



Conflict of Interest General Statement

A person may find him- or herself in a situation where two or more competing interests create the perception or the reality of an increased risk of bias or poor judgment. Such challenging situations come up regularly in both our personal and professional lives. Collectively, we refer to these as conflicts of interest. This term has become synonymous with monetary or personal gain. It encompasses behaviours or actions in which someone (or a member of their immediate family or household) gains personally or financially as the result of that person exploiting his or her position. Conflict of effort on the other hand involves situations where demands from separate entities jeopardize the duties and responsibilities associated with one of more of those entities (e.g., outside consulting activities interfering with duties of one's primary employment). Yet a third type of conflict is called conflict of conscience. Here the conflict is created by having to maintain objectivity in the face of your convictions which go against the grain of something you must act on or evaluate. Such a conflict might emerge during peer review; e.g., being asked to review a manuscript on foetal stem cell research, when you believe that such research is wrong because the origin of such cells is from aborted fetuses.

Conflicts encountered in the profession of science are not inherently bad. Indeed, they are to be expected. It is how they are handled that can lead to untoward, inappropriate, or bad outcomes.

Although scientists have a professional, fiduciary, and ethical interest in the responsible conduct of research, these interests may be compromised by personal interest. A common worry is that financial interest in the outcomes of research can result in unethical behaviour or criminal misconduct.

Discussions about conflict of interest generally focus on financial interests, but it is equally plausible that interests other than financial could compromise the responsible conduct of research. Examples of non-financial interests that might conflict with the integrity of science include career advancement, publishable results, service to patients or students, fame, power, or family and friendships. Another potential conflict can come in the form of conscience. An individual might suffer a conflict of interest if the mission or expectation of the institution is not compatible with his or her personal values.

Of course, having a personal interest does not necessarily mean acting irresponsibly. Although some might take personal interest as a motivation for misconduct, it is obvious that not all individuals would make this choice.

Conflicts of interest are not merely a hypothetical problem. Financial conflicts are associated with altered outcomes of research. Stelfox et al. (1998) reviewed the literature in 1995 and 1996 for reports on the safety of calcium channel antagonists. They classified reports as being supportive, neutral, or critical of these drugs. They found that 100% of authors of reports supporting calcium channel antagonists had financial relationships with drug companies, while only 43% of authors of reports critical of the drugs had such connections with drug companies.

Many different hypotheses might explain this trend, but one lesson is that it would be valuable to know if a published study was supported by industry. Also Wang et al. (2010) reported that authors having declared a financial conflict of interest due to links to pharmaceutical industry did express to a high proportion a positive view on the side effects of the drug rosiglitazone. Less obvious is the impact of food industry on scientific views. Miller (2013) recently highlighted that a link between the activities of a company and the expressed opinions of researchers profiting from activities of the company exists. Bes-Rastrollo et al. (2013) could show that a conflict of interest changed considerably the probabilities of a specific study result.

Principles

Perhaps the adverse consequences of conflicts of interest will eventually be mitigated by the structure of science-- objectivity, blinding of experimenters, repetition of studies, peer review, disclosure, and so on. In practice, this strategy does not address the harms to subjects in clinical trials, misinformation entering the literature, and increased cynicism about science.

Conflicts of interest may increase the temptation to commit misconduct.

Conflicts of interest do not necessarily amount to research misconduct. If the potential gain is large, however, then principles that guide responsible conduct in research may be compromised.

Conflicts of interest could increase the risk of unintentional bias.

Unintentional bias can be a more serious threat than deliberate misconduct, because even those who are biased would be unaware of the ways in which their actions were affected.

For example: Because research is expensive, the research interests of individual scientists are likely to drift toward those topics, methods, and approaches for which support is available. In the design of experiments, scientists may be unconsciously biased to choose, or stick with, approaches likely to provide 'marketable' findings, rather than those designed to increase basic understanding of mechanisms. In the collection of data, a researcher with

significant financial interests may unwittingly introduce bias into enrolment of subjects for a clinical trial, into evaluation of data dependent on subjective judgments, or even into the reading of objective measurements. Finally, unintentional bias could alter choices about data selection, statistical methods, and presentation of results. Government research grants are increasingly expected to be aimed at showing 'marketable' findings; so any issues related to unintentional bias do not only apply to industry funded projects.

Conflicts of interest can lead to harmful misperceptions of scientists and the scientific enterprise.

When large sums of money are involved, it may be difficult for the public, legislators, the judicial system, and even colleagues to be convinced that results were not biased for personal gain. Perceived impropriety can result in consequences as damaging as if intentional misconduct had been committed. With increased media, governmental and public scrutiny, a researcher's reputation, research funding and employment can depend as much on perceptions of integrity as on integrity itself.

GUIDELINES

Beyond the existing rules, the following are guidelines generally applicable to the management of conflicts of interest and commitment:

Avoid and minimize conflicts

Everyone has different interests, and eventually these will come into conflict. Although it is not possible to avoid all sources of conflict, it is in the best interests of the scientific community and the individual scientist to recognize conflicts of interest and to take steps to nullify or mitigate those conflicts; for instance, sell shares in the company, turn down research support, or abandon a project.

Disclose interests

Relevant conflict of interests should be declared in advance before taken over a function in the FENS organization or participating in scientific statements organized by FENS. This can be achieved per example by requests of documentation the conflicts of interests before starting an activity. If there is any doubt of a conflict of interests, the potential conflict of interest should be declared and it should be left to the other colleagues to decide the relevance. As a minimum, the institution and any other parties (e.g. Government, Scientific Societies) with a significant interest in the activities of an individual scientist should be made aware of the extent and nature of the potential conflict relating to that scientist, so they can judge whether it is a conflict that requires action.

FENS board members should be clearly aware of this rule and indicate any interests which may be perceived as conflicts in relation to their activities as Board members. Further, scientists attached to FENS activities, should also disclose their interests at meetings and public presentations. Thus, the FENS board strongly encourages the organizers of FENS-activities, as well the organizers of national nutrition meetings conducted by FENS-members, to request a Declaration of Interests slide in all presentations and a written statement on any poster presentations.

Manage potential for conflict

Disclosure is often not enough because of the risks of bias, the temptation for irresponsible conduct, public and regulatory concerns about the possibility of misconduct, and the appearance of impropriety. For the step of nomination for functions in FENS attempts should be made to identify individuals whose interests may lead to conflicts. These functions should be the responsibility of, or should at least be reviewed by, an un-conflicted individual or group.

References

Stelfox HT, Chua G, O'Rourke K, Detsky AS (1998): Conflict of interest in the debate over calcium-channel antagonists. *New Engl J Med* 338(2): 101-106.

Miller P (2013): Energy drinks and alcohol: research supported by industry may be downplaying harms. *BMJ* 2013;347:f5345. Bes-Rastrollo M, Schulze MB, Ruiz-Canela M, Martinez-Gonzalez MA (2013) Financial Conflicts of Interest and Reporting Bias Regarding the Association between Sugar-Sweetened Beverages and Weight Gain: A Systematic Review of Systematic Reviews. *PLoS Med* 10(12): e1001578

Wang AT, Christopher P McCoy CP, Mohammad Hassan Murad MH, Victor M Montori VM (2010) Association between industry affiliation and position on cardiovascular risk with rosiglitazone: cross sectional systematic review *BMJ* 2010;340:c1344