Original Research

Strategies for stakeholders' engagement in the provision of health services: the case of immunization and vaccine development program in Tanzania

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Abstract

Background: Stakeholders engagement has become an important component for making successful implementation of projects. In Tanzania, like any other country, projects in the health sector aim at improving the efficiency and cost effectiveness of the healthcare system. Immunization and Vaccine development (IVD) program engages stakeholders to support its implementation and to ensure its goals are achieved. However, limited empirical evidence exist regarding how stakeholders are involved in different stages of project. This paper aims at exploring strategies for engaging stakeholders in the development and provision of health services in Tanzania.

Method: This study adopted a qualitative approach and data were collected using in-depth interview and analyzed using thematic approach. A total of 16 participants were interviewed and included staff from IVD program, regional and council health management teams and IVD program stakeholders.

Results: The study identified strategies used by IVD program in engaging stakeholders in development and provision of vaccination services in Tanzania. These include mapping of stakeholders, communicating programs' objectives to stakeholders and involving stakeholders in different program activities. Additionally, different means of communicating with stakeholders have been identified. Several barriers have been mentioned to affect stakeholder engagement in managing projects. They include lack of stakeholders' engagement plan, lack of stakeholders' communication plans and unavailability of formal stakeholders' analysis matrix.

Conclusion: The IVD program uses several strategies to engage their stakeholders for the successful implementation of program activities; however, the unavailability of stakeholder engagement tools such as stakeholders' analysis matrix, stakeholders' communication plan and stakeholders' engagement plan present weakness for engagement. This calls for an urgent need to address this challenge to have effective stakeholders' engagement.

Key words: Stakeholder engagement, Immunization program, Engagement strategies, Health services, Tanzania.

Introduction

The health care system has been constantly changing resulting in various innovations and interventions which aim at improving life expectancy, quality of life, diagnostic and treatment options, as well as its efficiency and cost effectiveness (1). These innovations and interventions have been mostly implemented as projects which are supported and funded by both National and International agencies and organizations.

The stakeholders in project management have become important component as they have been influencing the outcome of the projects. A stakeholder is defined as anyone who is impacted by or can impact the project in a positive or negative way (2). The ability of the project manager and team to correctly identify and engage all stakeholders in an appropriate way can determine the success or failure of a project.

Stakeholder engagement is the process used by an organization to engage relevant stakeholders for a

clear purpose to achieve agreed outcomes. It is a fundamental accountability mechanism since it obliges an organization to involve stakeholders in identifying, understanding, and responding to sustainability issues and concerns, and to report, explain and answer to stakeholders for decisions, actions, and performance of the project. The process provides an actionable plan to interact effectively with stakeholders. This process is performed periodically throughout the project as needed (2).

In Tanzania, several projects have been introduced in the health sector aiming at improving populations' health through improving life expectancy, quality of life, diagnostic and treatment options, as well as the efficiency and cost effectiveness of the healthcare system. Immunization and Vaccines Development (IVD) program was started since 1975 with the aim of protecting children against vaccine preventable diseases such as polio, tuberculosis, diphtheria, pertussis, tetanus, measles and rubella, human papilloma virus, and hepatitis "B" (3).

IVD program is a subsection under the Reproductive, Maternal, Neonates and Child Health (RMNCH) section in the Directorate of Preventive Services of the Ministry of Health (MoH). It has five sections which are: Administration, Surveillance (Monitoring and Evaluation), Cold Chain and Logistics, New Vaccine Development (including Routine Immunization and Research) and Training (including demand creation). It is responsible for formulating policies, guidelines and standards for strategic planning and budgeting. Other functions include monitoring, training, technical support, supervision, facilitating procurement of vaccines, equipment and related supplies and ensuring adherence to quality service delivery (3)

Several stakeholders have been engaged to support the implementation of Immunization program and ensure its goals are achieved. They include donor organizations such as Global Alliance for Vaccines and Immunization (GAVI), United States Agency for International Development (USAID), Bill &Melinda Gates, United Nations International Children's Emergency Fund (UNICEF), Clinton Health Access Initiative (CHAI) and Program for Appropriate Technology in Health (PATH), Ministry of Health sections such as Reproductive, Maternal, Neonates

and Child health section (RMNCHS), and Districts health management teams (CHMTs) and health care staff from health facilities and members from media and faith-based organization and the general population.

Despite of the above facts, there is dearth of information regarding how these stakeholders are engaged in different stages of project management from initiation, planning, execution, controlling and closing of the projects. This study was conducted to explore strategies for engaging stakeholders in the development and provision of health services in Tanzania using IVD program as a reference.

Methodology
Study design
A qualitative case study design was employed in this study in order to allow in-depth and comprehensive explorations of how stakeholders are engaged in the development and delivery of health services in the real-life context in Tanzania (4). As a case study, the IVD program reflects the main strategies used by the public health programs in engaging key stakeholders during planning and provision of health services in Tanzania.

Study area
The study was conducted at the MoH department of Policy and Planning (DPP), IVD program, Council health management team (CHMT) of all four municipalities (Temeke, Ubungo, Kinondoni, and Kigamboni) and Ilala city in Dar es Salaam and various stakeholders of IVD program such as UNICEF, CHAI, PATH, and John Snow Inc (JSI). The IVD program was selected because it is one of the public health programs that is well structured with designated immunization officers at national, regional, and district levels, and received strong technical and financial support from different stakeholders.

In this program, project planning and implementation is done at different levels of the health care pyramid which are national, regional and district. Therefore, different views on stakeholders' engagement were obtained at these levels.

Study population, sample size and selection
The study involved 16 participants who are staff from IVD in different level of implementation. At the national level, Program manager, Vaccine Preventable

disease (VPD) Surveillance Officers, Advocacy and Communications officers, and Administration Officer were interviewed. At the district level, District Immunization Vaccines Officers (DIVOs) for five districts (Temeke, Kinondoni, Ilala, Ubungo and Kigamboni) in Dar es Salaam region were interviewed. The study also interviewed five program stakeholders from CHAI (Two), UNICEF (one), JSI (one) and PATH (one). The participants were purposively sampled to include only staffs who were involved in the implementation of IVD projects (5). Table 1 summarizes socio-demographic characteristics of the study participants.

Data collection and management
Data were collected through in-depth interview (IDI) of the key informants by using an interview guide with open ended questions, which allowed participants to give their responses without interruptions. The IDIs were conducted face to face by the principal investigator with assistance from an experienced data collector. The responses were collected using a voice recorder and were transcribed verbatim. Two of the participants did not want to be recorded hence their information was taken through note taking. Data generated from the IDIs and interview notes were checked and cleared daily to ensure its quality, correctness, completeness, and consistency and when necessary an elaboration of some issues was sought from the study participants on the same day. Data were managed with high level of confidentiality and tape recorders with Audio-recorded data and other collected data were well kept and only accessible to the research team. The IDI guide was pre-tested at Tanzania Clubfoot care Organization (TCCO) before the commencement of the study. It allowed the modification of the interview guide for easy understanding of the questions by participants.

Data analysis
The collected data were transcribed verbatim. Preliminary analysis of data was done in the field. A detailed data analysis was done manually using thematic analysis approach (6). and deductive reasoning techniques was employed during data analysis (7). The first step involved listening to recorded interviews and reading the transcribed data and notes taken to have preliminary idea of codes that best described the content from the participants'

responses. In the second step, the codes were generated to describe the collected data by highlighting parts of the transcripts which were relevant to the research questions. The third step was to generate themes from the identified codes; this was done by sorting all codes into sub themes which were further reviewed in step four to see if there were any contradictions among codes forming a theme. In step four, major themes were developed to answer the respective research questions. In the fifth step, themes were defined and named to be able to give answers to research questions and quotes were employed that reflected the participants own words.

Ethical Consideration
The study obtained ethical approval from Muhimbili University of Health and Allied Sciences (MUHAS) Research and Ethics Committee (MUHAS-REC-03-2021-526). Permission to conduct the study was obtained from MoH since IVD program is one of the sections under the ministry. At the regional and districts level, permission was sought and granted from Regional Administrative secretary (RAS) of Dar es salaam region and Districts administrative secretary (DAS) of Temeke, Kigamboni, Kinondoni, Ubungo municipalities and Ilala city council.

A verbal consent from study participants were obtained after the objectives of this study were clearly explained. Confidentiality was maintained throughout the study by maintaining anonymity during data collection, analysis and writing of this article.

Results
Socio-demographic characteristics of the participants
A total of 16 participants were interviewed, 2 staff from MoH, 4 IVD program officers, 5 CHMT members for Dar es Salaam region and 5 stakeholders who are IVD program implementing partners. The participants' age ranged from 30 to 50 years. Their experiences in the program ranged from 6 months to more than 15 years. Among the 16 participants; 5 had master's level of education, 7 had bachelor's degree and 4 had diploma level of education (table 1). There were more male than female study participants (13/16).

Table 1: Socio-demographic characteristics of study participants **(N=16).**

Variable	n (%)
Age of participants	
30 - 34 years	4 (25)
35 - 39 years	4 (25)
40 - 44 years	6 (37.4)
45 - 49 years	1 (6.3)
50 and above years	1 (6.3)
Sex of participants	
Female	3 (18.7)
Male	13 (81.3)
Level of education	
Diploma	2 (12.5)
Bachelor Degree	10 (62.5)
Masters	4 (25)
Work Experience	
0 to 4 years	2 (12.5)
5 to 9 years	6 (37.5)
10 to 14 years	4 (25)
15 years and above	4 (25)

Qualitative themes

The analysis of qualitative data generated several themes indicating strategies used by IVD program in engaging stakeholders in the development and provision of health services in Tanzania. These themes include mapping of stakeholders, communicating programs' objectives to stakeholders and involving stakeholders in different program activities. The analysis also generated another theme on barriers facing IVD program management in engaging stakeholders. These themes include lack of stakeholders' engagement plan, lack of stakeholders' communication plans and unavailability of formal stakeholders' analysis matrix. All the themes are presented below.

Strategies in Stakeholders' engagement

Mapping of stakeholders by the IVD program.

The first reported strategy in stakeholders' engagement is conducting mapping of the stakeholders. Study participants reported several criteria used to identify key stakeholders for the program. The capacity to support program activities either financially or by providing human resource was mentioned as among the main criteria when mapping the stakeholders. The other criterion was identifying stakeholders based on the areas where stakeholders are based, such as area of origin either being local or foreign origin as expressed by one of the key informants below:

> "*As for IVD, we have different stakeholders. Some are local while others are foreign. Some international organizations are within the country like WHO, JSI, Clinton Health Access Initiative. There are organizations such as radio station, tv stations who use their time to speak about IVD issues".* (KI number 4, IVD Program officer)

The matching between the nature of activities of IVD and the stakeholders' interests was mentioned as another strategy for engaging key stakeholders in the program. Other stakeholders were engaged in the IVD Program by virtue of their status or organisation profile. For example, the inclusion of WHO and UNICEF in the committee known as Interagency Coordinating Committee (ICC) which is under the Permanent Secretary of the MoH was because the organizations are working on health service-related activities.

> "*…We are now looking for partners who work with us in our areas of interest. We have managed to get some, and we are still looking*

for others" (KI number 4, IVD Program Officer)

Furthermore, it was reported that occasionally, the IVD program approaches some of the stakeholders based on the activities in their strategic plan. For instance, stakeholders such as CHAI, PATH, African Medical Research and Education Foundation (AMREF) and Vodacom showed interest in the planned IVD Program activities and hence were approached and taken on board. One of the study participants said:

> *"There are those people who approach us; others are approached depending on the profiles of their respective organizations. For example, Vodacom is one of the stakeholders. We are now implementing one of the interventions known as Immunization Registry. We are using them for connectivity as well as the ease to get bundles."* (KI number 3, IVD Program officer)

Stakeholders' involvement in different program activities.

The study reported that active participation of stakeholders in the implementation of the IVD Program activities was an important strategy that IVD program adopts to bring closer the key stakeholders to the program and it also helps in building trust between the two parties, which in turn provides opportunity for stakeholders to monitor how the program meets their development objectives.

The Technical working group (TWG) is a group that has all stakeholders of the program that meet once every quarter. These meetings have been used for program planning, agree together on who will implement the activities based on resources available (financial and human), monitoring, and updating progress of agreed activities.

> *"IVD has a technical working Group. It engages all stakeholders that have interest in IVD services. Meetings are done once quarterly"* (KI number 5, IVD Program officer)

The study findings revealed that stakeholders participate in the IVD Program from the beginning to the end of the program through collaboration with Ministry of Health, participation in technical meetings, contributing to the formulation of the program implementation plan, addressing challenges facing delivery of IVD Program services, building capacity of IVD Program implementing officers and evaluation of the programs.

IVD program stakeholder communication strategy.

This study has found out that in order to facilitate stakeholders' engagement, the IVD program uses different channels of communication with stakeholders including formal letters, phone calls, e-mails, social media platforms such as WhatsApp, Interagency Coordination committee (ICC), and quarterly meetings (through technical working groups -TWGs). Commenting on the means of communicating with stakeholders, one of the participants informed that:

> *"In most cases; we use emails. We also send them the official letter for the coming meeting. We normally use emails for Technical Working Group."* (KI number 2, IVD Program officer)

Furthermore, the study findings show that at the district level, the mode of communicating with community stakeholders follows the local government communication system. All communications about any activity to be done at the community level has to start from the regional administrative secretary (RAS) and Regional medical officer (RMO). Then to District Executive Director (DED) and District medical officer (DMO). The DMO informs the DIVO who works with the ward level to ensure the activity is being implemented.

> *"To reach the DMO office; stakeholders should get the green light from the RAS. At my position, it is hard to directly communicate with stakeholder. DED and the head of department (DMO) can communicate with them, and I will then be informed if there is any implementation to be done."* (KI number 14, DIVO)

Study participants reported that effective communication with stakeholders has enabled the program to achieve its outcomes particularly in availability and accessibility of vaccines to the intended populations.

> *"...key stakeholders have helped to achieve most of our things. For instance, Jhpiego supports us in administering the HPV vaccine to girls. We got enough support in terms of training, meetings, and mobilization, CHAI supports in procurement of Pentavalent (PV) 13 and Rota vaccine for children. Other stakeholders such as UNICEF and WHO help us a lot in training and guidelines dissemination. (KI number 15: DIVO)*

Barriers to the project stakeholders' engagement

The study findings revealed that despite the existence of several strategies to engage stakeholders in the implementation of IVD program activities, there were three main barriers to effective stakeholder's engagement. These barriers are lack of stakeholders' engagement plan, lack of stakeholders' communication plans and unavailability of formal stakeholders' analysis matrix.

Lack of stakeholders' engagement plan

Stakeholders' engagement plan is an important tool for proper guidance of stakeholders' management in any project, however, the findings from this study found out that the program does not have the stakeholders' engagement plan document.

> *"As a Program we do not have such a thing (stakeholder engagement plan document). Nonetheless, I suppose the Ministry has such a document. I guess there is a department which has it." (*KI number 5, IVD Program officer).

Moreover, the study participants noted that the MoH has the roles of formulating policies and guidelines to help programs in health sectors such as IVD to engage their stakeholders. It is the role of implementers and other stakeholders to interpret polices and use formulated guidelines to come up with tools to support implementation.

> *"Of course, the Ministry of Health has guidelines and everything. The first guideline that leads the stakeholders is Policy. In this, we have immunization and vaccination policy. These have been given in the form of broad statements. These are interpreted by implementers."* (KI number 1, MoH program officer)

Lack of stakeholders' communication plan

Related to lack of stakeholders' engagement plan, the study findings also show that the IVD program does not have stakeholders' communication plans. Principally, a stakeholder communication plan is an important strategy in any organization or project, which can help it connect with its stakeholders and through it the project or program can evaluate stakeholders' feedback regarding projects' activities. Moreover, the study findings revealed that the IVD program does not have stakeholders' communication plan document, which might have limited effective communication between the IVD program and its key stakeholders.

> *"I do not think we have a specific means of communication to stakeholders. Our structure is a bit different. All our stakeholders are part of IVD Program; they are in the Technical Working Group"* (KI number 4, IVD Program officer).

Unavailability of formal stakeholders' analysis matrix

Even though interviewed study participants reported several strategies used by IVD program in identifying stakeholders, our observation revealed that the program does not have Stakeholder analysis matrix, which is an important tool used during stakeholder mapping exercise. The stakeholders' analysis matrix is a tool which helps the project or program to identify key stakeholders in terms of their areas of interest, level of influence, their support and how they will be engaged in the implementation of project/program activities. It is a tool that help project or managers to design a new project or program and analyse how they will manage the project implementation in collaboration with key stakeholders.

> *"As a Program we do not have such a thing* (stakeholder's identification matrix). *Nonetheless, I suppose the Ministry has such a document. I guess there is a department of planning and policy which has it"* (KI number 4, IVD Program officer).

Discussion of the findings

This study sought to explore strategies for engaging stakeholders in the development and provision of health services in Tanzania. The findings revealed a few strategies and barriers regarding the program stakeholders' engagement practices in IVD program in Tanzania.

Strategies for Stakeholders' engagement in IVD program

The process of mapping of stakeholders by IVD program.

The mapping exercise was a strategy used by the IVD program to identify stakeholders and during this process, the program considered the stakeholder capacity to support the program technically or financially as one criterion for stakeholder identification. Moreover, stakeholder's interests and alignment with IVD program activities, nature of stakeholder as either foreign or local, organization profile and nature of the work of health services and how their interest in children align with program goals of vaccinating children were other criteria. In this study it was observed that the IVD program used different methods of mapping stakeholders as theoretically stipulated that stakeholders should be grouped according to their authority, level of concern about project outcomes (interests) and how they can influence project outcomes (2). The stakeholders were also classified based on the area of origin that is if they were local or international stakeholders.

The classification of stakeholder based on their interest showed highest positive influence over program outcomes. For instance, WHO and UNICEF who have interest in health particularly children's health are grouped together to assist program in meeting targets for vaccination for different groups of people. Development partners who finance the program and implementers who offer technical assistance are grouped differently and therefore program has different strategies to deal with each stakeholder separately. However, as reported elsewhere this should be done cautiously using well specified criteria to avoid early limiting of the stakeholders' scope (8). Poorly structured or unsystematic stakeholder identification risks missing valuable perspectives or limiting participation to groups, which are readily known to program (9).

IVD program stakeholders' communication strategy.

The study found out that there was good communication which link stakeholders to IVD program. Various means of communication such as formal letters, emails, phone calls, WhatsApp platform and meetings have been used to ensure timely information sharing in IVD program leading to positive program outcomes such as increased uptake of immunization among under five children as well as increased immunization coverage such as Human papillomavirus (HPV) vaccines among girls aged 9-12 years. Similar findings were reported in India showing that timely and correct flow of information from the program to stakeholders and it's vice versa may result to project's positive outcomes (10).

The current technological advancements have brought multiple channels of communication such as emails, phone calls and social media such as WhatsApp which has resulted into multiple communication options for many programs including IVD in Tanzania. However, it is argued that multiple channels of communication may cause a risk of reducing the depth of involvement of staff in discussing important matters (11). The use of focus groups or small informal meetings has shown to increase the quality of communication or to obtain participation from those who might be quiet about expressing their views (11). Therefore, these means of communications should be well chosen to ensure stakeholders' engagement yield positive outcomes to the project.

The available means of communication both physical and virtual are effective when there is a good, updated communication plan. This is an essential element in creating a communication strategy that may support the success of the project or other activity being managed. In addition, a good communication strategy should understand the unique characteristics of each stakeholder in the way they can communicate and factor this uniqueness into any directed or targeted messages to engage the stakeholders more effectively (12).

Stakeholders' participation in different program activities.

The study found out that stakeholders are actively participating in the implementation of IVD program activities through different approaches including

attending various meetings such as TWG and ICC. They are also participating in planning meetings where they agree on work plan and resources (human and financial) required to implement program activities. In Kenya, study findings show that participation of stakeholders from early stages of activity planning facilitated in building consensus towards shaping the intervention (13). When these stakeholders are not involved by planning teams, their experiences and views may not be considered and hence may lead to frustration for both staff and stakeholders during the implementation of program activities (14).

Barriers to project stakeholders' engagement
Lack of stakeholder engagement plan
In the past one decade, stakeholder management has gained a renewed area of focus for project managers, yet many projects have not given it the required attention (15). Similarly, this study revealed that IVD program lacks stakeholders' engagement plan, which is an important tool containing information about stakeholder identification, their interest levels, their power, and influence on the program. According to Baker (15), a good stakeholder plan should also include a clear definition of the scope of the project or program and matrix showing how stakeholder engagement will be done. Other literature show that the goal of stakeholders' engagement plan is to inform stakeholders about the proposed project activities, gather feedback regarding the project design and how the proposal may affect them, create an enabling environment to facilitate decision making and ensure that stakeholders smoothly take part in the implementation of project activities as scheduled in the project work plan. The plan also provides sufficient opportunity for all stakeholders to voice their opinions and concerns that may influence project decisions (16;17). Absence of stakeholders' engagement plan makes many projects or programs fail to enjoy all these benefits.

Lack of stakeholders' communication plan
The presence of stakeholders' communication plan which is inclusive of all key stakeholders is a major predictor of program success (18). Stakeholders' communication plan is a formal strategy to communicate with stakeholders to get their full support (2). Such a document is necessary as it identifies key stakeholders for the project and specifies the frequency and type of communications, media, contact persons, and locations of communication of events (19).

In this study it was found that the program involves their stakeholders from the beginning of the project; based on policies and guidelines issued by the MoH. However, there was no stakeholders' communication plan, a formally written document which could show the documentation of how the stakeholders' communication is managed. The document is important as it will help the program to analyze stakeholder perspectives, interests, roles and engagement in implementation over the life time of the project and improve strategies where possible (20). Other studies have documented the benefits of having an effective stakeholders' communication plan, which included among others; increasing stakeholder participation, facilitating ownership of project outcomes and building trust and relationships between the program and stakeholders (21;18). A well-planned communication plan also helps to provide the stakeholders and other decision makers with the required data and receiving feedback to ensure alignment among project goals, objectives and stakeholders' expectations (22). The IVD program could enjoy all these benefits if it had stakeholders' communication plan in place to guide it on what, when and how to communicate with each stakeholder. Lack of stakeholders' communication plan may lead to ineffective communication between the program and key stakeholders, which in turn negatively affect the achievement of program's desired outcomes. Israa (22) argues that when the project experiences poor communication and management of stakeholder expectations, it leads to negative impacts to the project.

Unavailability of formal stakeholders' analysis matrix
Our study results revealed that the program does not have Stakeholder analysis matrix, which is an important tool used during stakeholder mapping exercise to support the project or program in the identification of key stakeholders in terms of their areas of interest, level of influence, their support and how they will be engaged in the implementation of project/program activities. However, Kennon et al., (23) reported that many of the stakeholder analysis

tools, which are available focus on the target population for the project while little attention has been paid to other key stakeholders who have influence in the implementation of the project. They further noted that failure to use stakeholders' analysis tools and thereby lack of stakeholders' analysis has a number of risks implications including neglecting important stakeholders in the project management and assessment and poor management of stakeholders in the project. Jepsen and Eskerod (24) argue that project managers do not use thoroughly the required tools and guidelines in conducting stakeholders' analysis because they may not have the resources or capabilities to gather the necessary information.

Strengths and limitations of the study
Trustworthiness was enhanced by ensuring credibility, transferability, dependability, and confirmability of the study (25). Credibility was ensured by requesting study participants to be truthful by informing them that all answers would be kept confidentially and accessed by research team only. By conducting several debriefing sessions between research team to reflect and discuss the process of data collection and interpretation of the results, the research team strove to ensure confirmability and consistency. The research team ensured transferability through a clear description of the knowledge gap and on how the study was conducted. In addition, the purposive sampling of study respondents aimed at facilitating transferability of the study findings while a detailed description of the study methodology aimed at ensuring dependability. This study did not have any limitation that has compromised objectivity of the findings.

Conclusion
Though this study is not representative for all projects or programs that can be thought of, however, it gives a good picture of how stakeholders are engaged in the development and provision of health services in Tanzania. To have effective stakeholders' engagement, the IVD program use different strategies such as conducting mapping of available and interested stakeholders, communicating programs' objectives to stakeholders followed by involving them in the implementation of different program activities. This study recommends that to have effective stakeholders' engagement, program managers must

ensure that the organization develop and implement stakeholders' engagement and communication plans. More importantly, the program management should use stakeholders' analysis matrix as a tool to analyse stakeholders because it helps the management team to understand the importance, influence, interests and needs of the program's stakeholders, hence facilitate smooth implementation of program activities.

Conflict of Interest
The authors declare that they have no competing interests.

Author's contribution
AM was involved in the planning of the study, data collection, analysis and interpretation, and preparation of this manuscript. GF: Participated in the planning of the study, data collection and commentary on the first and subsequent drafts of this manuscript. All authors read and approved the final manuscript.

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