



ORIGINAL ARTICLES: VARIOUS TOPICS

The CDRC Principles of International Health Research

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ABSTRACT *The Comprehensive Drug Research Center (CDRC) at the University of Miami was established in the early 1970s. Through the decades, investigators from the CDRC have worked with investigators from several countries to establish joint research efforts. Countries often do not have the infrastructure or monetary resources to carry out research on their own. Collaborating with institutions in these countries to build a sustainable capacity for research is a worthwhile and satisfying endeavor, and it presents a method for initiating research and building the necessary research structures. However, working with other countries presents a unique set of challenges and ethical dilemmas. This article presents some of the specific challenges encountered in these research efforts and describes what we have done to resolve the problems and work more effectively and efficiently with foreign investigators.*

KEYWORDS *Capacity building, Community, International, Research.*

Investigators from the Comprehensive Drug Research Center (CDRC) at the University of Miami have worked with scientists from several countries in Europe, Asia, Latin America, and the Caribbean to establish joint research efforts. Interdisciplinary teams from the CDRC and the developing nations have been formed to study HIV/AIDS and drug abuse in an international setting. Collaborating with investigators from countries with little research infrastructure poses unique difficulties and challenges but also is a very rewarding endeavor. As a result of three decades of experience in working with and carrying out research projects in developing countries, we have established a model which we now use. This model is highlighted here in the hope that it will facilitate collaborative international research and present specific methods that we have learned are worthwhile in the pursuit of collaborative research. This model is suggested for social, behavioral, and applied research and does not necessarily apply to basic science research, although many of the principles could be adapted for use in basic research.

The foundation of the CDRC model is sustainability. To be sustainable, research should be ecologically sound, economically feasible, and socially just.¹ The priorities of sustainability are addressed by the use of a community-based participatory research (CBPR) model (Figure). CBPR is a collaborative process that equitably

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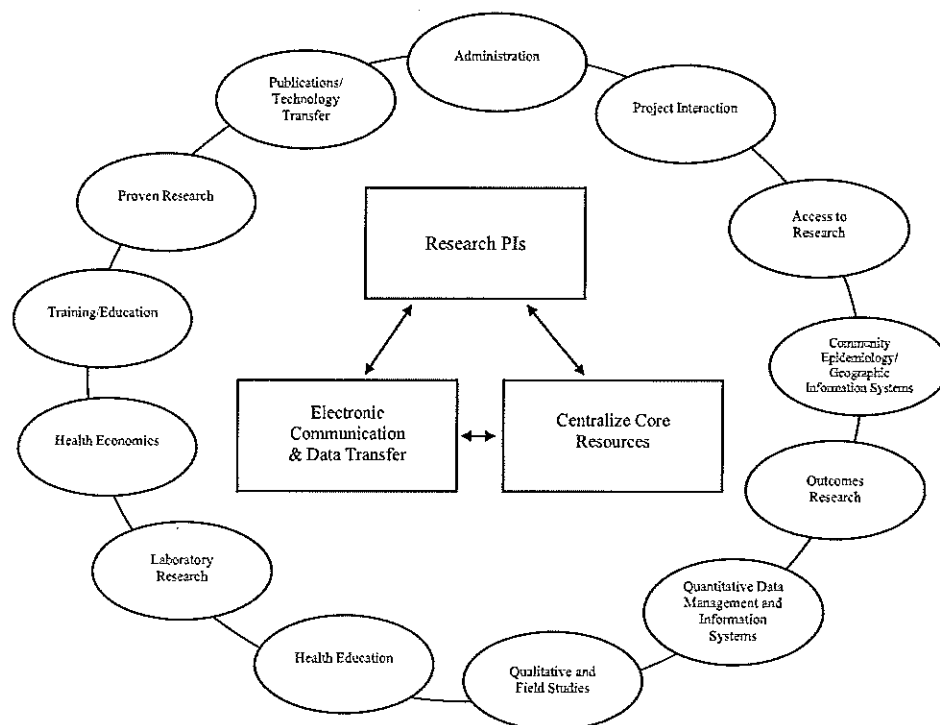


FIGURE. Community-based participatory research model (CBPR).

involves all partners in the research process and recognizes the unique strengths each brings. It begins with a research topic of importance to the community with the aim of combining knowledge and action for social change.²⁻⁴ As well as fulfilling the traditional role of inclusion of various academic, governmental, and private organizations, the CBPR is invaluable in allowing the scientists to more fully understand the social, political, and economic environment in which they are working. CBPR also facilitates the involvement of the host country from the beginning of the planning process. We have found this a necessary feature for success.

One obvious barrier to international research collaborations is funding. Because it often is difficult to receive funding for this type of research, seed monies are usually needed to fully implement the project, particularly, in the beginning phases. Often private foundations, which have flexible funds, can assist in this stage. It is also helpful to try to include funding from the host country so there is a real stake in the research succeeding. Funding regulations and guidelines need to be established from the beginning so that misunderstandings on the way funds are to be spent do not occur later in the project.

Early and intense talks with the host country should lead to a memorandum of understanding for partnership and collaboration which will give direction, although specific research plans are being made. The memorandum should address elements such as a clear goal and a clear scope in terms of geography, patient populations, functional activities, and time⁵ as well as to outline specific resources and activities that will be provided by the partners in the research.

We have found that a university in the host country is the ideal research partner. We seek a university that is interested in capacity building and can assist in creating

a local research infrastructure. This infrastructure will, hopefully, continue after the end of the collaborative project. Once the partnership between universities is formed, the new team should determine other community members who could be brought into the effort to engage the full community. Government leaders, agency personnel, nongovernmental organizations, and citizen's groups can be selected and represented early in the process. This strengthens the principles of sustainability and CBPR.

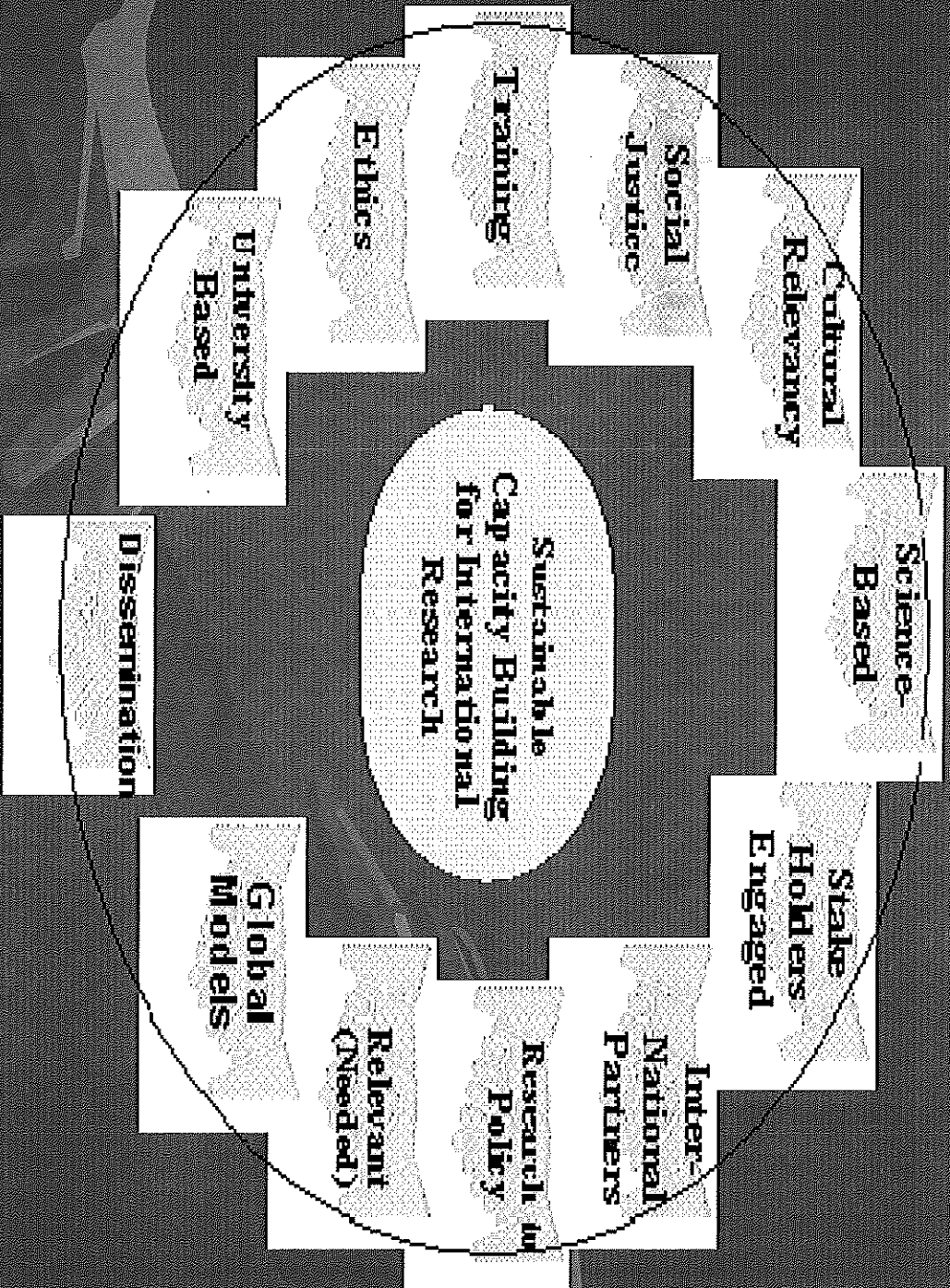
Often, the next step is to obtain large-scale funding. This probably will involve writing one or more research proposals. The writing of a proposal gives specific detail and focus to the general goals proposed in the memorandum of understanding. CDRC begins with a logic model that incorporates (1) the questions as expressed by the stakeholders, (2) documentation establishing those needs implied in the questions, followed by (3) the research activities associated with each question, and (4) the instrumentation or other measures needed in those activities. Scientists from both countries collaborate in writing the proposal using the highest scientific standards.

There are at least three context-sensitive issues which need to be taken into consideration. The first is that key scientists should have familiarity with both cultures. This applies both to an understanding of the culture of each organization and to the national cultures represented on the team. Effective collaboration requires careful and active listening skills to fully understand how the elements of the research and the methodology must be constructed to fit the local culture. Language skills on the part of the collaborators need to be taken into consideration. Nuances of a language often are not understood by speakers who are not native to the language. Translations need to be made with care.

The second issue involves sensitivity to local and national cultures and their needs and problems. Research styles differ by country.^{6,7} Styles are not created solely by the universal concepts of scientific ethic and methodology, but also by local societal, political, and economic traditions and practices. It is only in the context of exchange of information with political, social, and economic leaders that scientists can understand the impact of research methods on the local culture. For example, it is very helpful for each country to supply the other with a calendar that notes national holidays, the school year for public schools and universities, religious celebrations, and other events that can influence the timing of planned events.

The third context-sensitive issue that needs to be considered is that the instrumentation be sensitive to cultural traditions and language usage. A literal translation of English into another language can be offensive or incomprehensible. Instruments should be translated and back-translated and pretested not only with local scientists but among the population to which the instruments will be administered.⁸

The administration of the project also requires preplanning and adherence to certain precepts. We have found that the following need to be considered: (1) The training, education, and other activities that take place while conducting international research enhance the sustainability of the research. The strengthened infrastructure needs to remain in place after completion of the project. (2) The collaboration should network from the local university to other key scientists/agencies/government. The local university becomes strengthened if it develops sustainable networks with other international, national, and local groups. (3) The joint research helps establish credibility of the leadership in establishing a permanent unit in the host university. If a foreign university lacks expertise in a field and that field is developed during the research process, this could facilitate the establishment of a permanent unit for that specialty. This occurred in China with the permanent



establishment of the CDRC East at Yunnan University in Kunming. (4) Effective multiple means of communication need to be implemented. We achieved effective communication through e-mail which is both rapid and inexpensive. In addition, we produce an article entitled "Starting the Conversation in (name of country)." This document outlines the overall research plans and goals, meetings convened, and agreements signed. This article can serve as an introduction to various government and agency officials. (5) As mentioned previously, we have found it advisable to seek some funding from the host institution. The two universities can work together to develop previously undiscovered funding sources. (6) Joint planning and oversight of activities is an important aspect of the overall administration. The greater the level at which scientists from the host country are involved, the greater the sustainability of the research. (7) Prioritize work to achieve quick success in some early activities. It is helpful to engage very quickly in pilot projects to demonstrate an ability to work together. (8) Publications need to be truly collaborative and involve authors from both sites; discussions and workshops need to begin as soon as possible. International journals and journals in the language of the host country need to be included in possible publication venues.

Collaboration with universities and other institutions in developing countries to build a sustainable research structure is a rewarding and worthwhile activity and benefits both the United States and the host country. Sustainable research involves multifaceted components, each of which is an important piece. The specific concerns and challenges posed by collaborative research can be overcome with proper planning and implementation.

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