

Cutting edge research on health inequities: Concepts and methods

Report of a one-day workshop

7 July 2016

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Tirunal Institute for Medical Sciences and Technology,
Trivandrum

In Collaboration with
Institute of Public Health, Bengaluru

1. Background

The “*Closing the Gap: Health Equity Research Initiative in India*”, implemented by the Achutha Menon Centre for Health Science Studies, the Public Health Wing of Sree Chitra Tirunal Institute for Medical Sciences and Technology, aims to

“contribute to the advancement of a sound, actionable and measurable evidence- base on inequities in health in India with a view to influencing government and civil society initiatives to prioritize the reduction of health inequities”.

An evidence-synthesis exercise carried out as part of the Initiative confirmed the limited, fragmented and superficial nature of health inequities research in India, which, for the past several decades, has not gone beyond repeatedly confirming the existence of large health inequities. Very few studies examined the causes and pathways through which health inequities are generated and sustained, information that is essential to plan policies and interventions to address the gaps. Fewer still were about interventions to address health inequities. Studies that examined inequities in health across multiple axes of social inequalities (e.g. gender and caste; disability and economic status) were but a handful.

The exercise pointed to the urgent need for serious engagement by researchers on these major gaps in evidence on health inequities in India. The one day workshop on “**Cutting Edge Research on health inequities: Concepts and Methods**” aimed to reach out to young and mid-career public health researchers and activists and inspire them to engage with research on health inequities.

About the workshop

The one day workshop was conducted on 7th July, 2016 as a preconference event prior to the Third National Conference on bringing Evidence into Public Health Policy (EPHP), organized by Institute of Public Health (IPH) on 8-9 July, 2016, in collaboration with the Institute of Tropical Medicine, Belgium. It was arranged at Hotel Chancery Pavilion, Bengaluru from 11 hrs to 17:30 hrs.

Objectives

At the end of the workshop, participants were expected to:

- a) Have clarity on concepts related to equity and inequities in health including the intersectionality framework
- b) Have acquired skills for planning research that helps understand the pathways creating or contributing to inequities in health using qualitative, quantitative and mixed-method approaches

- c) Be introduced to approaches to studying the consequences of intersecting social inequalities on health inequities

Facilitators

A team of seven experienced resource persons from India facilitated the workshop. The team included Professor Raman Kutty, Professor TK Sundari Ravindran, Professor Werner Soors, Dr Arima Mishra, Dr. Aditi Iyer, Dr Rakhil Gaitonde and Dr NS Prashanth.

Participants

Participants were early and mid career researchers with research experience and interest in inequities in health by gender, caste, economic position, and/ or in health issues of socially marginalized and vulnerable sections of the population. They were also registered participants of the EPHP conference.

The number of places available for the workshop was 25. A screening committee was appointed for the selection of participants from the applicants based on their resume and statement of purpose. About 10 observers from the Institute of Public Health and Institute of Tropical Medicine, Antwerp, Belgium, also audited the sessions.

Logistics

No course fee was charged for this workshop. Candidates selected for the workshop were covered for boarding and lodging costs for the day of the workshop and costs of course materials.

2. Workshop Proceedings

Structure of the workshop

The workshop started at 11 hrs and ended at 17:30 hrs and was divided into three sessions.

The first session (11:00 – 12:30) introduced and discussed concepts related to equity and inequities in health and inquiry paradigms guiding research questions and methods. The second session (13:30 to 15:30 hrs) focused on a range of methodological approaches, tools and indicators for studying health inequities including the intersectionality framework. The third session (16:00 to 17:30) consisted of group work by participants to develop a research idea related to inequities in health into a research outline consisting of research questions and proposed methodology. Each session was broken up into two to three ‘capsules’ moderated by

different facilitators. Participatory learning methods and interactive lectures were used for the most part. Registered participants were sent pre-workshop course materials to read before the workshop.

Session 1 - Introduction to concepts and theoretical frameworks

This session had two capsules in the form of interactive presentations:

1. Title: Touching base on concepts and definitions related to health inequities
Facilitator: Prof. TK Sundari Ravindran, AMCHSS, SCTIMST

Prior to the presentation, the facilitator gave a brief background to the workshop, following which participants introduced themselves and their research interests.

Through the presentation, the participants were introduced to basic concepts like disparity, equality and equity, vertical and horizontal equity; health equity and its many dimensions. The concept of health inequities was introduced using a quote from the report of the Commission of Social Determinants of Health, “social injustice is killing people on a grand scale”. The facilitator then urged the participants to share their perspectives on the meaning of inequities in health and its distinction from health inequalities. Health equity was established as social justice and health disparities as systematic, plausibly avoidable differences in health status and its determinants according to social locations. The participants shared examples of health inequity and health equity research which influenced them. The facilitator then introduced the participants to the broader strands of health equity research and justified it as a political project and as a tool for social change.

2. Title : Questions as if methods matter- considerations for choice of methods in health equity research
Facilitator: Dr. Prashanth NS, IPH

Through this interactive session, the facilitator attempted to describe the world views underlying research questions and methods. First, through a simple exercise of multiple choice questions about truth and knowledge, he substantiated that research questions are not created in a vacuum. Every research paradigm from positivism to participatory research in fact addresses specific underlying ontological, epistemological and methodological questions.

In the second part of the presentation, the facilitator emphasized the point that research methods are also not chosen in a vacuum; they are also heavily influenced by the researcher’s

world views. So, it is important for researchers to engage in realist or theory driven enquiries, so we don't miss the elephant in the room i.e. the underlying power dynamics and consequent relative advantages or disadvantages.

Session 2 - Methodological approaches to the study of inequities in health

This session had three capsules in the form of interactive presentations, each addressing methodological approaches in the study of health inequities.

1. Title: Using qualitative and mixed methods approaches to unravel the pathways through which health inequities are created and reinforced

Facilitator: Dr. Arima Mishra, Azim Premji University

The presentation focused on the relevance of a qualitative method of enquiry and what such an enquiry entails. This was facilitated through the discussion of a paper, which was sent to the participants prior to the workshop (Samuelsen, Helle et al, Do health systems delay in the treatment of poor children? A qualitative study of child deaths in rural Tanzania, *BMC Health Services Research*, 2013, 13: 67 :1-10). The facilitator justified the relevance of framing the right research questions without immodest claims of causality. A research question like, "do health systems delay the treatment of poor children in rural Tanzania?" reflects the social locations of health inequity, the role of actors/social processes, the process of social exclusion and the unfavorable health outcomes resulted by the process. The right research question addresses how do social forces act on unequally positioned individuals /groups in creating and reinforcing inequitable health outcomes. The methodological sites where these processes happen will reveal the complex, subtle/invisible, every day practices that create and sustain health inequities. Clinical encounters from multiple sites, health care journey and lived experiences of care and loss will reflect these complex inequities. The non linear complex pathways which form the systematic processes of exclusion are referred as the "technologies of exclusion" and deeper methodological enquiries using qualitative methods help in unraveling them.

2. Title : Methodological approaches to examine the health consequences of multiple deprivations/oppressions

Facilitator: Dr. Aditi Iyer, The Ramalingaswami Centre on Equity and Social Determinants of Health

The interactive capsule facilitated by Dr. Aditi Iyer focused on the methodological approaches, specifically quantitative approaches which are used to study the health inequities arising from multiple deprivations. Earlier in the presentation she introduced the concept of intersectionality which promotes an understanding of human beings as shaped by the interaction of different social locations which occur within a context of connected systems and structures of power. She very briefly explained how the processes of such interactions result in interdependent forms of privileges and oppressions. She then delved into the disadvantages of treating multiple inequalities as parallel processes neglecting the fact that the impact of any one axis of power is mediated by others.

Typical quantitative approaches do stratification of one type of inequality (e.g. gender) to assess the impact of another type (e.g. economic class) which can become cumbersome when there are multiple variables and inexact if the regression coefficients are not tested. The use of hierarchical regression models cannot distinguish between each intersecting category. Neither of these approaches allow for analyses along the entire length of the multi-dimensional social spectrum. So she suggested a simple but versatile alternate methodology to enable analysis of differences along the entire social spectrum, not just between the extremes (Sen, G., Iyer, A., and Mukherjee, C. (2009), A methodology to analyse the intersections of social inequalities in health, *Journal of Human Development and Capabilities*, 10(3): 397-415). The method assigns unique identities to each intersecting category (e.g., poor men, non-poor women) vis-à-vis the reference group and allows for testing the significance of differences between categories taken pair-wise using the chi-squared test on regressed variables.

3. Title: Measuring and describing health gaps and identifying risk factors using epidemiological approaches: A critical introduction

Facilitator: Dr. Ravi Prasad Varma, AMCHSS, SCTIMST

After an initial description regarding the nature of inequality data, sample considerations and approaches to analysis in quantitative research, the facilitator went on to discuss the various measures used to assess health inequalities (range, risk ratios, Population Attributable Risk, mean independent measures like (Gini index, Lorenz curve), slope index of inequality, relative index of inequality and concentration index). He also briefly discussed the Blinder – Oaxaca

decomposition method, which is a multivariate analysis used to assess the inequalities caused in part by differences in effect of determinants. Earlier in the presentation, through a diagram the facilitator had established that the decision of health inequity was an ethical or a moral one. Thus when he delved into considerations of equity research, he mentioned unfairness and policy amenability as two characteristics of the determinants of inequality that could help us take the decision. He concluded the presentation with a graph depicting the patterns of health inequality shown using coverage of births attended by skilled health personnel in Bangladesh, Gambia, Jordan and Vietnam by wealth quintile.

Session 3 - Developing research questions and outlining approaches

Faculty: Dr. Rakhal Gaitonde, IIT Madras

Discussants: Prof. Raman Kutty, AMCHSS, SCTIMST and Dr. Werner Soors, ITM, Belgium

Objectives

At the end of the session, participants were expected to be able to:

1. Frame research questions that focus on unraveling pathways that contribute to creating / sustaining health inequities.
2. Apply the intersectionality lens in the framing of the research questions.
3. Choose appropriate methods to answer the research questions.

Content

In this session, participants were divided into four groups. Each group was given a research problem concerning health inequity and was asked to frame research questions and choose appropriate methods to address them. The group work was evaluated by the discussants who gave their comments at the end of each presentation.

Team 1

Research problem

While the country has made significant strides in the reduction of maternal mortality, the maternal deaths are over represented among the poorer Adivasis SC and ST communities. The government has announced schemes like JSY and JSSK, which do not seem to have made an

impact on the differential. How do you research the causes of this differential in maternal mortality?

Research questions framed by the team

- Why are maternal deaths higher among poorer, adivasi, and SC despite government schemes like JSY and JSSK viz -a- viz general population?
- What is the existing health care delivery system in the areas with more poorer, adivasi and SC communities?
- What are the health seeking behaviours of the population?

Research Methods

- Mixed approach
- Selection of district
- Quantitative Method- Health facility assessment
- Qualitative Method – interview with women and men in the reproductive age group and with health providers.

Comments

Dr. Raman Kutty

1. Since the question that you have asked is why higher maternal mortality exists, there is an implicit assumption that maternal deaths are higher. So then there is no need for assessing the maternal mortality (count maternal deaths) again, is there?

Response: No there is no need to assess maternal mortality again

2. There seems to be disconnect/confusion between the questions you have asked and the methodology that you have designed. The question is about deaths, but the methods look into institutional deliveries.

Response: We have decided to do verbal autopsies in the households where maternal deaths have occurred and compare it with the households where women have survived after successful child birth. Then based on the results, we will make inferences as to why some households did not choose institutional deliveries, what were the problems or challenges they faced and what according them caused the maternal deaths.

3. So is the methodology that you are going to adopt predominantly quantitative or qualitative. I get it that it is mixed, but in what sequence?

Response: We will get the prevalence of maternal deaths from four districts. Using an objective checklist we will do a health facility assessment in the selected districts followed by stake holder interviews and Focus Group Discussions of the health facility staff.

4. Can you reframe the question with an equity perspective as we discussed in the morning? Instead of implying that the families did not access the health facilities leading to maternal deaths, can it be framed in such a way that it implies that health system related factors (facilities) created the situation?

Dr.Werner Soors

1. You start with one research question which I did like. But then you pretend to split that research question to sub questions which really do not have much to do with the actual question. They are incomplete to answer the 'why' question.
2. You assume that the answer to your 'why' question is only in the interaction between the patients and the health care delivery system, as though the reasons for health inequity were located only there (in the health systems) and not in the wider society. Unless you widen your definition of 'health seeking behavior' to include aspects like - do they have access to land and food, can they live with dignity, are they respected etc, I might agree with your way. Otherwise I think that you are extremely restrictive. The assumption that the determinants of health lay only in health services is obviously wrong.
3. I also have some issues with your methodology (you said mixed). You must at least mention what will be the ultimate thing that will be analyzed. Will you start with some secondary data which is quantitative, which will be followed up by a qualitative enquiry or is it prevalence or any other 'magical number' which will be analyzed – that should be made clear?

Prof. T.K.Sundari Ravindran

1. There are poor adivasis and non poor adivasis, poor SCs and non poor SCs. I did not see any of those intersections coming up in the presentation.

Team 2

Research problem

The existing research studies show that it is usually the men who perpetrate violence and the women who are the victims. The existing studies are usually focused on finding associations. Frame a research question that proceeds from finding associations to evolving solutions at the societal level.

Research questions framed by the team

- What is the extent and nature of domestic violence experienced by married women in district x?
- How do the power dynamics across family, society and political environment influence violence against women?

Research Methods

- Mixed method approach
- Quantitative –caste, class, education other socio demographic profile, prevalence(type of violence)
- Qualitative-In depth interviews, case studies
- Methodological sites: women experienced violence, family members, cultural practices, policies in place, implementers of policies

Comments

Dr. Raman Kutty

1. The research problem already says that there is violence and that is already established. You have been asked to look at the pathways. So do you actually need the district wise (x) study to assess the extent (prevalence)? I suppose that is going to be a quantitative component from the way you have framed the question.
2. The second question of power dynamics across family, society etc is very broad. From the previous studies you could get cues as to who are the perpetrators of violence, the type of victims etc. So can't the research question be framed linking these two and explore the pathways?

Dr.Werner Soors

1. The first question is not really needed because that information is already there and has been given to you.
2. They have asked you to go beyond associations (quantitative). Now your second question seems to go beyond that, however, the end of the given problem was to suggest solutions at social level. So one thing is what goes wrong and it is another thing to find solutions and it is much more difficult. You have not explored that part of finding solutions.
3. Even if we assume that your methodology is successful in identifying the dynamics, it still does not lead to solutions or suggest policy implications. You only have a diagnosis and not a solution. You need to go further and connect that if this, this and this goes wrong, then this, this and this are the possible solutions, negotiate them with the people (not impose) and then still see what changes are feasible.
4. In your methodology, you have said that you will talk to women who have experienced violence. How will you find them? Ask yourself that question
5. Final point is that if you have been given a question which asks you to find possible solutions at the societal level to deal with violence against women, you have every right to say that it is too much to ask out of us if you feel so. You have the right to be critical of the questions we pose you.

Prof. T.K.Sundari Ravindran

1. There is an issue of definitions of violence. You have used domestic violence and violence against women interchangeably. Violence against women could be societal violence, communal violence or family violence. Your first research question says domestic violence, but research questions and methods seem to imply intimate partner violence.
Response: the research problem specifies married women.
2. Yes, but married women may face violence in the broader society, at work place or stalked when they are outside
3. This is just a thought since we mentioned solutions. If I need to explore solutions to deal with the issue of violence, then maybe I will talk to women who got out of violence. If I narrowly define it as intimate partner violence or some specific sort of violence that way, then instead of talking to women who experience it presently, if I talk to women who have experienced it in the past and who have got out of it, then maybe I will have some clues regarding what factors helped them – support mechanisms, necessary information.

4. To identify women who experience violence is very difficult and you could always get underestimates. But many women's organizations that have helped women to come out and speak could help. So maybe you need that kind of mediation. But one thing to keep in mind is that disclosure of violence in itself can be problematic for women if it is family violence.

Response: In terms of solutions, may be how women perceive the existing safety valves (policies etc) could also be an area of study?

Team 3

Research problem

Despite RNTCP, there is high mortality from MDR-TB. Frame a research question to assess the reasons of high prevalence and mortality from MDR-TB

Research questions framed by the team

- What are secular trends in prevalence of MDR-TB and cause-specific mortality (MDR-TB) from 2000 to 2015 in India across regions, castes, classes and religions?
- What are the barriers in seeking care, support and treatment under RNTCP for patients with MDR-TB, who have dropped out?
- What are programmatic measures and challenges in providing care to patients with MDR-TB?

Research Methods

- Secondary data analysis
- In depth interview among a sample of people from high burden groups identified from secondary data analysis
- Key Informant Interviews with providers and analysis of grey documents.

Comments

Dr. Raman Kutty

1. You have done a good job. But I am not very clear if the problem itself states that there is a higher mortality due to MDR-TB. If that is clear from the problem then the first question is not required. But even if you want to confirm it, I don't think the current secondary data will help much.

2. The question is specifically about health system determinants of the problem. You have clearly defined health system and that being the case do you really need to talk to the people with MDR-TB? I agree with talking to program planners and implementers, but I also think it would help to talk to people who are in the field, may be not actively involved like the doctors. They may have a different (observers') view about the program implementation.

Dr.Werner Soors

1. I liked your presentation but still a couple of questions. I agree with my colleague that the first question could be justified saying there was a "seems to" in the research problem. But it feels like you missed the last presentation on intersectionality. You have stated that you will look at prevalence across regions, castes and religions. Instead of looking at them as parallel processes, it would have been better if you would have looked at them intersectionally. That would have been more appropriate.
2. I liked your comment about the different meanings of health systems. I come from a setting where health systems have been traditionally defined from a biomedical perspective. I have become a bit allergic to health systems being narrowly defined as health service delivery systems since I too attribute a more social meaning to it and believe that they have a much broader meaning than just provide health services. Health systems are coping mechanisms for health; they don't provide health. Having said that, it surprises me that you have framed two different research questions – one for people and the other for health systems. That is so mechanistic or to use an Indian term 'anti holistic'. This divides things which are together. All these problems of implementation are actually human behavior – they are interfaces between structure and agency. So please do not separate these two aspects.

Team 4

Research problem

Despite the implementation of ICDS over so many decades there continue to be a significant male/female as well as caste and class differentials in the prevalence of malnutrition. How would you research the mechanisms of the present burden of malnutrition in the country?

Research questions framed by the team

- What are the factors that contribute to the differences in the inter and intra state utilization of ICDS program in the country?

- What is the extent of class, caste and sex differentials in malnutrition among 0-6 year old children in the country?
- What are the factors (social, economic and cultural) affecting decision making regarding nutritional choices and utilization of ICDS services at house hold levels across the caste and class intersections and the ICDS program functioning in terms of accessibility & availability at different levels?

Research Methods

- Secondary data analysis of NFHS data, ICDS registers, evaluation reports etc
- FGDs with mothers—perceptions about child malnutrition, quality of ICDS services & expectations from ICDS program
- In depth interviews with mothers/caregivers (nutritional practices, food choices, inter & intra house hold decision making, utilization of ICDS services and reasons)
- In-depth interviews with Anganwadi workers (regarding the functioning of the units, barriers to service delivery and the supply of food)
- Observation of functioning of selected Anganwadis (cooking practices, interaction between workers & beneficiaries)
- In-depth interviews with program managers (difficulties they face in the program management)

Comments

Dr. Raman Kutty

1. I think in the framing of your research questions, there is the underlying assumption that most of the differences in the malnutrition status in the country has been contributed by the ICDS. I don't know if that can be assumed. So probably the second question should be the first question. Even then with secondary data you may be able to get caste and sex differences, but how far would you be able to get class related data I don't know. The first question should really not be the first question.
2. The second question again is too broad and it needs to be broken down into simpler specific questions

3. The qualitative part (FGDs with Anganwadi workers) may not answer everything that you expect to be answered. The Anganwadi workers are still a part of the system. You will have to carefully look at the complexities of the problem before proceeding.
4. Apart from the in-depth interviews with program managers you will have to talk to higher level implementers, policy makers etc. there is also a lot of criticism about ICDS by academicians. They themselves may have contributed to what has gone wrong.

Dr.Werner Soors

1. There are three terms that you have used which I dislike – variables, factors and prevalence. The question asked to you is how you would research the mechanisms of something. In two of the three research questions meant to answer these questions, you have used the word, ‘factor’. A factor, even if it is a risk factor or even a more modern word like the ‘driver’ is just a factor. Unification of factors together in complicated spider webs to get an outcome - that is what you call a mechanism. How will you understand a mechanism by just understanding the factors? By seeing an association between a factor and an outcome, you cannot be sure that that factor is also not an outcome of the same mechanism. So I see a terrible problem in that.
2. What makes you think that this person within these small four walled structures called Anganwadi worker or the ICDS lead to malnutrition?
3. You have also not been critical of the question posed to you – what kind of malnutrition – acute or chronic, stunting, wasting, anemia etc. Wouldn't you be upset if I say that your Muslim population, even female Muslims rarely have anemia because they eat meat? You should ask yourself these questions.

Prof. T.K.Sundari Ravindran

1. Just one observation for all the presenters. Structural factors rarely come into even posing questions forget about the difficulty of incorporating them into the methodology. Where are the food prices, food crisis, the drought years and the agricultural sector? Structural factors are not just to be acknowledged, we have to begin to incorporate them at least in our research questions.

Dr.Rakhal Gaitonde

The whole design of this session was to push all of you and also all of us to think through the questions, to think beyond what you will naturally think, that is beyond the default way of thinking as researchers. These comments are such reflections and they should be considered that way. As Aditi said, this is just a glimpse of all that exciting work that goes on out there. So what we really need to do is to go back to the essential readings.

3. Feedback from participants

Participants were given an evaluation form, which they completed and returned within the next couple of days. The summary table of feedback is attached as *Annex 3*. Overall, of the 22 who gave feedback, 8 participants said that their expectations were fully met and 14 said that these were only partly met. The main shortcoming mentioned was duration of the workshop. There were also suggestions related to giving a limited number of readings and organising the sessions around these readings, as Dr Arima had done. There was a request for the session on research paradigms to be more elaborate, with each paradigm illustrated through an article so that participants gain greater clarity about the differences between various paradigms. There seems to be a lot of interest in getting practical skills, especially in learning how to carry out intersectionality-informed health equity research.

We had asked participants about their interest in attending a workshop of longer duration, and also about the maximum number of days that they will be able to spare for such a workshop. All the participants, without exception, said that they'd be interested in attending a longer workshop on the same subject. In terms of workshop-duration, 10 have said that three days would be their preferred duration, 6 have preferred 4-5 days and the remaining, more than 5 days (maximum was 2 weeks).