

DATA ON MEDICINAL PLANTS IN ESTONIAN FOLK MEDICINE: COLLECTION, FORMATION AND OVERVIEW OF PREVIOUS RESEARCHES

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Abstract

In present-day Europe, the knowledge of how to use plants in folk medicine is mostly obtained from written sources, such as books on popular medicine or pharmacopoeias. The situation in contemporary Estonia does not differ much. In addition to these sources, though, the Estonian scholars of the field can find information in a collection of the Estonian Folklore Archives, dating back to the middle and end of the 19th century. As such, this collection is unique in the world. The earliest part of the folklore materials are based on traditional Estonian ethnobotany, which is perhaps only slightly affected by written sources, as only few books or newspapers were published in local language until the end of the 19th century. The first appeal to collect folklore on ethnobotany was made in 1877 by a well-known pharmacist, Johann Georg Noël Dragendorff, but the next collection campaign initiated by Jakob Hurt in 1888 yielded already impressive results. The article provides a survey of collecting and preserving Estonian folk medical lore from the 19th century onwards and casts light on the availability of medical care in Estonia at the time of the first appeals. Thereafter, the authors take a look at literary sources that may have been influential at the end of the 19th and the beginning of the 20th century. Also, an overview of most important research publications on Estonian ethnobotany is given and explicit course for future research charted.

Keywords: archival data, collection of ethnopharmacological data, Estonian ethnobotany, folk medicine.

During the last several decades, works of the leading ethnobotanists have emphasised the pharmacological value of ethnobotanical knowledge stating that “the curative properties of certain plants is not simply unsubstantial folklore” (Berlin et al 1996: 43). Indeed, most of the works deal with cultures that have little in common with contemporary academic medicine. Or paraphrasing Lauri Honko (1982: 61): their “bottles” are still full of the old wine – indigenous knowledge. It seems that there are no “real” folk medicines left in Europe: if any, earlier folk medical beliefs are intertwined

with the simplified variants of academic medicine and excerpts of the medicine of other nations – cultural borders have been open for too long. Heinrich et al. (2005: 210) state: “[in Europe] herbal traditions form a part of mainstream pharmaceutical traditions and relatively well researched botanical medicines are available. Most of this information is now transmitted by means of mass media, especially by means of popular books about herbal medicine.” Contemporary local healers agree with this view. For example, during the interviews conducted in the course of the 1999 collecting expedition in Kullamaa, Estonia, many informants, known by locals as wise men, said that they did not know anything other than what was written in books, they did not have anything to say about folk medicine: “the original old knowledge is lost” (Sõukand 1999).

Are the European folk practices in the field of ethnobotany really lost? Should all efforts of research now be aimed at exploring the undiscovered territories of the world? Still, there are areas yet to be discovered and one of these is the extensive folklore material held in Estonia and dating back a century and a half. The folklore sources are available on account of the materials collected since the mid-19th century, stored in the Estonian Folklore Archives. Unfortunately, in most European cultures the old medical folklore has remained largely inaccessible, as transmitters of culture have departed without leaving written records of their knowledge. In this aspect, Estonia, alongside with Finland and Sweden, is one of the few exceptions (Tillhagen 1962–1963), possessing a considerable number of written records from earlier periods. What makes Estonia so special is the fact that until the end of the 18th century there were no written secondary sources on medicinal herbs in local language and the number of publications remained relatively modest until the end of the 19th century. In Germany, for example, the first books on the subject appeared quite soon after the introduction of the printing press: the first popular book on herbal medicines was printed and published in 1497 (Schenda 1986: 142) and this puts under the question the applicability of the term “folk medicine” in Europe in the sense it has been known in relation to the areas of the world untouched by the western medicine.

To a large extent, the records of folk medicine kept in the Estonian Folklore Archives have not been researched, neither is there a sys-

tematic overview of the subject and its development. The reason for the lack of analysis lies mostly in the fact that the material is very uneven and difficult to handle. The knowledge is preserved in the minds of the transmitters of tradition themselves (who often had only a few years of education and were barely literate) and there is no chance to specify any details concerning specific plant species or precise disease cured that would provide the case for pharmacologically valid research (cf. Fabrega 1997: 144).

This article is just a beginning on the way of unfolding the interesting material and it aims to cast some light on the background of the archive sources. The aim of the article is also to provide a survey on collecting and preserving folk medical lore, at the same time informing of the availability of medical care in the past and conveying the gist of the literature that might have been of profound consequence at the time the material emerged – the given literature was the most important source of external knowledge¹. And even though there have been few researches in the field, the authors feel that it is vital to give an overview of the most important publications, emphasizing their contribution to the development of the national research of folk medicine.

COLLECTING AND STORING MATERIALS ON FOLK MEDICINE

A comprehensive survey on collecting and preserving folk medicine lore in Estonia over the past one and a half century would help to see the limits and prescribed courses of the material collected. Therefore, the next chapter describes the existing collections, describes the process of collecting folklore (focusing on questionnaires), and specifies the possibilities of preserving and accessing folk medical data in Estonia.

Collections

The collections of the Estonian Folklore Archives constitute a corpus of materials on nineteenth-century folk culture and art, and are the richest in the world in this aspect. The birth of the collections could be dated to 1888, when Jakob Hurt, having acquired a

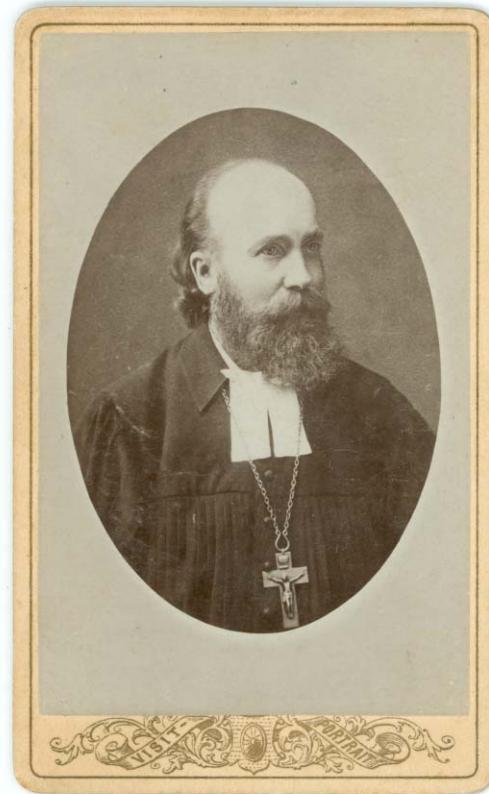


Photo 1. Jakob Hurt (1839 – 1907). Photo courtesy of Tartu University Library, Fo 3177A.

theological education at the University of Tartu, published an appeal to the Estonian people to collect “the antiquities” [folklore], which would help interpret the life and customs of our ancestors, and which was entitled *A Few Requests to Estonia’s Most Active Sons and Daughters* (Jaago 1999: 74). The appeal was warmly welcomed and resulted in 114,696 pages of records (collected during 1860–1906), which now constitute the Jakob Hurt files of the collection. Jakob Hurt also developed a very thorough archival and numeration system, which makes the origin of sources easy to follow.

All in all, he had more than 1,100 correspondents, who among materials on other topics collected 71,792 records on folk beliefs and customs (Pino 1989: 414), part of which are connected with folk medicine.

Smaller collections were compiled at the Estonian Writers' Society (7,622 pages collected in 1867–1891) and the Estonian Literary Society (2,962 pages collected in 1872–1924). Following the example of Hurt, Mattias Johann Eisen started his own collection campaign – during 1980–1934 he received 90,100 pages of texts. The stipendiaries of Eisen collected a considerable amount of folklore (8,334 pages collected in 1921–1927). As to materials on folk medicine, the collection of the Academic Veterinary Society deserves particular attention (4,094 pages collected in 1928–1934).

In 1927, the Estonian Folklore Archives was established, where all folklore materials collected by that time were accumulated. By the end of 1944, 265,098 additional pages were collected. Since 1945 (until 1995), 445,780 additional pages of material were contributed to the Estonian Literary Museum. Today there are more than 1.5 million manuscript pages of popular narrative materials preserved in the Estonian Folklore Archives, including more than 30,000 texts concerning folk medicine.

Collecting

The first scholar to discover the potential value of Estonian folk medicine was Johann Georg Noël Dragendorff, a German-born professor of pharmacy. Working as the head of the Institute of Pharmacy at the University of Tartu from 1864 to 1894, he discovered a new alkaloid analysis method using the Dragendorff reagent, used by phytochemists until the present day. In 1898, Dragendorff wrote his monograph *Die Heilpflanzen der Verschiedenen Völker und Zeiten*, in which he described 12,700 plants.

At a meeting of the Estonian Writers' Society in 1877,

Mihkel Veske [the first doctor in Finno-Ugric languages of Estonian origin] proposed to the Society how important it was to know which herbs (plants) Estonian doctors (witches, healers etc.) used for treating diseases, how and against which diseases they used

them. Perhaps the learned doctors would find some useful drugs, as the professor Dr. Dragendorff who had collected records of treating among different nations and now wants to present knowledge of Estonians' medicinal plants in one book, and thus turned to the audience for help. The speaker asks now the members of the Writers' Society to send answers to the questions presented to him by Professor Dragendorff. These were:

- 1) Which herbs (plants) are used by the Estonians for treating diseases?*
- 2) Which parts of these are used?*
- 3) What are these plants called?*
- 4) What kind of superstitious tales are told about these plants?*
- 5) Against which diseases are these plants or parts of them used?*
- 6) How are they used, whether dried or fresh, boiled or as a herbal tea, whether administered internally or externally?*
- 7) Is something derived from animals used for treating?*

It is strongly recommended that the herbs are sent as well. The speaker hopes that his wish would be fulfilled (Niggol 1877: 85).

Unfortunately there are no extant records about the outcome of this appeal (Vilbaste 1993).

Jakob Hurt's appeal of 1888 also included methodological instructions of how to collect material on folk medicine. He provided a list of diseases and asked to send lengthier explanations about them. He also listed the names of nearly 40 plants, providing their popular as well as Latin names (Hurt 1989: 54–55). Popular names given by Hurt often referred to some diseases or therapeutic qualities of the plants, as for example *jooksja rohi* 'the runner's herb' for *Ranunculus sp.*, referring to the plant used to heal 'the runner' (rheumatism), a disease that 'runs' or travels from one place to another. Such a list of plants was likely to encourage people to send information about these plants, but this hypothesis requires verification. But the fact that Hurt provided only one Latin equivalent to each folk name, leaving no room for interpretation, does not exclude misinterpretations, as peasants were totally illiterate in Latin. Hurt particularly emphasised the word "antiquities" [folklore], referring that the information was to comprise the knowledge passed on from generation to generation, and not to originate in literature of the time.

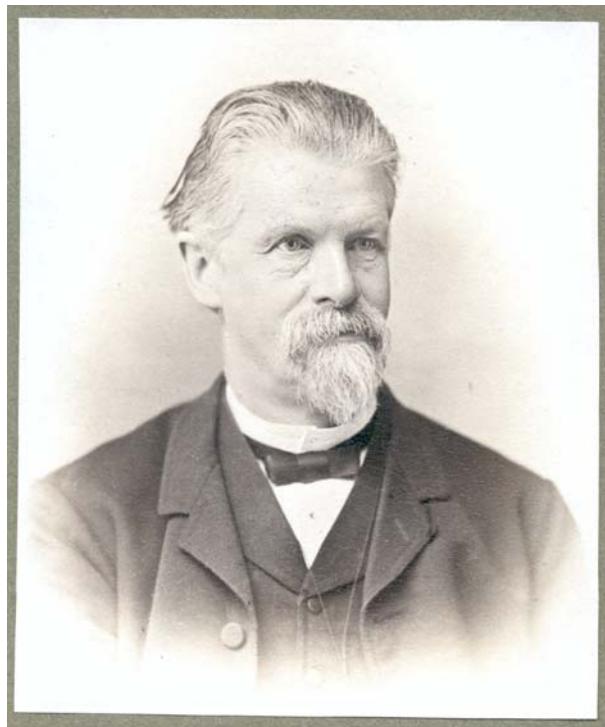


Photo 2. Johann Georg Noël Dragendorff (1836–1898). Photo courtesy of Tartu University Library, F 78, Fo Norm 16:54 (Alb).

Provided that the aim was to gather information about possible new medicinal plants, their parts, phyto-preparations, but also the new areas of use of already known plants, the collecting of folk medical lore is the most fruitful if conducted by a specialist in this particular field – in this case, a doctor or a pharmacist, who ideally has also been educated in folklore. But while folk medicine and academic medicine were relatively closely related and were even difficult to distinguish until the mid-19th century, a disparaging or even negating attitude to folk medicine started to develop towards the end of the century, and the term folk medicine became synonymous with ignorance. Thus, the research of folk medicine could become a matter of heart for a very few doctors or pharmacists: here

we could mention the Estonian doctor Peeter Hellat, who collected material on folk medicine in the 1880s, and also more recent collectors M. Ostrov, J. Grünthal, A. v. Schrenk (Pino 1989).

In 1917 pharmacist Rudolf Wallner published articles in professional journals, in which he made an effort to revise and harmonise the Estonian names of medicines. Pharmacists all over Estonia helped to collect the popular names for these. The collection resulted in a book published in 1929 (Wallner 1929).

In 1921 Amanda Raadla published her *Programme for Collecting Folk Medical Lore* in a publication of the Estonian National Museum. The programme included questions like: "If the medicine is prepared from plants, [supply] the name of the plant as it is called locally (if known, also the scientific plant name). Does it grow locally or is it brought from another place, and where from? Does it grow in a dry place, wetland, meadow, forest, pond, lake etc.? Does it flower and in which month? Colour of blossoms, shape of leaves, characteristics of roots? When is it collected and which parts of the plant (flowers, leaves, tops, roots) are used for the drug? If possible, the dried herb should be added" (Raadla 1921: 11).

In his *Explanation to Folklore* (1940), Herbert Tampere published a questionnaire about otic and ophthalmic diseases and provided examples of recorded folk treatment methods. Among the plants used for the treatment of otic diseases he named the witches' broom, birch bark, tobacco and *kõrvahlein* 'ear weed', and asked what plant could the latter be. Among herbs for curing eye diseases he mentioned the use of camomile and plantain compress, the internal use of the rowan flowers, knawel ("envy grass"), enchanter's nightshade and sweet vernal grass tea, and the use of puff ball dust for treating glaucoma (Tampere 1940).

In 1959, doctors Mihkel Kask and Kalju Villako compiled thorough instructions and a questionnaire plan structured according to specific diseases. These were published in the medical journal *Nõukogude Eesti Tervishoid* (Soviet Estonian Health Care), which was targeted to Estonian doctors. The authors relied on material already available in the Estonian Folklore Archives; many folk-medical terms were used as keywords. One of the aims was to enrich the available modern medical terminology and to introduce

the popular names of diseases into use. There were no references to medicinal plants in the appeal (Kask & Villako 1959). In 1975 Ants Viires admitted that “nothing was heard of its results” (Viires 1975: 381). Villako himself recalls:

I naively hoped that a large number of doctors and pharmacists would start collecting records on the basis of this [questionnaire – R.S.A.R.]. In reality, the Folklore Archives received only scanty contributions of one or two nurses. Nevertheless, our questionnaire was used at fieldwork by the students supervised by associate professor Paula Palmeos (Villako 2001:215).

Availability

In order to simplify access to the materials, the Estonian Folklore Archives, from the very beginning, started copying the contributions of respondents into a card files, compiled for facilitating the systematisation of the material. Materials on folk medicine are primarily found in two catalogues:

Folk Medicine catalogue is a collection of records (ca 20,000 index cards), comprising material on all kinds of folk treatments, independent of the method or disease, from saltpetre to spells (there is a separate index for the latter). The structure of the “Folk Medicine” catalogue is systematised according to the classification of common diseases, consisting of large groups of diseases (for example, general diseases, children’s diseases), which are further grouped under specific diseases (keywords) (for example flu, high temperature, scarlet fever, etc.).

The catalogue of *Folk Botany* contains varied information (ca 13,000 index cards) on plants, treatment, forecasting weather, or crop cultivation. The information is sorted according to the plant name (both official and popular) and according to places of collection by parishes. “Official and popular plant names are marked in different colours on the intermediate card. The material is divided into categories (algae, mushrooms, mosses and lichens, herbaceous plants and shrubs, trees and bushes, etc.)” (Korb 1990: 120).

These catalogues are partly duplicated in overlapping areas, but not in each case. Also, the indices do not contain all the entries on

folk medicine. While studying the source materials, several texts not included in the index were discovered. Also, as most records were copied by students of folklore, the archive entries often contain errors and sometimes even short references are given instead of a precise text.

MEDICINE IN ESTONIA IN THE 19TH CENTURY

The following does not claim to be a profound survey on the Estonian medical history, but in order to clarify the role folk medicine played among Estonian peasants (regarded as informants, transmitters of the knowledge by folklorists), it is important to be aware of the general context of the medical situation in the nineteenth-century Estonia (including folk healers, the availability of professional medical care, the network of pharmacies).

Folk healers

The healers were the successors of the onetime witches and wise men. Witchcraft was especially widespread in Estonia in the 16th to 18th centuries, when after Christianisation numerous witch trials were held. Records on death sentences connected with these trials can be dated to 1588–1723. Death sentences were especially common in the first decades of the 17th century: in Paide, for example, nine witches were burnt at the stakes in 1619.

Over the years the activities of witches and wise men diverged and the new so-called narrower subjects emerged, which refer 1) to the malevolence of the witch or the ability to be fond of bewitching; 2) to the wise man's role as a fortune teller; 3) to healing practices. The healers' main areas of activity were healing with magic spells, massage, removal of 'bad' blood (cupping, blood-letting), assisting women in labour, different magic treatment methods, and the preparation of drugs. The drugs used by healers can be divided in three groups: 1) herbal drugs; 2) products derived from animals (incl. milk, butter, fat and other types of food); 3) pharmaceutical drugs and different chemicals and everyday substances (coal, clay, spring water, etc.) (Raal 1995). There are very few records about the collecting and use of medicinal plants by healers. According to a wide-

spread popular opinion, medicinal plants were to be collected during the waning moon. According to Aili Paju, Estonian scholar and co-author of the Estonian encyclopaedia of medicinal herbs, Estonian healers used medicinal plants of quite a broad-range effect, which also helped to regulate metabolism: common yarrow, camomile, St. John's wort, wild marjoram, strawberry, etc. (Paju 1983).

As late as by the turn of the 20th century, folk doctors had assumed a much greater role in the village community than treating diseases – they predicted future, caught thieves, performed rituals and gave advice. Such healers had been active in Estonia over the centuries, and their activities were recorded already in the *Novgorod Chronicles* (1071), the *Chronicle of Henry of Latvia* (1224–1228), and several other written sources (Köivupuu 2000). In addition to folk healers, serious competition to pharmacies was provided by keepers of drugstores. These entrepreneurs, mainly operating in Tallinn, were called drugstore keepers, grocers (*rohu- ja viürtsipoodnikud*), or materialists until mid-18th century, later they were referred to in more respectful terms and were called merchants. Drugstores were very likely operating in Tallinn, the capital of Estonia, already before the *Raeapteek* apothecary was founded (i.e. not later than 1422) and the conflict between pharmacists and drugstore keepers arose particularly in connection with the establishment of pharmacies. Municipal records reveal that it was possible to buy honey, sugar, dates, raisins, cardamom, pepper, cubeb, saffron, ginger, nutmeg, etc. in a drugstore already at the beginning of the 15th century. In 1616 the city council, for the first time, prohibited drugstore keepers to sell compound and simple drugs, extracts and oils, not to mention the “poisons”. Nevertheless, disagreements between pharmacists and drugstore keepers lasted all through the following centuries.

To a certain extent, the travelling pharmacists and other travelling merchants also offered some competition to apothecaries, although they mostly came from foreign countries, were quite rare and usually offered a very limited assortment of goods. The random traders – old women and other sellers on the marketplace, offered competition to pharmacies mainly in the sale of wild plants. The pharmacists regarded them as mountebanks. In the first half of the 18th century, the trade in drugs made of secret components started to

spread and the sales of various “magic drugs” boomed, often causing serious damage to the health of credulous buyers (Gustavson 1972). Neither should we disregard the travelling doctors, chiropodists, eye doctors, sham doctors, etc., who also offered people medicines in addition to other kind of help (Gustavson 1969).

Pharmacies and the official medicine

The first apothecaries in the western countries were founded on the example of the Arabian model in Italy and France at the beginning of the 12th century. In the 13th–15th century pharmacies were opened in Germany, Poland, England, Hungary, Denmark, etc. By way of European conquests it also influenced the opening of pharmacies in Estonia. The oldest apothecary here worked in 1422 in Tallinn Town Hall Square, and was probably opened even earlier. In Tartu, the second-largest town in Estonia, the first apothecaries started operating in 1426 and in 1582. In other towns, pharmaceutical drugs became available for wealthier people in 1623 and 1649 in Pärnu, in 1645 in Narva, in 1680 in Kuressaare, in 1722 in Valga, in 1743 in Haapsalu, in 1764 in Viljandi, in 1769 in Paide, and in 1785 in Võru (Gustavson 1989). The first rural pharmacy was established on the initiative of P. E. Wilde in Põltsamaa in 1766, the first known permanent rural pharmacy, however, was opened as late as in 1861 in Räpina (Gustavson 1972). In rural areas, primarily in small towns, pharmacies were more intensively founded in the second half of the 19th century – about forty of more than fifty apothecaries opened their doors in the years 1880–1899. In 1897 there were 137 pharmacies operating in Estonia. The second dramatic increase in the number of pharmacies took place at the beginning of the 20th century – within the first decades more than 40 pharmacies were founded, about 75 per cent of them in the years 1900–1910 (Gustavson 1989; Kõivupuu 2000). In the first period of independence in Estonia (1918–1934) the number of retail pharmacies grew from 136 to 210, including 78 pharmacies in towns and 133 in the country. The number remained stable (211) also when Estonia was occupied by the Soviet Union in 1940 (Raal & Koppel 1990). By the present time, the number of pharmacies has nearly doubled. In the past, medicaments were also to a certain degree available in village shops, drug, and paint shops, and could be bought from travelling agents (Kõivupuu 2000). Lists of apothecary medicines can be

found in calendar books since the second half of the 19th century. The first recommendation to go and buy a specific medicine in a pharmacy was given in a calendar book published in 1857 (Alatalu 1992).

In 1632 the University was founded in Tartu, and the opening of a medical school at the University of Tartu provided a stimulus to pharmacies, but primarily to the doctors, and to the increase in their numbers in Estonia. Single pharmacists and doctors, who had been educated abroad, were practising here already in the medieval times. Nevertheless, medical care was not easily available in the 17th–18th century. By 1784, 24 doctors had opened their practices in Livonia, half of them practised in Riga, and on average 1–2 doctors in the towns of the territory of present-day Estonia. Nearly a hundred years after the Great Northern War, after the re-opening of the university in 1802, more emphasis was laid on doctor training. In 1812 there were 53 doctors in the entire Livonia and in 1826, the number of practising doctors in Livonia was 1826, a third of them in the territory of Estonia. In 1897 there were 1,168 inhabitants in cities and 17,162 inhabitants in the country per one doctor in the Estonian provinces. Some assistance was also provided by travelling doctors, especially dentists and eye doctors. Peasants could get medical help from manor lords, clergymen, or their family members (Kõivupuu 2000). When the university was re-opened at the beginning of the 19th century, it provided education in the discipline of pharmacy, first by a professor of chemistry and pharmacy. A strong impulse for educating pharmacists was prompted by the establishment of the independent Institute of Pharmacy in 1842. A contribution to the education in pharmaceutics and the schooling of pharmacists in the years 1864–1894 was made by the above-mentioned Prof. G. Dragendorff, who founded his school and developed the field of pharmacy in Tartu to the world level. The number of students in his school ranged between 25 and 50 until 1870 and started to grow thereafter, approaching 150 already in 1890. In 1894 there were 277 and in 1897 nearly 350 pharmacy students. At the beginning of the 20th century the number steadied between 100 and 150, and was generally growing the fastest in the entire *Alma Mater*. The percentage of students of Estonian origin was increasing. It is true that by far not all the students stayed in Estonia to

work in the pharmacies; thus, pharmacists were trained in Tartu for the whole Tsarist Russia (Tankler & Hinrikus 1993).

However, the constantly growing number of pharmacies did not yet make pharmaceutical medicaments available for the major part of the population. There are a number of proverbs, sayings and phrases proving that drugs sold in pharmacies were very expensive, e.g. "As expensive as a pharmacy drug" (Sayings: 2). "Court bread [i.e. going to the court] and pharmacy drugs are both expensive food" (Proverbs 4215). Furthermore, the availability of pharmacy medicines was considerably limited by the fact that at first there was no over-the-counter sales and the customer needed a prescription. Seeing a doctor was not only time-consuming, but one had to pay the doctor in addition to the medicines that were expensive anyhow (Gustavson 1972).

At the same time the attitude to pharmacies and pharmacy drugs was often sceptical and a folk healer was often preferred to an educated medical doctor. For example: "It is difficult to regain health from the pharmacy: you cannot get much there" (Proverbs 11983). In Vändra the following opinion was recorded: "If you go to the country doctor, you can always get help; but you cannot get anything from the doctor, so it was said" (AES).

The popular attitude is also well illustrated by the following example from Västseliina parish:

Treatment of the navel. Once when my navel was out of place, I drank all the drugs that I had at home, – nothing. Went to the apothecary, brought spirits there; mixed it with ether, drank – still nothing. Came an old wise man from the village and taught me: "You can get no help from doctor's drugs for treating the navel. Better take a round stone from the sauna stove, put it on your belly, and you'll see, in the morning the navel is in its place, the belly is well like before. Or if that does not help, put that earthenware pot, in which you have kept the water of washing a dead person, upside down on the navel for the night – then you should be cured. "Tried first with that sauna stove stone to treat the navel – nothing. Then I put the earthen pot on for the night – that relieved my trouble. Since then I have had no problems with the displaced navel." This is what a Setu man said about

treating the navel. H II 72, 790 (1) < Vastseliina parish. – Jaan Sandra (1905).

Usually people turned to the learned doctor when all the available domestic methods of treatment had given no result and the folk doctor could not help either. If the recommended drug did not bring about any effect, it was always the doctor whom the patient could lay guilt upon. For peasants, the doctor often identified with somebody who sent people away from this world, and even the need to go to the doctor was seen as ominous.

In the period 1870–1890, sixteen doctors of Estonian origin graduated from the University of Tartu, half of them worked as professional doctors in Estonia. At that time the academic medicine strove to reject folk medicine, but could not provide sufficient substitute for it. Thus, in some parishes a whole generation of people would grow up without any of them ever having seen a doctor (Kõivupuu 2000).

Notwithstanding the advances in the official medicine and the network of pharmacies, Estonians still held the local healers and our ancestors' knowledge of medicinal plants and other popular drugs in great respect.

THE INFLUENCE OF LITERARY SOURCES ON THE DEVELOPMENT OF THE COLLECTED MATERIAL

Next to pharmacists and doctors, people learned about drugs and about medicine mostly from books. The most noteworthy among the latter was certainly the Estonian book on the treatment with herbs, entitled *Lühlike öppetus, mis sees monned head rohhud täeda antakse* (A Brief Instruction, in Which Some Good Drugs are Pointed Out) compiled by the doctor and pharmacist Peeter Ernst Wilde in Põltsamaa and translated by August Wilhelm Hupel, published in the year 1766–1767 in forty-one thin booklets, 164 pages in total (Käbin 1998: 143–144). For example, the book mentions in relation to some plants (bird cherry flowers, juniper, bean leaves) that they are especially useful, as they purify blood and that common iris helps to make thick blood thinner (Alatalu 1992: 20). In the second edition of the same book, published in 1780, the part of plant names

was significantly supplemented. *A Brief Instruction...* is considered the first medical and pharmacological journal in the entire Russian Empire of the time. Another important work by the same author is *Arsti raamat nende juhhatamisseks kes tahtwad többed ärraarwada ning parrandada* (A Doctor's Instructions to Those who Want to Ascertain and Treat Diseases), published in 1771 and regarded as the beginning of Estonian popular-scientific literature (Tamkivi 1993; Viires 1992). The spread of these books was relatively limited (Viires 1992).

An important manual in Estonian that recorded health care problems was the work of Estophile F. G. Arvelius, published in 1788, which among other things promoted the use of vinegar and vodka for treatment (Kõivupuu 2000; Alatalu 1992). It is interesting to mention here that vodka was ascribed a healing effect also in the much-quoted proverb "If it is not a deadly disease, spirits always help" (Proverbs 10772).

Almanacs or farmers' calendar books acquired great importance in providing short forms of medical information. From 1731 to 1900 a total of 832 almanacs was published (Alatalu 1992: 48), which among other issues also introduced their readers medical information, including information about fifty-five plants over these years. Almanacs were affordable for both rural people and folk healers and were the most widespread and popular books in Estonia. The calendar books emphasised the folk doctors' good knowledge and their successful use of medicinal plants, mentioning also that a folk healer had to act simultaneously as a doctor and a pharmacist.

O. W. Masing published a weekly paper for country people (1821–1823, 1825), which also gave health advice based on folk medicine (Kõivupuu 2000).

An important role in the health education of people was also played by several German pastors (J. W. L von Luce (1750–1842); H. G. von Jannau (1789–1869) et al). Worth underlining is the book by pastor Otto Jannau, entitled *Ma-rahwa Koddo-Arst ehk lühikenne juhhataja, kuidas iggaüks mõistlik innimenne ommas maias ja perres, kui kegi haigeks saab, agga arsti ep ole sadda, võib aitada. Kolmes jaus* (Country People's Home Doctor or a Short Guide how Every Reasonable Person in His House and Family Can Help if Somebody is

Sick, but Doctor is Unavailable), published in 1857, second print in 1860, third in 1870. The second part of the book lists “pharmaceutical herbs, which grow in our country”, 112 plants are named and described. In the second print also the equivalents in German and Latin are provided. According to Gustav Vilbaste, the book contains errors and inaccuracies, familiar already from earlier sources (Tamkivi 1993).

In the 19th century, these processes were influenced by three Estonian doctors: P. Karell (1806–1866), F. R. Faehlmann (1798–1850), and F. R. Kreutzwald (1803–1882). The two latter famous figures became authors of the Estonian national epic *Kalevipoeg*. One of the most important manuals by Kreutzwald, *Kodutohter* (Home Doctor) was published in 1878 and dealt among other issues with the use of dandelion extract, ipecac infusion, henbane extract, rhubarb extract, etc. The author excelled in considerably better knowledge in botany than a regular doctor possessed. This manual became very popular, was published four times altogether and ahead of its time, promoting the prevention of diseases and taking folk knowledge into consideration (Pihl 1959).

In 1903 the Estonian magazine *Tervis* (Health) was issued. It introduced people the main principles of natural therapy and the basic concepts of medicine (Köivupuu 2000).

Since the beginning of the 20th century a number of books on medicinal plants were published. One of the most remarkable of these is *Imejoud taimedes* (Magic Power in Plants) by A. A. Michaelis (published in 1911, 127 pages), in which the experience of folk medicine is combined with academic medicinal knowledge. Also the book by A. Rõuk entitled *Kodumaal kasvavad arstihohtaimed ja arstimine nende abil* (Medicinal Plants Growing in Estonia and Treating with Them; published in 1921, 125 pages), and the small book by H. Pilt entitled *Taimed tervise teenistuses* (Plants at the Service of Health; published in 1933, 44 pages) should be mentioned. The manual *Kodumaa ravimtaimed* (Medicinal Plants in Estonia; 1937, 3rd edition, 162 pages) by J. Lääts, which came out in quite a few editions and gave an overview of 159 medicinal plants, proved to be significant in confirming the knowledge of folk medicine and spreading scientific knowledge. In the later period this task was to be performed by the book *Eesti NSV ravimtaimed* (Medicinal Plants in

the Estonian SSR) by J. Tammeorg, O. Kook and G. Vilbaste, which was published in the years 1962–1984 in 5 editions (the 5th edition contained 272 pages), and which introduced the use of more than a hundred medicinal plants both in medical science and folk medicine.

RESEARCH IN ESTONIAN FOLK MEDICINE

References to the local folk medicine can be met already in the works of Johannes Raicus, professor of medicine at the University of Uppsala. He had been appointed the professor of Tartu Gymnasium and was to become the first professor of medicine at the University of Tartu, before he died in December 1631 (Piirimäe 1982). A more remarkable development in the study of folk medicine begun only after the 19th century. In 1803 Prof. M. E. von Styx published a book in German language, targeted at rural clergymen and manor lords, entitled *Handbuch der populären Arzneiwissenschaft* (Manual of Popular Medicine), in which he dealt with problems related with the health and treatment of peasants (Kalinin 1976). Issues of health care, incl. folk medicine were approached in several dissertations in the 19th century. The most noteworthy and also the first in this field was the doctoral thesis of Karl Ernst von Baer, entitled *Eestlaste endeemilistst haigustest* (On the Endemic Diseases of Estonians) and completed in the years 1810–1814. Baer mentions that “[w]ise men also take use of the curative effect of local plants, the skill of which they keep carefully in secret from others”, without specifying which plants were used for treatment. Yet he mentions spirits, vinegar, sulphuric acid, gunpowder, mercury, asafoetida, turpentine, sulphur, etc. as the basic means used in folk medicine (Baer 1976: 51).

In the 20th century, despite the relatively disparaging attitude to folk medicine, some researchers explored the field. Here the authors try to give an overview of research works published on medicinal plants, which also reflects the material under discussion. These works have been classified according to their focus.

Studies on specific diseases (or groups of diseases) and/or their treatment

Jaan Grünthal's paper *Estonian folk medicine, especially concerning childbirth and gynaecological diseases and the treatment of children, in the light of folklore* provides a thorough survey of folk medicine concerned with childbirth, gynaecological and children's diseases. The reviewed material results "mainly from Prof. M. J. Eisen's collection of 'oral lore', partly from earlier literary sources, and partly from the author's collection work" (Grünthal 1924: 299). Among other means of therapy Grünthal mentions the use of some medicinal plants. For example, the use of camomile tea and hops boiled in beer and St. John's wort for the treatment of skipping menstruation, the tea of yarrow, red clover and delphinium or corn-flower for the treatment of excessively abundant menstruation, white dead-nettle, white clover, and cat's foot tea for the whites, etc. Often the description of the plant and a discussion, which plant could actually be meant under a specific name, is also provided.

Ella Koern's article *Estonian woman's beauty treatment in the past* discusses the concept of beauty and the means of achieving and retaining it in the nineteenth-century folk medicine. The author lists several plants (horseradish roots, cannabis seeds, thistle, rest harrow, etc.) used for achieving specific goals in beauty treatment (Koern 1939). Koern uses accurate references to archive materials, specifying the full number and the parish from which the record comes from. This article is essentially descriptive rather than systematising.

Two articles by Andra Veidemann, published one after the other at the end of the 1990s, provide a very thorough overview of two widespread diseases in the 19th century: St. Anthony's fire (*erysipelas*) and *maa-alused* (a skin disease). Among the medicinal plants for the treatment of erysipelas, Veidemann mentions the stinging nettle, tobacco, white clover, the lower part of alder bark, the soft wool of aspen bark, bird cherry sap, pine bark, hops, horseradish roots, plantains, onion, cannabis, ash leaves and yellow rattle (Veidemann 1985: 146). "The last major group of the medicines for treating skin problems includes various plants. A large number of them have been recorded all over Estonia, several under different names" (Veidemann 1990: 98). The plants used for the treatment of this skin

problem are mostly (especially in Tartu county) called the remedy for *maa-alused*, but there are also other plants.

Mall Hiiemäe's article *Maa-alused ja mailase rada* is the reputed Estonian folklorist's in-depth study of a specific group of diseases. In relation to the popular treatment of this disease, she thoroughly discusses the medicinal aspect of speedwell, or actually several species belonging to the genus *Veronica*, and also the caterpillar called in Estonian by the same name, as well as other items related with the treatment of this skin disease (Hiiemäe 2003).

Systematisation of folk medicine

Rudolf Wallner started extensive collection work in 1905, which resulted in the book *Eesti Rahvarohtude Sõnastik* (Glossary of Estonian Popular Medicines), published in 1929. It presented thousands of popular medicinal plant names, their officinal and Latin equivalents on 170 pages (Wallner 1929). This manual considerably contributed to the reciprocal understanding of country people, doctors and pharmacists.

Ilmari Manninen's review of the general features of Estonian folk medicine outlines the research of the origin of diseases, also mentioning the disease spirits and sacrifices made to them, which obstruct "the development of the natural ways of therapy" (Manninen 1925: 454). The author supposes that most of the collected ways of therapy were borrowed from other nations. He enumerates the principles of Estonian folk medicine: 1) "the means of therapy should originate from the same place as the disease"; 2) "the means of therapy should be similar to the symptoms of the sick spot" 3) "the means of therapy should be stronger than the disease" (Manninen 1925: 455–457). Manninen illustrates theoretical standpoints with records from the collection of Hurt, but also with materials from Finland. Manninen's doctoral thesis on the demonological diseases in Finnish folklore also deals with Estonian material (Manninen 1922).

Mare Kõiva's dissertation on the classification and typology of Estonian incantations provides excellent background information for the studied material, but does not, unfortunately, deal with medicinal plants (Kõiva 1990).

The monograph *Estonian plant names* by Gustav Vilbaste provides an overview of the popular names of plants growing in Estonia, their variability according to regions and also explanations about the possible etymology of plant names – including names referring to folk medicine. In the main part of the monograph the author provides a survey of collecting popular names and knowledge of the plants. The chapter *The use of plants in folk medicine* is of particular interest, as it presents explanations of the popular names of diseases that were dealt with in the book (Vilbaste 1993: 80–91). The criteria of the selection of medicinal plants are discussed at more length in the work *The plants of our homeland in popular treatment* (Vilberg 1934: 5–7).

The book that developed out of the MA thesis by Marju Kõivupuu, *Folk Doctors in Võrumaa: The Young and Old Suri from Hargla Parish* focuses on the activities of the mentioned healers, but also on the healers' role in Estonian folk medicine in general. The author points out the most important tasks of the folk doctor: he had to be a psychotherapist, a sexologist and a family therapist, a farm advisor and consultant, and a veterinarian. In addition to the existing folkloristic information, the researcher herself has collected extensive material (Kõivupuu 2000).

Pharmacognostic approach

Estonian folk medicine, especially the pharmacognostic and pharmacological aspect of medicinal plants has been to a certain extent dealt with in the papers of researchers and students of the Institute of Pharmacy at University of Tartu. There is a small card index on folk medicine at the Chair of Pharmacognosy and organisation of pharmacy, collected largely during the working years of academician Alma Tomingas (before 1963). To some extent Livia Kirsch has studied folk medicine, briefly touching upon this subject in the women's magazine *Nõukogude Naine* in the 1950s. Johannes Tammeorg has used materials related to folk medicine in his book *Eesti NSV ravimtaimed* (Medicinal Plants in ESSR).

Occasional in-depth studies, however, were made in the last decades of the 20th century. Ain Raal studied the synonymous names and the use of wild chamomile and rayless mayweed or pineapple

weed. It appeared that people did not distinguish between the effect of the two camomile species and regarded them generally just as “camomile”, and in addition to the flowers, the whole herb was used (Raal 1982; Arak & Raal 1982). In a later study, folk medicine information has been compared to scientific research data and it is shown that quite a few popular experiences with chamomile agree with the author’s pharmacognostic and medical research studies (Raal 1987). The studies on the role of medicinal plants in folk medicine compared with the use of animal-derived, chemical, magic and other means, showed that medicinal plants were used on 69 percent of cases on the average (Raal et al 1990), whereas Astrid Tuisk’s and the co-author’s overview of medicines for the treatment of skin diseases indicates that plants were used on 39 per cent of cases as means of therapy (Tuisk et al 1992).

Last but not least, another potential source of knowledge about the use of medicinal herbs is bibliography on the formation of the folk names of the herbs. A thorough survey of the literature that has influenced the development of popular names in folk botany is presented in the article by Külli Tamkivi, entitled *Eestikeelse taimeteadusliku sõnavara kujunemisest XVII–XVIII sajandil* (On the development of Estonian botanical vocabulary in the 17th-18th century). The article presents the earlier sources that explicate the etymology of Estonian botanical vocabulary (Tamkivi 1993). The same year, a manuscript entitled *Eesti taimenimetused* (Estonian plant names) by Gustav Vilbaste was published, including among other information a detailed review of literary sources on plant names (Vilbaste 1993). The most important part in the view of our research is the one that compares the popular names with the botanical names of particular species. The work of Gustav Vilbaste places all speculations on attributing a folk name to a particular species in a completely different light, as there are several, often tens of possible botanical “representations” of some popular names. For example, according to Vilbaste, the before-mentioned “runner’s herb” served as the popular name for 48 different species, whereas eight species from the six genera were known by this name virtually all over Estonia (Sõukand 2004).

CONCLUSION

Different researchers have studied specific aspects of Estonian folk medicine, but no comprehensive overview has been made so far. Most, but not all, previous researches conducted in this field are descriptive and do not really take into account the multiple possibilities and the potential scope of the use of medicinal herbs, caused largely by the use of "folk" names instead of "official" names of herbs in the material under discussion.

Indeed, this material needs quite a different methodological approach compared to the ones usually used in handling ethnopharmacological data. The presented overview on the collection of the data as well as references to factors that have influenced the formation of the data reveal that even seemingly first-hand information may have been, in fact, influenced by medical literature, almanacs or calendar books, or the advice of manor lords' wives. The influence of the former two sources can be traced by careful comparison and analysis of the texts. This is relatively easy with the material dating before and the very beginning of the 20th century, but literally impossible for the latter cases, because at the beginning of the 20th century there emerged too many potential sources of "assistance".

As to future research in herbal medicine, it would be sensible to focus on one specific folklore collection – namely, the Jakob Hurt collection. Next to the nature of his call for collection, which helpfully guided the informants, the material is perfectly timed (1860–1906) in terms of the scope of literature that might have affected the formation of the material. The interpretation of this data seems to be mainly a semantic process and the need to use qualitative methods is highly important. Indeed, perhaps the most important findings of this research will lead not only to new potent medicines (a noble goal in its own), but first and foremost to new theories of recipe development and the interpretation of new (medical) information within the framework of old beliefs. This may help us to understand the influence that popular books and Internet resources have exerted on medicinal herbs today.

Comment

¹ Elimination of “citations” from authentic texts will make them more valuable from the pharmacological point of view. Also, it provides a good starting point for looking more deeply into the intertextuality of the data, it allows us to trace the incorporation of new knowledge into the already existing knowledge. But this topic deserves to be explored in an entirely different article.

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