

Research Methods in Health Promotion
Prof. (Dr.) Madhumita Dobe
Chairperson,
Foundation for Actions and Innovations Towards Health Promotion
Week 05
Lecture 24: Qualitative Methods in Health Promotion (Part IV)

Today we are now going to deal with some other aspects of qualitative research in health promotion and we would be covering the different forms of qualitative data, the reasoning processes in qualitative analysis, the approaches in qualitative data analysis and the steps in qualitative data analysis. As you can understand all of these are very critical in qualitative research in health promotion. So, let us first look into the forms. Data collected through qualitative studies are mostly descriptive data. So, we have to first get a good idea about what is this data all about. Qualitative data can have different forms, they can be in words we are familiar with collecting data through words, but qualitative data or rather descriptive data can also be in the form of pictures, can be in the form of videos, can be in the form of notes, charts, records, narratives actually this very beauty of flexibility also exists in the forms of data which you can collect for qualitative research.

For example, the interview transcripts, the recorded observations it can be both video and the participatory observation records, texts, documents. Now of course, media dominates most of our information everywhere and increasingly multimedia and public domain sources are being utilized for qualitative research as well. Photographs can be used even lay accounts form an important source of data in qualitative research. Unlike quantitative data, qualitative data is not in terms of numbers.

We can do a semi quantitative form which I will discuss later, but if some numerical interpretation is provided it is only to emphasize a pattern in the data. So, that we do in content analysis which we will discuss later. But we have to be aware that the reasoning process when doing a qualitative data analysis the reasoning process is entirely different and unless we get into it and understand it and keep it always in our mind this analysis cannot be successful. Qualitative study relies on reasoning processes to interpret and structure these interpretations of meanings that have been derived from the data. So, it is very important as at least personally I believe one is very one has to be cautiously going through the data not once twice, but many many times as many times as possible to derive proper interpretations and structure it properly.

Analysis is an explicit step in conceptually interpreting the data and transforming this raw data into a coherent depiction of the thing being studied. So, you have lots of information. Now we read it we interpret from that data and from these interpretations we try to depict that how it is relating to the thing being studied. The distinction between explaining how something operates that is explaining how it is happening and why it operates in the way it does this is

the interpretation that is distinguishing quantitative from qualitative analytic processes. We know that so many things are happening so many things are not happening, but why is it happening in this way the interpretation which one derives the researcher can do from the data that is what is the beauty of qualitative.

Here data collection and analysis has to be and should be concurrent because your analysis would inform and guide additional data. So, there is scope there is flexibility and there this adds to the in depth insights. So, one should always go about doing collection and analysis together. Although there are many qualitative data analysis computer programs available on the market now these are essentially aids they help to sort and organize the sets of qualitative data, but nothing can match the human brain. So, none are capable of the intellectual and conceptualizing processes required to transform the data into meaningful findings the interpretation you know no machine can interpret like the human brain.

So, that is why personally I do believe and that has been a fact which has been accepted all over the world that we can use computer programs to organize to sort the data, but to derive meanings to categorize them we require to put our mind to it. So, the request is that once these are sorted once these are organized we have to put our time and effort to go on reviewing the data in order to draw valid effective interpretations and inferences. So, the first step in qualitative data analysis is data management for that we need to organize the data first for any management principle this is first thing that organization has to be proper. Digital data and subsequent analysis should be recorded in a file properly even with computers it should include dates locations individual or group characteristics interviewer characteristics any other features which are defining who where how the data was collected. So, digital recordings of interviews of visuals should be reviewed to see that the analyzed data corresponds to original observations.

So, when we have visuals we have to record it digitally keep it for further reference. If ethics agreement requires that we cannot put names or characteristics identifying characteristics. So, once we have done this the final transcriptions then all this should be removed because before the final transcription we might need to go back and forth, but once it is done if the ethical agreement so requires that we do not have any identifying features we need to remove it before analysis begins. If data are analyzed by using textual data analysis software which is mostly done particularly for media analysis media information maintaining careful watch over the data files is essential especially when multiple coders are involved for any place for I will come to that in subsequent lectures. For multi centric data analysis this is a huge problem because each person we as researchers differ.

So, the meaning we attribute to each data also differ. So, that is why where we have multiple coders multiple researchers there are there should be mechanisms for maintaining this watch over the data files for coming to general compatible and comparable conclusions. So, we will come later to how we do it. After this stage of management we come to data condensation.

Basically what is condensation? Condensation is selecting, focusing, simplifying and abstracting making a big thing smaller.

So, from the original data we are transforming them into a set which can be analyzed because as we said there is tons of data in qualitative. So, we have to select what is important for us focusing on what our research question was simplifying it as much as possible and then getting the original data from transformation into a data set get the data set from the original data in a simple form. So, which can be analyzed. In qualitative research most of the time is required to complete a study spent after the field work. So, that is a very important consideration let us not feel that once we finish data collection unlike quantitative where you can just fit it into statistical softwares and get the result qualitative work starts the hard part starts afterwards.

So, a single hour of taped individual interviews actually can take a full day to transcribe. So, taped individual in-depth interview it has been studied transcription requires a day and additional time to translate if necessary and if it is a FGD or a focus group interview it will even take longer. So, each stage of data condensation again because you are selecting you are focusing you are trying to simplify you are taking the data set making into abstract. So, this will require multiple decisions and close supervision to strike the right balance that is why qualitative is so difficult. It is not an easy job to do all these steps to involve all these multiple people and to maintain close supervision.

Because we have to have a right balance between maintaining the original language and clarity of the translated version for analysis because we need to compare between centers or we need to publish. So, we need to translate as well. For example, discussions among groups with little or no education should not sound like university graduates after transcription and translation you know. So, this is the judgment this has to be exercised which terms should be translated which terms should be kept in vernacular because appropriate term in English can possibly not capture the richness of this meaning in vernacular. So, as I said this requires close supervision and decision making.

Then comes data display. Now, after condensation we need to organize and display the data to facilitate comparison because basically what we need is comparative studies. So, that we can increase the depth and detail of the conclusion also. Now, displays can range from full verbatim transcripts of interviews to bulleted summaries of interview notes. Now, here we have shown you one useful display format which is the overview chart in which key themes of the research question like the domains were fear, blame and judgment, shame these were the key themes.

This has been listed in rows in a table or in a spreadsheet also you can do it and the informant or the groups opinions are entered there. Like myths about HIV transmission come under fear, under fear there is also people should not interact socially with spouses of PLWHAs that people

living with HIV AIDS to avoid infections. The PLWHAs should not be allowed to cook food for others, acts reflecting fear were like a PLHA was not allowed to watch TV at the local youth club, PLHAs were not allowed to use the village pond. So, these all related to fear. So, in this sheet you have done an overview chart which gives you the data relevant to this domain.

Similarly, for blame and judgment the moral connotation PLHAs who have acquired the infection through social sexual promiscuity should be punished, people said women having infection were blamed to destroy the family, but men were not similarly blamed. Similarly shame the attitude towards sexual promiscuity HIV was associated with shame because it was acquired through sexual promiscuity this was some of the ways in which you can display the data. So, overview charts will actually allow easy systematic comparison of results. This was taken from the study headed by Dr. Panda exploring stigma and low HIV prevalence settings in rural West Bengal of India.

So, one can do similar displays and there are many other methods as well. Then comes the stage of drawing and verifying conclusions. Now that you have displayed you have compared you now know what it is all about then we can start analyzing it. The basic overall analysis types can be as we have discussed thematic analysis where we try to carefully systematically and repeatedly read the text. All these words are very important it is not easy this is the most difficult part of qualitative research.

Careful systematic and repeated reading because we need to identify the consistent themes, we need to identify the interconnections getting the pattern is very important the pattern emerging from the data. So, repeated reading as you read more and more you would get new themes, new connections, deeper meanings. So, reading the full text of interviews multiple times before subdividing according to coded themes is necessary and I would like to emphasize that this will add to the richness of your research. So, yours will be a different one, it will be a good one, it will be an effective one to find out these themes which are necessary to appreciate the full context and flow before subdividing and extracting the coded sections of the text. So, this has to be completed in a very cautious and sincere way.

The second type of analysis which we commonly do is content analysis. We have said that it can be quantified qualitative information also can be quantified sometimes if necessary. So, this is done through content analysis description and categorization of common words, phrases and ideas in the qualitative data. How many times a particular word was used? So, quantifies qualitative information by systematically sorting and comparing items of information in order to summarize them. So, this can be conceptual analysis more number based how many times this particular concept has come up or relational analysis.

So, finding out the relation between the concepts and how many times or how they are connected how it has evolved. So, these are done through content analysis. Textual analysis

is basically we do as I said social media platforms are being now increasingly particularly after the last COVID-19 outbreak and with the infodemic there of social media platforms and the information provided there provided important data to examine content structure and design and to see where it is leading us. So, textual analysis is commonly used here and it is increasingly being used the world to find out frequencies, magnitudes, structures, processes, causes, consequences of the research of the topic under research.

Finally we come to coding. We repeatedly talked about coding, developing codes for labeling sections of the text for selective retrieval in data stages of analysis and verification. This also is done in some of the computer programs, but it is good to check it at least amongst some of the data collected to see whether it tallies well with how you are trying to interpret. So, it can be codes can be done according to the structure of the interview guide you have a formal chronology of topics you can code accordingly that is known as structural coding. You can do a thematic coding because as you read as you interpret certain codes some themes emerge.

So, that is thematic coding. Now, to avoid the problem of shift and drift in codes across time or multiple coders you know it might be I forget what I did in the beginning and I do something in the end. So, this can be avoided by developing a standard code book with written definitions and rules about when codes should start and stop. This is very essential and it gives very good results. Coding is a repetitive process you know. So, which new codes emerge from repeated reading they have to be included with existing codes.

Development and refinement of the code book is an integral part of your analysis. And finally, we do a computerized assignment of codes now in most cases because computer analysis also forms a part of the analysis. So, this is just to give you an example where the patient was asked can you tell me how you feel about your experience of intensive care. The patient said yes I was admitted to a hospital with a chest infection I it just got worse and worse and I was struggling to breathe. I remember the doctor coming to see me and I could feel and actually tell that she thought I was unwell.

She stabbed me at the wrist with a needle and then when she came back there she seemed to be a bit of a in a bit of a panic. I remember her explaining to me that I might need to go to intensive care and I may end up in an incubator which I found really scary. So, then the interview asks why do you what do you find scary and the patient said it was that she would put me to sleep and I might not wake up. So, from this narrative this is just an indicative one you see what has been marked in the red is the reason for admission chest infection it got worse and struggling to breathe. So, this all these phrases are brought under red marked with red.

Yellow was the causes for referral to ICU, green was the patient's perception of the staff and then turquoise was that perception that it was a painful procedure she said she stabbed me. Blue was treatment plan for admission and escalation and finally, pink the patient has

expressed the anxieties which she felt in this process. So, this is just an indicative of how you can code as you go about reading the process. So, there are some steps which we follow to do a thematic analysis. First we gather the data, second we read all the data from the beginning to the end.

This again is very essential as I have kept on saying that this is an exercise worth doing. Step 3 code the text based on what it is about, then step 4 is create new codes as you go about doing it. So, you think you are thinking about themes and as you read again and again you can find out newer codes. Step 5 stop because if you go on doing it continually it will tire your brain, give some time take a break have some tea have an ice cream and then go back evaluating your themes for good fit because basically you are trying to fit it into some model some thematic analysis is usually done for that for frameworks models theories etcetera. Now, finally, one has to remember that it answers to the research questions emerge during coding and selective text retrieval, whereby we are trying to find out what are the similarities within code categories, what are the dissimilarities or the differences.

So, these parts we extract and compare. Now, one thing we have to learn and we have to keep on doing is memoing. Memoing is the because we will have to interpret the data ultimately. So, as I read I will forget what I read in the first page, unless we write down the notes or memo about thoughts related to the analysis of one's data. So, these are mine the researchers personal reflections and impressions this is very very important for interpretation. It includes phrases or ideas that can surprise him, similarities or distinct differences in response you find the same thing is responded differently by different groups, then additional questions that the data begins to bring in mind.

We often record these reactions directly on the text if it is possible, if not we maintain a separate diary and document with the highlighted phrase. Those record evolve actually these help us with giving us the insights because it is our brain working, the insights the emerging patterns in the data and how they relate to the original research questions. So, recording effective notes about what the researcher might be field worker, might be data coder, might be analysis what I am learning from the data that is very important once we get it. These written ideas or records about the concepts or the relationships can initiate further thinking. So, deeper understanding comes from writing memos.

So, all the while we have been talking about data analysis which as I have tried to reemphasize over and over again it is the most complex part of all the phases of qualitative study. Because creating a database is not sufficient particularly in qualitative studies in order to transform raw data into new knowledge a qualitative researcher must engage in active and demanding analytic processes. So, as I would like to reiterate the process is very demanding throughout the phases of research we have to go on because data collection and analysis have to be concurrent reading understanding and interpreting it is an important aspect of the data analysis. So, qualitative research analysis requires a lot of preparation careful planning one has to take

time to familiarize with the data before you just jump into analysis. Once you begin analysis make sure that you have the strategies for capturing and recording not only the your own reaction to the data as I have said in memos, but also the corresponding developing of understanding of what this collective data means.

So, meanings and responses need to be recorded. Qualitative research so, is not only invested in the end results, but more important is the process this we cannot forget because unless that is done intensively we will not get the end result. Qualitative conclusions are subjective judgments hence it is beneficial to involve more than one analysis and so, they can have discussions and debates before coming to a consensus and conclusion. So, these are the references which we have used for this. Thank you very much.