

Anesthesiology
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Ethics in Publication and the "Operator"

To the Editor:—I would like to comment on your recent editorial that condemned duplicate publication and implied a renewed intention by the editors of the major anesthesia journals to curb it.¹

A deliberate attempt to publish the same original research findings in separate manuscripts is only one manifestation of what has been called the "operator" syndrome in research.² The operator is an individual who is prepared to subjugate the essential values of scholarship in the hope of gaining recognition and reward. Other manifestations of the operator syndrome include false claims of originality in research; capitalization on research conducted by junior colleagues or students; plagiarism of ideas; and inappropriate selection, fabrication, or falsification of research data. Although some of these improprieties are more serious than others, all undoubtedly arise from a predominant desire for self-aggrandizement. All are a cause for real concern in the research community because they strike at the very foundations upon which research and research communications are based—namely honesty, integrity, and trust.³

It is essential that the major journals take a firm stand against attempts at duplicate publication as well as against outright scientific fraud and other unsavory activities of the operator.³ It is important that professional organizations draw attention to these wrongdoings⁴⁻⁶ and that universities have in place both guidelines for the proper conduct of research and procedures for dealing with misconduct, if and when it is reported. However, if we are to become truly effective in preventing these problems, I believe it will be necessary for departments and universities to find ways of countering the climate in which operators and their misdeeds can appear and flourish. The following are some suggested measures.

In considering the potential of residents and young faculty for careers in research, department chairpersons should pay close attention to the essential qualities of scholarship, *i.e.*, curiosity, an interest in ideas, independence of mind, enthusiasm, and a capacity for hard work.⁷ Individuals with these characteristics are most unlikely to become operators. Those who plan to train in research should be actively encouraged to associate themselves with a mentor who is a successful independent investigator and who is held in the highest esteem by his or her peers. Such an experience will normally engrain in the trainee the critical importance of scrupulous conduct in all aspects of research as well as the wastefulness of sloppy or devious behavior.

To develop a local environment that is least conducive to the misdeeds of operators, strong links among the individual investigators within departments should be established. The immediate presence of an interactive mass of scholars is likely to deter many potential operators. Furthermore, an atmosphere of openness concerning research projects and publications should be encouraged among all who participate in research within their departments—including technicians, fellows, research associates, and both junior and senior investigators. Such openness will make it very difficult for operators to act in disreputable ways.

Universities should make clear that recognition for research is linked to responsibility; *i.e.*, if faculty members wish to gain credit for publications to which their names are attached, they must take full and independent responsibility for the contents of each publication. If such individual responsibility is assumed by all authors of a multi-authored report, the temptation for wrongdoing by an individual author will be greatly reduced. Finally, as has been suggested frequently in the past, universities should base promotion on genuine quality in research, for which there are now useful methods of evaluation, rather than on long lists of unimportant publications.⁸ Any emphasis given to the quantity of publications is certain to prompt misdeeds by some operators.

Human nature as it is, we will never eradicate operators nor prevent completely their errant behavior. Nonetheless, I believe that measures undertaken to provide and protect climates of true and responsible scholarship, such as those suggested above, would act to prevent many of these problems. They certainly would be much more effective than statements that simply condemn misconduct^{1,3} and university guidelines that only provide methods of investigating misdeeds when they appear.

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Anesthesiology
75:545-546, 1991

In Reply:—We thank Dr. Knill for his letter which has raised much broader issues than those we wished to address in our recent editorial.¹ As with many labels applied to individuals or groups, the term "operator-syndrome" as a single entity is to a certain extent a caricature. Human nature is extraordinarily complex, and we do not believe that

the exhibition of one vice, namely duplicate publication, implies that all the other vices which are encompassed in the term "operator syndrome" necessarily co-exist. At least some of the examples of duplicate publication of control data to which we alluded in our editorial, resulted we believe, from naiveté or genuine misunderstanding.

The wider issues raised by Dr. Knill have of course been discussed at meetings of all editors of biomedical journals and were also discussed specifically at the recent meeting of editors of anesthesia journals. While editors remain alert to failings in the conduct of research, such as fraud, patently it would be difficult for us to prosecute or prove such suspicions. We concur with Dr. Knill that elimination of such major ethical aberrations lies at local level with individuals, research groups and departmental heads. Our responsibility rests primarily with issues of publication and in this context, it is noteworthy that the International Committee of Medical Journal Editors has issued guidelines on retraction of fraudulent data.²

Finally, we would take mild exception to Dr. Knill's final sentence. Our editorial did not "simply condemn misconduct". If we are provided with ongoing material from authors shown to be deliberately guilty of duplicate publication or fraud, by international collaboration, we can effectively veto publication. However, in essence, we are in agreement with the overall sentiments expressed by Dr. Knill regarding the conduct of research within departments. In all fields of human endeavor it is manifestly clear that ethical behavior will usually be exhibited by individuals recruited for their honesty and integrity.

Anesthesiology
75:546, 1991

Tracheal Extubation in Children

To the Editor:—Pounder *et al.*¹ concluded from their study that awake extubation after the use of isoflurane was associated with more episodes of coughing and airway obstruction than was awake extubation after the use of halothane. The patients in their study, whose tracheas were extubated awake after the use of isoflurane, had significantly longer durations of operation than did the other groups. Koka *et al.*² demonstrated that increased duration of operation is itself associated with a greater incidence of postextubation complications, particularly post-extubation stridor. Pounder *et al.* defend their data by arguing that no relationship could be detected between the duration of the anesthetic and the occurrence of respiratory complications.

However, their study was not designed to detect such a correlation, and therefore it is highly questionable that it would have had the power to confirm or refute such a relationship. In addition, Pounder *et al.* do not comment on the number of changes in patient position during the anesthetics, number of intubation attempts, presence of airway leak, or level of experience of the person performing the intubation. Koka *et al.* showed that all of these variables affect the risk of postextubation airway complications. Lack of control of these variables makes

Anesthesiology
75:546-547, 1991

In Reply:—It is not surprising that there are many opinions on the optimal method to manage tracheal extubation after general anesthesia in children. This is a potentially dangerous period, and those who gain experience with pediatric patients develop their own management regimens, to which they tend to adhere closely. This indeed is how the art of pediatric anesthesia developed. Also, as we stated clearly in our paper, there may be specific considerations that dictate a particular course (*e.g.*, "awake" extubation) in some patients.

In reply to Dr. Jacka and Dr. Froese, we did in our discussion note

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one question whether the observed incidence of airway complications can be attributed conclusively to the agent used.

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the longer duration of anesthesia in our study patients who were anesthetized with isoflurane and in whom the trachea was extubated awake. We looked closely at the data from this group to see whether the few patients who had slightly longer durations of anesthesia also had complications; they did not. Therefore, we believed it reasonable to use this group for comparison. Our study was very different from that of Koka *et al.*, who determined the incidence and contributory factors of postintubation laryngeal edema in infants and children. Laryngeal edema results in persisting symptoms of stridor, is related primarily to