INCORPORATION OF RESEARCH FINDINGS IN HEALTH POLICY FORMULATION IN ZANZIBAR: AN IGNORED NECESSITY

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Abstract

This article through the guidance of evidence-based policymaking framework and the two communities' theory on research utilisation qualitatively examines the interface between research findings and health policy formulation in Zanzibar. It specifically examines the application of research findings in the formulation of Zanzibar's 2011-health policy, the linkage between policy makers and researchers in the formulation of the policy as well as the challenges that limited the use of research findings in the formulation of the policy. Data for the article were collected from 50 interviewees. The study found that the use of research findings in the formulation of the Zanzibar's health policy was minimal and formal linkages between policy makers and researchers hardly existed to enhance evidence–

based policy formulation. The limited interface between research findings and health policy formulation was attributed to lack of human and financial resources as well as commitment to establish institutions and institutional mechanisms required for furthering the same. As such, deliberate measures should be taken towards revitalisation of institutions for coordinating and furthering research within the Ministry of health and between the Ministry and researchers, increasing research and development resources and improving mobilisation of research findings and easing access of the same.

Key words: policy formulation, health policy, policy makers, researchers

1.0 INTRODUCTION

Research findings[1] are increasingly being recognised as critical inputs in informing policy formulation[2] in the health sector (Strehlenert *et al.*, 2015). The interest in how research findings are used to formulate public policies[3] in the health sector has

[1] Research findings are the major outcomes of a research project including its main revelations and suggestions (Albert, 2006).

[2] Policies are principles guiding decisions meant to achieve rational outcomes. It is a statement of intent executed as a procedure/protocol. Policy formulation entails a process of identifying alternatives/options for addressing policy concerns placed on an agenda emanating from policy demands or claims for action on a particular matter made by stakeholders - citizens, the academia, civil society, political actors just to mention a few **(**Birkland, 2016**).** Policy formulation is one out four elements of policy making process. Others are agenda building, adoption, implementation and evaluation.

[3] Public Policies designate actions of a particular government generated in response to pressing public problems brought to the attention of decision makers for

gained worldwide currency (Magayo, 2016). For example, Aro *et al.,* (2015) contend that the European Commission's Research into Policy Initiative, which explored the degree to which European Union member states use research findings in health policy formulation endeavours and beyond, points to this direction. The usage of research findings in informing policies is attributed to the conviction that they introduce new ideas, help in discovering problems and finding solutions, as well as providing frameworks to guide thoughts and actions (Shine & Bartley, 2011). Therefore, research findings are viewed as imperative in ensuring rational policy formulation[4] and abundant literature urges policy makers[5] to use researchers and their research findings in formulating health policies (Larsen *et al.*, 2012). Proponents of the centrality of application of research outputs in formulating policies in the health sector argue that research findings are of utmost importance to policy makers in terms of furnishing them with relevant information for making rational health policies (Hammad, 2017). This is particularly so because research is time consuming, costly and requires competence in research methods, which are lacking among some policy makers, especially when it comes to complex and sophisticated problems (Albert, 2006). No wonder initiatives geared towards the promotion of evidence-based health policy making in different countries include the establishment of National Institutions for Health Research, Universities, and

solution. They are usually in the form of laws and regulations (Hill & Varone, 2017).

4 Rational Policy formulation is an approach of formulating policies that emphasises on picking the best choice among policy alternatives so as to maximise the 'net value achievement' from the chosen option (Hill and Varone, 2017).

5 A policy maker is someone responsible for making policies in the public or private spheres (Birkland, 2016).

Councils for health policy enhancement are accorded due attention (Larsen *et al.,* 2012).

The application of research findings in the formulation of health policies has received considerable attention in many countries around the world (Larsen *et al.,* 2012). Importantly, the Revolutionary Government of Zanzibar (RGoZ) has recognised the importance of conducting research that can produce scientific evidence to be utilised for health policy formulation. This was particularly done through establishing a Temporary Research Task Force (TRTF) to collaborate with the Public Health Laboratory (PHL), College of Health Science (CHS), Zanzibar Health Research Institutes (ZAHRI), and various Universities in undertaking research and sharing findings (RGoZ, 2006). However, literature indicates that research findings by either omission or commission have not been effectively utilised for the development of policies in the health sector in the developing countries including Zanzibar (Hammad, 2017). As such, it can be deduced that developing nations including Zanzibar, whose ability to provide basic health is quite low, grapple with improving basic health without having sufficient informed scientific inputs. The presumed importance of research findings and its limited use in informing the formulation of policies is widely known and supported by literature (Aro *et al.,* 2015). However, limited scholarly information on the effects of limited utilisation of research findings in the formulation of national health policies and the manner in which such situation can be reversed in developing countries including Zanzibar has not been adequately covered in literature (Magayo, 2016). Literature has largely focused on developing countries regarding the matter and over generalised it to all developing countries (Strehlenert *et al.,* 2015). It is

against this backdrop that this study limits itself to examining the application of research findings on the formulation of the Zanzibar Health Policy of 2011 (ZHP 2011). The study specifically examines the linkage between policy makers and researchers in the formulation of the said policy and ramifications thereof. In addition, the study sought to identify the challenges limiting the utilisation of research findings in the formulation of ZHP 2011 and solutions thereof.

2.0 THEORETICAL UNDERPINNINGS

The influences of research findings on policy formulation can be explained through two theoretical strands - the Evidence-based Policy Making Framework (EBPMF) and the Two Communities Theory of Research Utilisation (TCTRU). Below we introduce the two theories in the light of their illumination of the role of research in policy the formulation and the relationship between policy makers and researchers in policy formulation processes. More importantly, the application of each theoretical viewpoint in the current study is delineated.

2.1 Evidence-based Policy Making Framework

Evidence-based Policy Making Framework (henceforth EBPMF) is based on the assumption that policy formulation is rational and looks for the best policy option out of several alternatives informed by scientific evidence relevant to the formulation of a particular policy (Briner *et al.,* 2009). The framework assumes a process of making policies is founded on the best research-based evidence that is anticipated to produce better outcomes than ideologically-oriented ones (Strehlenert *et al.,* 2015). The implementation of EBPMF presupposes researchers and practitioners' teaming up in generating evidence (Briner *et al.,* 2009). Critics of EBPMF argue that policy

formulation cannot be rational because non-scientific ideologies and value judgments have proven to carry more weight on influencing the formulation of policies than scientific evidence does (Magayo, 2016). In the view of Magayo (Ibid), EBPMF provides room for the inclusion of non-scientific evidence in policy formulation. EBPMF's critique notwithstanding, it is an unquestionable fact that scientific research has never been disentangled from policy formulation processes, thus we cannot escape EBPMF in evaluating utilisation of research findings on policy formulation (Strehlenert *et al.,* 2015). As such, this theoretical strand was adopted in the current study to guide in the analysis of the manner in which research findings were used in the formulation of the ZHP 2011, the reasons for their use, the manner in which they were used, and the challenges associated with using research findings in formulating the said policy. Whereas EBPMF explains how researchers and policy makers shall rationally relate in policy formulation and challenges of not following it, it falls short in providing reasons for policy makers' failure of using research findings in policy formulation. This gap necessitated the choice of the Two Communities Theory of Research Utilisation.

2.2 Two Communities Theory of Research Utilisation

Two Communities Theory of Research Utilisation (henceforth TCTRU) contends that policy makers and researchers belong to two dissimilar 'communities' furthering distinct underlying interests (Amara *et al.,* 2004). While researchers belong to a community whose primary goal is to search for systematic, reliable, and accurate understanding of the world, policy makers' community is moved by quickly generated practical information for solving public problems (Hammad, 2017). As such, proponents of this school contend

that policy makers and researchers hardly complement each other although both are considered important in their own right (Banks, 2009). The dissimilarities betwixt policy makers and researchers contended by this school, limits the use of research findings in policy formulation (Bogenschneider & Corbett, 2010). The dissimilar and detached communities' metaphor emphasised by TCTRU is over generalised as cases of policy makers' and researchers' intersection is convoluted by the intrinsic dissections among and within the academia, administrative and political workings of the policy formulation process (Orr & Bennett, 2012).

In light of the dissimilar and detached communities' metaphor and its critique, TCTRU was used in this study to explore the divergence and convergence betwixt policy makers and researchers on the utilisation of research findings in the formulation of ZHP 2011 and its implications thereof, amid the presumed positive impacts of research findings in informing public policy. Applying the two theories in this study accorded the author an eclectic theoretical foundation for analysing the 'how' and 'why' objectives of this article as put forth at the end of the introduction section.

3.0 METHODOLOGY

3.1 Research Design

A qualitative case study design was employed to meet the objectives of the current study. The rationale for choosing this design over others is anchored on the fact that it provides a pan-integrated investigation of a specific unit or event, thus offering wide-ranging information on the phenomenon studied (Bryman, 2015). Since the current study embarked on a thorough investigation of a single unit of soliciting views on the

incorporation of research findings in the formulation of ZHP of 2011, the design is deemed appropriate. The design was selected also because it is flexible and allows the use of various instruments of data collection suitable for answering the "how" and "why" questions, which are dealt with in qualitative studies such as the current one (Creswell, 2009).

3.2 Study Area, Sample, and Sampling

The study was conducted in Mjini Magharibi region. The region was purposely selected because it harbours the MoH and most NGOs as well as Research Institutions in Zanzibar. The unit of inquiry was individual employees of MoH, NGOs dealing with health-related issues and Research Institutions. The researcher used judgmental sampling technique, which accords a researcher liberty of setting the criteria for purposively selecting respondents. In the current study, the respondents were purposely selected because of their direct involvement in health research and policy undertakings in the public or private sector as found relevant following consultations with MoH officials. The study involved 50 interviewees identified through consultations with the heads of units dealing with research and policy issues at the MoH. Out of the fifty (50), thirty six (36) interviewees proportionally distributed among different departments within the MoH, including the directorate of research, planning and policy, which provided the study's key informants within the MoH,. Nine (9) interviewees were purposively selected from Nine NGOs dealing with health related matters and five (5) were purposively selected from five research institutions after consultations with the leaders of the research institutes and the selected NGOs. The Executive officers or their immediate subordinates in charge of research

and policy issues in the NGOs and Research institutions were selected for the interview.

The rationale for the sample size is anchored on the fact that the study was qualitative and that there is no hard and fast rule in qualitative research on sample size other than having sufficient data for explaining a phenomenon (Vasileiou *et al.,* 2018). Such a situation suggests that qualitative studies are informed by the quality of information gathered as opposed to quantitative surveys whose objectivity is based on the recurrence of responses that demand many respondents. Since the population of the Zanzibar Island and the number of Research institutions and health-related NGOs that existed at the time of making the policy was below 60 according to our consultations with MoH officials, and the environment within which the workers of the specific institutions involved in the sample was similar, the sample size was deemed sufficient and representative. Importantly, the information gathered reached a saturation point implying no new information could have been generated through increasing the sample size.

3.3 Data Collection and Analysis

The study made use of primary and secondary data. The primary data were collected through face-to-face in-depth interviews guided by a semi-structured interview guide, while the secondary data were collected through an in-depth review of relevant books, academic journals, and reports on the topic under study**.** Qualitative data from recorded interviews were transcribed, translated, and then subjected to Atlas ti computer software for analysis. Atlas ti software was used to organize and analyse non-numerical or unstructured data then classify, sort and arrange the data to examine relationships. Eventually, the

data were subjected to content analysis of participants' statements and experiences and presented in the form of summarised text and verbatim quotes of participants' statements. All presentations were objectively discussed and conclusions subsequently drawn. For the purposes of increasing the validity and reliability of the findings, the data collected from interviews were triangulated against other data sources and theoretical perspectives.

4.0 RESULTS AND DISCUSSION

4.1 Utilisation of Research Findings in the Formulation of ZHP 2011

Interviews and reviews of relevant documents on how research findings were used to input the formulation of the ZHP 2011 established that the MoH had a weak Research Coordination Unit that lacked sufficient expertise and personnel. The said unit was not specifically charged with the responsibility of facilitating public-private health-related scientific engagements for inputting into policies in Zanzibar.

> *"The ministry never had many competent staff to cater for the health demand of our country. The department of research and policy issues was understaffed with limited resources to perform research functions. …we relied on results found online and commissioned research of international organisations, we met researchers at conferences organised by donors for research dissemination or training and also during exhibitions and health-related holidays set by UN to reflect on varied diseases*" (Personal interview with a MoH staff held on 6th April 2019).

As much as the view above confirms that the MoH lacked a strong research unit to coordinate linkage of public and private researchers in the health domain, it does not mean that the MoH completely ignored research activities. It neither suggests the absence of the relationship between researchers and policy makers as it was established that they met repeatedly through donor-funded health-related research dissemination and discussion conferences and exhibitions where research outputs were shared among them. At most, it suggests limited zeal put on the coordination of public-private health research engagements for policy formulation by MoH. As such, it limited mobilisation of research findings from researchers who believe in and only contribute when formally allowed to do so. A number of interviewees from research institutes did prefer such arrangements and confided that they did not contribute effectively to ZHP formulation because of the absence of formal avenues for exchanging research information.

The quote above also suggests that MoH's has limited staff to discharge research functions singlehandedly. Shortage of MoH Staff and competence in research has been consistently featuring as challenges in the Zanzibar Health Sector Strategic Plans (RGoZ, 2013: 67-68, 74; RGoZ, 2006: 47-48). Researchers involved in the study echoed MoH's limited capacity to engage in rigorous research due to shortage of personnel in terms of number and competence, and contended that they had many useful data to inform positively the ZHP 2011. This position is aptly summarised by a quote from an interviewee working as a researcher in a research institute:

> "*We have conducted a lot of research that could impact policy formulation but the MoH did not seek for our*

> *findings despite having few competent medical practitioners to treat and undertake research. This makes them lack important information for making policies."* (Personal interview with a Researcher from the private sector held on 10th April 2019).

While the research coordination, competence, and shortage of MoH staff have been addressed above, the quote highlights an aspect of shortage of literature related to poor research coordination and cooperation between researchers and policy makers. Shortage of scientific literature at the MoH was observed by the researcher, as the MoH's library, Website and literature found at the research institutes and NGOs had very little home-grown scientific literature. Interviewees indicated that the situation was worse when the ZHP 2011 was formulated almost a decade ago. This said, however, it is worth noting that the MoH had access to free virtual-space literature but problems of connectivity, linkages, and gadgets among MoH workers and stakeholders of accessing such kind of literature were claimed to be huge as the following quote suggests:

> *"… Internet connectivity is somewhat better now compared to the time when we were formulating the ZHP. At the time of making the policy, internet connectivity was problematic and we had few computers. Mobile phones were very expensive and data services were not as they are today. Nobody could use his/her salary to pay for internet to accomplish government functions"*

(Personal interview with a MoH Staff held on 15th April 2019).

The view presented above addresses the challenges of making use of virtual literature at the time of formulating ZHP 2011. This view is widely featured in Zanzibar's 6th Annual Joint

Health Sector Review (RGoZ, 2011:14). In this case, the problem involved lack of access to research findings for evidence-based policy formulation. Another point that needs attention with regard to the research already conducted was that their literature was limited and did not go before the formulation of ZHP 2011 to merit usefulness in the formulation of ZHP 2011. Similarly, the MoH could not present research findings emanating from research conducted for feeding into the formulation of ZHP 2011 except for documentary reviews that borrowed experience of other countries or organisations.

Shortage of rigorous research conducted by MoH and other researchers suggests that the environment for formulating ZHP 2011 was not in favour of locally oriented evidence–based policy formulation. Similar observations were overwhelmingly supported by most of the interviewees who contended that ZHP 2011 formulation benefitted from foreign research findings and experiences. They alluded that the said policy was mainly informed by health policies and standards of international health organisations such as the World Health Organisation (WHO) and International Council for Nursing (ICN) as well as policies from Tanzania Mainland, and neighbouring countries such as Kenya, and Uganda. While benchmarking in policy formulation is imperative, wholesale adoption makes policies alien to its consumers. The externalisation of the scientific inputs to the ZHP 2011 is well described by the following view:

> *"… to be honest, I didn't see any research conducted within the MoH or commissioned to any local researcher to input formulation of the health policy. We borrowed from WHO, the Tanzania Mainland, Uganda and Kenya. The government saved money but denied Zanzibar is a genuinely home-grown health policy"*

(Personal interview with a MoH Staff held on 5th April 2019).

The findings above indicate minimal inclusion of home-grown generated research findings in the formulation of the ZHP 2011. Such a situation is attributed to MoH's limited human resource to undertake research, the limited research findings generated by local research institutions, and poor mechanisms for sharing the same, as well as limited resources for accessing free online literature. The resource-related challenges depicted in this subsection clogged full execution of the dictates of the EBPMF in the formulation of the ZHP 2011, as locally generated research findings were minimal and others were not incorporated due to the challenges evidenced above. As much as the dictates of EBPMF were not fully put to use, it can be said that the formulation of ZHP 2011 did not strictly follow the dictates of the TCTRU. This is the case because the two-dimension metaphor depicting complete breakdown of relations between policy makers and researchers was not evidenced as the following section indicates.

4.2 Policy Makers and Researchers Relations in Policy Formulation

The results from interviews revealed that no formal links were established to ensure that scientists from the Ministry and researchers from the research organisations participated in the formulation of the ZHP 2011. Such a situation emerged because there were no appropriate institutional channels for researchers to communicate findings during the formulation of the health policy.

> *"No formal channels of communication existed to guarantee formal communication between policy makers and researchers in the formulation of the ZHP.*

> *Such a situation makes policies lack formal inputs from researchers and reflect views of policy makers"* (Personal interview with a researcher from Research Institute held on 20th April 2019).

Many interviewees echoed the view presented in the quote above that, lack of formal channels of communication inhibited formal communications between researchers and policy makers in the policy formulation processes. It is imperative to note that the claims reported in the foregoing sentence were generally not disputed by government officials interviewed in this study. Therefore, it can be inferred that communications between researchers and policy makers in the policy formulation processes were largely informal. Similarly, lack of formal linkages was deemed negative by most interviewees; policy formulation processes include both formal and informal channels of information sharing. It is against this background that one health worker said that researchers who wished to air their views could have been presented to the MoH as other citizens and organisations do during the policy formulation process as the following quote suggests:

> *"Researchers' views are important in policy formulation but they are not so special to be given unwavering attention and exceptional treatment. They could simply give their inputs to the MoH as citizens do and could be accommodated"* (Personal interview with a MoH Staff held on 15th April 2019).

The quote above belittles the role of researchers in policy formulation by equating them with all stakeholders involved in policy formulation. It also suggests that, researchers should share their research findings using the existing channels of

information even if they are informal, as they will be worked on by policy makers. Such a position contradicts the views of most interviewees who support the centrality of formal linkages between researchers and policy makers in realising the evidence-based policy formulation logic, as the following quote summarises:

> *"Policy makers and researchers need to work in tandem (as a team) and have regular communication to ensure that the experience of the two produce relevant health policies for the good of Zanzibaris"*

(Personal interview with a MoH worker held on 6th April 2019).

A close look on the issues raised in this subsection suggests that formal communications between researchers and policy makers during the formulation of the ZHP were not in existence. However, this does not merit the view that the formulation of ZHP 2011 strictly followed the dictates of the TCTRU, as the two-dimension metaphor indicating a complete breakdown of relations between policy makers and researchers was not evidenced. What was evidenced was a lack of institutions and institutional mechanisms for the coordination of formal exchange of research findings between policy makers and researchers in the formulation of the ZHP 2011. However, the adverse impacts of lack of formal communication between policy makers and researchers in the policy formulation process was watered down by informal research findings sharing channels between policy makers and researchers as pointed out in this and the preceding section. Conversely, the centrality placed by interviewees on justifying closer communications between researchers and policy-makers due to their strategic roles in policy formulation and its related outputs point against the dictates of TCTRU. Such findings concur with the findings of Briner *et al*., (2009) who contend that policies founded on

scientific data rationally analysed by researchers and policymakers complimentarily are anticipated to produce better outcomes. Since the preceding subheadings overtly indicate limited utilisation of research findings in the formulation of the ZHP 2011, the following section discusses factors responsible for the situation**.**

4.3 Challenges Limiting Utilisation of Research Findings in Formulation of Health Policies

4.3.1 Limited Local Research Findings

The researcher observed that MoH had access to free virtual-space literature that had a lot of foreign generated health-related literature. However, there was limited locally generated documentation in the MoH's Library and MoH's website in guiding policy makers on policy formulation. This view is supported by documents of the RGoZ which indicate that the level of research activities in the Isles is limited due to, among other reasons, limited research capacity, meagre budgetary allocations for research and lack of a recognised body for coordinating health and health-related research activities within the ministry and beyond (RGoZ, 2013: 38,74; RGoZ, 2006: 47-48). While the official documents and one MoH staff support the idea of lack of local research findings to be consumed, researchers from the private sector disagreed with this view and accused policy makers for being uninterested in using ready-made research and easily accessible health-related scientific data, as the following quote represents:

> "… *There is a lot of health-related scientific information produced locally and internationally which are found electronically free, and we can add to the list. We are ready to disseminate our findings through seminars, workshops, and conference but there is none*

> *here. I will be surprised when the MoH tells you they lack research findings from us while, they are not ready to receive them and put them into use"* (Personal interview with a researcher from Research Institute held on 15th April 2019).

The results above indicate that both policy makers and researchers pointed out inadequate research findings at the MoH as among the factors. However, while policy makers attribute this to lack of capacity within the MoH to generate research findings, the researchers relate this to policy makers' lack of readiness to make use of research findings, whether the findings are generated by private researchers locally, found on the internet and/or could be acquired through collaborations with local and international research institutions worldwide.

4.3.2 Policy Makers' Urgency versus Researchers' Objectivity

Another factor associated with limited utilisation of research findings was policy makers' impatience to wait for research results. The idea raised here is that researchers' precision and scientific methodological prerequisites in conducting research take too much time for policy makers to wait, as they need quick inputs to inform policies as the following words from one interviewees substantiated:

> "*…policy makers need quick information but researchers always fail to deliver them quickly due to unending scientific processes aimed at producing accurate information. We don't have time to wait for them while answers to people's problems are known. We make policies and their views will come later when*

> *we review the policies"* (Personal interview with Private Health Practitioner held on 20th April 2019).

The views presented above suggest an over generalised 'reality' because as much as generation of scientific knowledge is often time consuming compared to the making of most policies, but policy making is not a one time show event. Some policies need research evidence requires a trend of several years of repeated research. In this regard, the urgency and objectivity depicted is rather relative. Indeed, most policies are set to solve particular problems and can afford to be prepared hurriedly under the pretext that it can be amended whenever the need arises. The same cannot be said of research, as its precision requires the application of methodological underpinnings that cannot be tampered with. In this context, the urgency of the policy makers cannot be served by researchers. However, there are even more challenges than time. For instance, research requires funding and sometimes the funders interests may be inconsistent with the cultures and interests of the countries where the policies are to be implemented. When funders' interests are not in line with the beneficiaries on the policies in question, research inputs may be rendered irrelevant. One MoH staff member contended that research findings from research organisations are donor-driven and sometimes are not in line with MoH's priorities. Such a situation constitutes a problem for poor countries whose research and development are highly dependent on donor agencies, which have their own underlying interests (Amara *et al.*, 2004).

4.3.3 Political Influence

The study's results on the factors hindering utilisation of research results in policy formulation was also linked to

politicians' interventions in policy formulation processes. It is worth pointing out that politicians and policy makers should be supplied with research-based evidence to guide their policy decisions. However, it was claimed by some interviewees that policy formulation is normally influenced by politics rather than scientific evidence, rendering the work of researchers and technicians worthless in policy formulation as the following quote indicates:

> "*…it is difficult to exclude the political views during the formulation of policies due to the fact that, politicians have power and play a big role in making decisions in this country. Consequently, even very good research findings fail to input policies if they are not in line with politicians' interests"* (Personal interview with a MoH Staff held on 16th April 2019).

As the quote sounds in delineating politicians' role in evidence-based policy formulation, it is imperative to note that no interviewees pointed out specific scientific proposals that were overruled by politicians. They also reported that, politicians always call for pro-poor contents to serve their political interests. Despite the interviewees' observation, it is apparent that, public policy formulation and implementation in Zanzibar are largely guided by the election manifesto of the ruling party, which is assumed to reflect people's interest. Hence, politicians dominate the policy formulation process through this window, as all bureaucrats are supposed to follow its dictates to the letter. This situation calls for serious attention in developing countries because social and economic policies are extremely based on the political and ideological viewpoints and the dictates of the ruling parties (Makulilo, 2012). Similar observations are reported by Albert (2006) who contends that, politicians have

the powers of shaping the public agenda more strongly than other groups involved in policy formulation processes.

4.3.4 Lack of Commitment

Policy makers are supposed to ensure that there is close cooperation between them and researchers in policy formulation. However, most interviewees in this study were sceptical of the commitment of policy makers in ensuring such cooperation. The scepticism was mainly anchored on the absence of a department responsible for nurturing such links in the MoH as expressed in the following quotation:

> *"…policy makers are not committed to collaborating with other researchers in formulating policies. They have failed to put in place a department to coordinate and enhance relations between researchers' and policy makers in searching for, and sharing of, relevant information for the formulation of health policies"*(Personal interview with a researcher from a private Research Institute held on 7th April 2019).

Arguing along the same line, another interviewee had this to say:

> *"…Policy makers have to identify specific groups of researchers and research institutes to collaborate with in searching for knowledge on health issues to make rational policies. Without such commitment, no good policy can be made. They never had such arrangement when making the health policy"* (Personal interview with a Practitioner from a private sector facility held on 9th April 2019).

The views above clearly suggest that lack of commitment in enhancing collaborative research endeavours contributed to poor utilisation of research findings in the formulation of ZHP 2011. Such a situation compelled the policy formulation team develop the policy without incorporating views from local researchers and reinforces the centrality of secondary research findings in policy formulation.

4.4 Cultivating the Culture of Enhanced Research Utilisation in Health Policy Formulation

The study unveils four major factors for enhancing utilisation of research findings in formulation of health policies that are intrinsically linked with budgetary enhancements. The factors are i) improving the MoH's data base and central repository , ii) enhancing accessibility to research findings, iii) enhancing human resource capacity and facilities in the health and policy sectors, and iv) Strengthening linkages betwixt researchers and policymakers as shown below.

Most interviewees recommended that MoH should make concerted efforts of establishing an effective database or central repository for the storage of research findings and other reports produced by its staff and from other local and international research organisations and/or researchers.

> *"The MoH in actual sense lacks a well-functioning information storing and dissemination system to keep data and share them with stakeholders. The information in the MoH's library is scant and hardly attracts readers. It needs to be beefed up by local and international publications and well-coordinated and aligned to meet the MoH's priorities"* (Personal interview with a MoH Staff held on 19th April 2019).

Overall, the interviewees call for an integrated Health Information System (HIS) to ensure storage of quality health information for furthering evidence-based policy formulation. In essence, the HIS could usefully harmonise MoH's information needs, provide tools for national health information policy guidance, and help to improve coordination in the entire health system. While the interviewees called for a functional HIS, they generally alerted that the information should include both sophisticated and simplified research findings so that they can be consumed by both health-related professionals and non-professionals in the said field. The following quote emphasises this position.

> *"The research reports to be put in the information system should not only meet professional standards but the system should also include information that is readable and understandable to policy makers and other people who are unaware of the medical profession by using simple language. They should also provide briefs and concise summaries that focus on applied knowledge for policy formulation as opposed to sophisticated theoretical postulations"*(Personal interview with a Practitioner from a private facility held on 9th April 2019).

The views presented above suggest that evidence-based policy formulation can be enhanced using electronic media that is inclusive and user friendly in terms of its content. This said, however, the MoH would require financing to implement this suggestion. More importantly, many policy makers lack reliable and efficient publicly provided internet connectivity and gadgets to make use of the internet services. In addition, some with their

own gadgets cannot afford, or are unable to incur costs associated with accessing such services for public use. The situation is worse for ordinary citizens as most lack smart phones and computers of benefitting from the advantages of the recommended improvement of the system.

The views above seem to inform the interviewees who recommended enhanced accessibility of research findings. In particular, the MoH was advised to provide avenues for health researchers to present their findings at the Ministry and support its workers to attend various training, conferences, and symposiums where research findings are shared. Such a recommendation is noble, however it would be more helpful if the capacity building will include other early researchers from all research institutions.

Other interviewees recommended that MoH should enhance its human resource capacity and facilities in the health and policy sectors. In particular, MoH through its department responsible for planning, research and policy should ensure that research capabilities of its institutions, in terms of human resource and physical and electronic facilities, are improved, and that health researchers are well trained and exposed to realise the ministry's research priorities, as the following quote suggests:

> *"The Government should strengthen the national health research capacity by increasing the quantity and quality of its personnel and research infrastructure to produce relevant research outputs for policy formulation"* (Personal interview with a researcher from a Research Institute held on 15th April 2019).

The recommendation will help the MoH to have sufficient skilled labour and facilities needed to identify the problems and conduct research that can inform the health policy. Importantly, the view confirms the human resource shortage in the public health domain in Tanzania as Kwesigabo *et al*., (2012) extensively highlighted a decade ago. This makes it logical for most interviewees to recommend for the strengthening of the links between researchers and policymakers. Majority of interviewees over pointed out that, the linkage could be strengthened through collaborative research initiatives involving public and private researchers and forging enhanced platforms for sharing research findings. The view is emphasised by the following quote:

> *"…it is true that there must be a linkage between them (policy makers and researchers) through joint research projects so as to establish a good relationship between the two and influence information sharing which can be used in the formulation of policy to ensure effective evidence-based policy"*(Personal interview with KI from a research institution held on 18th April 2019).

In addition, the results from interviews demonstrated that regular communication is important in creating a complementary association between policy makers and research scientists in the health related policy formulation issues as summarised below:

> *"…it is important to have good and regular communication between and among researchers from varied quarters. This will provide a chance for them to share important information for formulation of policies"* (Personal interview with a MoH Staff held on 25th April 2019).

The view of the MoH Staff member is collaborated by views from a private researcher who proposed that, the establishment of networks between health policy stakeholders is meant to encourage policy makers and researchers to work hand in hand in health policy formulation processes. In particular, researchers need to consult policymakers at the initial stages of policy-focused research processes for them to play a part in shaping the research questions and instruments, taking into account views obtained outside of the researchers' orbit. This could prove imperative in getting the views of varied stakeholders aboard the policy formulation plane and thereby according the policy formulation process wider ownership, legitimacy, and objectivity. By doing so, evidence-based policy making ethos would find its way into health policies. The quotation below summarises this view:

> "…*the reality is that, if there is a network that can connect different stakeholders with researchers and policy makers, it will influence a good relationship betwixt them that will further utilisation of research in policy issues"* (Personal interview with a worker of a private research Institute held on 26th April 2019).

The suggestions of networks above are in line with the suggestions in a study by Hadee and Wright (2015) who recommended that policy makers' and researchers' linkage can be enhanced through proper methods of combining the efforts of the two in research and development endeavours through joint research and information sharing. Such collaboration can make researchers produce relevant information needed for policy formulation and include views of many stakeholders (see also Hammad, 2017). This is further emphasised by Nzuki *et al.*, (2013) who demonstrated that, collaboration between policy

makers and researchers should be encouraged at an appropriate pace and backed by conferences, workshops, and seminars where knowledge can be shared through training and capacity building. This would promote a sense of ownership of the knowledge produced and team work, and subsequently increase utilisation of scientific research findings whenever policy makers are confronted by policymaking tasks.

Synthesising the recommendations made above, one can simply say that the RGoZ should set a bigger budget for health research activities to influence evidence-based policy formulation for effective and efficient health service delivery. Through such enhanced budget, the Ministry will be capable of enhancing its human resource capacity and facilities, as well as calling for collaborative research proposals or inviting health researchers from various research institutes and higher learning institutions for sharing knowledge, allowing criticism, receiving additional comments for improvement and eventually making knowledge perfect for utilisation during policy formulation. Allocation of funds for research and development can also enhance podiums for exchanging research findings between policy makers and researchers.

5.0 CONCLUSION AND RECOMMENDATIONS

The foregoing discussion indicates there was low adoption of research findings in the formulation of ZHP 2011. Such a situation was mainly influenced by lack of commitment of MoH towards establishing workable institutions and institutional mechanisms for ensuring productive formal linkages between public policy makers and researchers, characterized by insufficient human and financial resources required for enhancing evidence-based policy making. This trend denied the

ZHP 2011 of the homegrown research findings from researchers who relied on the formal research findings exchange route. However, institutional deficiencies for formal exchange of research findings between policy makers and researchers were reduced by informal channels of communication for exchange of such information. This clearly negates from the TCTRU theory contending that policy makers and researchers are living in two separate realms and cannot complement one another. Nevertheless, having both formal and informal is more productive for policy formulation. Apart from lack of formal channels for sharing research findings, which limited the potential for the evidence of influencing ZHP 2011, there was an acute shortage of scientifically generated literature relevant for the formulation of ZHP 2011, particularly home-grown literature in the MoH's library and website and from the research institutes and NGOs studied. These suggest that even if the channels were already established, there was limited scientific literature worth sharing for meaningful inclusion into the said policy.

Having limited homegrown literature was rather questionable as numerous research institutions and researchers were already established ad operating. . However, the dearth of locally generated research findings for inputting into the formulation of ZHP 2011 explains and justifies the excessive dominance of the referred to e-generated foreign literature sources. Such a situation compromised the formulation of ZHP 2011 and denied it the advantages of the effects of homegrown policy formulation, which are deemed relevant in influencing policy implementation among beneficiaries. Equally, insufficient human and financial resources required for enhancing evidence-based policy making discussed in this article indicates the

disinterest of resource allocators in evidence-based policy formulation and/or limited financial muscles for enhancing the same despite knowing its advantages.

In the light of the shortcomings delineated above, deliberate measures towards revitalisation of institutions for coordinating and furthering research within the MoH and coordinating the Ministry and researchers' interface in sharing research findings and undertaking joint research endeavours for policy formulation, have to be made. For the purposes of enhancing mobilisation of data and wider dissemination, MoH should establish an effective health information database or central repository system for storage of research findings and other reports from different research institutes and make the collected information freely accessible to all stakeholders. This can be made possible through channelling of more resources to research and development for improving generation of research findings and facilitating access of the same to stakeholders. In particular, the database should include briefs and synopses of research that are understandable by different readers. Resources channelled to research and development shall strive to build the capacities of policy makers and researchers to discharge their functions well and enhance complementarity in evidence-based policy formulation. The recommendations will not be complete without calling for deliberate efforts to be put into reducing the acute shortage of human resource for health and equipping them with necessary equipment, services, and motivation relevant for them to discharge their policy formulation functions effectively and efficiently as professed by the EMBPF.

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