

Research Methods in Health Promotion

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Week 10

Lecture 49: Community-Based Participatory Research in context to Health Promotion (Part IV)

We are now going to talk about community-based participatory research in context to health promotion. Continue our discussions from the previous lectures and we would be covering some concepts like data collection tools and techniques. We have already discussed some, we would be discussing timelines and ranking as some of the tools and techniques. We would also touch upon data analysis and participatory research and of course, as a corollary to that reporting dissemination and action following participatory research. Now let us come to timelines. What are timelines? Timelines basically show changes in whatever issue we are studying changes related to that issue over time.

So, this is particularly useful when we use it for monitoring and evaluation to see how things have changed to understand the reasons and contributing factors for this change. So, that is where timelines come in very handy. A timeline is an illustration of key events. These key events can be in the life of the individual, it can be events in the life of a household or in the course of action of a household, it can be key events in the community or organization, but it is always fixed over a specific period which we want to study.

Often this involves drawing a linear timeline. We are all familiar with such graphs and we ask people to mark their timeline with key events which have happened be it in the community, be it in the household, be it as they in their individual lives as might be relevant and applicable to the problem which is being studied. Now timelines can be used to plot the progress of a project or a program over time as I have already mentioned for monitoring and evaluation. What has changed, what has not, why some things have changed, what were the facilitators, what did not allow things to change and things like that. So, it also highlights the achievements and challenges faced along the way.

This is how timelines are used. You can see that this is a timeline which has been drawn for a program up to 2017. Timelines in participatory research are made by people. People give their own account of their history. It is basically a chronology of important events or changes that have occurred.

I think most of you must be familiar with timelines in the life cycle of women, of adolescent girls etcetera much used in many of the anecdotes or articles, but it can be used in many other fields as well. So, the important history, important events or important changes over time with

approximation for whenever possible the exact dates. It is not essential that we have the exact dates because it is difficult for the community to put it down, but an approximation will help. It serves to help people to construct a history. It might be an individual history or small group history, a small community history and from that history we can identify key moments at which perhaps in case of say disasters or environmental impacts how their lands have changed, how their natural resources have changed, the use of resources have changed, access to resources have changed.

So, these are some ways in which timelines can be used. What I mean to say is even beyond health concerning environmental health or other aspects of planetary health timelines have proved very useful. It can include general trends with approximate dates or specific events as we mentioned. The other important tool which can be used, the technique which we use for this is ranking and scoring. This is very common right from our student days.

We undergo this process, but to apply it to the community to do it by themselves is good for comparing their preferences, their priorities, their opinions and if you compare the rankings and scoring made by different community groups you can even get better information, better insights, better understanding. So, groups here vote on the items which are most from most important to less important rather from first, second, third etcetera. Ranking can be combined with other methods for exploring the reasons why people consider a problem to be larger than the other. So, you conduct a ranking and then you use some other method to see why this particular issue was placed first, why it was preferred. So, some other method can be used for that, but this serves as a first step to explore what people prefer or prioritize and then explore reasons why people consider that to be the preferred option or even prefer one possibility to another and then you can start a discussion.

So, this can also be used for opening up focus group discussions or other group discussions. When we would like to know the potential solutions what does the community feel are the potential solutions to these priority problems. Now, there are various types of ranking I will just describe some of them. One and the simplest is preference ranking or problem ranking as we say, it is the easiest method to use people vote to select priorities. So, this is a very similar to the election system people go and vote we have a list of names and we put our votes against it and finally, we see the one who has received the maximum number of votes wins.

So, it is a similar issue of prioritization or preference ranking. For example, participants are asked to list the main problems in their community which they confront regarding any particular issues say TB treatment or say infra feeding it might be any issue. So, what are the problems related to that in this community and then we go through this process of ranking where women men and women are allowed to or asked to rank these. Then they are asked to rank these problems in order of importance and this again can be used in this manner. This is the ranking of problems related to sanitation done by women.

So, you see the same thing can also be done by men and it will give you a very different result. So, this is what you see this was a list of problems related to sanitation lack of sufficient number of toilets or sanitary latrines, lack of piped water inside the toilets, difficulty in keeping the toilets clean, construction of latrines inside the house where the religious idols are kept and then security of women who defecate in the open. These were some of the problems which the community women felt were there. Then they were asked to vote this. So, what was the most preferred problem or rather the prioritized problem lack of sufficient number of toilets or sanitary latrines that had a score of 12.

The second in order was security of women who defecate in the open scored 11, 11 women voted for that. Then came difficulty in keeping toilets clean and I always would like to say this that in most of the households where such studies have been conducted it has been found that it becomes the duty of the women to keep the toilet clean in most cases. So, obviously, women have scored it higher difficulty in keeping the toilets clean followed by lack of piped water inside toilets and finally, the construction inside the house where religious idols are kept. So, this being a problem, but was not very much prioritized as one. So, this was one form of ranking very easy to do and then we can start a discussion as to why they feel this is the most important, why they do not have sufficient number of toilets, why they feel that the security of women who defecate in the open and you well know the by now the you can conduct fishbone diagrams, you can have a g d starting with these y's and get a more in depth understanding of the reasons for these choices.

The other type of ranking which we commonly do is pair wise ranking. What do we do here? Again similarly a set of priority problems or preferences are identified. For example, measures for prevention of spread of COVID-19 and then some solutions are identified perhaps use of mask, vaccine, physical distancing etcetera. Now each solution is kept on a separate card using a picture or a symbol instead of text wherever possible because we are dealing with illiterate or low literate audiences. So, it is good to go with symbols.

Two of these cards, so one card with the problem, one card with the solution are placed in front of the community members and he or she is asked to choose the most preferred one with the reasons for the choice and then the response is marked in the appropriate box in the priority ranking matrix. So, you already have a table you mark it there. The procedure is repeated for the rest of the solutions each time you note the criteria. You can again choose a different pair and this comparison is repeated until all possible combinations have been considered. Then you get the matrix and list the problems and preferences.

This pair wise ranking exercise is repeated with the number of individuals and their responses are tabulated and a final score is made. And this is what a pair wise comparison table looks like. On the first column you have measures for prevention of spread of COVID-19 vaccination, proper use of masks and physical distancing. So, then along with that we have brought in vaccination and proper use of masks and physical distancing and ask people to

place it according to their preferences. And as is very evident from this picture physical distancing and proper use of masks have lost out to vaccination.

In this group of people mostly they felt that vaccination was the most preferred measure for prevention of spread of COVID-19. Might be in a different community it could have been use of masks and another community they might have had physical distancing. So, this is a basic 2 by 2 table where we compare between pairs and see which is preferred by the community. It is simple once we do it and it is easy for the community to do as well. Another simple thing which we can do is a direct matrix ranking.

This is the third type of ranking exercise which is again done commonly. A direct matrix ranking uses different criteria for decision making. This is basically done to select something which we will do for interventions or program inclusions etcetera. So, scores different options against a criteria. It can be used for understanding the reasons for local preferences like types of food.

Now here we have given an example of criteria for complementary food preferred by mothers for infants at 6 months of age. Now the criterion were A easy to prepare, B can be mashed, C easy to swallow, D readily available, E cheap. Now and what were the options of food available? First was biscuits soaked in animal milk. So, this was easy to prepare. This people said, 4 people said or 4 mothers said it can be mashed easily, 4 said it was easy to swallow, 4 said it was readily available, but of course, many did not feel it was cheap.

So, these were the criteria based on which biscuits soaked in animal milk received a score of 17 which was quite a high score. So, this must have been a very popular complementary feed given to children in this particular community. The second option which we had was khichdi made with only raisindal. Easy to prepare it ranked low in that because of course, you require time of course, you require a lot of preparation for this raisindal khichdi can be mashed. Some more people said yes it can be mashed because it is prepared soft.

Easy to swallow people did not really feel it was easy to swallow. Readily available no you have to take some effort to prepare it at home and cheap again was not very cheap according to people. So, it lost out to biscuits soaked in animal milk. You can see that the ease of preparation, the criteria of mashing food before giving it as complementary feed, the criteria of being easy to swallow according to community perceptions all these actually in all these criteria khichdi lost out to biscuits soaked in animal milk. Next comes a very another very common type of complementary feed which is given that is suji and animal milk, semolina and animal milk.

So, easy to prepare yes more easy than khichdi we all know that suji is easier to prepare than khichdi for most households, but less easy than biscuits. Regarding can be mashed suji exactly does not go for much for mashing. So, people did not have that perspective. Easy to swallow more than khichdi less than biscuits soaked in animal milk. Readily available again more than khichdi because we do know that it is once you get the suji, suji is well available everywhere mostly and it can be prepared easily also.

Cheap yes regarding khichdi and suji this criteria they scored almost equal. So, if you see overall this direct matrix ranking gives us an idea as to a which complementary food is preferred, b what are the criteria on which basis mothers prefer this. So, it is easy for us to design our interventions when we are giving messages, when we are talking about it we can build on these to impress upon mothers why we can have a dietary diversity, we can enrich the khichdi and give it etcetera. So, here ranking is done based on a score and as is evident biscuits soaked in animal milk have the highest score it is ranking first and obviously, it is preferred by the mother. Now, comes we have collected the data there are very many more methods those of you who are interested can go through the references later and get some more ideas.

Then we come to data analysis here we are actually what we need to do is plan the analysis beforehand also and then go and implement the analysis. Now, we have developed data collection tools based on the research question we have discussed some of them. Secondly since they are all participatory tools we have to determine the best participation format what would suit best both the community and the researcher. Third is develop a plan for analysis once we do that we can have the formats will it be maps, will it be some other format, what is the basic information which the data will provide, what is the learning we must have all this very clear in our minds before arbitrarily going in for using any tool any technique and gathering any type of data. Let us have these very clear in our minds that what is the basic information we need.

Secondly the learning expected about the specific issue from this analysis what do you want to learn from this analysis because remember we are going to have to communicate with the community and explain it to them that what are we wanting to learn from this analysis. Then looking for clear patterns the patterns which evolve have to be not only analyzed and presented by the community, but they must be clear enough for the community to understand as well. And how the data analysis addresses the research question that has to be always kept in mind whenever we are doing any research that the question what is the question and whether what I am doing is addressing it at all. And then of course, the important question is that do we need to collect further information it is at this stage that we need to decide about it and go about doing it as we said right in the beginning it is a flexible iterative format we can keep on changing adding and enriching whatever we are collecting. Now analysis can be done by a interpreting description stories statements pictures maps diagrams any other visual data right in the beginning we had mentioned that qualitative is an interpretive mechanism.

So, in most other types of research the researcher does the interpretation in this type of research the community does the interpretation. Secondly, identifying themes and patterns emerging out of the collected data and it is wrong to assume that it is only we that we find these out the community also has a wisdom and it is their identification which is important here. Third assessing the frequency with which particular ideas or themes are mentioned community does this with the help of the facilitator testing the strength of feeling about specific issues as we said priority of feeling this I feel is most important that is what the community says it might not be in accordance with what you feel about it, but it is the community's feeling again the strength of their feeling which is important. Then comes identifying points of convergence or divergence between different sets of data you have or you can collect the community can collect different sets of data through different sources different methods different perspectives are added from different groups and then we see whether what converges what are the divergent areas etcetera any gaps in the data where further information needs to be collected or where more probing is needed. So, these are the sorts of things we try to do in analysis in PLA only information that is absolutely necessary should be collected and analyzed to the level of accuracy I mean we do not need very complex statistical analysis here.

This is going to be done by the community. So, it has to be simple it has to be minimum the must know path. So, do it very simply collect the basic minimum that is required analyze it simply to inform decision making and action in the community. Then comes the fact that the community should not be subjected to undertake huge amounts of data collection or rigorous data analysis that is not needed. And finally, the approach should be to unravel the community's interpretation please remember and I keep reiterating that we need their interpretation of the data collected by them the visual data formats and their identification of points of convergence and divergence they will identify those points which they have collected through different sources methods and perspectives. Finally nothing goes to a we cannot stop at this stage we have to prepare a report finally, for dissemination and finally, the community has to take some action based on it.

So, we need to develop a plan for presenting and disseminating the findings what is the story what do you want to show what is the question that you are aiming to answer with this research so, depending upon that the presentation format can be made who will be the audience who will you show the findings to we all know that it differs what we tell the community in what format will differ from what we tell the program managers what we tell the policy makers. So, the audience determines the format again of the report when. So, are you looking at an ongoing problem or a specific point in time because that is important in writing the report also and finally, how do you want to present the information or research do you want to report or you want to put this story on the website or you want to discuss this in a community meeting accordingly we need to develop engagement strategies for action. Determine it can be advocacy at different levels it can be educational interventions it can be other many other ways of bringing about social change. So, determine how you want to engage community members community based organizations elected officials etcetera and the strategies may be different from each group.

Conduct interviews with the residents of the community to confirm that what you have prepared the report has a nod from them has concurrence from them and finally, presentation of findings to community members to gather their support for advocacy. So, it starts with them it ends with them it goes on with them it is sustained by them. So, that is what we aim to do. So, there are a wide variety of data collection tools and techniques which have used in participatory research more methods are evolving more are being used increasingly. The choice of these again always depend upon what we are trying to answer what information we are trying to get timelines and ranking are some of these tools and they employ different techniques for eliciting data.

And having elicited this data we go through participatory data analysis which involves planning for the format how will you analyze it will it be maps will it be ranks whatever deciding what learning is expected about the specific issue how to elicit the patterns and how to address the research question from the data. Finally, a report needs to be prepared for dissemination among the target community and other stakeholders for awareness and advocacy. So, keeping this in mind those who would be interested and going deeper into other methods and ways in which community based participatory action research can be conducted can consult these references for further reading. Thank you very much.