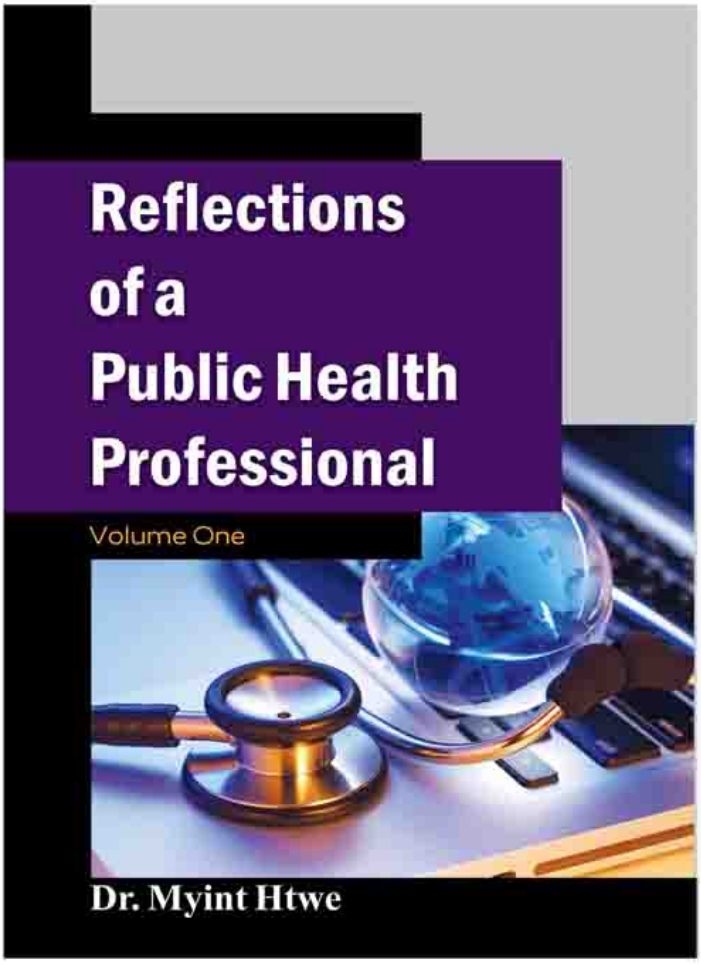
Promoting Utilization of Research Findings



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7. Promoting utilization of research findings

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This paper is aimed at stimulating ideas which can be translated into action to develop strategies for effective application of research findings in health development. It covers issues for consideration in the context of researchers, research institutions, inter-departmental and inter-ministerial procedures, decision makers and programme managers. The barriers in the utilization of research findings and challenges in research dissemination are also highlighted. Strategies to increase the probability of getting research results into practice are also outlined.

Introduction

The forty-third World Health Assembly adopted a resolution (WHA43.19) in 1990 on the role of health research. It urged Member States, particularly developing countries, to create or strengthen mechanisms that would enable the consideration of research findings at the policy-making level, as well as their translation into health systems operations. It also invited the research community to intensify efforts in communicating research findings and in developing technology to support decision making and resource allocation processes. Since then the issue has been regularly discussed in various fora.

Getting research findings into practice connotes making an effort to improve research utilization. It should be undertaken at all levels in the research domain ranging from individual researchers to broad-based institutional programmes. It needs to be emphasized that research utilization is as important as the conduct of research. Each represents different points on the spectrum

of the research process and demands different skills of those engaged in their respective endeavours. In the research-to-application path, the application phase is usually fraught with hindering and frustrating conditions. One must aim to transform the research findings into a context appropriate to the practical environment. In other words, research-based knowledge generated by researchers needs to be translated into both language and operational activities that are easily understood by the end users. Research is essentially unfinished unless the findings are synthesized and applied in practice to improve the existing situation.

The ministries of health must, therefore, not only promote and support health research but must also have an idea why it is being done and what is required from science and scientists. To supplement this, organization and management systems for research should have built-in mechanisms for evaluation of the products of research and for alerting potential users to their value (Davies, 1992). At this juncture, the role of medical research councils, professional bodies, departments of medical research and WHO collaborating centres should be explored with a view to enhancing their role in this activity.

Utilization of research findings in the WHO South-East Asia Region

In the application of research findings in health development in the Region, WHO is only one of the partners. There are several others like bilateral donors, multilateral agencies, ministry of health and related ministries, medical research councils, national policy makers, nongovernmental organizations, and health care professionals at different levels of the health care delivery system. While each provides inputs at varying degrees, some provide a major thrust and others little or none at all to the implementation of specific research findings. In the decision making process concerning the implementation of diverse research findings, it may not be predictable as health research is not

the only concern, it may have to compete with other interests at the local, regional and national levels of the ministry of health and related ministries.

However, in this Region, there is evidence that research findings have been successfully applied in areas such as control of malaria, diarrhoea, dengue fever, hepatitis, poliomyelitis, etc. One hiatus in research has been the inadequacy, both in absolute and relative terms, of the quality and quantity of research into the behavioural, social and economic aspects of health and disease. This has been realized but not adequately addressed. A general improvement of research quality is warranted, both in terms of scientific validity and practical usability. Efforts should be made to concentrate on continued support coupled with technical backstopping of research projects, until they are satisfactorily completed. The low utilization is mainly due to insufficient follow-up and lack of necessary assistance and cooperation in the country. It has also been shown that often the research results were not published even in national journals let alone in international journals. (*Aung Than Batu, 1994)*

Issues for consideration

In order to smoothly transform the findings of research into practice, one may need to review the underlying reasons as to why it has not happened in most cases. By critically reviewing the status quo in light of the overall research process, one may be able to formulate down-to-earth strategies to permeate the process of research utilization into practice. Closs and Cheater (1994) suggest that utilizing research findings is a highly complex task, requiring a positive attitude towards a research culture and the interest of staff. MacGuire (1990) goes further and states that the issue of utilizing research findings in practice goes beyond simply viewing difficulties as the failure of individuals to respond to new knowledge or other innovations. There are many research utilization models (Stetler model; Iowa model; CURN project model, etc.). Some

are based on organizational aspects (organizational process research utilization model: Goode, 1992), and others on the research management and communication process. Issues of utilization actually cut across all levels of the organization, from mission statement and policy documents to procedural manuals. The major issues commonly encountered are as follows:

Issues related to the researchers and research institution

The recommendations made by the researchers are, at times, *abstract and impractical or too complicated* to be understood by policymakers and the implementers. This itself is detrimental to the research community and unknowingly leads to alienation of the research community from the policy makers. Researchers prefer to work by themselves without consulting the decision makers or implementers throughout the research process. They are so engrossed in their work that they *tend to overlook the relevance of their research to national priorities*. Therefore, there is usually little likelihood of using the results of research by decision makers. In addition, researchers tend to use *sophisticated research designs and statistical procedures* in the hope that their research projects will be viewed by others as high standard research. This has virtually resulted in the further isolation of research projects from the end users. In most of the research congresses or seminars pertaining to public health research or health systems research, researchers tend to present their findings without linking its importance to the functioning of the existing health care system. Mention is also usually not made as to how the findings can help improve the overall performance of the health care system or of the implications of the results of research under different scenarios.

Issues related to inter-departmental or inter-ministerial procedures

In some cases, there is a thin line of communication between the ministry and research institutions and no attempt seems to have been made

to strengthen it by using various mechanisms appropriate to the local situation. Decision makers are too busy to be involved in the research planning process especially in formulating and prioritizing the research agenda. They also have the notion that *"research is for the sake of research"* and that the findings have very little to do with the decision-making process. The linkage or path between the decision makers and the researchers is not clearly defined or delineated. This has created a parallel approach in pursuing their respective tasks.

Few countries have advisory or similar committees for putting research into practice and also to specifically review the recommendations of research projects with a view to incorporating them into the ongoing health care system. There are weaknesses in the system for effectively disseminating the results of research projects to various categories of end users. Research findings often reach top managers and policy makers not as a report or even an executive summary or briefing but in the form of a speech delivered to researchers at various committees and commissions. (COHRED).

Issues related to research policy and planning vis-à-vis national health policy

Research is generally not built into the planning process of the national health care system. It is usually considered separately or on an *ad hoc* basis as per the availability of the funds or by donor pressure. This has resulted in research activities being carried out independently of the planned activities of the ministries of health. These types of disjointed activities are not conducive to achieving the stated objectives. Research policies are not always in consonance with national health policies. Research policies tend to be formulated in a compartmentalized manner where there is very little interconnection within the research policy itself. *Reciprocity between the research policies and the national health policies are not noted* and also the dynamicity of this relationship is not well established. When the application of

new knowledge is likely to have political or policy implications, special attention must be given to avoid a backlash.

Issues related to decision-makers and programme managers

Many decision makers do not seem to perceive that findings from research could substantially contribute to improvements in the effectiveness and efficiency of the health care delivery system. In other words, they are not aware of the fact that *research is one of the important and practical tools to solve administrative and managerial problems.* There is also unwillingness on the part of the decision-makers to initiate a change in the system or sometimes they themselves are unable to change the system because of the bureaucratic nature of the overall system which hampers any form of change.

Challenges to research dissemination

The overall intention of research dissemination is to initiate the process of getting new knowledge used for the good of the society by increasing the effectiveness and efficiency of the health care delivery system. Publication of research findings is part of the career ladder of research scientists. While there may be higher status attached in publishing in international journals, arrangements must be made to facilitate early dissemination of results in local journals. Such dissemination is important for communication with local health authorities and other potential users of the findings (A43/ Technical Discussions/ 2 WHO HQ). It is also noted that the high cost and proliferation of professional journals have become important barriers to “keeping up with the literature”. The dissemination of research information is generally aimed at three categories of workers in the ministries of health viz. (i) clinicians; (ii) public health professionals/programme managers; and (iii) decision/policy makers. All three categories are knowledgeable in the respective fields of research. These people

are busy with their own sphere of activities and find very little time to keep abreast of the latest findings in research. The dissemination of implications of research findings, especially health systems research, down to the community level is not being promoted in a simplified form that can be understood by the community, especially in developing countries. Careful attention, therefore, should be given as to *(i) what, when and how to disseminate the research results; (ii) intended target population and their level of interest and knowledge; (iii) a mechanism for follow-up to study the impact or implications of incorporating the research findings.*

Barriers to utilization of research results

The diffusion of scientific knowledge in society is a complex process influenced by education, culture, political organization and stage of development of the country among others (Davies, 1992). The attitude of programme managers towards research and the knowledge and perception of research utilization has been found to adversely affect active involvement of programme managers in research utilization. Educational preparation and personality factors are important determinants for utilization of research results. Hunt (1981) suggests that research findings are not used in clinical and public health practice due to the following reasons.

- They do not know them
- They do not understand them
- They do not believe them
- They do not know how to apply them
- They are not allowed to use them

All these factors are equally important in formulating the strategies for improved utilization of research findings. Many studies have been carried out

to identify barriers in utilizing research findings. It was found that the following four main characteristics were responsible for its use (Funk, 1995).

Characteristics of the adopters such as research values, skills, and awareness

Under this rubric, lack of awareness of research, being isolated from knowledgeable colleagues with whom to discuss the research results, being incapable of evaluating the quality of the research and the benefits that would arise out of the change based on the findings of the research was minimal. The feeling of gaining very little self-benefit on many aspects, unwilling to change or try new ideas and approaches, not seeing the value of research for practice, are found to be major factors hindering the use of research findings.

Characteristics of the organization such as setting barriers and limitations

Under this rubric, insufficient authority to change as per the findings of research, insufficient time allocated to think new ideas and methods related to research findings, and non-cooperation or lack of support from professional staff working in the same organization are identified as major hindering factors. Insurmountable administrative issues arising out of the change, inadequate support facilities to implement the change, insufficient time to read the research papers and non-existence of in-house fora to discuss the research related to its discipline, etc., are other major factors hindering the use of research findings.

Characteristics of the innovation such as qualities of the research

Under this rubric, non-replicability of the findings, methodologic inadequacies of the research, late publication of research reports, and non-justifiable conclusions drawn from the research are major factors hampering

the use of research findings. Conflicting results in the literature review, and uncertainty about the credibility of findings of the research are other factors hindering the use of research findings.

Characteristics of the communication such as presentation and accessibility of research

Under this rubric, inability to understand the sophisticated statistical analyzes used, lack of clarity regarding implications for practice, and research reports not being clear and readable, are found to be major factors hindering the use of research finding.

Strategies to increase the probability of getting the findings of research into practice

A number of attempts have been made to increase the utilization of research findings by formulating an array of strategies. One caveat is that strategies must be practical and be able to be generalized widely taking into account the organizational constraints (Cavanagh, 1996). Care should be taken while developing the strategies that research utilization is not seen as a separate entity which the staff performs independently of other duties(Rodgers, 1994). It is worthwhile to consider those factors and issues which are directly as well as indirectly related to putting the findings of research into practice. The issues span the planning phase of the research process to actual utilization and also follow-up on the implications of its use. The implementation process of each strategy may require a set of activities which could be developed according to the requirement of the local situation. The strategies outlined below may, to some extent, overlap with one another.

Strategies related to research policy and planning

(i) Undertaking research planning within the framework of existing health development programme

(ii) Involving health programme implementation unit or planning cell in the ministry in formulating research agenda and activities

(iii) Consulting decision makers on the proposed research subjects at the very outset and soliciting their guidance

(iv) Participation of policy makers/community throughout the research planning process

(v) Developing procedures for minimizing bureaucratic delays

(vi) Advocating and motivating policy makers and administrators in recognizing the importance of research to solve health problems through informed decision-making

Strategies related to prioritization of research areas

(i) Focusing on priority programmes or priority problem areas of respective geographic or administrative boundaries

(ii) Involving officials from health and related ministries in research agenda prioritization process

(iii) Developing specific funding criteria emphasizing the utilization aspect

(iv) Using set criteria for selection of research proposals such as national significance, scientific merit, and technical feasibility

Strategies related to quality of research

(i) Ensuring high quality of research proposals funded by WHO

(ii) Ensuring close connection between objectives, methodology and technical support

(iii) Maintaining support and backstopping throughout the research process from initiation till utilization of research findings

(iv) Focusing capacity building in high priority areas of research

Strategies related to conduct of research

(i) Conducting research on the most pressing current problems and future needs for health planning and development in a timely manner

(ii) Conducting research-cum-action type of workshop

(iii) Using simple and understandable research methodology and also not applying complicated statistical techniques if ordinary statistics can instead be applied

(iv) Proper monitoring and supervision of research using various management tools and informing interim results to decision makers

Strategies related to research base

(i) Cultivating the research environment that nurtures staff and empowers them in their day-to-day activity.

(ii) Incorporating research utilization themes into the mission statements of the institutions

(iii) Providing administrative support by:

- *stating specific mission or philosophic direction that addresses the importance of research utilization*
- *identifying job descriptions and behaviours that support research utilization activities*
- *allocating time and resources for research professionals*

(iv) Developing quality research proposals on issues of contemporary importance and systematic follow-up

(v) Development of research utilization mechanisms

(vi) Strengthening links between the policy makers and the research institutions by including senior research managers within the mainstream of decision making in health

Strategies related to dissemination of research findings

(i) Compiling and computerizing research findings by research councils or institutions with built-in mechanism for dissemination

(ii) Setting up special bulletin boards for showing research findings of current interest to staff of the institutions or departments

(iii) Encouraging staff to attend research conferences and present papers/ posters related to research utilization projects

(iv) Promotion of simplified and high profile advocacy newsletter for senior officials

(v) Conducting research forums or research utilization workshops involving WHO collaborating centres

Strategies related to translation of new knowledge into practice

(i) Establishing a permanent, built-in mechanism to relay relevant findings of research to decision/policymakers/programme managers/public health professionals

(ii) Restructuring or forming proactive research utilization committees as change agents in the research institutions and ministries of health

(iii) Making research-based recommendations as simple and practical as possible taking into account the existing system of the health care system

(iv) Developing a validation system for research findings of national significance

(v) Making research journals that contain functional research projects easily accessible to health professionals in order to create a research-friendly atmosphere

The strategies envisaged above can be put into practice provided there is organizational commitment and availability of resources.

Conclusion

Actually public health programmes can be conceptualized as a pyramid. Research knowledge forms the base of the pyramid. Out of it, standards/ norms/methods/procedures are developed. The public health information and documentation systems serve as a supporting pillar. Research-based practice is a necessity, especially in today's health care climate with its increasing demand for high quality, cost-effective health care.

If the ultimate benefit of research is ever to reach the clients, research findings must be understood and implemented by health managers at all levels of the system. The research utilization attitude is also influenced by the end users' understanding of research utilization concepts, skills in reading and critiquing research articles, applying them into practice and evaluating the impact of the innovation. The success of research utilization depends upon the interest and commitment of both researchers and end users. It cannot be achieved by any individual working in isolation (Bircumshaw, 1990). Translating research into practice is neither easy nor quick. Research utilization is an organizational responsibility. It is best accomplished if there is a commitment to do so at the organizational level. In conclusion, it can be stated that applying research findings in clinical and public health practice is perhaps the biggest challenge facing all of us (Sheehan, 1986).

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