

RESEARCH BRIEF

## Collaborative Research and Education in Global Health: Insights and Perspectives

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Interdisciplinary collaboration yields great outcomes in addressing global health issues. By obtaining critical interdisciplinary insights from practitioners and researchers from different pockets of Asia, local and regional health concerns are put into perspective. The World Health Organization noted that interdisciplinary collaborations are essential to guarantee the progress of healthcare (Petri, 2010). In advancing the collaborative agenda in global health, the Sakura Exchange Program in Science created the program called *Collaborative Research and Education in Global Health* in 2017. The program provides a venue for social science scholars and medical practitioners to share research outcomes that further strengthen collaborative research networks. In addition, the program hosted discussions on sustainable health and welfare services for aging populations in Asia. Scholars and practitioners from De La Salle University, Philippines; Pyeongtaek University, South Korea; Mahidol University, Thailand; University of Malaya, Malaysia; and University of Peradeniya, Sri Lanka participated in global health activities hosted by Hokkaido University, Japan.

To contextualize the present discussion, global health as a concept should be unpacked. Macfarlane, Jacobs, and Kaaya (2008) traced the development

of global health programs. To have a better grasp of global health, its precursors should be considered. Tropical medicine was established in 1898 through the Liverpool School of Tropical Medicine. This area of medicine expanded throughout the middle of the 20<sup>th</sup> century in which numerous doctors from Asia, Latin America, and Africa went to Europe for training. In turn, when these doctors returned to their countries, they would teach and share their knowledge in their local medical schools and institutions. Subsequent to tropical medicine, international health became more popular. It was considered a set of interventions in health systems on the national and international level. Further, it involves activities to develop international health promotions programs, disease prevention, and increased support for developing countries in health program execution. Ideally, the aforementioned activities led to better functioning health system.

Global health, contrary to tropical medicine or international health, did not stem from activities that relate to particular sets of skills in addressing health matters. As described, global health involves the “improvement of health worldwide, the reduction of disparities, and protection of societies against global threats that disregard national border” (Macfarlane, Jacobs, & Kaaya, 2008, p. 383). Further, it is defined

by the United States National Academy of Sciences Institute of Medicine as “health problems, issues, and concerns that transcend national boundaries, may be influenced by circumstances or experiences in other countries, and are best addressed by cooperative actions and solutions” (Macfarlane et al., 2008, p. 385). However, there is ambiguity with global health as a concept; it tends to be one-sided, that is, becoming a movement that is conceptualized through the lenses of developed countries in benefit of developing countries yet without strong mutual collaboration. Beyond this risk, global health is a promising endeavor in terms of addressing health issues on a global scale. Ultimately, this would require various local and global institutions to build partnerships and set aside differences to develop solutions in the midst of increasing globalization.

In this sense, global health necessitates collaboration between researchers and practitioners from different disciplines and geographic areas. Petri (2010) explained the concept of interdisciplinary collaboration as situated in the practice of improving healthcare. Through a comprehensive and systematic literature review, the value of interdisciplinary collaboration in the context of nursing, medicine, social work, pharmacy, and similar areas was examined. Notably, interdisciplinary collaboration entails a highly complex relationship among the different disciplines; and this relationship evolves, develops, and changes over time. Ultimately, interdisciplinary collaboration requires a problem-focused approach. It requires the need for shared goals, objectives, and visions; this ascertains that everyone is working for a collective and common outcome. Hence, in the practice of interdisciplinary collaboration, individual intentions should be set aside and common objectives are prioritized. As contextualized in healthcare, collaboration entails:

An interpersonal process characterized by healthcare professionals from multiple disciplines with shared objectives, decision-making, responsibility, and power working together to solve patient care problems; the process is best attained through an interprofessional education that promotes an atmosphere of mutual respect, effective and open communication, and awareness and acceptance of roles, skills, and responsibilities of the participating disciplines. (Petri, 2010, p. 79)

Several antecedents facilitate successful interdisciplinary collaboration. These include the awareness of one’s role, deliberate action and support, interprofessional education, and interpersonal relationship. Interprofessional education enables a sense of shared commitment by fostering a non-competitive atmosphere that provides an enabling environment for interdisciplinary collaboration. A sense of understanding is created among individuals from different backgrounds while at the same time there is acknowledgment of the value of each contributing discipline. Role awareness is the cognizance pertaining to the skills and perspectives from the vantage point of other disciplines. Interpersonal relationship skills are the qualities involving mutual respect, trust, and effective communication among the participants. To ensure the success of the interdisciplinary collaboration, it also requires deliberate action and support from the administrative and organizational levels.

In the context of collaboration in global health education, Alpay and Littleton (2001) examined the nature of collaboration in healthcare education. Notably, collaboration yields great benefits in terms of enriching the healthcare education curriculum, and consequently, the reconceptualization of the educational process. There are differences in the context for collaboration in healthcare education: development of common courses, ICT integration, sharing of existing resources, enrichment of the collaborative enterprise, and development of mutual respect among healthcare practitioners. Focusing on resource sharing and the collaborative effort, these factors entail the production and promotion of collaborative interactions. Hence, collaborative initiatives from different institutions lead to the broadening of learning and knowledge. Collaborative practices in healthcare are multi-faceted and, thus, have the potential to initiate changes and improvements within the educational process. Further, it is suggested that participants in collaborative ventures rethink and reexamine existing practices in healthcare.

As an example of global health collaboration, Stone, Hua, and Turale (2016) evaluated the Asia Pacific Alliance of Health Leaders (APAHL) Forum in its ability to cultivate leadership and global perspectives of the participants. APAHL is a venue for collaborative interchange of individuals from different countries in the Asia-Pacific region. Consequently,

the following key factors are addressed: global health issues, internationalization, communication, and collaborations. Ultimately, it seeks to foster mutual friendships and academic exchanges among the participants. The activities conducted included academic panel and group discussion, excursion to health centers, and student presentation which allow the participants to learn and appreciate experiences from other countries with respect to conducting and organizing health initiatives and addressing health issues.

The participants, composed of 22 health science students and 15 faculty members, agreed that the collaboration allows for the effective development of leadership abilities and advancement of interprofessional collaboration, internationalization, and cultural awareness. The participants from different countries were provided the opportunity to discover the similarities and differences in terms of healthcare practices between the host country and that of their own. Ultimately, they were able to map out and discover enabling solutions and strategies for developing healthcare initiatives in the region. Ultimately, healthcare practitioners ought to be ready in collaborating nationally and internationally with clinicians and academics from different backgrounds and disciplines. Interprofessional collaboration should be further enhanced and should be a core requirement for health professionals at the global level as it provides the necessary platform to address health issues that occur worldwide and formulate strategies and policies for the improvement of healthcare.

An example of the global north and south collaboration was examined by Bodnar, Claassen, Solomon, Mayanja-Kizza, and Rastegar (2015). It is argued that global health programming in various medical institutions is growing significantly which, for the most part, involves student exchange from developing and developed countries. In 2006, as an example of collaboration in global health, the Makerere University–Yale University (MUYU) Collaboration was established in 2006. Specifically, medical practitioners from the Makerere College of Health Sciences and Mulago Hospital are sent to Yale-New Haven Hospital to further their knowledge. To examine the outcomes of the collaboration, an assessment was conducted, focusing on the effects of the training on the practitioner and the institution.

Through a survey and semi-structured interviews of eight MUYU participants, it is revealed that the exchange program yielded positive outcomes in terms of training knowledge; most of the interviewees expressed immense satisfaction with the knowledge they gained from the collaboration.

In addition, some participants also revealed that the program had partially influenced their predilection for conducting research. The exchange program created opportunities for publication via the Yale collaboration. Likewise, mentor-mentee relationships also led to the initiation of new research, and the expansion of the participants' knowledge base led to the progression of their on-going research. Overall, bidirectional educational exchanges in the context of health have the potential to deliver substantial benefit to participants from developing countries.

Stolp et al. (2017) conducted a scoping review of studies to identify factors pertaining to efficient and effective health collaboration, measurement approaches, and evaluation practices. In recent times, multi-stakeholder collaborations are being utilized to provide solutions and address problems and issues with respect to social and cultural health disparities. Four hundred thirty-three articles on partnerships between public and non-profit sectors in health were examined. The results revealed that the following factors were considered: a common vision, effective leadership, member characteristics, organizational commitment, clear roles, resource availability, engaging the target, and trusting relationships. Furthermore, two factors are particularly deemed significant—leadership and trust. However, differences in the definition and measurement of leadership emerged. Nevertheless, leadership and trust in inter-organizational collaborations significantly contribute to the success of health promotion, which highlight the importance of the said factors.

Interdisciplinary collaboration in global health is a potent activity that allows the generation of ideas and knowledge vis-à-vis local and regional health concerns. Thus, this paper seeks to examine the critical views and perspectives of the participants of the *Collaborative Research and Education in Global Health* by the Sakura Exchange Program in Science 2017. Specifically, this paper will map out the most pressing issue that the participants' country is experiencing and how global health can assist in addressing health concerns.

## Methods

Through a focus group discussion with the participants of the *Collaborative Research and Education in Global Health*, responses were obtained and themes were identified. Table 1 shows the participating institutions, the number of participants, and the areas of specialization.

## Results

Based on the responses elicited from the participants, there are some similarities in the challenges that countries face in terms of global health. In the case of the Philippines and Sri Lanka, non-communicable diseases (NCD) are of great concern. In the case of the Philippines, the probability of dying between ages 30 and 70 years old is 28% from the four main NCDs (World Health Organization, 2014a). These diseases include diabetes, different forms of cancers, chronic respiratory diseases, and cardiovascular diseases. In the case of Sri Lanka, the probability of dying between 30 and 70 years old is 18% (World Health Organization, 2014b). In both countries, there is a high prevalence of tobacco smoking, alcohol consumption, raised blood pressure, and obesity.

In the case of Thailand and South Korea, the changing demographic landscape, specifically the increase of aging populations, is a great challenge in healthcare. Humphreys (2012) illuminated that, in Thailand, the fastest growing demographic is the 60-years-and-plus population. Specifically, the growth of the population over 60 years is predicted to be 19.8% in 2025 and 30% by 2050. In South Korea, life expectancy has significantly increased which led to an increasing elderly population. Likewise, the fertility rate in South Korea declined sharply from 1.67 in 1985 to 1.13 in 2006. As claimed by Song (2009), South Korean society is aging more rapidly than other countries. Consequently, societies with a higher concentration of elderly population exert great pressure on the medical services of the country. Therefore, governments with high concentrations of aging populations should conduct healthcare reforms to mitigate the effects on the younger population.

In Malaysia, there is increasing pressure on the public health system. Lim, Sivasampu, Khoo, and Noh (2017) revealed that private primary care clinics greatly outnumber their public counterparts. However, private healthcare clinics are less equipped and have limited services. Considering the public healthcare sector, there

**Table 1.** *Participating Institutions and Areas of Specialization*

| Institution              | Country     | Number of Participants | Area of Specialization           |
|--------------------------|-------------|------------------------|----------------------------------|
| De La Salle University   | Philippines | 2                      | Social Science                   |
| Mahidol University       | Thailand    | 5                      | Social Science                   |
| Pyeongtaek University    | South Korea | 1                      | Medicine                         |
| University of Malaya     | Malaysia    | 1                      | Medicine                         |
| University of Peradeniya | Sri Lanka   | 3                      | Medicine and Veterinary Medicine |

**Table 2.** Summary of Health Issues Elicited From the Focus Group Discussion for Each Country

| Country     | Health Issues                                    |
|-------------|--|
| Philippines | Non-communicable diseases                        |
| Thailand    | Aging society                                    |
| South Korea | Aging society                                    |
| Malaysia    | Growing pressure in the public healthcare system |
| Sri Lanka   | Non-communicable diseases                        |

is inequality in health resources distribution between urban and rural clinics.

The issues elicited from the participants, namely non-communicable diseases (NCDs), aging populations, and increasing pressure in the public health system, are considered the challenges that should be addressed according to the participants. These issues transcend national boundaries and can be better resolved through regional collaboration, for example, sharing of resources, knowledge, and practices. In the bigger picture, collaboration in global health can assist in nation building.

In the case of the Philippines, given the limited resources in health research, global health collaboration can enrich health practices that are learned from partner countries. A participant from the Philippines revealed:

*Research on new diseases are also not prioritized in the Philippines since health providers are trained more in providing health care for already existing diseases. And so, it is a challenge to cope with new and emerging diseases because of the lack of knowledge and resources. Global health policies allow for sharing of such knowledge and information among countries so as to capacitate all nations in providing 'Health for All.'* (personal communication, October 11, 2017)

Better sharing of global resources and information allows for the formulation of solutions to health issues encountered locally. Global north and south collaboration in terms of financial aid also sets into motion better interventions for developing countries. Better usage and implementation of aid should be observed. A participant from South Korea opined:

*ODA [Overseas Development Assistance] is also important to support [developing nations]. However, it is also necessary to overcome the limitations of Korea's ODA, which is relatively small in size, and to use more small-scale funds more effectively, thereby creating better value. Rather than building an organizational infrastructure such as the World Bank, ADB, and AIIB, it is effective to build a task force of international coordinated governance based on individual projects [that is] feasible [for developing] countries.* (personal communication, October 11, 2017)

Thus, global health collaboration and aid from developed countries create platforms for better and more efficient utilization of resources. In the case of combatting HIV, a participant from Malaysia noted:

*In the war against HIV/AIDS, Malaysia has received an HIV/AIDS grant from the Global Fund to Fight AIDS, Tuberculosis, and Malaria. This grant has helped Malaysia greatly in intensifying the combat and prevention against HIV among the population at risk. With the grant, Malaysia can commit to increasing awareness among the public and promote advocacy, and provide training programs which include workshops regarding legal issues, in accordance with the Malaysian national strategic plan in combating HIV/AIDS. This gives Malaysia one step forward in protecting and reinforcing human rights and equity.* (personal communication, October 11, 2017)

Overall, collaboration among nations enabled the creation of solutions to current and emerging health problems.

With the increasing prevalence of globalization and interconnectedness of nations, international and regional agenda should be set in healthcare. Further, in the midst of climate change, global health should also factor in implications from disasters and other risks. A representative from Sri Lanka narrated:

*We can relate the strong global health collaboration to building global health resiliency to arising global health concern. The establishment of networks and building country's capacities to study the current health issues provide a stronger capacity to the global health community. For example, in the advent of SARS outbreak, each nation implemented their quarantine system to ensure control of the outbreak. Also, the nations' use of infectious control protocols provided support to limit contamination. The technologies available to detect body temperature were made available to physically identify signs of possible SARS infection. These actions led to significantly lower health impact among state nations as they are more better prepared due to higher*

*global health resiliency. Therefore, global health collaboration contributes a lot in our nation-state because knowledge, technology, and expertise are generously shared and utilized amongst us. These utilizations should be used in its potential forms to have a bigger impact to individual national state of health.* (personal communication, October 11, 2017)

Proactively addressing health issues through collaboration minimizes unwanted impacts and challenges. Considering access to healthcare, inequality still exists and should be alleviated. A representative from Thailand opined:

*Increase the number of doctors, nurses, and pharmacists. In addition, an increased enrollment of students from rural areas is suggested so that they [can] return to their place [and] the rural population will have [...] adequate number of personnel for their needs. This will create more equity in the access to quality health and medical services.* (personal communication, October 11, 2017)

Human resource in the health profession remains to be a hindrance in some developing countries. Therefore, this gap in healthcare should be considered as one of the priorities.

## Conclusion

Through the *Collaborative Research and Education in Global Health* program, scholars and practitioners from Malaysia, Thailand, Philippines, Sri Lanka, and South Korea shared critical insights with respect to the most pressing health issues in the Asia-Pacific region. Interdisciplinary collaboration between social science scholars and medical practitioners created a fecund exchange of ideas about possible interventions that can be implemented in their respective countries. Gaps in healthcare practices in Asia were thoroughly discussed, and views on how such can be addressed were examined. The highly complex relationship between health and society were probed vis-à-vis improving overall health in the region.

NCDs, aging populations, and public health efficiency were considered the most pressing issues according to the participants. The changing landscape

of Asia is prompting a transformation of lifestyles and health practices in the region. Consequently, a collective and proactive response to the said challenges through local, regional, and global collaboration would lead to a positive outcome in terms of healthcare in Asia.

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