An important aspect ensuring quality education and training in a medical and dental institution is the credential of its faculty. So far when it comes to the faculty appointment or promotion, it is quite clear that neither the proposed criteria have been followed nor it has received the attention it deserves. Three criteria are currently used for the appointment and promotion of the faculty in medical including dental institutions. These include; relevant postgraduate qualification, length of relevant teaching experience and the minimum required number of relevant original research publications. All these criteria are very important for ensuring the culture and environment for quality education, training and research. However, when it comes to the evaluation / assessment of the research publications, the relevant aspects are seldom or inappropriately followed. Important aspects to consider when determining the relevance and quality of research articles include:
1. Relevance to the specialty.
2. Contribution and authorship and sequence of a faculty among the listed authors.
3. Quality of research presented in the article.

Relevance of Research Article

There are simple cases in which it is not too difficult to assess the relevance of a research article to fit in a particular and a distinct specialty or discipline. However, in many cases there is an indication of dishonesty and lack of integrity on the part of authors listed in a research article and hence making evaluation becomes difficult. Many of us find it difficult regarding how and where to draw lines between two or more specialties and to determine who should do what and what not. Furthermore, the increasing popularity and emphasis of the need for collaboration between researchers from multiple specialties further complicates the knowing of relevancy of a research title or article to fit into the specialties of some listed as authors. Hence to determine where a researcher could qualify as relevant author or in other words for an article to fit in the specialty or discipline of the author (s) and of the justification for involvement of an author in the conduct and publication of that research, requires special expertise.

So far, this has been done by the so called experts of the local promotion / selection committees with guidance from the Pakistan Medical and Dental Council (PMDC) but unfortunately in the most inappropriate manner. If a scrutiny of the considered articles for the promotion of medical / dental faculty in any medical institution is performed, most of us will be extremely surprised to know about the obvious malpractice of considering irrelevant articles. One will surely see abundant examples of mixed and different specialty / subject authors in one article. Those to whom this task is delegated, need to be more vigilant and expert so as to properly determine this aspect of a research article.

Contribution, Authorship and Sequence of the Listed Authors in a Research Article

At present, the best-known guide for deciding authorial credit is the revised Vancouver Convention
Traditionally, it has been the journals asking the writing and Review draft and Editing. Supervision, Validation, Visualization, Manuscript Contribution of resources, Development of software, Devising methodology, Project administration, to authorship; Conceptualization, Data curation, contribution to the 14 distinct areas deemed relevant to provide an accurate summary of each author's in which the applicant claimed authorship.

Documents be available for the submitted article(s) none. Hence, it must be made mandatory that these author and also who did more and who did less or it will be fairly easy to see who is and who is not be present. With these documents available as part of the names of all listed authors of the article must and the research trial registration office in which conducted research. Such a document to prove this that it should be the institution to provide for a new model of credit allocation, one solution that is proving popular is to give joint first authorship to numerous collaborators. This phenomenon was seen in just 1% of publications in the year 2000, but raised to 8.6% in 2009 and by 2019, the majority of papers published in some journals used joint first authorship – with 11 joint first authors listed in two papers. Of the 28 papers published in the first three issues of the Journal of Clinical Investigation in 2019, for instance, 12 listed three or more authors as co-first authors, while one paper listed nine. This further highlights the importance of providing authorship information from the institution(s) where the research had been conducted.

Quality of Research Presented in the Article

According to McMaster University, “there are only a handful of ways to do a research study properly, but one thousand ways to do it wrong”. When it comes to assessment of the quality of a published research article, there are several aspects the appointment / promotion committee may look at. The first one is the journal itself in which the article has been published. In this regard, the impact factor of the journal and the number of times the article has been published. In this regard, the impact factor of the journal and the number of times the article has been cited give a clue to the quality of the research carried out by the authors. A Publishing Analytics Company has shown that some 60% of research articles published in predatory journals didn’t attract any citations at all, and that 38% were cited just up to 10 times with less than 3% of the papers attracting more than 10 citations, and none got more than 32 citations indicating the limited interest and readership for these journals or the poor quality research published in these journals. In contrast, an analyses of a random sample of 1,000 research articles published in 2014 in reputable journals indexed in the Scopus database, each of those articles had an average of around 18 citations with only 9% of the papers not cited.

An alternative to impact Factor (IF) score, the Journal Transparency Index (JTI) can also be considered. As per JTI, journals are given a one-out-of-three score if they published data availability statement, two for those requiring authors to share data (subject to exceptions) and a full three out of three if they provided enough data to enable full replication of the study. Journals also receive credit if they offer the option of peer review before
ahead of print

However, preregistration has little value if au-

and mandates registration for clinical trials).

sure transparency, unless a preregistered analysis

for doing so (e.g., flaw, sub-optimality, etc.). To en-

must be asked to present their researches in person

in their article(s) how they deviated from their or-

preregistered analyses alongside the new analyses.

No research project is perfect; there are always

limitations that also need to be transparently report-

ed. It is now a requirement that all research papers

include a limitations section, in which authors ex-

plain methodological and other shortcomings and

explicitly acknowledge alternative interpretations

table about what they did and what they found,

and the journal also must commit to publishing

work that is robust, transparent and appropriately

presented, even if it does not yield 'clean' narratives.

Lastly, it needs to be made a practice to apply

and use the “Reappraised” Checklist when

evaluating the integrity and quality of published

research article. “Reappraised” is an acronym for

11 words including; Research governance, Ethics,

Authorship, Productivity (Plausibility), Plagiarism,

Research conduct, Analyses and methods, Image

manipulation, Statistics and data, Errors, and

Data duplication and reporting. A good journal

will require that the submitted manuscript pass

this checklist to be accepted for publishing. The

appointment / promotion committee should also

re-check to ensure that the published article is up to

mark as per this checklist.

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any research is undertaken - a published format

known as “registered reports”, used by more than

200 journals, in which assessors focus on research
design, rather than end results.

While most commonly, a research article is

evaluated / reviewed starting the review from its

beginning till its end. However, by following this

linear approach to evaluating an article, it could

appear more important and impressive than the

study actually could be.9 Therefore, it is advised

to first assess the “Methods” section. This lets the

assessor know about the adequacy of the scientific

rigor, appropriateness of sample size, experimental
design and protocols and statistical analyses before

reading the story of how the authors interpreted

data and what they think means in the big picture.

Once the methods are found robust and solid,

then the assessors continue for the results and the

interpretation of the data. Finally, the Introduction

and Discussion Sections are read and assessed. The

Abstract is obviously read first to make sure that

the manuscript falls within their area of expertise.

Information related to the Ethical approval and pre-

registration of the research study when mentioned

in the article with proof of it given can also help

ensure that methodological approaches would

have been likely to be robust.

A quality research article provides an account of

how its authors addressed a research question (s),

the means they used to do so, what they found and

how the work confirmed or contradicted existing

hypotheses or generated new ones. The assessors

must do their best to see that the authors have presented

their hypotheses and predictions as originally in-
tended. Preregistration of research study is being in-
creasingly adopted across different fields as a means

of preventing questionable research practices and

increasing transparency.10 Good journals strongly

support the preregistration of confirmatory research

(and mandates registration for clinical trials).

However, preregistration has little value if au-

thors fail to abide by it or do not transparently re-

port whether their project differs from what they

preregistered and why. In such cases, the authors

must be asked to present their researches in person

to the committee and provide links to their prereg-

istrations, specify the date of preregistration and

transparently report any deviations from the origi-
nal protocol given in the article. For all deviations

from the preregistered protocol, the authors need to

have indicated in their article(s) how they deviated

from their original plan and to explain their reason

for doing so (e.g., flaw, sub-optimality, etc.). To en-

sure transparency, unless a preregistered analysis

plan is unquestionably flawed, the authors are to

be asked to also report the results of their preregistered

analyses alongside the new analyses.