Counting on Non-quantitative Studies

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I refer to ***Qualitative*** research. The use of the term "non-quantitative" for this article is deliberate and seeks to surface what I think is the bias in general against such undertakings particularly in the field of research which hopes to guide clinical decisions. Being non-quantitative, (and by implication "subjective" or non-objective) many would regard data derived from such qualitative activities as less useful or relevant for us in the medical field. After all, a patient's life often depends on our decisions – how can we, good physicians as we are, not require that such decisions are based solely on truly scientific and objective evidence?

Defining what a good qualitative study is better able to address is probably the best way to change this perception and start to appreciate the value of qualitative research. Whereas quantitative research is good in answering what, who, when, and where, qualitative research is best in exploring why and how particularly as to making decisions related to healthcare; whether it is a patient or a healthcare professional making that decision.[1,2] This should not be confused however with research trying to address questions like why certain treatment regimens are being recommended (such as in clinical guidelines) or why certain drugs or combinations work for certain diseases (usually described as mechanistic studies). Rather, qualitative research seeks to understand – or define – the reasons why certain patients and/or physicians choose to do what they do.[3]

There are many areas in healthcare where more qualitative research can help.[2,4,5] On a personal bias, treatment of Tuberculosis is probably a good example where more published qualitative research especially in the local setting could provide helpful insights.[6] Numerous studies have previously defined the "standard" multiple-drug regimen to be used in tuberculosis: what drugs, how long it should be used, and so on and so forth. However, adherence to such have remained problematic with an increasing degree; with the most serious consequence – increasing incidence of multiple drug resistant (MDR) TB – a dreadful consequence we face in our country.[7] Given the difficulty of treating MDR TB, for both patients and physicians, it is a problem that should be addressed by preventing its occurrence.

Therefore, trying to understand better the reasons behind poor adherence to the treatment regimen in spite of anti-TB drugs being provided at no cost (such as patient fear of drug side-effects, lack of time and money to go to DOTS clinics, social stigma, etc.) would be paramount in this effort.[8,9] With this understanding, physicians, could potentially better motivate patients at the outset to adhere to their treatments and identify possible factors among their patients (e.g., financial and time prioritization) to complete their standard anti-TB treatments.

Knowledge (or lack thereof) of physicians and other members of the healthcare team of the management of re-treatment and latent TB cases – especially as the recommendations continue to change – needs to be understood better as well. Qualitative research involving healthcare professionals may help unravel how this can be made possible and/or improved.

Most importantly for the public health aspect, good data (both quantitative and qualitative) obtained in the Philippines can guide policy makers to design a National TB Control program that are more responsive to the peculiar needs we have in the Philippines as compared, let's say, to a "standard" WHO program. Such qualitative data can best justify deviations or modifications of programs that would be more acceptable to funding sources.

Advocacy for qualitative research in the clinical arena should likewise inform stakeholders that rigorous scientific methodology is also utilized in the conduct of such qualitative investigations.[10-12] In this regard, qualitative research can prove to be a more methodologically complex undertaking. Many of the interventOions used in quantitative research (e.g., through randomization of subjects, double blinding, numbers needed to treat, etc.) meant to address many of the research biases do not carry over well to qualitative research. As a result, what constitutes scientific rigor in qualitative research can be unclear and qualitative studies are not given due credibility. There is however abundant information in published literature to gain better perspective on the rigor that should also exist when conducting valid qualitative research.[11,13,14,19-23]

In fact, business organizations have utilized some of these methodologies quite extensively in an effort to understand their customers better. It is probably in this context, often called market research, that qualitative studies have earned some disrepute among healthcare providers in that it has been done obviously to create commercial advantage. However, such successes can also be translated to creating healthcare advantage for our patient-customers.

It is also quite important to mention that the ethical landscape can prove to be more complex in qualitative research.[3,15,17] Ethical principles are universal but identifying – and mitigating – potential ethical issues specifically as they exist in qualitative research could be entirely different. Direct interviews and/or observation of study participants, for example, is a common

methodology in qualitative research. Ethical issues here include preserving anonymity of the subject, getting an appropriate informed consent, etc. Potential harm to the subject (and investigator!) during the interview process such as creation of anxiety and depression are concerns which may not exist in quantitative research. Sometimes these ethical issues can be addressed proactively in the research methodology. In many instances, however, an interviewer or observer need to be sufficiently sensitive to this during the interview process and be able to apply corrective measures in a timely manner. Institutional review boards (IRBs) may need to be re-consulted any time that ethical issues emerge during the data gathering process. Conducting qualitative research can thus be more demanding to subjects, investigators and even IRBs. More specific guidelines in the conduct of qualitative (as differentiated from quantitative) research may need to be formulated.[11] Training in the conduct of qualitative research is also needed to equip research teams planning to conduct qualitative research.[4]

In the end however, it is not a competition between qualitative and quantitative research. In fact, in a more complicated and complex healthcare environment, combining qualitative and quantitative methodology could be the way to go.[6,11,18] This way we will have a better understanding of how we can truly improve the healthcare of our patients.

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