

Odgovorno istraživanje u zdravstvenim profesijama

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Dok je istraživačka etika dobro poznat pojam, danas se u znanstvenom istraživanju koristi i pojam istraživačka čestitost, kao prijevod engleskog izraza „research integrity“. Uz to se često rabe i izrazi kao što su odgovorno istraživanje i inovacije (eng. responsible research and innovation), odgovorna provedba istraživanja (eng. responsible conduct of research), istraživačka prijevarena (eng. research fraud ili research misconduct), upitne ili štetne istraživačke prakse (eng. questionable / detrimental research practices).

Koja je razlika između istraživačke etike i istraživačke čestitosti? Premda postoje prilično jasne definicije ova dva pojma, postoji i dosta nesuglasna o tome u čemu se ta dva pojma razlikuju i kakav je njihov međusobni odnos.

O istraživačkoj etici svi znamo puno toga jer se za svako ispitivanje koje uključuje ljude ili životinje mora tražiti dozvola etičkog povjerenstva ustanove gdje se provodi istraživanje. Trenutno je u Europskoj uniji prihvaćena definicija istraživačke etike koju je donijela skupina stručnjaka u okviru projekta Obzora 2020 ENERI (1):

„Istraživačka etika odnosi se na primjenu etičkih principa i vrijednost na različita pitanja i područja istraživanja. To uključuje etičke aspekte ustroja i provedbe istraživanja, načina na koji se odnosi prema ljudima i životinjama u okviru istraživačkog projekta, te moguću zlorabu rezultata u kriminalne svrhe, te se odnosi i na određene oblike znanstvene nečestitosti“.

S druge strane, istraživačka čestitost definira se ovako (1):

„Istraživačka čestitost je prepoznaje kao stav i navika istraživača da istraživanje provodi prema prikladnim etičkim, pravnim i profesionalnim okvirima, obvezama i standardima.“

Smatra se da je pojam istraživačke etike širi od pojma istraživačke čestitosti, a da oba uključuju opće etičko promišljanje, etiku i pravo u proučavanju istraživačkih aktivnosti, moralnih stavova istraživača, normativnih politika organizacija koje financiraju istraživanja, kao i etičkih očekivanja društva (1).

Jednostavnije, moglo bi se reći da je istraživačka etika kritičko promišljanje moralnih problema koji su povezani s ili proistječu iz procesa znanstvenog istraživanja, a da je istraživačka odgovornost sposobnost istraživača da se pridržava visokih moralnih principa i profesionalnih standarda, kao što ih određuju profesionalne organizacije, istraživačke ustanove, vlade i javnost (2).

Dok su razlike između odgovornog istraživanja, kao primjera dobre prakse na jednoj strani, i znanstvene prijevare, kao primjera loše i potencijalno kaznene prakse na drugoj strani, između postoji čitav niz loših, tj. štetnih istraživačkih praksi, od slabe istraživačke metodologije, preko neprikladne analize podataka i izmjene prikaza rezultata, do ispuštanja nekih podataka i nezaslužnog autorstva. Smatra se da je ozbiljna znanstvena prijevarena rijetka, tj. da samo oko 2% istraživača priznaje da je varalo u istraživanju (3). S druge strane, štetne istraživačke prakse pojedinačno imaju mali utjecaj na znanost, ali su toliko česte da kumulativno jako štete znanosti. Primjerice – u usporedbi s zastupljenošću znanstvene prijevare, probleme i zlorabu autorstva prijavljuje više od 20% istraživača (4), što je oko deset puta više nego što je procijenjena zastupljenost znanstvene prijevare (3). Tablica 1 prikazuje neke česte štetne znanstvene prakse, kako ih je definirala Nacionalna akademija u SAD.

Tablica 1. Primjeri štetnih istraživačkih praksi (prema ref. 5)

Štetne prakse autorstva kao što je honorano autorstvo, zahtijevanje autorstva u zamjenu za pristup prije prikupljenim podacima ili materijalim, zapriječivanje autorstva onima koji su ga zaslužili
Loše čuvanje podataka ili nepristajanje na dostupnost podataka, kodova ili drugih informacija ili materijala iz istraživanja, a prema odredbama i politikama ustanove ili standardne prakse u području
Zanemarivanje i iskorištavanje uloge mentora u istraživanju
Neprikladna statistička analiza (koja nije falsificiranje podataka)
Neprikladne politike i postupci ustanova ili njihova nesposobnost da potiču istraživačku čestitost i pravilno postupaju u prijavama istraživačke nečestitosti, te manjkava provedba politika i postupaka
Iskorištavajuće i neodgovorne prakse urednika časopisa i recenzenata u objavi znanstvenih članaka

Iz tablice je vidljivo da se istraživačka čestitost ne odnosi samo na izravni proces istraživanja, nego i na njegov širi, društveni aspekt (Tablica 2).

Tablica 2. Odgovorna provedba istraživanja

Planiranje istraživanja: <ul style="list-style-type: none">◆ Zaštita ljudskih ispitanika◆ Dobrobit laboratorijskih životinja◆ Sukob interesa
Provedba istraživanja: <ul style="list-style-type: none">◆ Prikupljanje i zaštita istraživačkih podataka◆ Mentorstvo i odgovornost prema studentima istraživačima◆ Suradnička istraživanja
Publiciranje i recenzija istraživanja: <ul style="list-style-type: none">◆ Autorstvo i publikacije◆ Recenzijski postupak

Odgovorno istraživanje podrazumijeva i prepoznavanje vlastitog sukoba interesa u istraživanju, primjerice zbog novčane potpore farmaceutske tvrtke. Tijekom provedbe istraživanja treba biti svjestan odgovornosti starijih i iskusnih znanstvenika prema mladim istraživačima, te odgovornosti koja proistječe iz istraživanja u suradnji s drugim istraživačima i skupinama istraživača. Posebice su ti odnosi važni tijekom predstavljanja istraživačkih rezultata u znanstvenim publikacijama, kako sa strane autora, tako i sa strane recenzenata i urednika, koji trebaju osigurati integritet znanstveno članka kao javnog zapisa o istraživanju.

Znanstvena čestitost nije ograničena samo na neke znanosti, nego je dio svakog znanstvenog i

profesionalnog područja, uključujući i zdravstvene struke. Postoje podatci da su neki oblici nečasnog ponašanja rjeđi u sestinstvu, gdje je učestalost retrakcija objavljenih članaka manja nego u drugim područjima (6) ali to ne znači da se u istraživanjima iz zdravstvenih struka ne treba brinuti za odgovorno istraživanje (7), kako u osiguranju okružja za odgovorno istraživanje u ustanovi (8,9) i u suradničkim istraživanjima (10) tako i u razvoju edukacijskih aktivnosti za osnaživanje istraživačke odgovornosti (11).

Kao i u drugim područjima, istraživački u zdravstvenim strukama trebaju se pridržavati principa odgovornog istraživanja, kako ih određuje Europski kodeks ponašanja za istraživačku odgovornost (12),

koji je utkan i obvezan u svim istraživačkim projektima Obzora 2020:

- ♦ **Pouzdanost** u osiguranju kvalitete istraživanja, a koja se odražava u ustroju, metodologiji, analizi i uporabi sredstava,
- ♦ **Poštenje** u razvoju, provođenju, recenziji, objavljivanju i predstavljanju istraživanja na transparentan, iskren, potpun i nepristran način,
- ♦ **Poštovanje** prema kolegama, sudionicima u istraživanju, društvu, ekosustavima, kulturnom naslijeđu i okolišu,
- ♦ **Odgovornost** za istraživanje od ideje do publikacije, upravljanja i organizacije istraživanja, treningu, mentorstvu i društvenim učincima.

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Editorial Responsible research in healthcare professions

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While research ethics is a well-known term, the term research integrity is often used in scientific research today. In addition, authors frequently use terms such as responsible research and innovation, responsible conduct of research, research fraud or research misconduct, and questionable or detrimental research practices.

What is the difference between research ethics and research integrity? Although there are fairly clear definitions of these two terms, there is also plenty of disagreement on how the two terms differ and what is the relationship between them.

Research ethics is a familiar term because every study on humans or animals must seek permission from the ethics committee of the institution where the research is conducted. The European Union accepts a definition of research ethics adopted by a group of experts as a part of the project Horizon 2020 ENERI (1):

“Research ethics addresses the application of ethical principles or values to various issues and fields of research, including ethical aspects of the design and conduct of research, the way human participants or animals within research projects are treated, whether research results may be misused for criminal purposes, and aspects of scientific misconduct.”

On the other hand, the definition of research integrity is the following (1):

“Research integrity is recognised as the attitude and habit of the researchers to conduct their research according to appropriate ethical, legal and professional frameworks, obligations and standards.”

It is considered that the concept of research ethics is broader than the concept of research integrity

but both include general ethical reflection, ethics and law as academic disciplines addressing research activities, moral attitudes of researchers, normative policies of stakeholders funding organizations, and various ethical expectations of the civil society (1).

It could be said that research ethics is the critical study of the moral problems associated with or that arise in the course of pursuing research, and research integrity is defined as possessing and steadfastly adhering to professional standards, as outlined by professional organizations, research institutions and, when relevant, the government and public (2).

While the differences between responsible research as an example of good practice on one side and scientific fraud as an example of poor and potentially criminal practice on the other side, there are a wide variety of poor i.e. questionable research practices, ranging from poor research methodology, inappropriate analysis and distortion of results, to omission or selection of data and undeserved authorship. It is considered that major scientific fraud is rare i.e. only 2% of researchers admitted to have fabricated, falsified or modified data or results (3). Harmful research practices have little individual impact on science but if frequent they can cumulatively seriously damage science. For example – in comparison to the prevalence of scientific fraud, problems and authorship misuse are reported by more than 20% of researchers (4) which is ten times more than the estimated prevalence of scientific fraud (3). Table 1 shows some of the common harmful scientific practices defined by the National Academies of Sciences, Engineering, and Medicine in the USA.

Table 1 – Examples of harmful scientific practices

Harmful authorship practices such as honorary authorship, demanding authorship in exchange for access to previously collected data or materials, denying authorship to those who have earned it
Poor data retention or refusal of access to data, codes or other information or materials from research, and in accordance with the regulations and policies of the institution or standard practice in the field
Neglect and exploitation of the role of mentor in research
Inappropriate statistical analysis (other than falsification)
Inappropriate institutional policies and procedures or their inability to promote research integrity and properly handle reports on research misconduct, and lack of implementation of policies and procedures
Exploitative and irresponsible practices of journal editors and reviewers in the publication of scientific articles

Table 2 shows that research integrity does not only relate to the process of research but also to its wider scope, the social aspect.

Table 2 – Responsible conduct of research

<p>Research planning:</p> <ul style="list-style-type: none"> ◆ Protection of human subjects ◆ Laboratory animal welfare ◆ Conflict of interest
<p>Conduct of research:</p> <ul style="list-style-type: none"> ◆ Collection and protection of research data ◆ Mentorship and responsibility towards young (student) researchers
<p>Publication and review of research:</p> <ul style="list-style-type: none"> ◆ Authorship and publications ◆ The review process

Responsible research also implies to the identification of conflict of interest, for example due to financial support from a pharmaceutical company. During the course of the research we should be aware of the liability of senior and experienced scientists towards young researchers, and also of the liability arising from collaboration with other researchers or groups of researchers. These relationships are particularly important when presenting research results in scientific publications. Authors, reviews and editors need to ensure the integrity of the scientific articles as a public record of research.

Research integrity is not limited to specific sciences but it is a part of every scientific and professional field, including the healthcare professions. There are data that some forms of scientific misconduct are less common in nursing, where the incidence of

retraction of published articles is lower than in other scientific fields (6) but this does not mean that research in healthcare should not pay attention to responsible research (7), as well as ensuring the environment for responsible research in institutions (8,9) and collaborative research (10) and in the development of educational activities in order to strengthen research responsibility (11).

- ◆ **Researchers** in healthcare professions should follow the principles of responsible research just any other field of research. The principles are defined by The European Code of Conduct for Research Responsibility (12) which is embedded and mandatory in all Horizon 2020 research projects:
- ◆ **Reliability** in ensuring the quality of research, reflected in the design, the methodology, the analysis and the use of resources.

- ♦ **Honesty** in developing, undertaking, reviewing, reporting and communicating research in a transparent, fair, full and unbiased way.
- ♦ **Respect** for colleagues, research participants, society, ecosystems, cultural heritage and the environment.
- ♦ **Accountability** for the research from idea to publication, for its management and organisation, for training, supervision and mentoring, and for its wider impacts.

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