WHAT IS PARTICIPATORY RESEARCH?

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Abstract—Research strategies which emphasize participation are increasingly used in health research. Breaking the linear mould of conventional research, participatory research focuses on a process of sequential reflection and action, carried out with and by local people rather than on them. Local knowledge and perspectives are not only acknowledged but form the basis for research and planning. Many of the methods used in participatory research are drawn from mainstream disciplines and conventional research itself involves varying degrees of participation. The key difference between participatory and conventional methodologies lies in the location of power in the research process. We review some of the participatory methodologies which are currently being popularized in health research, focusing on the issue of control over the research process. Participatory research raises personal, professional and political challenges which go beyond the bounds of the production of information. Problematizing 'participation', we explore the challenges and dilemmas of participatory practice.

Key words—participation, community, participatory research, action research

Research strategies which emphasize participation are gaining greater respectability and attention within mainstream health research in developed and developing countries [1–4]. Motivated by both pragmatism and concerns of equity [5], institutions ranging from small NGOs to UN agencies have become interested in participatory methodologies for health research and extension [2]. Whilst conventional health research tends to generate 'knowledge for understanding' [6] which may be independent of its use in planning or implementation [7], most participatory research focuses on 'knowledge for action' [6]. In conventional research and extension, inappropriate recommendations have frequently followed from a failure to take account of local priorities, processes and perspectives [8, 9]. In contrast, in participatory research the emphasis is on a 'bottom-up' approach with a focus on locally defined priorities and local perspectives [1, 3]. Involving local people as participants in research and planning has been shown both to enhance effectiveness and save time and money in the long term.

Participatory research is a source of considerable contention. Whilst some proclaim it a universal panacea for the problems besetting conventional practice [3, 4], others adjudge it biased, impressionistic and unreliable. Participatory research often becomes embroiled in the unproductive debate surrounding the qualitative–quantitative divide, with critics regarding its methods as 'soft' [10]. However the term 'participatory research' covers a welter of approaches and applications [3, 11]. Some participatory methodologies, such as Participatory Rural Appraisal (PRA), offer strategies for generating both qualitative and quantitative information [12]. What is distinctive

about participatory research is not the methods, but the methodological contexts of their application. Similar methods can be used quite differently according to the choice methodology researchers make, which in turn is influenced as much by their attitudes as by their training. It is a choice which is both personal and inherently political [13]. Locating the debate about PR within the controversies of the qualitative–quantitative divide obscures issues of agency, representation and power which lie at the core of the methodological critiques from which the development of participatory approaches stem [1, 3, 13].

It is with these critiques and their implications for practice that this paper is concerned. Our aim is neither to add to an already well documented theoretical critique of conventional practice nor to extol the virtues of participatory research in abstraction. Rather, our focus is on some of the challenges and contradictions of participatory research in practice. Drawing on literature from health, and more widely from agriculture and community development, we problematize the notion of 'participation'. We begin by exploring the ways in which 'participation' is interpreted and produced within participatory research, to contextualize participatory approaches with regard to conventional research strategies. We go on to review some of the diverse approaches to participatory research which have emerged over the last two decades. We argue that the key element of participatory research lies not in methods but in the attitudes of researchers, which in turn determine how, by and for whom research is conceptualized and conducted. The key difference between participatory and other research methodologies lies in the location

of power in the various stages of the research process. The practice of participatory research raises personal, political and professional challenges that go beyond the bounds of the production of information.

PARTICIPANTS, PARTICIPATION AND PARTICIPATORY RESEARCH

'Participation' is rapidly becoming a catch-all concept, even a cliche [14]. 'Participatory' research methods can be used not only to enable local people to seek their own solutions according to their priorities, but also to secure funding, to co-opt local people into the agendas of others or to justify short-cut research within a top–down process [1, 3]. Conceptual blurring around the terms 'participatory', 'participation' and 'participant' creates a space for a range of applications, as well as for confusion.

While some conventional research projects involve limited interactions with people, others achieve a high level of in-depth participation, at certain stages, without being considered participatory. Participatory methodologies are often characterized as being reflexive, flexible and iterative, in contrast with the rigid linear designs of most conventional science [2, 3, 13]. One of their key strengths is seen to reside in exploring local knowledge and perceptions. Some conventional research methodologies require researchers to continually adapt their approaches, learn cumulatively from their informants and use the categories or concepts informants provide them with. They may also offer opportunities to engage people as active contributors [3]. In some way, all health research requires participants, who are called upon to participate in different ways. All researchers are by definition also participants in research activities, from 'participant observer' anthropologists to epidemiologists or medical doctors. If all research involves participation, what makes research participatory?

One of the characteristics of participatory approaches lies in innovative adaptations of methods drawn from conventional research and their use in new contexts, in new ways, often by as well as with, local people. To give an example, while the art of cartography requires great precision and skill, a map is primarily a guide. As such, sketch maps are often produced by researchers in order to locate features of study sites and are frequently used to give directions. In the 1970s, geographers drew on psychology to develop the use of 'mental maps', drawn by people to represent their spatial environments [15]. It was widely assumed, however, that only literates were able to construct and interpret maps. Experiments in India in the late 1980s by practitioners of PRA [16] in which largely illiterate villagers constructed their own maps sparked off a flood of innovation [3].

From maps of watersheds or fields used to stimulate problem-identification and analysis by local people, PRA practitioners moved on to facilitate locally constructed maps of settlements [17]. These led to more detailed social maps, on which facilities and household attributes could be marked. This, in turn, led to rapid mapping of social stratification based on local criteria and rapid censi [3]. Applications of social maps have ranged from assessments of the uptake of health services, the distribution of vulnerable groups and evaluations of EPI programmes [18, 19]. Drawing on techniques from science teaching and family planning research, the mapping concept has been extended to participatory maps of the body [20].

Over the last few years, participatory mapping has been used in diverse developing countries, with literates and illiterates [3]. The mapping process produces a wealth of detail as outcome, but also sets in motion a process of affirmation of local people as knowledgeable actors. Researchers become learners and facilitators, catalysts in a process which takes on its own momentum as people come together to analyse and discuss. In some places, local people have taken up the mapping technique and used it for themselves. In one Indian village, villagers kept the map in a central building to which people would come to add stickers when they took their children for immunization (P. Shah, personal communication). In another, women used social mapping to investigate the abduction of daughters, going on to present the map to the authorities as part of their demands for action [13].

The example of participatory mapping reveals the single most striking difference between participatory and conventional methodologies. This lies less in the theories which inform these methodological frameworks or even in the methods they use but in who defines research problems and who generates, analyses, represents, owns and acts on the information which is sought. Asking the 'who?' question enables us to look more closely at what is meant by participatory research. It focuses attention on the central issues of power and control. As Rifkin notes, participation is more than just taking part. She suggests that it involves activeness, choice and the possibilities of that choice being effected [21]. This raises a number of important questions about how people are involved in the research process.

Participatory research is primarily differentiated from conventional research in the alignment of power within the research process. In Table 1, we present two ideal-type representations of participatory and conventional research in order to draw out the issues involved. As we go on to suggest, in practice there is a considerable degree of fluctuation between poles which suggest that the difference between modes of research may be more one of degree than of kind in some instances. Frequently the relationship between the two approaches takes the form of a zig-zag pathway with greater or less participation at various stages, rather than vertically following either one. The most important distinctions centre on how and by whom is the research question formulated and by and for whom are research findings used.

Frameworks for assessing the extent, level and scope

of participation in research projects offer a series of continua along which applications can be placed. Biggs, writing in the field of agriculture, distinguishes four modes of participation [22]:

contractual—people are contracted into the projects of researchers to take part in their enquiries or experiments;

consultative—people are asked for their opinions and consulted by researchers before interventions are made;

collaborative—researchers and local people work together on projects designed, initiated and managed by researchers;

collegiate—researchers and local people work together as colleagues with different skills to offer, in a process of mutual learning where local people have control over the process.

Rather than defining models for action, this typology suggests the potential extent of participation and control. In 'shallow' participation, researchers control the entire process. With increasingly 'deep' participation there is a movement towards relinquishing control and devolving ownership of the process to those whom it concerns. Farrington and Bebbington draw attention to the further dimension of scale, providing an additional axis of 'narrow' (i.e. few people are involved) to 'wide' (i.e. many people are involved) participation [5].

In practice, movement from one mode to another may take place at different stages of the research and for different purposes. Perceptions of degrees of 'participation' may vary between the different actors in the process [14]. At the outset, researchers may find themselves in a position where the people with whom they intend to establish collegiate relations have little or no confidence in what they know and look to the researcher for direction. A primary step in the process of restoring confidence is creating spaces in which people can be 'empowered' to engage in a process through which they can identify and confront their problems. This may involve contracting people into exercises which facilitate reflection and analysis as a step towards collaboration, which may later evolve

into more collegiate processes of mutual learning. Complete reversals of control may lead to local people contracting in expert outsiders to conduct or facilitate qualitative or quantitative research.

Participatory research is theoretically situated at the collegiate level of participation. Scrutiny of practice reveals that this level is rarely, if ever, achieved [14, 23]. Much of what passes as 'participatory' research goes no further than contracting people into projects which are entirely scientist-led, designed and managed. Often, researchers recognize the need to integrate local knowledge and experience in to research planning and aim for a more collaborative process during field research [24]. In many cases, people are 'participated' in a process which lies outside their ultimate control. Researchers continue to set the agendas and take responsibility for analysis and representation of outcomes.

Arguably, 'participatory research' consists less of modes of research which merely involve participation in data collection than of those which address issues of the setting of agendas, ownership of results, power and control. Methodologies which aim to enhance 'participation' in health research present different possibilities within which individual applications can be located. Biggs' continuum of control provides insights into the kinds of opportunities they offer for 'deep' and 'wide' participation. We go on to review some of these participatory methodologies, before exploring issues which arise from particular applications in different settings.

MODELS OF PARTICIPATORY RESEARCH

There is a great degree of creative cross-fertilization between approaches deriving from quite different sources, so much so that, as Chambers argues, "it makes no sense to try to separate out causes, effects, innovations, influences and diffusion as if they follow straight lines . . . [as] these sources and traditions have, like flows in a braided stream, intermingled more and more over the last decade" [3, p. 2]. In the field of health, some of the principal influences on the development of participatory methodologies have

Table 1. Participatory and conventional research: a comparison of process

	PR	Conventional research
What is the research for?	Action	Understanding with perhaps action later
Who is the research for?	Local people	Institutional, personal and professional interests
Whose knowledge counts?	Local people's	Scientists'
Topic choice influenced by?	Local priorities	Funding priorities, institutional agendas, professional interests
Methodology chosen for?	Empowerment, mutual learning	Disciplinary conventions, 'objectivity' and 'truth'
Who takes part in the stages of research process?		
Problem identification	Local people	Researcher
Data collection	Local people	Researcher, enumerator
Interpretation	Local concepts and frameworks	Disciplinary concepts and frameworks
Analysis	Local people	Researcher
Presentation of findings	Locally accessible and useful	By researcher to other academics or funding body
Action on findings	Integral to the process	Separate and may not happen
Who takes action?	Local people, with/without external support	External agencies
Who owns the results?	Shared	The researcher
What is emphasized?	Process	Outcomes

come from action research, adult education, medical anthropology and from methodologies developed in community and agricultural development.

Most conventional research is contractual. Accordingly, those approaches that aim to make the procedures of conventional research more accessible or appropriate, such as Rapid Epidemiological Assessment [25], Rapid Ethnographic Assessment [26], early formulations of Rapid Rural Appraisal (RRA) [27] and Rapid Assessment Procedures (RAP) [28] tend, for the most part, to involve people merely as informants. As such, they tend to maintain rather than challenge the relations of power in conventional research. They rarely offer processes which go beyond consultative research. Many of these approaches place a primary emphasis on rapid data collection, recognizing the need for a quicker, fairly accurate and more focused response in many health or development settings. A series of strategies are used to ensure reliability and representativeness, principally triangulation, random and purposive sampling at the extremes and working in multiple sites [27, 28]. Results are collated and analysed by the researchers and presented to informants, for verification and amendment. Their merits lie in the speed through which relatively accurate, relevant, information can be gathered rather than in involving local people in formulating research agendas or in the representation of outcomes. While all focus, to a greater or lesser degree, on locally appropriate categories or indicators, the researcher retains control over the process.

Rapid Ethnographic Assessment and RAP were developed in order to bring the insights of anthropology to bear in a more focused way onto project identification and evaluation [26, 28]. A series of standard anthropological methods are drawn on by professional anthropologists to generate checklists of issues which are directly linked to particular projects. Fieldworkers, who generally have a background in anthropology, use these guidelines in interviews, observations and focus group discussions over 4–8 weeks. Information is collected for understanding, analysed by researchers and used later for intervention. Scrimshaw and Hurtado make this explicit: "It must be stressed in training that attempting to change behaviours, beliefs and attitudes is an undesirable objective unless a controlled experiment is intended" [28, p. 21].

Rapid Epidemiological Assessment and RRA both arose from dissatisfaction with conventional survey methodologies [3]. They stressed cost-effective trade-offs between the quantity, accuracy, relevance and timeliness of information. Using multi-disciplinary teams, a systematic process using a repertoire of simple techniques is used to generate rapid and fairly reliable information. The research process can take as little as three or four days, over which team members cumulatively analyse the information they gather, reformulating questions as they proceed. Using small scale survey sampling, Rapid Epidemiological Assess-

ment draws on local knowledge and explores locally defined indicators of risk. Originally developed in agriculture [27], and increasingly used in health [18], RRA combines a range of diagramming, observational, interview and ranking techniques. Both are entirely compatible with conventional methodologies and provide useful methodological complements. Importantly, both bring together qualitative and quantitative research methodologies and offer opportunities for multi-disciplinarity, within a flexible and iterative process.

Approaches which aim towards a more collaborative or collegiate research process include PRA [3], Participatory Action Research (PAR) [1], Participatory Research (PR) [27], Development Leadership Teams in Action (DELTA) [30] and Theatre for Development [31]. They share common methods with conventional and rapid methodologies, yet use them in quite different ways. Methods are seen less as means to an end than as offering ends in themselves: the emphasis is not on outcomes, but on processes. None of these approaches has an explicit focus on health, although all have been applied in the health field. Techniques and strategies vary, yet many of them are rooted in a series of common principles, which stem from the formative influence of Paulo Freire's work in education [32].

Modes of research which draw on a Freirean approach are directly concerned with the relations of power which permeate relations between the researcher and those whom it involves and concerns. They recognize, and aim to confront, inequalities in access to resources and those produced by the intersection of differences in class, caste, 'race', age and gender [33]. Affirming that people's own knowledge is valuable, these approaches regard people as agents rather than objects; capable of analysing their own situations and designing their own solutions. A central thread which runs through these approaches is an emphasis on changing the role of the researcher from director to facilitator and catalyst. Through a process of mutual learning and analysis, which takes part throughout research rather than at distinct stages, people are brought into the research as owners of their own knowledge and empowered to take action [1, 3].

PRA developed from RRA, influenced by action research [34], applied anthropology [35] and agroecosystems analysis [27]. The focus shifted from rapid, extractive data collection to facilitating local people to produce and analyse their own information, according to their own priorities [3]. Reversing relations of power, through an explicit focus on attitudes and behaviour, became a central concern. Adult learning approaches [30] are increasingly used to emphasize the importance of communication skills and interpersonal dynamics [36]. Applications continue to draw on qualitative research methods, such as focus group discussions, observation and interviewing, but placed more of an emphasis on facilitating visualized analyses [3].

Visualizations provide opportunities for local people to explore, analyse and represent their perspectives in their own terms. People choose their own symbols from local materials to represent aspects of their lives in a shared medium which can be amended, discussed and analysed. Participatory mapping is a key technique in PRA and can lead to the use of other visualizations to explore issues which emerge. Seasonal calendars illustrate complex inter-relations between different factors over the year, such as those between, for example, the incidence of disease, patterns of rainfall, levels of migration and food availability. Timelines, time trends and visualized biographies of diseases offer a means to represent historical information visually. Flow diagrams and treatment sequence matrices offer ways of exploring issues arising from the provision of different kinds of health services. Pie diagrams, produced by dividing piles of stones or seeds into proportions, can be used to initiate discussions on prevalence of diseases and related issues such as economic constraints to wellbeing. Activities carried out with different interest groups highlight intra-communal difference, exposing assumptions of consensus within 'communities' [37, 38].

Visualizations reveal much that is masked by verbal communication alone [3, 20]. For example, body maps drawn by rural Zimbabwean women revealed important differences between the women's and western medical models of the body. Mapping their versions enabled women to express their knowledge within their own conceptual frameworks. This served as a medium for sharing ideas and locating explanations within indigenous conceptualizations, as well as for building confidence in what they knew [20]. The process of constructing a visual representation is in itself an analytic act, revealing issues and connections that local people themselves may not have previously thought about. Visual literacy is universal [39], but visualization does not offer a neutral, culture-free language. Interpretations of the diagrams, 'interviewing the maps', play an important part in the process. Visualization facilitates, rather than replaces, discussion.

Although in principle PRA seeks to create an open and collegiate approach to research, in practice applications are often consultative or collaborative. Institutional agendas create a series of narrowly defined interests, particularly where PRA is used within vertical programmes. The ideals of democracy the methodology embodies create contradictions in the contexts of its use. For example, tools for gender analysis within PRA have been developed over the last few years [40]. Yet while the voices of women might be listened to during the PRA process, pervasive male bias within institutions using PRA remains largely unchallenged. While PRA as process stresses equity and empowerment, its attractive methods can easily be dislocated from the methodological framework and put to serve vested interests within and beyond the 'community'.

PAR and PR share many common features. Stemming from work in the 1970s in India and the U.S.A. [1, 29, 34, 41, 42], both draw directly on Freire's approach. Practitioners take an explicitly political stance, focusing on empowering disenfranchized and marginalized groups to take action to transform their lives. Recent work has drawn on feminist research and critical theory to further develop the theoretical basis of PAR [31, 43]. PAR distinguishes two kinds of change agents: those from within exploited groups and researchers from outside them. Recognizing the power relations within which the activity of research is located, practitioners of PAR work towards a process whereby the conventional subject/object relation is confronted. Different actors, each with their own knowledge, techniques and experiences, work together in dialectical process, through which new forms of knowledge are produced. An emphasis is placed on people's history, within which people can locate themselves and their experiences, and on indigenous conceptualizations and media [1, 41].

In one example, from India [44], a small NGO worked with rural women and traditional birth attendants to address reproductive health concerns in the area. Through a process of reflection and mutual learning, over several years, participants built on local knowledge and resources to develop an effective, self-reliant, health care delivery system for local women. Local medical and medicinal knowledge was explored and shared among the birth attendants. Efficacious remedies were tested and extended, through the establishment of nurseries to which women came to choose seedlings for home use. Visual techniques for taking case histories and notes were developed by the women and visualizations, such as explorations of their knowledges and perceptions of their bodies, were used in workshops.

PR/PAR is more of an attitude or approach than a series of techniques. Research activities are expanded to encompass performance, art and story-telling, as well as using more conventional methods such as focus group discussions, processes develop through praxis. Local people are involved in a process through which they are empowered to take charge of the research process and to organize to implement potential solutions or to take action on concerns. Ideally, through this process the initial agents of change "become redundant ... that is, the transformation process continues without the physical presence of external agents, animators and cadres" [1, p. 5].

DELTA and Theatre for Development draw both on Freire's critical thinking and his educational techniques. DELTA developed in the mid-1970s in East Africa from a confluence of work on critical awareness and conscientization, human relations training, social analysis and liberation theology [30]. DELTA training offers dynamic, process-oriented

ways of identifying and responding to local concerns, building confidence and trust through an emphasis on long-term commitment. Facilitators conduct 'listening surveys' in communities and prepare 'codes', such as pictures or songs, which reflect local problems. Each 'code' is then discussed and analysed with focus groups or at an open meeting, within the context of human relations exercises which build self-esteem and motivation. Through this analysis, plans are made for action. Action provokes further reflection, discussion and analysis.

Theatre for Development developed in the early 1970s in Botswana [31]. Adult educators and development workers came together to research issues, create dramas as 'codes' and facilitate analysis and discussion with spectator participants. Practitioners at Ahmado Bello University in Northern Nigeria took the process further, integrating villagers into the process of dramatization. Harding [45] describes a process through which tentative scenarios, built through a 'listening survey' and building on local performance traditions, are rehearsed in spaces where people gather. People are invited to comment on, modify and take part in the sketches. Analysis takes place not only through discussion but through the process of dramatization itself, which becomes the centre of the learning experience. By inviting people to intervene in scenarios from everyday life, breaking the narrative flow by posing questions and challenges to the audience, they are encouraged to explore possible solutions. Spectators become actors and acting out becomes a rehearsal for action. Theatre for Development is increasingly used to explore health issues, such as urban sanitation, family planning and other reproductive health issues.*

While the DELTA process is oriented towards creating consensus as a basis for action, Theatre for Development practitioners recognize the inherently conflictual nature of community relations. The process of drama building often draws more on stimulating creative conflict, in order to stimulate reflection by those who have power as well as to empower those who lack it. Dramatization lends a space to those who are usually voiceless to enact their experiences. In one example from Cameroon, women found the methods Theatre for Development offered so effective, that their group went on to create dramas to perform in front of district government offices. Officials,

confronted by these women, were forced to listen to them (K. Barber, personal communication).

Participatory methodologies offer ways in which a 'learning approach' [7] can be carried into health research which is both responsive to local priorities and committed to change. Although most of the examples discussed here are from developing countries, participatory research methodologies are now being applied increasingly often in developed countries in health research. They have been used in needs assessment as part of health promotion [46, 47] and in service planning and development [48]; in deprived inner cities [49] and rural areas (G. Carroll, personal communication).

The diverse and innovative nature of participatory methodologies renders them ill-suited to rigid prescription of their roles. Participatory research, as we have described, now commonly forms a central part of community development, health development and related areas of health promotion.† Areas of research where the processes of generating ownership, equity and empowerment are integral parts of the objectives [50]. It has also been applied in a wide range of other contexts from projects identifying and solving maternal and neonatal health problems [51] to demographic surveys in innumerate populations [52]. Participatory research has also been used in the health services of developing countries with considerable success as a management tool, providing space in which disempowered staff can reflect on their work in a supportive environment and identify for themselves areas for change [53]; in developed countries such as the United States and United Kingdom, similar participatory processes are known as medical audit. Conventional methods should be regarded as complimentary and may be more suitable than participatory research in some circumstances, for example studying disease aetiology. Participatory research depends on the individual actors involved in initiating or facilitating the process; on putting principles into practice. In the concluding section of this paper we explore some of the practical and personal dilemmas that this raises.

PROBLEMATIZING 'PARTICIPATION'

In practice, participatory research rarely follows the smooth pathway implied by theoretical writings. All research takes place in complex social and political environments. Participatory research, in which the visibility of the researcher and the transparency of their intentions are significantly greater than in conventional research, presents a number of challenges. Control over the research is rarely devolved completely onto the 'community'; nor do 'communities' always want it. While many practitioners of participatory research have come to it through ethical unease or plain frustration with the inadequacies of conventional research, participatory research is

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*Steve Abah and his team from the Theatre Arts Development in Ahmadu Bello University, Zaria, Nigeria have worked on numerous applied health projects of this nature, for example.

†Readers wishing to understand better the potential range of applications of participatory research in health should consult the *Proceedings of the International Symposium on Participatory Research in Health Promotion*, August 1994, Education Resource Group, Liverpool School of Tropical Medicine, Liverpool. This contains over 40 short papers which were presented at the conference.

certainly not a simpler alternative. Working with local people is far from easy.

Local people may be highly sceptical as to whether it is worth investing their time and energy in the project, particularly if it seems to offer little in terms of direct benefit. Some researchers have found that the 'communities' they want to involve are apparently uninterested in taking part in research [54]. Enthusiasm for local knowledge or for the involvement of people in health service provision may lack any local relevance. The only felt need may be for medical services run by doctors [55]. The ideals of democracy used to advocate 'participation' can amount to little more than western cultural imperialism. As Stone reflects, community participation often seems to carry more significance for outsiders than it does for the poor [54].

Within 'communities' not everyone will be able to participate, nor will everyone be motivated to become involved [24, 56]. Even if there is interest there may be barriers of time. Participation is time-consuming and often those who researchers want to work with are too busy securing the basic necessities of life [57, 58]. Considerable efforts are needed to involve marginalized groups in research. Participating communities are, as Madan reminds us, "made" rather than "born" [23]. Unless a definite political commitment to working with the powerless is part of the process, those who are relatively inaccessible, unorganized and fragmented can easily be left out.

Once participation is secured, involvement in the research process is usually neither continuous nor predictable. Commitment and interest waxes and wanes over time. Participants can experience task exhaustion and the composition of research groups will fluctuate over time [59, 60]. People may enter a participatory research process with preconceived ideas of desirable outcomes. When it becomes apparent that these are not project priorities, their enthusiasm wanes. Local people may find that some of the needs which they identify are embraced with more enthusiasm and interest than others. For example, people are often encouraged to identify needs for primary health care, but not for curative services. One project found the support of local leaders dwindled when it became apparent that they were not going to get the desired curative services [61]. Practitioners need to tread a careful path between generating sufficient interest for participation and not raising false hopes. Identifying honestly the limitations of what can be achieved at the outset is an important part of establishing trust [62]. This takes considerable time.

Participatory research aims to work with 'the community'. There is often an assumption that local 'communities' exist as distinct entities: small, well-bounded, homogeneous and integrated [63]. Within these needs, values, sentiments and ideologies are shared. Unfortunately for community developers this is invariably not the case. What is presumed to be a 'community' is invariably found to be a very

heterogeneous group of people with multiple interrelated axes of difference, including wealth, gender, age, religion, ethnicity and, by implication, power. Navarro suggests that a community should be seen as a set of power relations within which people are grouped [64]. Within any local area people associate through multiple, overlapping networks with diverse linkages based around different interests. Isolated axes of difference such as wealth or gender, are commonly insufficiently sensitive as determinates of shared experience for coherent priorities to be identifiable among groups defined in this way. Researchers find that competing, contested and changing versions of 'community needs' or 'values' emerge according to which interest group is consulted and according to the way in which their intentions are interpreted by these groups. These generate not only different interpretations but reveal different agendas and means for enacting some solutions and blocking others [11]. Even when researchers find a discrete community, they need to be cautious of coherent expressions of 'community' needs or priorities; "we think . . .", "we want . . ." may reflect a significant distortion of individuals' aspirations. The very act of the 'community' engaging with outsiders necessitates a simplification of their shared experiences into a form and generality which is intelligible to an outsider. This simplification may imply notions of sameness which border on fictions and often would not pass within the community [65].

Acknowledging agency as a researcher demands awareness of how choices are made as to who to work with, be this through accepting an approach from a 'community' or through the deliberate selection of people as a collaborating group. Such choices can have unintended consequences in terms of the dynamics of power at the local level. Research is more easily facilitated if it is organized through the medium of dominant local stakeholders or 'leaders', who are often most able to mobilize resources and articulate concerns [62]. Yet the poorest and most marginalized are rarely represented among them [66, 67]. On the one hand, working through local power structures invites manipulation of the research according to the agendas of the powerful. On the other, working outside (and, inevitably, potentially against) these structures can weaken both the potential impact of the project at a wider level, as well as invite continued marginalization.

The research process can have unintended negative consequences for those who participate. Newly empowered communities may challenge established power structures and in hostile environments this may unleash brutal repression on them [14]. Ugalde writes that in Latin America "community participation has produced additional exploitation of the poor by extracting free labour, it has contributed to the cultural deprivation of the poor, and has contributed to political violence . . . and the destruction of grass-roots organisation" [68]. Participants may become alienated from their community through

association with the project [24]. A heightened awareness by a marginal group of its oppression can increase unhappiness. Inadvertent exposure of the strategies used by marginalized groups through notions democratic openness can disarm them of their 'weapons' [69].

The training of medical researchers makes it hard for them to relinquish control and embrace community diagnosis and local knowledge [13]. Most professional health workers are ill-prepared for participatory research. They are taught to consider themselves and the western medical knowledge they have learnt as superior. Research is given a spurious neutrality. Training instils in researchers notions of 'objectivity' and of the 'purity' of science which numbs them to the political realities of life in the real world. The consequences for participation can be disastrous as one development worker found when trying to impose notions of 'representativeness' on a community committee in a situation of political polarization and factionalism [70]. At the same time, the actual involvement of the community in selecting methods or approaches may be minimal; they rarely have the knowledge or confidence to challenge the guidance of 'experts' [60].

Disciplinary conventions, funding priorities, and the personal and professional interests of the researcher, play a major part in dictating how appropriate areas for research are identified. Much participatory research is undertaken with vertical programmes, which poses its own problems. Researchers struggle to reconcile the demands of funding agencies for conventional evaluation and the constraints of the outcomes demanded by academia with the use of a more participatory approach. They often lack the funding flexibility to respond to communities' requests for research. Participatory research may be regarded within disciplines as lacking rigour and reliability, which results in participatory researchers being regarded as lacking academic credibility. While refereed journals have started to publish articles based on participatory research, researchers working within more conventional institutions face a number of professional challenges from within.

Researchers drawn from local communities, like academics, carry their biases, prejudices and beliefs into research. While their local knowledge and their connectedness into local networks can enhance communication and commitment, in some contexts it may be totally inappropriate to engage local people in certain elements of research. For example, Seeley found in her work on HIV in Uganda [24], that it was necessary to employ non-locals to collect sensitive data, due to the stigma of HIV/AIDS. Sometimes it seems that the 'knowledge of the poor' is reified within participatory research, yet some local knowledge can have potentially harmful consequences. At times, there is an ethical obligation not only to share outsiders' knowledge but to attempt to change local

beliefs, as in the case of local understandings of the spread of communicable diseases such as HIV. In other cases, there is a need to bring scientific tools and understandings to the process. One example is a study which elicited local people's views on what constituted 'good water'. In the Asian countries studied, the informants' concepts did not take into account the presence of pollutants—bacteria, chemical or organic [71]. Participatory research offers ways of making conventional science more relevant, by creating an environment in which new knowledge can be synthesized through a dialogue between western scientific and local knowledges.

In problematizing participatory research, we draw attention to some of the potential pitfalls. Yet this does not devalue the important part a participatory attitude and approach can play as a force for empowerment and development. Ultimately, participatory research is about respecting and understanding the people with and for whom researchers work. It is about developing a realization that local people are knowledgeable and that they, together with researchers, can work towards analyses and solutions. It involves recognizing the rights of those whom research concerns, enabling people to set their own agendas for research and development and so giving them ownership over the process. Conventional research can, and has an imperative to, adapt to increasingly participatory agendas. Not only can insights of local people improve the quality of research and ensure face validity, their involvement has important implications for the sustainability and appropriateness of interventions. The increasing use of participatory approaches in health research promises further, more wider-reaching changes. Changing the relations between researcher and those who participate in research involves political and personal transformations. This provokes the need for wider institutional changes, which accommodate new roles for researchers within a process which is flexible and reflexive, rather than linear, in structure. Slowly and often painfully conventional researchers are coming to realise that working with the poor and voiceless is infinitely more rewarding that working on them.

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