



## **From Submission to Contract: An Evaluation on the Management Process of Research Proposals in Tehran University of Medical Sciences**

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**(Received 09 Nov 2019; accepted 23 Nov 2019)**

### **Dear Editor-in-Chief**

The role of academic research as a powerful tool for knowledge generation and scientific development is undeniable (1). Progress in any aspect depends on two elements of "research" and "accurate planning", the latter has an important contribution to the "research management process", by high-quality research is produced (2). Research output of any academic center is strongly correspondent to its leadership and advocacy towards research. Therefore, accurate monitoring, and evaluation of research are responsibilities of capable and skillful management body, which must be performed with adequate resources and suitable academic infrastructures (3).

The Deputy of Research at Tehran University of Medical Sciences (TUMS), Tehran, Iran is considered to have exceptional influences on the national academic atmosphere. In order to describe the management process of research proposals from the beginning (proposal submission) to the final point (financial clearance), as well as to identify effective factors on the approval process the present project was developed (registration code: 16641-66-01-91).

A checklist containing factors that might have effect on the management process of research projects was initially developed according to literature review (4-6). It was then modified by the Vice Deputy, chief-reviewer, and 10 secretaries of the Deputy of Research.

Multistage sampling scheme was used to select a representative sample of all faculties and research centers (i.e. strata) regardless of the size of research projects. Accordingly, out of each stratum projects whose date of contract or completion was in 2012 were randomly selected. Both completed (a complete financial clearance with principal investigator) and archived (declared completed without financial clearance with principal investigator) was eligible for the sake of the present project. Exclusion criteria included projects of Health System Research (HSR), grant recipients, and independent-funding. Data extraction was based on *Pazhobeshyar* online system using the validated checklist on both completed and archived projects. The present paper describes the results of a subsample of the extracted research proposals (21 proposals: 19 completed and 2 archived) as a template for the full analysis.



We found that the time intervals of completed and archived projects were as follows: 235 and 82 days between submission and contract, 9 and 45 days between review request and reviewer's response, and 2 and 32 days between correction request (from principal investigator) and submission of revision, respectively.

The average time interval between submission and contract increased by 62 days in the absence of methodologist/statistician in research team, and by 7 days for each 10 US\$ increase in the project's budget. On the other hand, the average time interval decreased by 49 days when prepayment was established.

By reviewing 21 projects, we realized that the most notable characteristics of completed projects were shorter interval between submission and contract, and earlier response of principal investigators to submit revisions. We found that completed projects were more likely to have methodologist or statistician in their research team and almost all of them had received prepayments. Hence, early screening for the involvement of methodologist or statistician all along the submission process might be effective to shorten the length of management process. To prevent proposals being archived, a sophisticated review process to monitor time elapse for review and make amendments whenever deem necessary should be developed.

The present study was the first attempt to evaluate the management process of research projects submitted to the Deputy of Research at TUMS. One of the prominent challenges of the study was the integration of TUMS with Iran University of Medical Sciences. Such integration had resulted in analogous management processes, which impeded the data extraction of the present study.

Perhaps one of the most controversial challenges was to have access to the central electronic database of the deputy of research, which should meet many legal and ethical concerns.

universal password required to get access to all research database were amongst other challenges that emerged during the course of the study. These challenges resulted in our inability to carry

out the study in its full scale. Therefore, our study was limited to only one of the research deputy secretaries.

Implementation of this study, even in such small scale, provided valuable information on the effective factors in the approval process of research projects at TUMS. Provision of a universal password, a requisite to get access to the all research projects, will provide a multitude of precious information, which is highly valued for the decision-makers at the research deputy and all over the TUMS.

### Conflict of interest

The authors declare that there is no conflict of interests.

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