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*Research ethics: Does it play any role in Polish medical
peer review journals?*

The twentieth century philosophical reflection over the nature of science leads – in many different ways – to emphasizing, or even overemphasizing, the importance of the role played by the social element in sciences (4, 5, 7). This element seems to be nowadays considered as a constitutive one of the existence and development of the human endeavor called “science”. Publications of the results of scientific researches could not be any more understood as only the ‘product’ of science. In fact, interpersonal or social communication, which occurs due to these publications, is considered as a crucial factor in the process of reaching scientific knowledge. Undoubtedly, this assumption about the role of scholars’ community in the development of science finds its fundamental sources in the changes in our understanding of the concept of truth.

Stressing the role of publication, and publications of articles in scientific periodicals in particular, finds its roots in the launching of the “Philosophical Transaction” which took place in 1665 (3). Since then, the development of scientific journals has been strictly related to the so-called “peer review process/system”. This system is mainly oriented to guarantee the quality of works prepared for publication. This ‘quality of works’ could and, should be evaluated from two different, however complementary, points of view. The first of them within the literature is named or described as the ‘technical point of view’, the second as the ‘ethical’ one (1). Taking into consideration the fact that ‘technical’ elements of the article, which should be analyzed by the reviewer, deal with the issues related to the methodological appropriateness of the article (i.e. methods used, tools for collecting the data, adequacy of the data, form of presentation etc.) it would probably be better to call this point of view as the ‘methodological’ rather than ‘technical’ one. Ethical problems which should be recognized and evaluated by the reviewer – in particular in medical journals – are related to fulfil the rules of different deontological codes which regulate the use of animals and human beings as the subjects of the researches.

It should not be forgotten, however, that ethical issues appear also as a meta-subjective issue in relation to the methodological point of view. Weijer’s claim that “shoddy science is never ethical” (13, p. 1154) seems to be easy to prove. Prodigality of the scarce funds for scientific research, let alone inflicting unnecessary pain can serve as a justification for ethical disapproval of the practice of ‘shoddy science’. Much more complex is the question if the methodologically advanced science leads to the development of the ethical standards of the research. The aim of this study is to find out if peer-review process which primarily serves to improve the quality of scientific publications is simultaneously a useful tool to promote or, at least, maintain the ethical standards of the research.

MATERIAL AND METHODS

The most influential Polish medical journals were examined. Several issues were taken into account, namely: (1) whether the articles should meet – according to the norms included in “Information for Authors” – ethical requirements to be published; (2) whether these requirements had really been fulfilled in the articles which had been published in the latest available issue of the journal, and (3) whether the journal would be ready to accept for publication the articles which

deal with the ethical problems of medicine. The journals were subjected to the analysis if they had been: (1) listed among "Top 100 Journals" (Index Copernicus, available at: <http://www.indexcopernicus.com>), (2) published in Poland, (3) classified as medical ones, (4) indexed in, at least, one internationally recognized database (Current Contents, Index Medicus/MEDLINE, EMBASE/Excerpta Medica), and if (5) at least one issue, which had been published in 2004, had been available in print form when the analysis had being undertaken (December 28, 2004–January 13, 2005).

RESULTS

Thirty-one journals were analyzed (see Table 1). Among them 26 journals are described as Polish and 5 as international ones (but published in Poland). Sixteen journals accept articles written exclusively in English. Fifteen of the analyzed journals permit to publish articles primarily/also in Polish. All the journals provide their readers with the summaries/abstracts in English. "Psychiatria Polska" prints summaries also in Russian, German and French.

Table 1

Journals covered by the research				
No.	title of a journal	place on the "Top 100 Journals" list	Index Copernicus Value (ICV)	issue covered by the research
1	Journal of Physiology and Pharmacology	7	26.83	55/3/2004
2	Acta Neurobiologicae Experimentalis	13	15.49	4/2004
3	Archivum Immunologiae et Terapiae Experimentalis	19	13.71	52/5/2004
4	Acta Parasitologica	20	13.61	49/4/2004
5	Polish Journal of Pharmacology	24	12.68	6/3/2004
6	Polish Journal of Environmental Studies	26	12.13	13/6/2004
7	Acta Biochimica Polonica	27	11.99	51/3/2004
8	Folia Histochemia et Cytobiologica	29	11.77	42/4/2004
9	Folia Neuropathologica	39	11.17	42/3/2004
10	Medical Science Monitor	60	9.85	10/12/2004
11	Nuclear Medicine Review	64	7.91	7/1/2004
12	Folia Morphologica	65	7.66	63/4/2004
13	Psychiatria Polska	69	6.92	38/6/2004
14	Journal of Applied Genetics	70	6.87	45/2/2004
15	Acta Poloniae Pharmaceutica – Drug Research	74	6.62	61/5/2004
16	Polish Journal of Pathology	76	6.57	55/3/2004
17	Annals of Transplantation	77	6.49	9/3/2004
18	Postępy Biochemii	78	6.42	50/3/2004
19	Klinika Oczna	79	6.42	6/2004
20	Polski Merkuriusz Lekarski	81	6.32	100/2004
21	Polskie Archiwum Medycyny Wewnętrznej	83	6.18	112/5(11)/2004
22	Polish Journal of Radiology	84	6.12	69/2/2004
23	Medycyna Pracy	85	6.12	5/2004
24	Wiadomości Lekarskie	86	6.09	9-10/2004
25	Otolaryngologia Polska	87	6.08	6/2004
26	Central European Journal of Immunology	88	6.07	27/4/2004
27	Folia Cardiologica	91	6.02	11/11/2004
28	Chirurgia Narządów Ruchu i Ortopedia Polska	92	6.02	69/4/2004
29	Medycyna Doświadczalna i Mikrobiologia	95	5.93	56/3/2004
30	Postępy Biologii Komórki	96	5.92	31/3/2004
31	Polski Przegląd Chirurgiczny	98	5.84	9/2004

"Index Copernicus" put a particular attention – in the process of journals' evaluation – to the fact if the journal is indexed at Philadelphia Institute of Scientific Information's Master Journal List (based on 'Impact Factor'). The first ten titles of the journals in Table 1 are covered by this – considered as the most prestigious – indexation.

Articles sent to 18 of all the analyzed journals (58%) had to fulfil some ethical requirements. Editors of all these 18 journals are ready to accept papers for publication only if the author/s provide/s a permission for the research obtained from the appropriate Bioethical Committee. Among these journals, six indicate also – in the "Information for Authors" – that the research has to be conducted according to the norm of "Declaration of Helsinki". In the case of the research on animals, "European Community Council Directives of November 24/1986" and "The National Institute of Health Guide" serve most often as a guidelines accepted by editorial policy of the analyzed journal.

In the last available issues of the examined journals, 470 articles were published. Among them 181 were based on experiments conducted on humans and 61 on animals. Twenty-nine (16%) of the former articles and 29 (48%) of the latter ones included the information about Ethical Committee's permission to carry out the experiments. It should be emphasized that in this analysis "research on human" is understood, in a rather wide sense, according to the definition provided by the "Declaration of Helsinki": "Medical research involving human subjects includes research on identifiable human material or identifiable data" (14). The analysis of the Polish medical journals reveals that the lack of information about the Bioethics Committee's agreement took place particularly often in the articles based on retrospective studies using information from hospital documentation.

Only 2 – "Annals of Transplantation" and "Polski Merkuriusz Lekarski" (6%) – of all the analyzed journals accept articles focusing on ethical problems of medicine. However, some other journals are ready to accept for publication articles related to "other disciplines". The analysis of the content of the issues included in these journals (see for example "Wiadomości Lekarskie") indicates that the editorial practice is to accept articles which deal with medical ethics.

DISCUSSION

Even a superficial study, based on literature review, proves that nowadays the ethical problems related to the peer review process are gaining increasing concern both from 'theoretical' as well as 'practical' point of view. The 'theoretical' point of view is expressed in the publications which deal with these problems, the 'practical' one, in establishing institution which scope is to create and develop ethical standards, in particular in form of 'code of ethics' of editorials/reviews conduct (2,8,12).

An analysis of the content of PubMed database (available at: <http://www.ncbi.nlm.nih.gov/entrez/query.fcgi>, made November 2, 2005) shows that during the last 5 years (2001-2005) there were published 135 articles which respond on keywords "ethics AND peerreview AND journal". It is more than in all the previous years (1986–2000: 96 articles). Bibliographical analysis made by S.N. Young and R.T. Joffe (15) based on MEDLINE, and using as a keyword "misconduct", indicates that the number of publications in 1993–2002 was at most triple as much as decade before. Even if it would be taken into account that these analyses have serious methodological limitations (it should be remembered that the number of journals let alone articles indexed in these databases during the last decades is not a constant, it tends to increase), it seems to be reasonable to maintain the assertion of growing interest that medical scholars put on ethical aspects of peer-review process.

It should be emphasized, however, that almost the only 'negative' point of view is assumed by authors of analyzed articles. There are noticed different forms of dishonest conduct which should be prevented, and if prevention fails, condemned by ethical or rather deontological norms. As a clear example of such an effort could serve the code of conduct of medical editors prepared by The Committee of Publication Ethics (12). This code obliges: "Editors should ensure that research material they publish has been approved by an ethics committee. They should satisfy themselves

that the research is ethical as they can be held responsible for publishing 'unethical' research even if it has been approved by an ethics committee" (12, p. 1010). It seems to be reasonable to expect that the fact of receiving an approval from an ethics committee is always acknowledged in the article's methods section (6).

Obviously, the problem of ethics of peer-review system could not be restricted to the question if this system takes care about ethics committees' permission on research. Though this issue should be considered as an essential one, undoubtedly, no less important are the problems, related, among others, to (a) the person of author (plagiarism, dual publications and so-called 'salami', when the whole work is divided into as many manuscripts as possible "with considerable overlap of materials, methods, introduction and discussion" (6, p. 225)); (b) person of reviewer (honesty, and constructive manner of assessment of research, confidentiality, exclusion of any conflicts of interests with author/s, respecting timeliness and the question of reviewer's monetary compensation (1, 9)). (c) editorial board (nondiscriminatory policy (10), liberty from political or any other unjustified pressure (11), providing sufficient editorial 'tools', such as for example the linguistic help, particularly for the authors who do not write articles in their maternal language (11)).

As was mentioned above, the review of the literature proved that all these issues were discussed, almost exclusively, from 'negative' point of view: "what should not be done". However, taking into account that the innate principle of the ethics, known from scholastic philosophy as the rule of 'synderesis', obliges human beings to do good and restrains from evil, this 'negative' approach to moral problems should be overcome. Contemporary medical ethics or bioethics should not be 'the ethics of limitations' only, but simultaneously it ought to become 'the ethics of road signs', which positively indicates the right directions of moral conduct. In this article it is assumed that publishing in medical journals of the papers dedicated to ethical issues could be considered as an effective tool to promote developing of moral standards in widely understood medicine.

CONCLUSIONS

The obtained results permit to draw a conclusion that peer review process in Polish most prestigious medical journals does not guarantee the maintenance of the ethical standards of the research let alone contributes to developing them. It is two facts that should be emphasized. (1) Even when in the "instruction for the authors" journal's editors claim that papers sent to publication must meet some ethical criteria, in particular, be based on the research which had been accepted by the local bioethical committee, the information about such a permission in printed paper is very often omitted. It could cause some form of "devaluation" of the importance of the ethical requirements, which authors can perceive as unimportant ones, the fulfillment of which nobody really takes care. (2) The second disquieting fact is that only two journals are ready to accept the papers which deal with the medical ethics, and to participate in the development of the moral consciousness of Polish doctors and other health care professionals.

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SUMMARY

Ch. Weijer's claim that "shoddy science is never ethical" seems to be easy to prove. Much more complex is the question if the methodologically advanced science leads to develop the ethical standards of research. The aim of this study is to find out if peer review process which primarily serves to improve the quality of scientific publications is simultaneously a useful tool to promote or, at least, maintain the ethical standards of research. The most influential Polish medical journals were examined. There were taken into account: (1) whether the articles should meet – according to the norms included into the "Information for Authors" – ethical requirements to be published; (2) whether these requirements had really been fulfilled in the articles which had been published in the latest available issue of the journal, and (3) whether the journal would be ready to accept for publication the articles which deal with the ethical problems of medicine. The journals were subjected to the analysis if they had been: (1) listed among "Top 100 Journals" (Index Copernicus), (2) published in Poland, (3) classified as medical ones, (4) indexed in, at least, one internationally recognized database (Current Contents, Index Medicus/MEDLINE, EMBASE/Excerpta Medica), and if (5) at least one issue, which had been published in 2004, had been available in print form when the analysis had being undertaken (December 28, 2004 – January 13, 2005). Thirty-one journals were analyzed. Articles sent to 18 of them (58%) had to fulfil some ethical requirements. In the last issues of the studied journals 470 articles were published. Among them 181 were based on experiments performed on humans and 61 on animals. Twenty-nine (16%) of the former articles and 29 (48%) of the later ones included the information about Ethical Committee's permission to carry out the experiments. Only 2 (6%) of all the analyzed journals accept articles focusing on ethical problem of medicine. The obtained results permit to draw a conclusion that peer review process in Polish medical journals does not guarantee the maintenance of the ethical standards of the research.

Etyka badań naukowych: czy odgrywa rolę w polskich czasopismach medycznych?

Twierdzenie Ch. Weijera i współautorów, że „licha nauka jest zawsze nieetyczna” wydaje się stosunkowo łatwe do udowodnienia. Znacznie bardziej skomplikowane jest rozstrzygnięcie kwestii, czy metodologicznie zaawansowana nauka prowadzi do podniesienia standardów etycznych w badaniach naukowych. Celem pracy było zbadanie czy/w jakim stopniu proces recenzowania prac, którego podstawowym zadaniem jest podnoszenie jakości publikacji naukowych, jest równocześnie użytecznym narzędziem pozwalającym promować lub co najmniej zachowywać standardy etyczne prowadzonych badań. Ocenie poddano najbardziej wpływowe polskie czasopisma medyczne. Kryteriami włączenia danego czasopisma do oceny były: (1) fakt wydawania czasopisma na terenie Rzeczypospolitej Polskiej; (2) znajdowanie się danego tytułu dnia 28.12.2004 r. na liście „Top 100 Journals” rankingu Index Copernicus, (3) zgodnie z którym również czasopismo musiało być zakwalifikowane jako medyczne, co więcej (4) czasopismo takie musiało być indeksowane w (co najmniej) jednej z głównych bibliograficznych baz danych (Medline, EMBASE, Current Contents) oraz (5) musiał być dostępny drukiem w czasie przeprowadzania analizy (28.12.04–13.01.05) chociaż jeden numer czasopisma z roku 2004 (analizowano ostatni dostępny numer). Tak dobrane czasopisma oceniano ze względu na to, czy: (1) wymogiem redakcyjnym jest, aby składane do druku prace spełniały standardy etyczne (w szczególności uzyskanie zgody właściwej komisji bioetycznej); (2) wymagania takie były rzeczywiście przestrzegane w artykułach opublikowanych w analizowanym numerze danego periodyku oraz (3) redakcja jest gotowa rozważać do druku prace zajmujące się etyką medyczną. Stosownie do przyjętych kryteriów przeanalizowano 31 tytułów czasopism. Artykuły przesyłane do 18 z nich (58%), zgodnie z wymaganiami redakcyjnymi, musiały spełniać określone wymagania etyczne. W analizowanych numerach czasopism opublikowano w sumie 470 artykułów. Wśród nich było 181 prac opartych na badaniach na ludziach i 61 na zwierzętach. Dwadzieścia dziewięć (16%) z tych pierwszych i 29 (48%) z tych drugich zawierało w swym tekście informację o uzyskaniu zgody na badania ze strony właściwej komisji bioetycznej. Tylko dwa z analizowanych tytułów (6%) w informacji dla autorów wyraziło gotowość przyjmowania prac zajmujących się kwestiami z zakresu etyki medycznej. Przeprowadzone analizy pozwalają na twierdzenie, że proces recenzowania prac w najwyższej ocenianych tytułach polskich czasopism medycznych nie gwarantuje zachowania formalnych standardów etycznych prowadzenia badań naukowych.