

Research Methods in Health Promotion
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Week 06
Lecture 26: Introduction to Mixed Methods Research

In health promotion research another very important type of research which we commonly encounter is mixed method research. So, we are now going to deal with the introduction to mixed methods research. The concepts covered are the types of research studies, how research question determines the type of research studies and when to choose a mixed method study. So, research studies we are all aware are of three broad types quantitative, qualitative and now the obtuse mixed method. Now one thing which is important to understand is that qualitative and quantitative studies are not rigid dichotomous distinct categories one or the other. They are just a continuum and quantitative and qualitative are at the different ends of the quality of the continuum with mixed method studies being in the middle of the continuum.

And as things are in the middle as a particular characteristic of things in the middle it integrates quantitative and qualitative from both the ends. Now one is not basically better than the other we cannot say qualitative is better than quantitative or quantitative is better than qualitative or neither is one more scientific than the other nor more rigorous. They are all having certain elements of each of these criteria they are compatible they are complementary they allow capture of diverse data the most important part is that they capture diverse data for contextually richer more complete understanding of the problem. So, it is not like you either have to do this or do that one compliments the other one actually builds on the other to make it more rich.

The decision about which type of study should be used depends again on the nature of the research problem the research question and the research designs. Repeatedly this is being focused upon that is to emphasize that we do not choose studies arbitrarily just because it has a greater possibility of publication or novelty attached to it, but it has to depend upon the nature of the research problem the research question and the research designs. Studies that simply combine multiple methods in data collection or multi informant studies do not categorize as mixed method designs. So, we have just done two types of studies quantitative qualitative that does not mean it is a mixed method. For the research to be considered a true mixed method study there must be genuine integration of the data this this should be underlined actually that the data should be integrated at one or more stages of this research process.

So, this is what we look for in mixed method research that how and at which stage are we going to integrate the data and integration is an what should I say is an integral part of mixed method research. So, the core assumption of the approach is that the integration of qualitative and quantitative data will give additional insight beyond the information produced either by

quantitative or by qualitative. So, even if you have done separately quantitative and qualitative and then get two reports put it together that is not a mixed method research. The entire study must be having points of integration at different stages and inference is drawn from the integration of the data. So, this is basically a time old problem of these three types of data there are qualitative methods there are mixed methods and there are quantitative methods.

So, qualitative methods people who follow these will say that is best quantitative will say quantitative is best whereas, the mixed method is says the research question drives everything. So, qualitative is dependent upon construction constructing new scientific knowledge exploratory it moves from data to theory or from specific to general. So, we do not have a hypothesis we do not have a theory in the beginning we collect data build up the hypothesis or theory from there whereas, the quantitative relies specifically on scientific evidence experiments statistics the researchers studies what others have done they read whatever is existing he or she is studying a particular issue tries to do a review to find out what others have seen and then forms a hypothesis which emerges from those theories or findings. So, basically qualitative is constructivism inductive logic is used and it is basically exploratory whereas, quantitative is post positivism we found out certain things we are deducing from that and confirming it through our further research. Mixed method depends upon pragmatism is what further what further wisdom can be added we already know these things what more can be explored it is rather abductive logic in inducing both and it has both qualitative and quantitative analysis built into it.

So, it identifies a problem views it within a broader context the research process starts with certain surprising facts perhaps in the quantitative or in the qualitative some puzzles which could not be answered by either quantitative or qualitative. So, then we try to integrate it in a further process which is the mixed method research. So, basically mixed method research is answering research questions through combining or integrating quantitative and qualitative data. So, you see research question can be based on problem based on the causes of the problem or based on the consequences of the problem. These are some examples of problems like overweight among young people malnutrition among under five children unmet needs of family planning vaccine hesitancy these are all problems.

Now, if you analyze this what we will find let us take this first core problem overweight among young people. So, there are certain causes like not sufficient physical exercise diets containing too much fat and sugar or perhaps even if you go further upstream there are computer games and internet lack of sports facilities fast food restaurants commercial influence readymade meals. And there are certain consequences of these problems more young people with diabetes high blood pressure and heart problems food food induced forms of cancer increasing and health care costs are increasing. Now, you could do research at any of these any of these find out what quantitative is there find out what qualitative is there and see whether any surprising or unforeseen facts are there which need further exploration. So, for those we will do mixed method research through integration of what is found in the quantitative and qualitative.

Research questions are always based on the aims and objectives. So, the answer to each research question should provide information to meet the aim of the research. For example, in this scenario appropriate research questions may include how do adolescents view the health risks of obesity what are the relevant social or subjective norms regarding obesity their social environment right body shaming body imaging all these are come under these issues. So, when to choose a mixed method study? We can choose mixed method studies for elaborating and clarifying the results from one method and the results from the other and check the accuracy of the databases. We can use them to find answers for paradoxes and contradictions new perspectives this is the most commonly common situation where mixed methods is used.

We are finding things which cannot be explained by either of the data collected either sets of data or there are contradictions there are new perspectives for that we do an abductive logic and go for mixed method types. Or we can use different methods for different inquiries then integrate them. Qualitative methods can be used to develop instruments like questionnaires and scale items for quantitative methods this is particularly not mixed method, but basically qualitative. Qualitative can also facilitate the sampling of respondents it can also provide contextual understanding for findings of relationships suppose you have done a quantitative you find such certain relationships among the variables which you cannot explain with what you have. So, for that you can do a further mixed method to understand these findings triangulation we have commonly done before.

And so each of these have their own strengths and weaknesses to combine them allows the nullification of the weaknesses and drawing on their strengths. So, one important thing in mixed method is that we can actually display data in a joint manner and that is what should be done it will be dealt with elaborately data on, but just to give you an idea and again reiterating that studies that simply combine multiple methods or multi informants are not mixed method designs. So, for there should be genuine integration of the data. So, here you see one example on the on this side the side by side comparison of results you can see that there is the qualitative investigation results quantitative investigation results. It is juxtaposed findings from qualitative and quantitative inquiry on HIV stigma in West Bengal.

And what have they done the domains are fear blame and judgment and shame. So, for the same domains they have put the qualitative findings like myths like acts reflecting fear and on the other column they have put the quantitative findings for the same domain. Like 76 percent respondents reportedly had fear of HIV transmission through non-invasive contacts. Those not attending school had twice the odds of such fear compared to school attendees believers of mosquito based mosquito bite based HIV transmission also had more fear. So, you see this gives you a direct visual impression of the different types and how they are integrated.

So, it is easy to integrate it at each level. Similarly for blame we have like the connotation changed as per route of infection, moral connotation etcetera. On the other hand in quantitative

you find 96 percent respondents in Pochi Madnipur and 88 percent in Howrah had judgmental attitude. So, it is easy to see how one links to the other or how they are related or whether they give some different findings also had the findings been different that would also have been displayed. Similarly for shame the other common way of doing these joint displays geo coding by themes this is also very interesting part now with a lot of GIS being used for research.

You can actually find out and depict the major qualitative findings according to geographical locations. So, already the color codes are developed according to the prevalence, alcohol problem, severity index and on top of that the qualitative findings have been superimposed to show what were the major findings or what were the major reasons here. Like in the lesser common areas alcohol is an acceptable part of society and activities. Whereas in the red areas one of them they said parents show their children to go into environments when they know drinking will be going on they are the key to making things change. So, you see these are the different sort of impressions, beliefs, opinions which you can directly see right from these visual displays.

So, mixed methods can use and should use a lot of these joint visual displays. There would be elaboration of mixed method research over the next few classes, but basically this is to orient you to the fact that there are we all know there are three types of research studies quantitative, qualitative and mixed method. Now mixed method studies are in the middle of this continuum we have to remember it is neither wholly qualitative nor totally quantitative nor is it just conducting the two studies side by side and saying that we have done a mixed method. The main keyword is integration. The decision about which type of study should be used depends upon the nature of the problem, the research question and research design.

So, all the listeners should be very aware of being very clear about these three things the problem, the question and the design before they embark on choosing the type of study. I have repeatedly said that studies which simply combine these methods in data collection or simply have many informants giving the data is not to be qualified as mixed method design. For the research to be considered a true mixed method study there must be genuine integration of data at one or more stages of the process which must be clearly indicated in the methodology because this will give the additional insight from just doing a quantitative or a qualitative. Mixed method studies are used for elaboration or clarification of the results from one method with the results from the other and checking the accuracy of the database finding answers to paradoxes. I would say this is a very important component answers to paradoxes answers to contradictions some new perspective comes up we can do another mixed method introduce another mixed method or integration at some stage to find out the answer to these.

It is used to show convergence, corroboration and correspondence that is how much of the data are coming together, how much is their confirmation, how much is their similarity of the results from different methods. So, these are the references you will be going into details of all these mixed method studies and thank you very much.