Co-constructing local meanings for child health indicators in community-based information systems: The UThukela District Child Survival Project in KwaZulu-Natal

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ABSTRACT

In changing the context regarding the situation of vulnerable children in rural South Africa, understanding the role of communication in the design of community-based child health information systems (HIS) is key. Communication goes beyond language. The importance of translation of terms and concepts used to negotiate between different meanings and logics is explored in this paper. In striving for the 'ideal speech situation' [J. Habermas, Structural Transformation of the Public Sphere, The MIT Press, Cambridge, MA, 1989], or, in other words, creating an enabling environment in which people can participate in debate and discussion on equal terms, there is a need to develop a codetermined vision; to understand local meanings of and for childhood illness; to understand communication systems and the context in which they occur; and to connect with networks beyond the localised setting, such as provincial or national health authorities. We provide a theoretical and practical framework in which important aspects of communication related to IS design can be highlighted and against which the implementation of an IS can be reviewed. The South African case study from the UThukela District Child Survival Project in KwaZulu-Natal, illustrates how this approach was used in co-constructing local meanings for child health indicators in a community-based information system.

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1. Introduction

Translation of terms and concepts used in different knowledge systems by different communities goes beyond language. In designing information systems[2] (IS) there is a need to negotiate between different meanings and logics held by the various parties involved. Finding collaborative means for such negotiation and translation becomes even more acute in community-based HIS in the face of the HIV/AIDS pandemic in many developing countries. To enable reciprocity of

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 [1] The last two keywords—'participation' and 'developing countries'—are not included in Index Medicus, but included as they are central terms in the discussion.
 [2] An information system in this context is the social system concerned with information. It is similar to the definition given by O'Brien [1, p. 7]: "An information system can be any organized combination of people, hardware, software, communications networks, and data resources that collects, transforms, and disseminates information in organizations". In our case, the information system is primarily oral and paper-based, and 'organisation' refers to the socio-economic environment in which people live.

meaning and mutual construction of shared ground,[3] possibilities for public gatherings need to be established in which clients, citizens and those responsible for health service delivery feel comfortable to participate, share understandings and reflect on the dialogue of the various parties. Working across different types of knowledge entails understanding the different paradigms and philosophical approaches of the parties involved [2,5,6]. Working in the area of HIS at the community level, brings to light differences in the philosophical positions between the traditional positivist medical focus on quantitative indicators and measurement and local or indigenous knowledge, beliefs and understandings about the causes and remedies for health problems and the meaning of 'vulnerability' and 'risks' to health. Interpretivist participatory approaches adopted in the social sciences and human development fields, combined with socio-technical understandings of IS and information technology (IT) in health care, can facilitate co-construction of local meanings as a crucial step towards building bridges for reciprocal knowledge-sharing between different knowledge systems.

HIS, whether relying on pen and paper or computer-based, can be used as a strong advocacy tool for the improvement of the quality of life within communities and as means in strategies to promote human development. We argue that the process and results of IS design should assist in the development of a shared ground for communication between service providers and clients of the health system and should foster critical reflection. The underlying structures that enable or constrain the potential to enter into respectful dialogue between the concerned parties need to be explicitly analysed in order for agreements to be worked out regarding what actions to take on behalf of the health, well being and development of children and families. In the discussion below, we explore how the search for shared ground, facilitated through developing a common vision and striving for mutual understandings of health practices and local meanings for health, enabled a community-based child HIS to be implemented successfully in one municipality in South Africa. We make use of Habermas' concepts of the public sphere and the 'ideal speech situation' [7] to develop a framework that highlights important principles concerning communicative action and by which communication within IS design can be taken into account and evaluated.

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[3] We use the expression 'shared ground' to point to the limits of achieving 'common ground', given unresolved differences in meanings between community-based terms for child health problems and status in local languages and traditional belief systems and terms for health indicators for child health monitoring and health practices that are based in the standardized terminologies of the national health system and the knowledge system of international public health. We also use 'shared ground' to distinguish our discussion of striving for a 'meeting ground' between disparate knowledge systems and imaginaries following Verran [2,3] from the concept of 'common ground' proposed by Clark [4] as more fully achievable through joint commitments in using language, than what we describe in the case study as co-construction of local meanings in which 'common ground' remains only partially realized, as different—sometimes conflicting—meanings persist and co-exist in the language, beliefs, and practices of communities with distinct knowledge systems (see [26]).

2. Theoretical perspective

Key concepts from social theory, particularly the concepts of the *public sphere* and the *ideal speech situation* from Habermas [7], were used in conducting the research reported here and in analysing the changes made to the HIS in the UThukela District Child Survival Project in KwaZulu-Natal, South Africa. Habermas' theory helped to better explain and highlight interesting aspects of the situation and added clarity to analysis of the research findings. The theory also allowed the principles of participation, capacity development and the importance of context to be highlighted and thus informed essential strategies in the design process. These were important concepts and principles that were initially agreed to by the research team. The use of this theory was not predetermined from the outset, but gained relevance as the research evolved and similarities and linkages became apparent and were investigated further. Habermas' emphasis on the importance of language and communication in the attainment of an enabling environment and in support of democratic processes is consistent with the practical and theoretical approach towards communicative action in the case study.

Relying on the historical movement in the 17th and 18th centuries of coffee houses, societies and salons becoming central places of public debate and discussion of political concerns, Habermas developed his concept of the public sphere. The idealised public sphere does not necessarily exist in any identifiable physical space. Through such a forum, citizens could freely exchange views with one another on important matters concerning them. In this way public opinion could be formed. The most important aspect of the creation of the public sphere is the process of discussion. For Habermas, the success of the public sphere was founded on rational–critical discourse, where everyone is an equal participant and the supreme communication skill is the power of argument. Criticism is vital in this process so that proposals can be tested and meanings can be jointly explored. All discussion takes place with the goal of developing mutual understanding and it is assumed that citizens possess the communicative competence to bring about such understanding. Communication is the means not only for finding out what individuals have previously decided or learned, but also as a process in which opinion and consensus are created in the process of debate itself [8].

> A legitimate decision does not represent the will of all, but is one that results from the deliberation of all. It is the process by which everyone's will is formed that confers it legitimacy on the outcome, rather than the sum of already formed wills [7, p. 446].

Public opinion can only be formed if the public engages in rational discussion. Although Habermas believed that the coffee house scenario possessed the potential to develop into the public sphere, the sphere was subsequently invaded by the State and commercial media. Habermas argues that over time corporate interests colonised the mass media, and that major powers in society such as the market, the State and associated institutions took over the public sphere. So rather than