

## LETTER TO THE EDITOR

Response at the article by S. N. Ghaemi The case for, and against, evidence-based psychiatry, *Acta Psychiatrica Scandinavica*, Volume 119, Issue 4, P. 249-251

### IT IS IMPOSSIBLE TO HARNESS A HORSE AND A QUIVERING DOE TO THE SAME CART<sup>1</sup>

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#### It is impossible to harness a horse ...

The history of classic medicine perhaps hasn't known earlier such an explicit and essential antagonism against a new doctrine like that is shown by vast numbers of physicians towards evidence-based medicine (EBM). The latter easily and even gladly absorbed knowledge about fundamentals as well as diagnostic and treatment methods based at them. In this sense EBM can be denominated as postclassical medicine. So what's wrong with EBM? Why does it cause very emotional debates? Because it trespassed upon the Holy – clinical method!

Let me defend following theses:

- I think it is impossible to either combine or make up EBM with Hippocratic medicine.
- Also I deem a harm that EBM may inflict on classic medicine less apparent than the damage which is already done to medicine in particular and to science in general, by scientific claims of clinicians.

Prof. S. N. Ghaemi doesn't oppose EBM; he just exhorts us not to idolize it. The author noted some shortcomings of clinical observation nonetheless recognizing its priority. Having said in the beginning (quotations from the article being discussed are highlighted in italic): *"I believe both the attacks and the defences of EBM have been misplaced"*, in the end he pathetically exclaims: *"Recovering the Hippocratic heritage of scientifically sound clinical observation – above and beyond biological theory, post-modernist critique, and industrial number-crunching – should be our goal"* (1). Truly, start with laughter and end with tears!

Further on: *"We need informed critiques of EBM – because it can be misunderstood, and even abused – not to destroy, but rather to improve it."*

As far as abuse was mentioned, it would be strange not to have it. EBM terminology long ago has become a tool for pseudo-scientific – mostly marketing manipulations. But should we abolish money because of forgers?

And what about misunderstanding? Rephrasing Murphy's Law: Anything that can be misunderstood will be misunderstood. Prof. S. N. Ghaemi confirms this notion.

Indeed EBM positioned in the article as potential source of "Oxford tyranny" never declared ideas referred to it. In that sense an author knocks at the open door. Almost from the beginning founders and advocates of EBM attempted at associating Hippocratic clinical practice and EBM "to improve" it: e.g. "Evidence-based medicine is not "cook-book" medicine. Because it requires a bottom-up approach that integrates the best external evidence with individual clinical expertise and patient-choice <...> External clinical evidence can inform, but can never replace, individual clinical expertise, and it is this expertise that decides whether the external evidence applies to the individual patient at all and, if so, how it should be integrated into a clinical decision" (2).

<sup>1</sup> From the poem "Poltava" by Alexander S. Pushkin.

In my opinion, such definitions of EBM only erode borders between it and classic medicine, including scientific medicine based on fundamental research. I don't favor the unification of these two approaches to health care, moreover I deem it impossible. Clinical practice and EBM reflect two discrete medical strategies, different in principle. But let me focus at the clinical method.

### Against clinical masks of science

The author wrote: *"There is, and has always been, a second approach, much more humble and simple – the idea that clinical observation, first and foremost, should precede any theory; that theories should be sacrificed to observations, and not vice versa; that clinical realities are more basic than any other theory; and that treatments should also be based on observational bases, not ideas».*

Here we see an illusion as enduring as old and idealized by medical community like the Galenic humoral theory in the past. Truly human mentality changes at a pace of geologic processes... That observations without theory are "pure", and theories only obstruct "natural clarity" of disease symptoms, after Hippocrates was noted by XVII-XVIII centuries' physicians («All theories always become silent or disappear at the bed of the patient» – Corvisar, 1808) (3), as well as Russian manuals on psychiatry, and disease classification DSM and ICD, self-promulgated as "atheoretical".

As one can see, declared "impartiality" turns a disease into Kantian "Ding an Sich" existing independently of our perception. Meanwhile most diseases in the modern meaning exist as theoretical conventions.

It must be specially noted that while the most gifted psychiatrists stand up for "atheoretical" diagnosis being under spell of phenomenological teaching (E. Husserl, F. Brentano), others do so either on ideological ground, when, in my opinion, impartiality supposedly able to fix "natural purity of facts" relieved them of responsibility for "unpopular" diagnoses, or intrinsic non-admission of theoretical thinking (vast majority of physicians). One might say that antagonism of theoretical thinking and practical gumption is archetypical for human thought in general. Though in the past I naively assumed that love for theories can equal laziness and counter virtues of clinical craftsmanship only in such traditionally peasant country as Russia.

Nevertheless, leaving alone motives of honoring "impartial observation", lets consider a question: is it possible in principle? This question was already answered in philosophy (much disliked by physicians). In my previous articles (4) I have given arguments for impossibility of impartial observation with corresponding examples. Before observing a researcher should decide what precisely he or she plans to observe (philosophical thesis on theoretical "load" of experience). Austrian methodologist of science Sir Karl Popper dramatically demonstrated this notion during his lectures (and I many times repeated that experiment with my own students) requesting to take pencils, make observations and write them down. Immediately a question has been arising from the auditory: "And what to observe?"

Another famous methodologist of science Imre Lakatos while reasoning about psychology of observation and criticizing K. Popper's naturalistic conception of observation, wrote: "(All schools of modern justificationism can be characterized by the particular **psychotherapy** by which they propose to prepare the mind to receive the grace of proven truth in the course of a mystical communion. In particular, for classical empiricists the right mind is a tabula rasa, emptied of all original content, freed from all prejudice of theory. <.....> For there are and can be no sensations unimpregnated by expectation and therefore there is no natural (i.e. psychological) demarcation between observational and theoretical propositions»." (here he refers to Niels Bohr) One more quotation: "Such psychologies specify the 'right', 'normal', 'healthy', 'unbiased', 'careful' or 'scientific' state of the senses - or rather the state of mind as a whole - in which they observe truth as it is. For instance, Aristotle - and the Stoics - thought that the right mind was the medically healthy mind" (5).

On this topic I've already wrote in the Russian press (4) that speeches about "impartial" or "objective observation" sound particularly weird from specialists who in line of duty every day confront these very misperceptions of this very reality that they in a strange way think objective only in their own perception. To say nothing of predilection existing in this community for accumulation of persons inclined to percept reality in a specific manner...

Clinical method indisputably exists *beyond* but in no way not *above* biological theories. More so, because theories in medicine in general and in psychiatry in particular can be other than biological. Medical practice (where clinical method came to full flower) isn't science at all but craftsmanship, here and there transformed into market-driven industrial production which sciences supply with technologies. EBM utilizes one of such technologies based on mathematics and logics, which is by the way absolutely nonspecific for medicine because it allows assessment of evidence on influence from any intervention – propaganda, prayer etc. (6). Alas, clinical

observation per se isn't a scientific act at all. It is rather a kind of pre-scientific knowledge useful only for forming up hypotheses. A science begins where theory evolves <sup>2</sup>. However S. N. Ghaemi himself unintentionally contrasts science and clinics: "... *but it is important to draw both the clinical **and** scientific implications*" (highlighted by me, N.Z.). Medicine overflows with Hippocratic craftsmen thinking they are scientists. Apologists of routine clinical method usually finish with disclaimer of mathematics as a scientific tool: "Critics of EBM might define it as "the increasingly fashionable tendency of a group of young, confident, and highly numerate medical academics to belittle the performance of experienced clinicians by using a combination of epi jargon and stat sleight-of-hands"..." (7). Meanwhile many purely clinical papers have an appearance of medieval manuscript, e.g. in one classification farting "Flatulence, <...> is unofficially described according to its salient characteristics: I) the "slider" (crowded elevator type), which is released slowly and noiselessly, sometimes with devastating effect; II) the open sphincter, or "pooh" type, which is said to be of higher temperature and more aromatic; III) the staccato or drumbeat type, pleasantly passed in privacy; and IV) the "bark" type <.....> Aromaticity is not a prominent feature»" (8).

The author finds proof for objectivity and impartiality of the clinical method in similarity of ancient and modern clinical observations: "*Clinical observation and research, by contrast, is more steady: that same melancholia that Hippocrates described can be discerned in today's major depression; that same mania that Arateus of Cappadocia explained in the second century AD is visible in current mania (obviously social and cultural factors come into play, and such presentations vary somewhat in different epochs, as social constructionists will point out*". This is the typical example of substantiation idem per idem. "Why were we so wrong for so long?" an author exclaims about misleading humors of Galen. Because it was not a belief in the wrong theory but just impartial clinical observation that ad infinitum "proved" and thence reproduced the very same dogmas of initially biased but unperceivable perception of the world through a prism of the firstborn theory of balanced humors. Later that perception was changed according to another dogma of clinicians that unexpectedly "recovered their view". And now like before clinicians see the same things as their predecessors because they read the same books that preset the same expectations, and they learn from each other, and after that they "confirm" the digested knowledge, having supposedly "abandoned theoretical excogitations", with the aid of "new" observations. That's why diseases of Hippocratic and modern ages are so similar! And when a case goes to the brim of absurdity, and it became impossible to further misguide senses, talks about "pathomorphosis" begin that "radically changed classical variants of disease". Corrections which the social life makes in the perception of phenomena sometimes are limited with mere change of terms to more "up to date" ones. Hence the medieval "demon-possessed patient" gave place to its euphemism, "endogenic process" (with this term in Russia till now define schizophrenia, highlighting its genetic nature). It's difficult to say which is better – demon or endogenic process, as the latter (alas) is impossible to exorcize...

Now like before the medical practice is mythologized beyond measure. It is suffused with bidirectional culturally-mediated expectations of a physician and a patient, various beliefs (in the "all-mighty medical science", in a special "objective clinical reality" or in the "alternative medicine", "once lost but recovered knowledge", "author's own method" etc.). Moreover, substantial part of medicine in general and the commercial medical practice particularly voluntary create myths about efficacy of intervention, which are oriented above all things at patient's satisfaction; thence the psychology is cultivated in physician-patient relationship. Sometimes it is directed at creating "a new attitude to a problem" by a patient together with a physician. As in a joke:

"- Well, had your shrink relieved you of enuresis?

- Nah, enuresis remained but I learned to be proud of it!"

In contrast to the classic clinical medicine EBM exorcises myths <sup>3</sup>. EBM is down-grading myths about effect of interventions, with maximally possible "removal" of psychology from the procedure of clinical studies and assessment of their results by blinding patient and physician as well as statistician processing data (blinded controls, blinded randomization etc.). The world "removal" was put in brackets because strictly speaking it is impossible to completely eliminate psychology; rather "psychology of prejudice" (e.g. prejudiced observations and prejudiced inclusion into comparison groups) is transformed into "psychology of random errors" which can be evaluated statistically. From the evidence-based point of view success of treatment depends upon objective regress of signs and symptoms but not upon patient satisfaction. "Heartless discipline", - one might hear from

<sup>2</sup> This notion necessitates a definition of science. I presume that for a science minimum requirements must include reproducibility and mathematical system allowing testing of theories being considered.

<sup>3</sup> Of course EBM may turn to myth but no phenomenon is immune to this threat.

physicians in general and psychotherapists in particular while debating on benefits and disadvantages of EBM. In fact this “heartless” discipline is absolutely disinterested in patient’s opinion though it sounds foreign to someone’s ears.

I’m far from ideas to discard the clinical method and completely agree with classics of the Russian clinical medicine who wrote that only third-rate doctor cannot improve patient’s condition with mere conversation. But these notions have little to do with medical science.

Long ago clinicians should have been ceased to usurp the leading position in the scientific medicine and to guide fundamental researchers. Being guided (or rather misguided) by clinicians they make mistakes, e.g. repeatedly mixing classifications with nature thus putting “a cart in front of a horse”. For example, researchers seek for genetic causes of mental diseases in patients selected for genetic screening using ICD-10 or DSM-III – systems which from time to time lose entire groups of mental disorders...(9).

*“The main problem with EBM, in my view, is that, when conducted on an industrial scale, and rarefied in the ivory tower, it returns us to Galenic arrogance”*. I don’t see any problem with EBM. Making parallels with biology, one might say that above all EBM presents strategy for survival of species, when clinical practice presents strategy for survival of individual. From the biological point of view diseases are only forms of adaptation to ever-changing environment by the means of culling unfit (death) or keeping damaged (as in sickle-cell disease) individuals. These tools warrant not only survival but further development of humans as species. Biology “don’t give a damn” about individuals deceased or disabled in that struggle, it is “busy” with human race in general.

In a similar manner in society unpopular measures for the sake of state interests (which sometimes jeopardize rights and freedom or even life of individuals) are opposed with human rights organizations which solve problems of individuals (like a case in clinical practice). This balance helps to preserve relative harmony.

These two strategies can be neither reconciled nor combined, that’s an aporia! Besides, they are neither logically nor hierarchically associated. They always parallel and supplement each other; we should just realize their designation and make sure that one won’t destroy another because of ideological considerations.

Is EBM perfect? Not at all! But as we know democracy too is just the best of existing imperfections. (Differences of classic medicine from EBM see Fig.)

## **Conclusion**

Thence I don’t see means (and vital need) for reconciliation (or mutual improvement) of these two strategies based upon different, almost antagonistic forms of mentality. As far as medicine will exist, there will be researchers developing new technologies of medical interventions and testing them in epidemiologically sound samples, thus preserving medicine as a species, as well as craftsmen (like conveyor workers) who use offered technologies to bigger or lesser degree, but stand in the first place for eternal Hippocratic values – to comfort, to soothe, to keep in dark patient’s future. The latter goal is nowadays obstructed by institution of informed consent that in totally un-Hippocratic way switch the responsibility for decisions onto a patient. But this is another subject.

(Translated by Dr. Oleg Lobachev).

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**Fig. Differences of classic medicine from EBM**

<b>Classic medicine</b>	<b>Evidence-based medicine</b>
Creating myths	Exorcising myths
“Good treatment” is understood as satisfying patient’s expectations; treatment process is constructed around the psychology of relationship	Doesn’t depend on opinions or wishes of patient or physician (“heartless discipline”). Treatment process is based on evidence
Accent at the senses, obviousness: “... but we see an effect!”	“Neutralization” of the senses; understanding human predilection to see what one wish to see getting blind when the result is unwanted
Instrumental measurements, surrogate outcomes	Clinical outcomes
Reliance at fundamentals (biological mechanism of effect; surrogate measures)	Clinical outcomes, “black box” (mechanism isn’t important)
Statistics	The same but without bias
Small samples	Epidemiologically sound samples
Medicine of authority	Medicine of scientific evidence
Pursuit of unambiguous certainty and absolute numbers	Probabilities