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Commentary

BRIDGING THE GAP BETWEEN OUTPUTS OF CLINICAL RESEARCH AND UTILISATION TOWARDS IMPROVED HEALTHCARE OUTCOME IN NIGERIAN HOSPITALS.

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ABSTRACT

Worldwide clinical research efforts do not necessarily translate to improved outcomes in clinical practice. However, with the rising challenge facing clinicians in the midst of an environment of increasing health care choices, rising expectations and limited resources, the awareness of this lag is rising globally and health authorities in collaboration with the clinicians in many countries are taking specific measures to address this issue. While certain contributory factors to this problem could be universal and possible solutions generalized, some other issues are specific to socio-political and economic circumstances. This article examines two critical issues of attitudinal barriers and institutional defects contributing to this gap in the Nigeria situation and suggests possible measures for improvement.

"Much knowledge if out of proportion to the disposition of forces, is invalid, however formally correct it may be". **Theodor Adorno** (German philosopher & sociologist 1903 -1969).

"I am dying with the help of too many physicians".
Alexander the Great (356 BC - 323 BC)

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INTRODUCTION

There is a rising challenge for clinicians to provide quality health care in the midst of an environment of increasing health care choices, rising expectations, limited resources, and increasing complexity of choices of delivery systems occasioned by the widening influence of information technology. While medical scientific literature is full of peer-reviewed research identifying innovative medical and health care practices, and despite the considerable amount of resources; time, funds and man-hours expended on clinical research, too little of the knowledge base so generated makes its way into daily use. Even when innovations are implemented successfully in one location, they often disseminate slowly if at all. [1] The impact of this lag is even more profound in developing countries such as Nigeria. The volume of research publications emanating from the both private and government Hospitals and other medical research Institutions in Nigeria has doubtless increased astronomically over the years with little impact either directly or indirectly on the overall care of patients in Nigeria health settings. In order to bridge this gap and make the much needed impact, it is necessary to improve on the present situation towards laying emphasis on the use of findings of well designed and relevant studies and translating them into everyday practice. Unfortunately, applying research findings to clinical decisions is not a simple process. However, some studies have demonstrated that implementation of available *relevant* research evidence is worthwhile, as significant improvements in health outcomes will accrue. [2, 3] Barriers to implementation of relevant research outputs in Nigerian hospitals are traceable to medical practitioners themselves, (attitudinal barriers), as well as institutional defects arising from systemic failure in the pursuit of sustained improvement in healthcare delivery. The identification of such barriers is an important first step in the process of getting research outputs into clinical practice in our hospitals.

1. ATTITUDINAL BARRIERS. In spite of the existence of "effective educational interventions" in the so called advanced countries, there is an acknowledged gap between research findings and their implementation in clinical practice. Cranney et al [4] in a study on why General Practitioners in the United Kingdom do not implement evidence based guidelines in the management of hypertension in the elderly, identified doubts about the applicability of trial data to particular patients as one major barrier. Time pressures as well as financial considerations are other identified factors making the subject a low

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priority. Many times however attitudinal barriers present as a composite in the subconscious of the clinician rather as single isolated elements. A near absence of viable and effective structures for educational interventions would expectedly worsen the situation as is the case in Nigeria and addressing attitudinal barriers would require strategic and sustained educational interventions.

2. INSTITUTIONAL DEFECTS. These relate to defects and barriers in policy formulations in the health system that pose limitations and constraints to the implementation of novel ideas in healthcare practices that emanate from clinical research and to a large extent more often than not relate to the political will of health administrators. It suffices to say that institutional barriers are by their political nature usually difficult but nonetheless amenable. Research led practice is essentially irrelevant when systems are in disarray as clinical decisions not only depend on published research data, but also on clinical expertise, patient preferences and the constraints of public health policies, community standards and budgetary limitations.[5] A holistic approach anchored on effective information dissemination to health policy makers is thus critical. There are at least three identifiable levels where such barriers exist within the setting of Government Hospitals; Intra-departmental level, the Hospital management (together with the governing board), and Ministry of Health which is the supervising arm of the government. Many of the approaches to addressing these barriers are closely interwoven. Some mechanisms to improve on the present situation are here discussed.

MECHANISMS FOR IMPROVEMENT

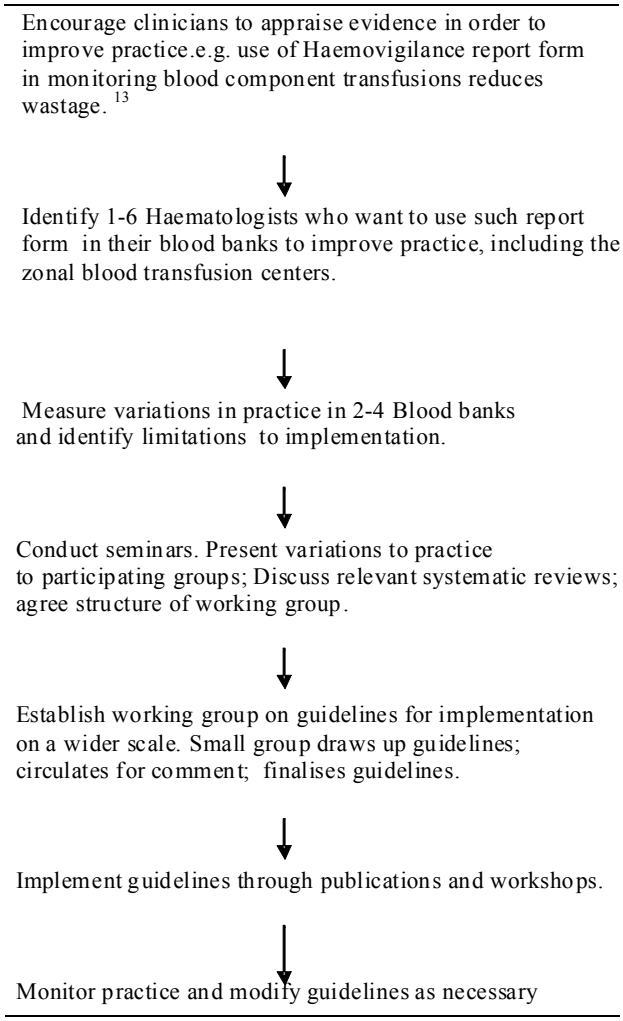
1. In many parts of the developing world access to evidence is largely through literature in one form or another, and there may be little opportunity for getting together with colleagues. This means that the acquisition of skills to find and appraise evidence must be central to all programmes designed to help get research into practice.[6] To ensure clinicians are equipped with skills to find and appraise evidence is an enormous challenge for a developing country like Nigeria, but it has to be tackled. While systematic reviews of rigorous studies provide the best evidence on the effectiveness of different strategies to promote the implementation of research findings, it is clear that passive dissemination of information is generally ineffective and it seems necessary to use specific strategies to encourage implementation of research based recommendations and to ensure changes in practice. Methods will have to be tailored to the particular needs of clinicians and no doubt have to include distance learning techniques. In this regard, the recent decision of the Medical and Dental Council of Nigeria to introduce mandatory continuing medical education activities as a prerequisite for renewal of practicing license for medical practitioners in Nigeria is a step in the right direction.[7] There are virtually no clinical practice guidelines for many specialty fields in Nigeria. Clinical practice guidelines are systematic statements designed to assist doctors in diagnostic and therapeutic decisions, and have a long tradition in clinical medicine. They have been developed by physicians as a means of improving the quality of care and objective medical decision making, as well as of optimizing the use of resources. [8] The main aim of clinical guidelines is therefore that of aiding clinical decision making on the part of doctors who cannot integrate all of the published data concerning new technologies and knowledge in their everyday practice. The development and periodic review of such guidelines from the available body of relevant peer reviewed research materials is another important step that should be taken. The implementation of clinical guidelines could be difficult. However, as this is the only way of ensuring that they actually improve healthcare outcomes, it is important that an equivalent emphasis is placed on implementation strategies and the scientific evaluation of their effectiveness in real clinical settings, including the development of local implementation support systems, clinical audit programmes and methods of feeding back information concerning current practice.[9]

2. Health professionals ought not to be the only beneficiaries of research. There is a need to promote and increase the utilization of research results among all potential users, varying from community members (patients and relations) to policy makers as well. This could be achieved through regular dissemination of research findings to a variety of audiences, including other health professionals, lay readers, and journalists. Journalists in particular are too often left out as we clinicians erroneously believe that "somehow they will get to know". In addition to addressing the need for the dissemination of information, policymakers must also address the barriers to wider acceptance of evidence based guidelines. Mechanisms for such research led practice information dissemination need to be integrated into healthcare policy and management. This can be done by using a multilevel approach. While major policy directions can only be effectively driven at the ministry level, a lot can also be achieved at the hospital departmental level. Departmental protocols (a form of clinical practice guidelines) drawn up based on available body of knowledge and subjected to periodic review should necessarily be an integral part of the functioning tools of doctors in the unit, e.g. the accident and emergency. Sadly, such

practice is limited to few centers. The likelihood of research findings being used will increase if we incorporate how to develop and use a systematic dissemination and communication strategy for reaching different audiences of potential users as an integral part of the framework for medical research, in addition, a plan of action to promote the implementation of the recommendations from our studies should be included. In particular, this would enhance and further improve on the relevance of research outputs emanating from our hospitals, including dissertations submitted to the postgraduate medical colleges.

3. Many hospitals have the Ethics and Research committee; unfortunately however the impact of such committees is little felt in the aspect of driving research led clinical practice. As at present the major input of ethics and research committees is in the area of scrutinizing research proposals and recommending for approval on behalf of the hospital management once such studies are adjudged ethically sound. The operational mandate of the ethics and research committees in our hospitals should be made more relevant in this regard to include being the driving force for the implementation of research led practice by setting in motion mechanisms for sieving through the gamut of research outputs -for a start such might even be limited to studies emanating from such centers, making information accessible to all users of healthcare (as evidence of effectiveness is also of interest to those who use healthcare services) and making recommendations for implementation to the hospital management board where policy issues are indicated. Furthermore, the hospital management boards of our various hospitals, being the critical link between the hospital and the highest policy making organs in health sector i.e. the health ministries, ought to take more than passive interest in the area of research led practice in the various hospitals they serve. Issues of research led practice should necessarily be given the needed attention at this level. Unfortunately this has not been the case. In the same vein, the health ministries as the most important policy driving arm of the health sector has a critical role to play in this regard. The necessary drive could be attained through collaboration with the Medical and Dental Council of Nigeria and the Nigeria Medical Association to ensure that specific measures are put in place to collate and integrate relevant research materials for implementation in hospitals. In the last ten years, some national governments began taking action to introduce research led practice in their countries.[10] In Chile, the Ministry of Health established with support from the European Union an office to promote the implementation of research findings. In Palestine, doctors initiated a move towards working with the health minister to establish a national committee on clinical effectiveness. In Thailand, the Ministry of Health and the National Health Services Research Institute set up an office to guide a national quality assurance programme. In South Africa, the Medical Research Council committed support to the production of systematic reviews and evidence based practice. In Zimbabwe and South Africa, researchers are working with their governments to test ways of getting research into policy and practice.[11] In the Philippines, the Department of Health has funded projects to develop evidence based guidelines for its cardiovascular disease prevention programme[12] A model framework for getting clinical research findings into practice is here presented.

Framework for Getting Clinical Research Output Into Practice.



4. In another vein, it may appear there has been an apparent disconnect between the focus of medical researchers themselves and the fundamentals necessary to ensure good clinical returns on

investments in "research". This may be related at least in part to the "publish or perish" syndrome in the Nigerian acadaemia, [14] which unfortunately has shifted emphasis of many medical researchers to "how many?" and not "what impact" such works have had even in the immediate health institution where such work was carried out. It has been observed that tropical medicine has a long history of descriptive studies that benefit researchers but have no direct implications for participants, [10] it appears that the general rush to publish mainly for acadaemic recognition has had a rather negative impact on our practice. Every researcher ought to give attention to how his output has affected or is affecting the outcome of medical practice. This, needless to stress is the ultimate endpoint of a good study and there is the urgent need for the medical community in Nigeria to cut through this Gordian knot.

In conclusion, it could be paradoxical but nonetheless appropriate to admit that ultimately, the medical profession is the main constraint on change. Doctors value the freedom to practice medicine as they deem best. Advocates of change need to be aware that some strategies designed to implement research findings will be perceived as a threat to this freedom.[10]

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