V. M. BECHTEREW AND FUNDAMENTALS OF HEALTH PSYCHOLOGY

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Abstract: The paper focuses on a Russian psychologist and physician V. M. Bechterew, who played an important role in laying the foundation for and propagating of good hygiene habits and health psychology in the later period of Imperial Russia and at the beginning of the ‘Soviet Era’. Bechterew was concerned with the study of the brain and its morphology, and also conducted significant research in the field of social psychology and good hygiene practices and health regarding children as well as adult population. He tried to deal with the problem of alcoholism in Russia, among other means, also through treatment using hypnosis.

Key words: V. M. Bechterew, health psychology, child psychology and hygiene, hypnosis

The scientific study of fundamentals of health psychology in Russia achieved a significant progress at the end of the 19th. and the beginning of the 20th. centuries, when the general situation entered a period of political and social changes, initiated by gradual shifting in thought and world view. The concentration on standard of living, hygiene and basic medical care was an important step that Russia made towards European standards. An important role in the process of modernization was undoubtedly played by a scientist, psychiatrist and physician, one of the founders of Russian experimental psychology - V. M. Bechterew1 (20 January 1857 – 24 December 1927). He was born in a small town of Sorali in the Vyatka province (Tatar Autonomous Republic), to a family of a low-ranking official who, however, died prematurely and the future psychologist was brought up and educated by his older brother Nikolay. He started his attendance of a grammar school right in the second form (1867). He mentions in his autobiography that there was probably no book on natural science at that time that would not pass through his hands. He further says that he read the book by Darwin, very modern at the time, several times and studied it carefully.2 He read other works with the same interest, e.g. by V. Wundt and other psychologists. Aged 16 (1873) Bechterew entered Petersburg

1 See attachment, p. 10
School of Medicine and Surgery\(^3\) and thus found himself at the centre of the social and political life and, importantly, also the scientific life in Russia at the end of the 19th century. In his fourth year of study Bechterew finally chose his scientific professional field – nervous and mental illnesses. Later he explained his decision by the direct correlation of the subject with the broad theme of society and social questions, and by it offering a possibility of answering important philosophical questions regarding the knowledge about an individual and personality.

One of the prominent personalities who influenced formation of the young scientist’s views was I. P. Merzejevsky, head of the department and clinic for mental and nervous illnesses at the school of medicine, a renowned Russian scientist and psychiatrist. He is known as the founder of a clinical patho-psychological field of study in the development of Russian psychiatry, which brought with it a possibility of examining pathological and anatomical changes in nervous tissues.\(^4\) A great influence on shaping of Bechterew’s views was also a leading Russian physician S. P. Botkin, author of a theory known as “nervism”, i.e. accentuation of the role of the central nervous system in relation to vitality of the whole organism and its individual functions. In 1877\(^5\) Bechterew joined a military-medical unit as a volunteer, under supervision of Prof. Bergman tended to the injured and in this way went through his first medical practice.

In 1878 Bechterew graduated from the school of medicine with excellent results and obtained a title of military physician. With regard to his study results and practical experience he started work at the School of medicine and began his study to obtain the title of professor under Merzejevsky’s supervision. In 1881 he defended his dissertation\(^6\) and obtained the degree of doctor of medicine. Following of temperature in approx. 60 patients who had developed a variety of mental disorders showed the relation between a body temperature and brain activity regarding different types of pathopsychology. An important factor was also the phase of disease development. The most relevant to further study and scientific research was the conclusion of the thesis, where Bechterew proved that psychological phenomena can be identified/confirmed by certain objective indicators. These theoretical, experimental and practical results formed a basis for his following work in the field of neurology.

In 1883 Bechterew became a member of the Italian Psychological Society and in 1884 was sent for a two-year study visit abroad. He worked in Leipzig and Paris and met among others V. Wundt, J. M. Charcot, from whom he learnt how to deliver suggestion and hypnosis that he further developed and used in practice. In the spring of 1885 Bechterew went to Munich, where he visited and became familiar with the operation of a clinic and laboratory of a well-known German psychoneurologist Bernhard von Gudden, who tragically died right the following year. On his return to Russia he was appointed Professor and Head of the Department of Psychiatry at Kazan University by the minister of national education\(^7\). Here he later established a Society of neuropatholo-

\(^3\) Shortly afterwards it was renamed: Military Medicine Academy.
\(^5\) Crimean war (1853-1856), initially between Russia and Ottoman Kingdom, France and Gerat Britain come out the war latter.
\(^6\) Opyt kliničeskogo issledovanija temperatury těla pri někotorych formach duševnych zaboľovanij
\(^7\) July 1885, „ministr narodnogo prosvečenija“
gists and psychiatrists and started to publish a Neurological Journal\(^8\), where he issued a number of his works on neuropathology and anatomy of the nervous system.

In 1893 Bechterew received an invitation to the Petersburg Military Academy, where he was asked to become a head of the department of mental and nervous illnesses. After moving to Petersburg he began to build here the first neurosurgery clinic in Russia. In the clinic’s laboratories Bechterew and his fellow-workers carried out research on physiology of the nervous system and wrote one of his major works entitled ‘Osnovy učenija o funkcijach mozga’ [Transl. note: Outline of the study of the brain functions].

From 1907-1910 he issued three volumes of a monograph entitled Objektivnaja psihologija\(^9\) [Transl. note: Objective psychology], where he asserts that psychological processes are accompanied by reflexive motor and vegetative reactions which can be studied and described.

An interesting chapter in Bechterew’s medical and psychiatric practice was also his meeting G. Rasputin.\(^10\) As a physician of the Czar’s family\(^11\) Bechterew would see him quite often. Rasputin substantially influenced not only the lives of Czar Nikolay and his wife, but also the life of the whole Russia. In a Petersburg newspaper\(^12\) Bechterew made a comment on Rasputin’s indisputable ability to hypnotize people around him and especially women. He talks about a special kind of hypnosis that he calls “sexual hypnosis”, which Rasputin mastered and used to gain and maintain his influence at the Czar’s court. He calls Rasputin an “old man”, which is an expression used in the orthodox Russia for spiritual advisers living in monasteries or secluded in deep forests or in the mountains. The case of Rasputin was beyond any doubt understood and used by Bechterew as a proof of his scientific theories regarding the degree of suggestibility and hypnotability of an individual and a group (Czar’s court). Bechterew used these studies, group therapies and hypnosis in the treatment of alcoholism and addictions to substances of all kinds. It is just the group therapy where, in his opinion, remarkable results can be reached. For Bechterew, the role of suggestion and hypnosis in the clinical practice is irreplaceable.

In 1908 Bechterew founded the first Institute of Psychoneurology in St. Petersburg and became its head. After the 1918 revolution he approached the Soviet of People’s Commissars and submitted it a request for the foundation of the Brain and Mental Activity Research Institute\(^13\), which he afterwards managed until his death.

The death of the prominent scientist is surrounded in mystery. At the end of 1927 Bechterew took part in The 1st All-Russian Congress of Neuropathologists and Psychiatrists and The 1th All-Russian Congress on Education of Children. On 22 December he was elected honorary chairman and on the same day his last public lecture took place on the subject of group treatment by hypnotic suggestion of sick alcoholics.

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\(^8\) Obščestvo nevropatologov i psихиатров, Nevrologičeskij věstnik (it was published under Bechterew redaktion 1918).
\(^10\) Grigorij Rasputin (1864?-1916).
\(^11\) Czarevna Alexandra Fjodorovna suffered from nerve shock and propably from the light grand mal. Her son Alexej suffered from angiooxtasis.
\(^13\) Institut po izučeniju mozga i psichičeskoy dejatelnosti, pozdější Gosudarstvenný reflektologičeskij institut po izučeniju mozga im.V. M. Bechtèreva.
and patients with different types of neurosis. He arrived later at the congress, though, as he had been invited to Kremlin to examine J. V. Stalin. The following evening, according to some witnesses, after the congress discussions and a tour of Moscow laboratories of his former pupil Iljin, he attended an evening performance at The Bolshoi Theatre. After having some refreshments Bechterew suddenly felt faint. On 24 December 1927, at 11:40 p.m. Moscow time it was certified that death had occurred. In stark contrast to an established practice the brain was taken out of the body and the body was burnt without postmortem examination. Although Bechterew left his own school and hundreds of pupils behind him, none of them was able to continue his work and the institute was divided into several units. At the present time, V. M. Bechterew Psychoneurological Institute, Saint Petersburg, is regarded as a world-class psychiatry, neurology, psychotherapy and clinical centre which operates an advanced network of research, education and treatment of patients.

It is surprising that so few of Bechterew’s works were translated into Czech. Czech libraries only offer a fragment of the sources for the study of personality and work of the Russian psychologist. It was interesting to find out that the Russian language Internet offers an enormous amount of reference information on Bechterew and many of his lectures and monographs are available on-line, with exact dating and references to places and times of their writing or presenting. Maybe the Russian scientific and public communities are trying in this way to repay the debt owed to “their scientist”, whose work was not published from the 1930s to the 1990s, and thus could not be included in the European and world context for a very long period of time.

The basic postulates of the scientific premises that also determine methodological approaches of Bechterew include e.g. an anthropological orientation and understanding of the human as a holistic ontological unit of being, as a biological and social individual existing in an inseparable correlation with the surrounding world – the nature and universe. A human in his concept is the representative of a biological species equipped with nervous and psychological structures.

His work on the research of brain structure was the first of its kind in Russia. Bechterew was first of all interested in the central nervous system, composition of the white matter of medulla oblongata and the fibres within the grey matter. Based on the completed experiments he managed to establish the physiological functions of individual parts of the nervous system (the optic nerves, auditory nerve, corpora quadrigemina etc.)

One of the basic fields of the neurological research was the problem of location, involving morphology of the brain on the one hand, and analysis of its functional locati-

14 Earlier he had been a physician of V. I. Lenina. According to unofficial information Bechterew diagnosed hard paranoia to Satlin.
15 Sankt-Peterburgskij naučno-issledovatelskij psichonevrologičeskij institut im. V. M. Bechtěryva, Bechtěryvy ul.3, 193019, Sankt-Peterburg.
16 See for example: http://hpsy.ru/edu/trainings/x357.htm [on-line 08-12-01].
17 See for example library catalogues: Národní knihovna ČR http://sigma.nkp.cz/F/SEC4LAHY59JTKUL-H4H1TC77UKABJE28PA7R9NP6YX8Y4XJ54-306297?func=short-jump&jump=000001; MZK http://aleph.mzk.cz/F/1N24MPT58GDHEUXDR6YQTH1K1QDEX2M89QR2KP6L47G9J4-58473?func=find+b&request=Bechterev&find_code=WRD&adjacent=N&local_base=MZK01&filter_code_1=WLN&filter_code_2=WYR&filter_request_1=&filter_request_2=&filter_request_3=&filter_request_4=&x=0&y=0 [on-line 08-12-01]
It needs to be noted that the nature of these researches was quite unique at that time, so there were no previous studies in this field to refer to. The scientific results achieved were path-breaking in its time and revolutionary in a certain way. Bechterew created schematic models of the brain structure and wrote a number of works, such as *Provodjaščije puti golovnogo i spinnogo mozga*. Bechterew defined a structural-functional approach, based on linking the brain structure to their corresponding function.

After completing the work on 7 volumes of the monograph on the brain Bechterew devoted himself more to the problems relating to psychology. He acknowledged the right to existence of the two basic fields in psychology – subjective, whose main method is introspection, and objective, the representative of which he considered himself. Objectively examined was, in his opinion, behaviour and outer manifestations of the physiological activity of the nervous system. The research in the field of psychology later becomes part of ‘reflexology’ which sees a human as a biological and social personality who can be viewed and analyzed based on responses to outer irritation.

Bechterew was the first to lay the foundation for social psychology in Russia. Apart from formulating its main postulates he also devoted himself to therapeutic group work and endeavoured to identify laws of communication and cooperation of people in different social class variants. He was interested in not only functioning of a group as a whole, but also in the behaviour and responses of an individual.

An essential part of Bechterew’s research work and scientific attention is the care of children’s health from their birth to adulthood. Each phase of a child development was thus described and characterized by Bechterew with regard to physical and psychological development, and complemented by information about the needed practices relating to hygiene, healthy lifestyle and aesthetic-cultural development, that can create favourable conditions for the quality development of a personality. Regarding early childhood, Bechterew places an increased emphasis on the promotion of proper care of the body, proper and regular nutrition and above of all good quality sleep, the latter being according to him a vital part of a healthy personality development. It is just the mentioned aspects that should play a role in parenthood guidance. He frequently carried out experiments with his own children and concluded that children, if taught about cleanliness from the first weeks and months of their lives, they would later maintain cleanliness by themselves. He speaks about the need to change infants’ napkins or cleaning their teeth so that they request oral hygiene themselves when they are 2 and half years old. Bechterew by no means recommends that children should be in any way restricted from play, on the contrary, he emphasizes the necessity to add elements of “child gymnastics” to their games, i.e. simple motor activities practicing leaps, keeping balance, walking across a footbridge and the like. With gradually increasing demands of such exercises involvement of a parent or an adult person who can give assistance and guidance is necessary. Bechterew also recommends that manual work is included in children’s activities from the age of 2 – such as use of a file, and from the age of 3 use of scissors and, somewhat later, a needle as well. A natural part of life is making a bed,

19 Obščije osnovanija refleksologii (1918), Obščije osnovy refleksologii čeloveka (1923).
help with household chores, e.g. washing-up. According to Bechterew, children enjoy helping the adults and imitation is the main learning method in this period of a child development. Physical work and in the summer mainly in the open air creates positive habits in children important for their later healthy development.

Bechterew founded a Social Education Institute for Healthy and Handicapped Children within a Child Research Institute, where he studied the child psychology and rejected the method of introspection as wholly inadequate for exploration of psychological contents of the child’s mind.20 His basic method then was analysis of genetic predisposition and motor reflexes of a child, development of speech, children’s drawings etc.

Bechterew the teacher gave a great attention to aesthetic education of both children and adults. The use of music and visual arts was a basic element in education for him. In his article on ‘Značenje muziki v estetičeskom vospitanii rebjonka s pervych dnej jego detstva’ 21 Bechterew emphasizes that toddlers, even before they start to talk, respond positively and with interest to music, especially to its rhythmic elements. With regard to further positive use of music, he advises that a child’s response to high and deep tones should be followed. He believes that very high and very deep tones negatively affect emotions of an individual (followed children started crying during the trial), whereas harmonious music invokes a feeling of pleasure. Bechterew continues to say that this principle changes with the age and the rhythmic music, with contrasting changes in the tone and timbre of the voice begins to play an important role in the support of organism stimulation and feeling of increased vitality. The use of music in education of mentally handicapped children supports their interest in learning and many of them can, as Bechterew believes, reach excellent results in singing or playing an instrument. Cultural events were organized for patients whose character was not only instructive, but also had treatment and relaxation effects. Music in Bechterew’s view plays a more important role in a healthy personality education than e.g. visual arts. The analysis of a child’s drawing is still in its infancy, and needs to be brought to a level of objective evaluation of degree of maturity, character and experiences of a child. For the evaluation and scientific analysis of children’s drawings, he used the drawings of his own children and compared them to those of children with different intellectual disabilities. The results of such study include e.g. apparent simplification of the outer form with a pronounced tendency toward symbolic abstraction in disabled children.

Of interest are Bechterew’s views on teachers and their profession in relation to a healthy development of an individual. Bechterew believed that a teacher’s personality has a far greater impact on a pupil than their parents’. He explained this by the fact that a pupil can only follow a teacher in the environment where the teacher’s good character traits can be employed, whereas in their parents, during every life and in the household environment, children can also learn about their negative qualities. Therefore the teacher is in a far better position to influence his pupils and teach them not only the subject matter, but also guide them to acquiring the correct behaviour. A necessary condition for the process of influencing and suggestion22 (and thereby the learning process)

20 For example Objektivnoje issledovanije nervno-psichičeskoj sfery v mladeničeskom vozraste (1908)
22 Bechterew said the children were suggestible very much.
is imitation, memorizing and repeating. The whole process is significantly influenced, though, by the teacher’s personality. If the very methodology of teaching is based on the authority and personal example of the teacher, then the teaching process is beneficial. Bechterew warned, however, against abuse of the teacher’s power and authority, when positive imitation changes into a stressful feeling of fear. For the effect of fear is to hinder any possibility of learning and ability to remember. Essential is the correct guidance of a pupil, teaching by using yes/no questions asked in the proper way so as to stimulate a pupil’s interest and satisfy his expectation. If, however, pupils’ expectations are not satisfied, the teacher has thus created room for autosuggestion which may not develop in the right direction. Pupils should also acquire some degree of a critical view on the newly presented information and ability to work independently. In this way they will gain self-confidence, strengthen their willpower and good character traits. The importance of a teacher’s role was also due to the high social status of the profession. In the personality of a teacher and well conducted teaching, Bechterew saw a possibility of social and emotional reformation of society.

The field of research of healthy development of an individual did not only concentrate on children, but also on the adult population. Probably the most widely known scientific endeavour within the clinical practice was the treatment of alcoholism and different types of addiction. Bechterew’s laboratory used a variety of treatment methods - hydrotherapy, electrotherapy, physiotherapy and work therapy. Also the wholesome influence of music on the human psyche was widely used. Bechterew viewed alcoholism as a great “evil” threatening the healthy development and shaping of the contemporary Russian society, whose negative effect was also enhanced, apart from the general state of affairs in Russia, by a huge financial profit from alcohol sales flowing to the treasury, which was sharply criticized by Bechterew. “The country that will be the first to liberate itself from the “evil of alcohol” will have the greatest chance of becoming better than the others, owing to the regeneration of its people.”

Bechterew saw a strong negative impact of alcohol not only in the presence, but also regarding the future, as a result of the weakened organisms and influence of fathers as well as impaired genetic inheritance. A plan for the “recovery from alcohol abuse” was presented by Bechterew at the Second Congress of physicians specializing in psychiatry in Kyjiv. A resolution delivered by Bechterew contained two main points, stating that alcoholics must be treated as regular patients, deserve the best possible care and modern and appropriate treatment procedures should be available for them. Therefore it is necessary to set up a system of outpatients’ facilities where qualified physicians will work, who know how to use hypnosis and other physiotherapy processes, and further, wards for alcoholics will be also established. The state should then introduce a range of reforms, improve education of the common population and make the products of the contemporary European culture available for all. Establishment of an experimental clinic of alcoholism research in Petersburg was to support to some degree at least the scientific research of addiction treatment and training of qualified staff for outpatients’ facilities and wards. Bechterew


decided to use as his basic method a group therapy involving hypnotic suggestion. It is known that Bechterew Institute achieved good results in the treatment of addictions by hypnosis.25

Bechterew was not only a physician and psychologist, but also a thinker and philosopher26, whereby he embodied the social and spiritual climate of his time. He was always interested in the relation between a strong individual and a group and the relating question of power and subordination. He grew up in straitened circumstances himself and made no secret of the fact that he had never reconciled himself to the condition of poverty and social oppression. His activities, encompassing the care of health of common people, their education in the areas of health, good hygiene, nutrition and prevention, did not only draw on the latest progress in science, but they also reflected Bechterew’s endeavours to generally improve life conditions in Russia, both in the field of medicine and the social and cultural life.

Literature


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26 Bechterew wrote also works and books that can be considered as „philosophical“ or „disputative“. His treatise Bessmertije čelovečeskoj ličnosti kak naučnaja problema is a polemics among others with Russian philosoph and poet V. S. Solovjev: they polemize of human finiteness in terms of Christianity, philosophy and science.
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Appendices

V. M. Bechterew

V. M. Bechterew
Urn containing the ashes of V. M. Bechterew and funeral procession accompanying the urn along the river Něva embankment

V. M. Bechterew working with hypnotized alcoholics

V. M. BECHTĚREV A ZÁKLADY PSYCHOLOGIE ZDRAVÍ

**Abstrakt:** Článek pojednává o ruském psychologovi a lékaři V. M. Bechtěrevovi, který se významnou měrou zasloužil o formování základů a upevnění návyků hygieny a psychologie zdraví v carském Rusku a na počátku tzv. sovětského období. Bechtěrev se zabýval nejen studiem mozku a jeho topografie, ale významné byly také výzkumy v oblasti sociální psychologie a hygieny a zdraví dětí i dospělé populace. Problematiku alkoholismu v Rusku se snažil vyřešit mimo jiné i léčbou pomocí hypnózy.

**Klíčová slova:** V. M. Bechtěrev, psychologie zdraví, dětská psychologie a hygiéna, hypnóza