South-to-South Cooperation: Lessons from the Pakistan Life Savers Program to Initiate a Police-based CPR Initiative in Nepal

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INTRODUCTION

In the realm of global health academia and knowledge sharing, South-to-South cooperation (SSC) has been well recognized as more economical, effective and favorable.[1] SSC establishes collaborations between low- or middle-income countries (LMIC), most of which are located in the southern part of the globe.[1] In this short communication, we share a successful example of SSC for a CPR program between Nepal and Pakistan. Countries like Pakistan and Nepal share numerous socio-economic, cultural, and healthcare challenges that differ markedly from those in high-income countries (HIC) such as the United States.[2,3] While the challenges are different in HICs compared LMICs, HICs can play a significant role in facilitating SSCs amongst LMICs. This paper presents an example of SSC facilitated by physicians at Rhode Island's Brown University Global Emergency Division for cross- national collaboration to advance emergency care. Given the breadth of international research conducted in HIC institutions, HIC institutions can play a key role in facilitating SSCs. Shared circumstances between LMIC countries can create a fertile ground for mutual learning and collaboration, allowing for the adaptation and implementation of successful health initiatives tailored to local contexts.

Figure 1. Pakistan Life Savers Team meeting with US-based Nepal researcher in Karachi.

THE PAKISTAN AND NEPAL COLLABORATION

Pakistan Life Savers Programme (PLSP) has become a beacon of success in training laypersons in cardiopulmonary resuscitation (CPR) and bleeding control in Pakistan.[4] Most of the victims of out-of-hospital cardiac arrest (OHCA) and traumatic injuries in LMIC lose their lives because of lack of timely interventions like the availability of emergency medical services or emergency response system and initiation of CPR and bleeding control techniques. Among the cited factors, lack of resources, infrastructure, community awareness and training of emergency response staff lead the way.[5] The PLSP was established in Pakistan with a goal of empowering 10 million layperson citizens in CPR and bleeding control, working primarily in a low resource setting. Since its inception in February 2020, the program has achieved significant milestones by training over 300,000 laypersons in these critical lifesaving skills. The program has further made an impact through strategic partnerships with local and state government bodies, universities, school systems and other organizations across Pakistan.[4,6] This community-based approach has empowered individuals to respond effectively in emergencies, thereby enhancing the overall resilience of the local healthcare system. The training success of PLSP highlights the potential for similar programs in other South Asian countries where healthcare infrastructure and public health education are often limited.

In 2023, the potential for SSC was exemplified when a researcher based in the United States at. Brown University's Global Emergency Medicine Division, but actively working in Nepal (RK), joined a researcher working in Pakistan (JR), and visited Pakistan to gain firsthand insights into the PLSP. This visit underscored the importance of direct experience and observation in understanding the intricacies of program implementation. Over the course of a week, the researcher engaged with PLSP administrators, trainers, and participants, gaining valuable knowledge about the program's growth, operational strategies, and the challenges encountered (**Figures 1,2**).

In Nepal, similar to Pakistan, a need for mobilizing Community Health Responders (CHRs) in pre-hospital injury care is one strategy to improve

Figure 2. Pakistan Life Savers Program Training Session at a primary school in Karachi.

access to timely care. These CHRs are health and lay-person individuals, and the police make a major part of this group. The police are often the first responders in any emergencies, especially in rural areas where hospitals and ambulance care are hours away.[7] While the Nepal team had planned a CPR program highlighting police, the Pakistan experience and collaboration added significant improvements to the existing plan. The lessons learned from Pakistan proved to be directly applicable to the Nepalese context. Both countries face similar obstacles such as limited access to advanced medical care, low levels of public health education, and infrastructural constraints. By observing the PLSP, the researcher could anticipate potential challenges in Nepal and devise strategies to address them proactively. For instance, issues related to resource allocation, community engagement, and maintaining participant motivation were identified as common challenges that could be mitigated through targeted interventions (**Figures 3,4**).[8] Other key items learned from the PLSP program included the appropriate training length, feasible number of participants per training, appropriate instructor to participant ratio. Additionally, tested knowledge and assessment tools were adapted from the PLSP program for Nepal's context. The preliminary findings from Nepal's adaption are published in Wilderness and Environmental medicine journal.[9]

Another avenue that has promoted SSC between these countries is the shared foundation and common epistemology in music – common foundation influences folk, pop and classical or raga music, facilitating the composition of melodies and rhythms. Through regional collaborations, and in an effort to enhance and increase lay person and bystander CPR rates, an innovative approach being explored is the use of music to convey evidence-based CPR recommendations and

Figure 3. Police training in Doti, Nepal by HAPSA-Nepal team.

aid in retention. The CPR song's melodic structure is based on Thaat Bhairavi (analogous to the Phrygian mode in Western music; Bhatkhande, Vishnu Narayan. *Sangeet Shastra*. 1929), a widely recognized structure across the South Asian subcontinent (where both Nepal and Pakistan lie), despite the diversity in language and dialects.[10,11] The same melodic and rhythmic structure was used to create two versions of the song, with lyrics in Punjabi (a language spoken in Pakistan and India) and Nepali. These songs are intended to be used in education tools in both countries' programs, and released both as public service announcements/ as part of a public health intervention and through commercial music platforms to reach a broader audience.

Figure 4. Participants with hands-on training sessions in Nepal.

The implementation of a CPR program in Nepal, modeled on the PLSP with innovative approaches around music, has already yielded promising results. The assessment and curriculum adapted from Pakistan were successfully utilized in Nepal, demonstrating the efficacy of this South-to-South learning approach. The success of this initiative is paving the way for further expansion and collaboration through a community-based organization in Nepal, HAPSA Nepal.[12] The organization has formed collaborations with the Nepal police, and is planning to train all police officers in Nepal. This cross-border learning experience not only facilitated the transfer of knowledge but also fostered a spirit of solidarity and mutual support between the two teams. Going forward, the PLSP's experience especially with integration of the program with the local and national government, funding sustainability, team building, and program expansion will be vital in guiding the expansion of this program in Nepal's context. As next steps, researchers based in Pakistan will visit the program in Nepal, and vice-versa, for continued knowledge sharing. Additionally, further regions in the region have a room for collaboration in initiating their own community-based CPR programs and using the common contextual tools like music.

CONCLUSION

In conclusion, the experience of adapting the PLSP for use in Nepal underscores the feasibility and effectiveness of South-to-South collaboration in global health. Such partnerships enable countries with similar challenges to share best practices, overcome common obstacles, and build on each other's successes. The exchange of knowledge and experience between Pakistan and Nepal has not only enhanced the effectiveness of emergency response training in both countries but also highlighted the potential for further collaborative efforts. This has also highlighted the key role HIC institutions can play in facilitating SSCs. As these programs continue to expand, there remains significant room for deepening this collaboration, ultimately contributing to stronger and more resilient healthcare systems across the Global South.

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