

Research Methods in Health Promotion
Dr. Sweety Suman Jha
Dr. B.C. Roy Multi-Speciality Medical Research Centre,
Indian Institute of Technology Kharagpur
Week 03
Lecture 11: PRECEDE-PROCEED Model

Hello everyone and welcome back. So, this is the lecture 11 of this course and in this course you will be learning about the Precede-Proceed model. So, we will be covering the overview of Precede-Proceed model and the different phases of the Precede-Proceed model. Now, the Precede-Proceed model which has been you know considered as a cornerstone of health promotion practice for more than 3 decades since 1970. So, it can help to guide the process of designing, implementing and evaluating the health behavior change programs. Now, in week 2 of this course we learnt about the intervention mapping and the different steps of intervention mapping.

Now, one thing you have to remember is that the intervention mapping and the Precede-Proceed model both actually you know it guide the process, it helps us in planning the entire health promotion program in designing, in implementing and finally, obviously, evaluating health behavior change programs. Now, Precede-Proceed is you know the older more older one because it has been developed in 1970 and intervention mapping was developed in 1990s. So, the Precede-Proceed model is considered the most popular and very well respected model in the field for health promotion program planning. Now, it depends on the you know the health promotion practitioner or the specialist that which whether he or she will use the Precede-Proceed model or the intervention mapping depending on their you know the rationality depending on the goals and objectives.

They can either go for precede-proceed model and they can even go for the intervention mapping. Now, precede is an acronym for see what I have mentioned here, proceed is an acronym for predisposing, reinforcing and enabling causes in educational diagnosis and evaluation. And the proceed is an acronym for policy, regulatory and organizational constructs in educational and environmental development. Now, as I said it developed in the 1970s. So, when developed in the 1970s, proceed begin to influence the health education field toward an outcome focused approach to planning.

Now, this particular point is very important and you have to remember that the this model this particularly this model it is basically you know very outcome focused approach of planning. So, you have to be very clear, you have to be very specific and your focus will be on a particular outcome. By this we mean that rather than having people jumping into applying solutions to health problems Precede-Proceed promotes an in-depth understanding of the community. So, in Precede-Proceed now we you know when I will be discussing all the steps all the phases of

Precede-Proceed then you will learn that how you know a very deep and very in-depth understanding of the community, in-depth understanding of the problems will be doing. And apart from community or other population or you know your target audience or the beneficiaries and their needs as well as both the proximal determinants of health and quality of life problems and the more distant contextual causes.

More distant contextual causes or you can also say the distal determinants; The proximal determinants are directly affecting and the distal determinants are actually indirectly affecting. Now, proximal determinants we all know that it can be you know the socioeconomic status, the living conditions, you know the physical environment and the distant one that is the distal factors or the distal determinants that is you know some political factors some legal factors, institutional or organizational factors. So, its use leads to planning interventions that are specifically targeted to these desired outcomes and causes and provides a structure for systematically applying theories and concepts. So, the uses of Precede-Proceed model is basically the planning of interventions ok. Now, in planning interventions we all know in previous lectures also we have discussed ok, that you know it should be specifically targeted what desired outcome actually what is a goal, what is the objective ok, that is important and causes.

And also finally, it will you know provide you a very systemic framework you can say a very systemic structure by applying different theories and concepts. So, that you can design implement and evaluate an intervention. Now, this is the precede-proceed model. Now, here what you can see there are in this particular figure you can see that phase 1, phase 2, phase 3, phase 4 and again phase 5 to phase 8. Now, before I start I would like to tell you in some of the books, text books or in some document you will see that they have mentioned 9 phases.

Now, the phases are same what they have done they have actually you know the epidemiological part, the epidemiological assessment they have kept on the phase 2 and they have added another phase 3 for behavioral and environmental assessment. Do not get confused and do not worry ok, the phases are same. So, and here what is being done that in the same phase actually it has been mentioned about the epidemiological behavioral environmental assessment. Now, ultimately you have to cover all the phases. So, the first you can see the top one I have it is mentioned proceed.

So, we start with the phase 1 till phase 4, then at the bottom you see it is mentioned proceed and the from phase 5 to 6 to 7 and to 8. So, the 4 phases and the you know the left portion you can say I mean the this part it is basically here actually you are just setting up the program. So, the important thing is your outcome you know very outcome focused as I was talking about. So, it can be you know the quality of life, you know quality of life among HIV participants or the quality of life among tuberculosis patients. So, first we start with the social assessment.

Now, one more important thing is we start here, just look at my pointer we start here the phase 1 and finally, we you know finish at this phase that is the outcome evaluation. So, basically what is happening we are going backwards. So, our outcome is fixed we are focused on our outcome and we are going backwards by doing different type of you know analyzing what are the epidemiological factors, the behavioral factors, environmental factors and many more which I will be discussing in the subsequent slides. So, here you see the problems of the social assessment quality of life you know it can be as I said it may be due to some infectious disease or it can also be in you know the non communicable disease the quality of life among diabetes you can say or any other non communicable disease. And in phase 2 as I mentioned epidemiological behavioral environmental assessment.

So, the various epidemiological behavioral environmental assessment analysis will be doing. Then in phase 3 we are talking about the educational and ecological assessment, where basically these are the factors I will be discussing predisposing, reinforcing and enabling factors. Then in phase 4 we talk about the different administrative, the institutional, the organizational or the policy factors or the assessment. Then finally, setting up the total program and then we implement. After implementation what we have to do we have to evaluate finally, the outcome evaluation.

So, let us move to the next slide and discuss each phase ok. So, in the proceed the phase 1 ok, social assessment. Now, here in phase 1 the social assessment participatory planning and situation analysis. We always talk what is the situation analysis, what are the issues, what are the you know health issues, social issues. So, here planners try to understand the community as I always said in my previous lecture also that you have to understand your beneficiary, you have to understand the target audience.

So, you have to understand the community very well in which they are working. Then intervention planners often use qualitative matters. Now, see it is not that they will not use quantitative matters, but mostly what happens when we talk about the qualitative matters, we you know we go for more details, we go for you know in depth understanding of the situations of the factors. So, you can use different qualitative matters you know matters focus group discussion, the interviews etcetera in this phase to collect information opinions from the community members. We often you know we conduct focus group discussion, we often go for the qualitative interviews.

So, that we can explore. So, that we can have an in depth understanding of their views and opinions ok, the community members views and opinions. You can even go for different survey you know survey methods also. Now, this phase of proceed proceed is also the time to assure participation of community members. Now, one thing is very important community mobilization, community participation you have to keep in mind ok.

So, whenever we are thinking about the proceed proceed, we have to understand that how can we engage the community, how can we mobilize the community ok. So, community members including potential intervention implementers and participants help to ensure that the project addresses issues important to community members. Now, that is important these are important issues, you think in your own way, but they can have their own issues and problems. So, what happen in fact, in community you will find some volunteers you know they can in fact, help you in implementing your intervention. So, the community you know participation is very important and you have to understand that what are their issues, what are their problems.

Now, problems does not mean only health problems, what are the social and cultural factors, the issues you have to know, what are the social issues that you have to find it out. Now, that project findings are locally relevant and that participating communities develop capacity in intervention development research. So, finally, what happens you come to know about the different problems you interact with the community and you come to know about their problems and you know they will be involved in your total in the entire program and they will assist you not in the terms of assist you know actually it should come from the both side. It is not about that only you will be designing and you will be developing all the intervention. They will also you know suggest to you that here these are the interventions, these are the solution which will be you know easy to acceptable for I mean which will be very easily acceptable to them then which will be feasible you know that is also important because you might develop something which is actually not acceptable to them which is actually not feasible to for them to carry out.

See in that case their involvement is very very important. Now, assessment in both objective and subjective terms of high priority problems for the common good defined for a population by economic and social indicators and by individual in terms of the quality of life. Now, in social assessment in phase 1 you have to keep in mind that you assess both objective and subjective terms, what are the high priority problems for the common good which can actually bring benefit most of the people in the community. And you know it will be defined for a population by the social factors or the social indicators, socioeconomic status and by individual in terms of the quality of life ok. How they feel, what do they feel about their quality of life as I said it can be an infectious disease or it can even be in non communicable diseases.

Now, here you know the different social factors we have to measure such as the unemployment rates, the poverty, the crime and the population density all can be obtained. Now, next we will talk about the epidemiological assessment. So, here the planner begins building a logic model of the health problem from right to left. Now, why right to left you just you know as I just saying that you have to go back. So, from we will start from here and from right to left we are moving that is why it is mentioned right to left.

Now, usually starting with description of health problems. So, we will start with that these are the different health problems in the community, in different you know you can even categorize

that yeah I will be dealing with the particular health problem among the elderly population or among the adolescent or among the reproductive women that depends on your aims and objectives. And related quality of life in the community, now when completed the model is read from left to right as a causal model of the health and quality of life problems now this is important. So, first you go from right to left ok, you try to assess, you try to build a you know logic model that these are the health problem, descriptions of the health problems, going into details of the issues the health issues and what are the quality of life you know of that particular community of that particular participant. And finally, when we move you know in the bottom as I you know just here what you see that again we move from left to right right.

So, in initially we were going backwards from phase 1 to phase 4 then finally, from phase 5 to phase a that is from the left to right. So, what is being done here is that when finally, we are completed the particular model or the framework is read from left to right, now it now it can be understood as a causal model of the health and quality of life problems. That here these were the assessment, these were the issues we implemented then these things happen, then during evaluation these were the gaps ok, in the process outcome impact evaluation these were the gaps these were the issues. So, finally, now in your hand you have the entire thing this is you know that is why proceed proceed model is so important. At the end at the end of the you know the entire work of the entire framework if you see you have the complete picture of the health and quality of life problems that is why proceed proceed model is used widely.

Now, the epidemiological analysis we all know that it includes the different health problems and their related quality of life impact you know as I as I was just saying that the quality of life among HIV participants. Then behavioral causes of the health problems so, epidemiological assessment was important also important is the epidemiological I mean the behavioral assessment. Now, regarding that particular health problem particular health issue now you have the different behavioral factors and the environmental causes. So, in phase 2 we also go for the environmental assessment. So, environmental causes of the health problem or the risk behavior ok.

Now, identification of the extent distribution and causes of a health problem in a defined population. So, finally, in this phase we have the identification in what extent how in an epidemiology we know know in what extent the disease or the health issues are there the distribution and the causes of a health problem in a defined population and also the what are the behavioral and external determinants or the environmental factors attached to that particular problem. Now, see for example, if premature mortality and morbidity from health care associated infections are the health problem. Then what is happening loss of productive years and increase health care cost begin to define the quality of life issues for the individual and also for the society. Now, the behavioral analysis typically includes what the at risk group does that increases the risk of experiencing the health problem right.

People you know you may find that they are consuming unhealthy diet you know the dietary habit is poor they are not doing physical activity and they are getting obese ok. So, in any other problem you can see that what that risk group they are doing what kind of behavior what they are following which increases the chance which actually increases the risk of facing or experiencing the particular health problem. Now, in case of secondary and tertiary prevention the analysis investigates what individuals do that increases the risk of disability or the death from a particular health problem. You know in TB there are people who die ok. So, from a health problem they already have.

Now, for example, lack of adherence to prescribe dietary physical activity and medication guideline is a major barrier to the proper treatment of diabetes. And then what can happen it can lead not only to the disease, but also to increase disease burden that is morbidity or mortality. Now, the environmental analysis it includes conditions you know are the social the physical and the biological environments which influence our health. So, it influence the health problem directly or through its behavioral causes. In most analysis of health problems the environment plays a significant and modifiable role in causing the problem either directly such as directly through exposure to you know the lead based paint or the lead containing dust you will see in lead poisoning they have the history of all this or also indirectly how through some behavior some you know inappropriate behavior.

So, like there is no you know smoking ban I mean what I mentioned here is such as lack of smoking bans in the workplace. So, what is happening? In fact, other examples you can have that there are no a playground in the surrounding. So, you know the children they cannot go and play and same what I have put here I have put directly and indirectly two examples I have put that in lead poisoning we will find that they have a direct exposure through exposure to lead based paint or some lead contamination dust. And indirectly it can happen through behavior how if there is no ban you know lack of smoking bans in the workplace. So, behavioral indicators it includes factors such as consumption patterns, the preventive actions, self-care and use.

We all know the different behavioral indicators are there different behavioral factors are there and environmental indicators it include medical services you know for example, the hospital or the health service maybe it might happen that is very very far from you know the residential complex. So, what happened that particular community or a particular participant of patient he or she cannot access you know. So, health care utilization will be very poor he or she cannot access the health service because it is too far and economic and some you know the community gorgeous that these things are not there different you know the external determinants which we have discussed. Now, in phase 3 it is about the ecological and educational assessment. Now, here what happens health professionals they explore the factors that produce the behavioral and environmental conditions described in phase 2.

So, in phase 2 we explore the different epidemiological behavioral environmental assessment. Now, here what happens in ecological and educational assessment here the professionals they explore the factors what are the factors which actually produce the behavioral and particular environmental conditions. Now, here the question is what antecedent and reinforcing factors encourage the risk behavior or environmental conditions that cause or contribute to that particular health problem. Now, Green and Peter you know they describe these factors as predisposing factors then reinforcing enabling one by one we will discuss.

So, the first is the predisposing factors. Now, predisposing factors here like you see a person or populations knowledge. So, the community members knowledge their attitude their beliefs values and their perception that facilitate or hinder motivation for change. So, this is basically the predisposing factors. Next is the reinforcing factors what are the reinforcing these are the rewards received and the feedback the learner receives from others following adoption of a behavior. So, you know they reinforce and the last one is the enabling factors.

Now, enabling is how you know the enable I mean the by word itself you can understand that how something is enabling you to perform. So, it can be the skill the resources also you know it is it can be facilitators also it can be the barriers that can hinder that can hinder the desired behavioral changes as well as the environmental changes. So, the facilitators will help you and the barriers will basically hinders. Now, here see again I have mentioned the predisposing factors it occurs at the cognitive level and it includes knowledge the self efficacy their attitude beliefs skills values perceptions. So, these antecedents to behavior provide the motivation it provide the motivation to perform a particular behavior.

Enabling as we discussed it help individuals act on the motivation to change behavior. How examples you know the presence of some you know different it can be you know the walking paths as we were discussing now it can be the resources you know the resources if I do not have the resources even I am motivated at highest level I would not be able to perform a very good example is that I do not have any designated space area to perform physical activity. So, even I am very much motivated I cannot perform physical activity. So, that is why I mentioned presence of walking path then you see the skill. Now, I can just go you know and say that yeah you should cook healthy food you should eat healthy food you should cook, but that particular person do not have any skill how to cook healthy food then the different community resources and laws.

And reinforcing factors are the basically as we discussed these are the continuing rewards or incentives which also you know encourage us more to perform a particular behavior or to repeat the behavior. So, these are the predisposing reinforcing and the enabling factors. Now, in phase 4 administrative and policy assessment and intervention alignment the question is that what program components and interventions are needed to affect the changes specified in the previous phases. We often talk about that these are the administrative issues these are the administrative you know the policy makers they have some you know policy the different

guidelines. So, the assessment of the support of the administrative and the policy maker is also very important.

Now, does this program have the organizational policy and administrative capability and resources to develop and implement the program now this is very important you have to assess whether the administrative capability and resources are there even if it is there whether you know they are going to support you or not because mostly you know for the sustainability this phase is much more important. If you want that the things should get continued you know should be sustainable then the administrative and policy support is very very important. Organizational and administrative opportunities like local community sentiment we say you know the community gatekeepers you all know that without community gatekeeper we cannot even think of implementing anything in that particular community. Organizational support what support you are getting the financial support we often say that your government should provide some financial support for implementing such kind of activity available you know the workforce a staff to support the program ok. It is not about that you alone can you know implement you alone can do everything you need the workforce you need the health staffs you need the different staffs to support your activity or the program.

Now, policy assessment it involves identifying existing policies as I said and what are the different regulations you have that either support or discourage the behavior change. I can say that in you should put you know smoking ban you know in the different public places. So, what will happen I can say, but what happens they these are the you know the administrative the policymakers decision that here in different public places there should be smoking ban. And you can have different examples also that we all know that without policy support without administrative and government support it is very difficult to continue a particular I mean for sustainability it is very important. Now, then the planner prepares for implementation that is phase 5 here you know by developing the training the materials you know the intervention materials you have to provide the necessary training and resources to support program delivery.

How actually you are going to implement you different materials and methods all these things you have to basically develop. Data collected in the first four phases of this particular model they will guide you know they are used to guide specific in service content or skill development. So, that the program facilitators have the capacity they should know you have to think about the capacity building and the resources to implement the proposed program. So, in first four phase we analyze we assess so many factors and finally, now we have you know our skills capacity building is done you have different resources. So, now, finally, you can it will guide you are confident that you can implement that particular proposed program.

Now, after implementation we have to evaluate we all know. So, in phases 6 to 8 the planner develops data collection plans to conduct process impact and outcome evaluation respectively. Now, this is very important all the three phases you know the 6, 7, 8. 6 is the process then impact and the last is the outcome evaluation. So, in process evaluation what we do it

determines the extent to which the program was implemented according to the protocol. Now, see the your implementation process now it is taking 2 days, 3 days, 7 weeks, 10 days it depends.

Now, you have already prepared a you know entire plan you can say your schedule is prepared that what you are going to do, what will be the sessions, where you will do, what materials you will use I mean the primary you know the audience, the secondary audience you have everything written in your protocol. So, you have to see that at what extent the program was implemented according to the protocol you and your team have already developed. Now, then we talk about the impact evaluation. So, impact evaluation is about that you have to assess the change in predisposing, reinforcing, and enabling factors as well as in the behavioral and environmental factors.

So, once again you just go through this ok. So, the entire thing you have to understand in the evaluation again we are going after implementation we are going from this way to that way. So, outcome though it is clear to you that finally, our outcome was quality of life. So, outcome evaluation ok. Now, the entire thing about you know the in this particular framework first we went for the assessment now finally, we have to evaluate those things. So, here impact evaluation assess changes in predisposing, reinforcing, enabling factors as well as in the behavioral and environmental factors ok.

Now, finally, the outcome evaluation it determines the effect of the program on health and quality of life indicators. So, finally, what is happening at the end you have you know the quality of life as your outcome. So, you can evaluate and it determines the effect of the program on health and quality of life indicators. Now, typically the measurable objectives that are written in each phase of proceed it serve as milestones against which you have to accomplish I mean you know whatever goals you have developed whatever objectives you have developed. So, all those measurable objectives it actually you have to evaluate at the end that did you able to accomplish all those did you able to conduct all the things you had the particular aim you had these 4 or 5 objectives to accomplish all those aims and objectives and that should be evaluated.

Now, here once again you see the process evaluation it is assessment of the program including number of individuals reached by the program or the feedback of the program from participants. So, like you know this number of participants this number of you know beneficiaries. So, and the age group also then primary audience, secondary audience everything you have to see it might happen that in your program only the primary audience they came up they came for a discussion or for the you know intervention they came for the discussion or for the intervention that you can deliver in lecture mode in discussion mode, but you found that the secondary you know the influencing audience. So, none of the secondary audience they arrived at the intervention site. So, that you have to evaluate then impact

evaluation it is assessment of program effects including changes in predisposing enabling and reinforcing as well as behavioral environmental changes.

So, predisposing enabling and reinforcing and behavioral the environmental everything we actually evaluate you know as I just you know this I was discussing in that particular diagram that how impact evaluation is being done. So, in this impact evaluation phase we are basically assessing the program effects how you know the factors of predisposing enabling and reinforcing factors change and how the behavioral and the environmental determinants and factors changes. And finally, the outcome evaluation the assessment and of the effect of a program including changes in health and social benefits or you can say the quality of life like quality of life among tuberculosis patient. So, in health, health is tuberculosis and the quality of life among the participants. So, conclusion the proceed-proceed model is considered the most popular and very well respected model in the field for health promotion program planning.

Now, this model uses an ecological approach to program planning and is considered by meaning to be the goal standard in health promotion planning why because due to the extensive assessment that we are doing. So, due to the extensive assessments that are required prior to any program development is initiated. Now, it takes an ecological approach to planning and it provides guidance for the use of theory both to understand the health problems and to plan interventions which can influence the determinants of all these problems. These are the learning resources, you can go through both the textbooks. Thank you.