 1867. compiled by István Kereszty. (Bp. 1916)
- Hungarian periodicals bibliography from 1705 to 1849. compiled by Margit V. Busa. (Bp. 1986.)
- Hungarian scientific repertory of homeland and foreign periodicals. Science and mathematics. vol. 1. 1778-1874. compiled by József Szinnyi. (Bp. 1876.)
- Statistics of the Hungarian periodicals from 1911 to 1920. compiled by György Kemény. (Bp. 1942.)
- Béla Schmidt: Medical journals of Transylvania from 1919 to the present. (Bp. 1930)

Catalogues:

- Catalogue of the Library of the National Epidemiological Centre
- Catalogue of the National Library of History of Medicine
- Electronic Catalogue of the National Széchenyi Library
- Catalogue of Mihály Pekár Library of Medicine and Life Science of the University of Pécs
- Catalogue of the Library of the Institute of Public Hygiene of Semmelweis University
- Catalogue of the Central Library of Semmelweis University

To find the places of residence and workplaces of the authors of the articles I used references found in the periodicals, the almanac of the *NPHA* published in 1898, the proceedings of the sessions of this association, encyclopaedias, databases, and Internet sources.

I unified the names of places and counties with the help of the edition entitled *Atlas and Database of Historic Hungary 1914*. (Pécs.2001.) This causes inaccuracy in some cases, e.g. Zaránd county was annexed to Hunyad and Arad county during the organising of counties in 1876, furthermore it was only in 1873 that the parts of the city were united and became Budapest, etc. However, the geographical data concerning the period between 1865 and 1918 became comparable to one another on the basis of this unification.

I marked the data of birth and death of those persons referred to in my dissertation. In several cases, these are the results of long research, and it is possible that they can be considered as new information, e.g. *Pál Klasz (1856-1918)*.

The fact that the online versions of the *Documents of the Parliament from the period between 1861 and 1990* became available via the *Portal of the Archives* made my job significantly easier. Search in the database is not easy, but from there it was possible to collect all the data concerning the budget of Hungary in the investigated period.

In order to get information on the laws, the Internet database called *Laws of 1000 years* by *CompLex Publishing Ltd.* served as an indispensable source. Subject-headings of the articles of the periodicals were based on the book entitled *Public Health*, edited by *Illés Dési*.

3.2. Important research results

The summary documents published so far in Hungary approached the development of public health aiming at improving health conditions in Hungary from different aspects. In the following list I will underline those which are the most important from the point of view of my dissertation.

Among the works published recently, the main parts of the *History of Hungarian Public Health 1770-1944*, compiled by *Károly Kapronczay* (Bp. 2008), are based on the most important moments of Hungarian hygiene arranged in a peculiar chronological order. The cause of its peculiarity is that the chronology was edited in three different ways within one single document.

From the publication of the founding decree of organised health, that is *Generale Normativum in Re Sanitatis*, till the period of the publication of the act about *On Organising Public Health*, that is 1770-1876, these works were enumerated according to the dates of the events arranged into strict chronological order.

The main part of the period between 1876-1924, that is from the publication of the article called law of public health to one year before the foundation of the *Institute of National Public Health*, is made up by the enumeration of the most significant monographies published about the topics of Hungarian public health, and on the basis of the years of their publications. From the foundation of the *Institute of National Public Health* in 1925 to 1944 numerous institutions, organisations, and associations began to function. Arranging the years of foundation of these into order ensures the base of the 3rd chronology.

Among the events mentioned above the most important moments of Hungarian public health were presented even in detail.

Both the foundation of the bases of Hungarian public health and the creation of the modern Hungarian administrative structure can date back to the same period, that is to the middle of the 19th century. The development of our public health resulted in organising its control system and in the elaboration of its legal background. *Balázs Pálvölgyi*, in his work entitled *The Institutional System of the Administration of Hungarian Public Health 1867-1914* (Bp. 2006), arranged the events of Hungarian public health around the most important elements of the administrative system of public health. The first comprehensive legal regulation concerning public health happened already in 1770, but it was only during the period described by *Pálvölgyi*, between 1867 and 1914, that the system whose several elements are still in function even today, e.g. the nationalisation of public health, law of public health, vaccines, unified interpretation of health statistics, etc.

The candidate dissertation of *Lajos Varga* written in 1960 presents the development of Hungarian public health between 1868 and 1893 according to the paragraphs of Article XIV of 1876, relying on thorough research carried out in the archives. The very exact and reliable data and tables of his manuscript are the base of the researches into public health even today. The topics of the 16 plus 3 chapters are suitable for making all the famous events of the period 1849-1893 described by him possible to get to know.

4. Summary

I.

1. The Hungarian public health was founded at the same time when the first medical journals were published, that is in the middle of the 19th century.

2. One of the primary aims of public health was to spread the knowledge of health among as many members of the population as possible for the preservation of their health. Periodicals, due to their features of periodicity, relevance and publicity, proved to be proper means for this task.
3. *Lajos Markusovszky*, considered as the founding father of Hungarian public health, chose health education as the topic of his dissertation published in 1844. Therefore, he started *Medical Weekly* in 1857, and its appendix entitled *Public Health and Legal Medicine* in 1865.
4. The period of 1865-1918 is worth observation, because, as sciences developed, there appeared discoveries that radically changed medicine. The science of public health, in the beginning only a part of medicine, gradually evolved to become a separate discipline. Learned journals had a more and more important role in mediating the science and in health education, both towards physicians and the population.
5. In the observed period both individuals and organisations of public health ensured publicity for themselves by publishing learned journals.

II.

1. In the observed period Hungarian industry and economy developed fast. Migration of the population towards the cities was typical. More and more babies were born year by year, young population was overwhelming, which is proven by the shape of a pyramid of the presented population pyramids. Compared to the overall number of the population, the number of births can be regarded as large, but the infant mortality rate was also high, because of diseases and epidemics. Life expectancy was low.
2. Average life expectancy was below that of those European countries with more developed economic conditions.
3. As a consequence of the improper social, economic, cultural and public health conditions, the death rate of the elderly was also higher.
4. The proportion of men and women was more or less equal. The very low rate of natural reproduction was influenced by the very large number of deaths and child deaths.

5. One can get a clear view on the enumerated questions on the basis of the bulletins arriving from almost all the counties of Hungary. On the one hand, these transmitted data, experiences and facts, on the other hand, professional opinions and debates. They influenced the development of Hungarian public health through this activity.

III.

While observing the medical journals and journals of health founded in larger and larger numbers after 1865, it is possible to determine the factors that influenced together the health conditions of Hungary.

1. The cholera epidemic of 1831 and its conclusions, the researches of poverty statistics carried out by Edwin Chadwick (1800-1890), and the researches of statistics of death causes carried out by William Farr (1807-1883) lay down the foundations of a measuring method whose starting and ending point are the health conditions of a given population. The aim is that getting further and further in time, the ending point gets on higher and higher levels compared to the starting point. This means that the health conditions of the population will improve as time is passing. The adaptation of the results achieved in England was not successful in Hungary.
2. There were several results, e.g. Council of National Public Health, the law No. XIV of 1876 concerning the organisation of public health, etc., which could have improved the circumstances, but no significant change could take place, because the social, economic, and cultural conditions of Hungary were not developed enough.
3. Collecting data necessary to determine health conditions was hampered by several factors. There was a lack in properly trained experts in health who would have been able to give relevant data, and there were no sufficiently elaborated tools concerning every detail needed for this work, e.g. identical aspects of data collection, questionnaires checked by practising experts, etc.
4. Almost half of the physicians of that period lived in Budapest or in other cities, so providing the population of the countryside with medical help had a lot of obstacles. Geographical distances and circumstances, the lack of infrastructure and of nationalisation influenced this situation in an even more negative way.

5. Physicians struggling for survival hardly had time for further medical training, and their access to technical literature was hampered by their limited financial possibilities. The learned journals published on a regular basis in Hungarian helped them with this problem. Hungarian experts used this possibility provided by learned journals, because their opinions and experiences coming from virtually every part of the country can be found in the columns of those journals.

5. New results

1. I was the first to present the situation of Hungarian public health on the basis of the overall survey of articles published in learned journals of the period.
2. Completing the database, which is compiled on the basis of the articles and provided with subject-headings, with the information about the authors of the articles is a new aspect.
3. I focused on the lack of the means of presenting the condition of Hungarian public health of the time, on the absurdity of statistical data collection, and on the lack of unification of data forms and information providers.
4. I found and presented the edition explaining the circumstances and necessity of the creation of the first medical learned journal in Hungarian, published in 1801. This document proves that the publications which present the conditions of Hungarian public health and the aspirations aiming at improving these conditions are best realised in newspaper format.
5. The methods presented here may serve as examples for further investigations of the conditions of Hungarian public health.
6. Those lists of subscribers of the investigated learned journals which have not been found yet can be replaced by collecting the data concerning the authors of the articles.

