

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 12: Models of Individual Health Behavior- I

So, hello and welcome back now this is the lecture 12 of this course and in the lecture 12 we will discuss the part 1 of the models of individual health behaviour. And in the next lecture we will deal with the part 2 of models of individual health behaviour. So, let us start with this first part. Now, here we will cover the following concepts I mean the following models the theory of reasoned action, theory of planned behaviour, integrated behaviour model and the precaution adoption process model. So, first let us talk about the theory of reasoned action and theory of planned behaviour. The theory of reasoned action that is TRA and the theory of planned behaviour that is TPB it focus on theoretical constructs concerned with individual motivational factors as determined by the determinants of the likelihood of performing a specific behaviour.

Now, the TRA and TPB now it have you know these two particular models they have different constructs. And their main concern is that what are the motivational factors which can actually lead to the intention the behavioural intention to perform a particular behaviour. Now, the TRA and TPB it rest on an underlying assumption that the best predictor of a behaviour is intention. Now, this is very important you have to know that TRA and TPB they assume this two particular these two particular models they assume that the best predictor of a behaviour is behavioural intention which is determined by attitude towards and social normative perceptions regarding the behaviour.

Now, in TRA you will find attitude and the norms the social normative the subjective norms, but finally, the TPB which is an extension of the TRA it includes an additional construct perceived control over performance of the behaviour. So, in TPB you will find attitude and social normative perception which is also there in TRA, but in TPB what happens which is actually an extension of the TRA or the theory of reasoned action it includes an additional construct that is perceived control over performance of the behaviour. Now, as I said it assumes the best predictor of a behaviour is behavioural intention. Now, here attitude and subjective norms it forms the core of theory of reasoned action and when we add perceived behavioural control to theory of reasoned action or TRA it finally, leads to theory of planned behaviour. Now, this is the you know this figure you can see this is the framework of TRA and TPB.

Now, you can see the three constructs attitude, subjective norm and perceived control. Now, perceived control is you know it is shaded in blue colour why because when perceived control was added along with these two constructs in TRA then we got the theory of planned behaviour.

Now attitude is determined by behavioural beliefs and the evaluation of behavioural outcomes we will deal with each constructs in a subsequent slide ok. Subjective norm by the normative beliefs and the motivation to comply and the perceived control by the control beliefs and perceived power. Now, these are the external variables you can keep you know socio demographic variables attitude towards targets, personality traits or other individual variables some external variables you can put.

Now, the thing is that basically these external variables you know independently they do not directly affect the behaviour or the intention, but these variables you know basically you can see this arrow now that is why this particular arrow has been kept here. So, these are just external variables which via all these model constructs can lead to the intention to perform the behaviour or in future performance of the behaviour. Now, what is behavioural intention? It is basically perceived likelihood of performing the particular behaviour. Now, the motivational factors that influence a given behaviour where the stronger the intention to perform the behaviour the more likely the behaviour will be performed. So, it is assumed that if the intention is high if stronger the intention to perform a particular behaviour then it can assume it is seen you know that the chance of performing that particular behaviour increases.

Then attitude the degree to which a person has a favourable or unfavourable evaluation of the behaviour of interest. Now, in our next slide we will read in details that what are the behavioural beliefs and evaluation of behavioural outcome which is actually leading to the attitude of that particular behaviour. Now, the it is written the degree to which a person has a favourable, unfavourable evaluation of the behaviour of interest. Now, it might happen I can say that if you do you know every day if you do 60 minutes or 30 minutes I can set you know depending on the guideline that if you do 60 minutes of physical activity every day then you can you know there will be you can lose your body weight or you know in some examples you will find that eating dietary habits can lead to good health or losing you know excess body weight. Then different examples you can put in fact, for the smoking for quitting smoking people might think that yeah if I you know there are some examples you will find in different literatures that quitting smoking can lead to increase in my body weight.

So, people may have you know different evaluation we always evaluate we I have our own opinions and views and we evaluate a particular behaviour of interest. Now, it also entails a consideration of the outcomes of performing the behaviour the ultimately if I perform physical activity then what will happen something positive will happen to me or something negative will happen to me. Then the subjective norm it is believed about whether most people approve or disapprove of the behaviour you know we always you know the normative influencer we often you know we are getting influenced by so many people our friends our parents relatives you know sister brother then teachers we often get influenced by our teachers also. So, it is all about the norm what that particular person feel that whether I should do this particular behaviour or I should not do. So, the belief about whether most people will approve or disapprove of the behaviour.

Now, it relates to a person's beliefs about whether peers and people of importance to the person think he or she should engage in the behaviour like my mother my father you know my mother you know she can influence me for you know eating you know good I mean healthy diet ok. So, or my father can influence me to be you know to perform regular physical activity. So, it is all about that particular person's belief that whether you know the people of importance or the surrounding people the peers how what that particular person think that whether that you know the influencer is actually he or she think that I should engage in that particular behaviour or not. In fact, in the smoking you will see that the peer groups in college or in adolescent you will see that if that particular my friend I saw him he was smoking or he approves you know when I will go in details integrated behaviour in Maldon then I will explain you about injunctive and the descriptive norm ok. What people think and what people do the difference between these two.

Now, here the important thing is you have to remember that what that particular people that particular referent whether he or she approves or disapproves. My friend can tell me no no you smoke you can smoke I think you should smoke. So, these you know we often get influenced by our external environment. Then perceived behavioural control this is about a person's perception this is very important it is mentioned perceived. So, I can perceive I can have my own perception.

So, a person's perception of the ease or difficulty of performing the behaviour of interest whether that particular behaviour if I do how much it is difficult, how much it is easy, how much it is under my control, how much it is not under my control. We will deal with each of the constructs which each of the beliefs in our next slide. Now, here you see attitude it is formed by behavioural belief and evaluation of behavioural outcome. So, behavioural belief it is basically belief that behavioural performance is associated with certain attributes or outcomes. As I said behaviour is regular physical activity, outcome is losing excess body weight.

Now, I have to understand whether that regular physical activity this is my belief that performing regular physical activity is actually associated with losing excess body weight it is about my own belief. Then is evaluation of behavioural outcome, now here our outcome is basically losing excess body weight. Now, it might happen for some people losing excess body weight is good it also might happen that for few people losing excess body weight is bad. So, he or she has to evaluate about that particular behavioural outcome understood. Next is normative belief and the motivation to comply.

So, subjective norm is actually formed by the normative belief and the motivation to comply. Now, what is normative belief? It is a belief about whether each referent approves or disapproves of the behaviour. One of my friend can just approve me that you should smoke, my another friend can disapprove no you should not smoke right. So, this is the normative belief I believe that here my ex friend you know. So, it is about my belief that my friend A he

or she I mean he or she is a referent and he or she approves this particular behaviour my friend B.

So, he or she disapproves this particular behaviour that is smoking. Motivation to comply now this is very important I can have different belief right. My teacher approves this behaviour my teacher thinks that I should do this my friend thing I should not do this you know in it happens you know in school. So, their friends who says no no no we will have we will have some junk food just outside the school premises, but the teacher is someone who is actually thinks that those student they should eat healthy food they should bring lunch from their home. Now, what happens motivation to comply whom I am going to comply my teacher or my friend now this is very important.

Now, I can comply my teacher so, motivation to do what each referent thinks I can comply my teacher my teacher thinks that I should bring you know the lunch box from my home, but there will be some people you know who will think who will comply on their friends. So, their friends think that if they can have some you know junk food just outside the school premises. So, these are the things you know the behavioural psychology and everything it goes in this way only we believe something then we also you know we evaluate among our you know ourselves and we then decide that we are going to comply on this particular referent. So, normative belief and motivation to comply both is important and it actually leads to the subjective norm. Then the last one is the perceived behavioural control.

So, here two things you have to know the control belief. Now, try to understand because when I will be dealing with integrated behavioural model again I will explain this and then you have to understand the difference between the self efficacy and the perceived control. So, try to understand now control belief is about the perceived likelihood of occurrence of each facilitating or constraining condition. It is my own perception it is my belief that this is the constraint this is the barrier this is the facilitator. Like if I say that every morning you have to get up at 6 AM and you have to do 60 minutes of exercise.

Now, it might happen you feel that my got 6 AM in the morning I have to go to tuition I have to go to coaching or it can be any barrier it depends or you have to go somewhere you have to go to the market or you have some other work designated. Now, what will happen you will start perceiving you will have you know believe that oh this is the constraining condition. Same way you can have some facilitators also that yeah no I will be able to wake up in 6 AM in the morning facilitator my mother will you know wake me up alarm etcetera. So, different you can have different different examples. So, this is something that I believe that this is the constraining condition this is the facilitating condition this is now at this phase the control belief I believe.

But what is perceived power? It is about the perceived effect of each condition in making the behavioral performance difficult or easy. Now, I might have you know I feel that one barrier is that at 6 AM in the morning it is you know I have to go to or it might happen the 6 30 6 30 AM I have to go to the coaching I feel this is my barrier. Now, this is always you know what happens we have different barriers, but the thing is whether that particular condition whether that particular barrier is making your behavioral performance difficult or easy it can be this also you have to the effect of that particular barrier effect of that particular facilitating factor. So, after control belief that is why this mentioned perceived power. So, something that what is the effect of that particular barrier in making a performance difficult or easy.

Yes, at 6 30 AM I have to go to the coaching institute, but I perceive that here this barrier will not make my you know doing the exercise or my behavior difficult it will not become difficult. So, these two you know the control belief and perceived power I hope it is clear to you. So, the different constructs in the last slide we talked about the so, the attitude then the next is the subjective norm and the last we talked about the perceived behavioral control. Now, an integrated behavioral model now you have to understand that integrated behavioral model is also an extension of TRA-TP. Where other constructs also have been added different theories and constructs of Fishben he and his colleagues they developed this particular model and what happened as in the TRN-TPB like theory of vision action and theory of plan behavior the most important the most important determinant of behavior in the integrated behavioral model is the intention to perform the behavior.

So, same in TB in IBM also integrated behavioral model or you can say IBM or you know in sometimes not always sometimes it is also said as an integrated model, but we will be using IBM integrated behavioral model. Now, here also the most important determinant of behavior is actually the intention the behavioral intention to perform the behavior. Now, four other components which directly affect behavior according to Jacquard, Dodge and Dieters. So, in three of these are important in determining whether behavioral intention can result in behavioral performance or not. So, first let us talk about the first three component the first is even if a person has a strong behavioral intention that person need knowledge and skill to carry out the behavior.

He should have the knowledge that here these are the I can just go and say that you should eat healthy food now that people do not know only what is healthy food and that particular woman she does not know how to cook healthy food. So, only you know improving the intention level is not important according to them. So, person also need the knowledge and skill now second there should be no or few environmental constraints. Definitely there should be if they if they are constrained then a particular person will not be able to perform behavior. As I said now if I you know if you know an adolescent he or she you know has a very good intention level, but there is no designated space area where he or she can perform regular physical activity.

So, it is always necessary that the constraints are not there or very very few constraints are there which actually make behavioral performance difficult or impossible. If constraints are there then it becomes very difficult to perform a particular behavior and sometimes it becomes impossible to perform a particular behavior. Now, third behavior should be salient to the person you know some kind of pertinent you know particular stimulus should be there for conducting and maintaining the behavior. Finally, experience in performing the behavior may make it habitual it becomes habit we all know you know they are person you know whatever happens. So, they will do exercise in the morning.

So, it has become you know it becomes habit. So, if you keep on doing a particular behavior you know brushing teeth before going to bed at night. So, once it becomes habit you will keep on performing that particular behavior you know avoiding junk food eating a healthy diet. So, when it becomes habitual intention becomes less important according to them and in. So, what they are trying to I mean what Jackard, Dodge and Reuters what they mentioned that once it becomes habitual.

So, intention is not that important in determining the behavioral performance for these individuals it has become a habit they will keep on doing. Now, this is the framework of the integrated behavioral model other factors you know we just discussed about the external factors and variables in TRN-TPB. And here you see the attitude the perceived norm and the personal agency all the constructs we have this is the behavior this is the intention to perform the behavior and these are the components. In the last slide we discussed knowledge and skill, salience, environmental constraints should be very very low or should not be there and when it becomes a habit. So, all these components it you can see that how it can affect our behavior.

So, here you have to understand in attitude we will talk about the experiential attitude and the instrumental attitude we will discuss in our next slide. So, here you have to understand the feelings about behavior you know experiential attitude behavioral beliefs we discussed know in TRN-TPB that these are the behavioral beliefs leading to instrumental attitude. Then in perceived norm as I said I will be talking on injunctive and descriptive norm. So, here what happens injunctive norm both are normative beliefs, but in the injunctive norm others expectation what other things that you should do and in the descriptive norm normative beliefs is related to what other behave I see one of my colleague he is smoking ok. So, he is performing that particular behavior.

So, injunctive and descriptive norm what others thing and what others do. Then personal agency perceived control and self efficacy as I said I will make you I will try to make you understand the difference between the perceived control and the self efficacy. So, the control beliefs just now we discussed in TRN-TPB and the efficacy beliefs we will be dealing now. So, these are you know just you can see the different arrows coming to the intention to perform the behavior and finally, in the last slide we discussed that apart from all these apart from intention these four components are very important to perform a behavior. Now, see

experiential attitude effect is the individuals emotional response to the idea of performing a recommended behavior.

Now, individuals with strong negative emotional response to the behavior are unlikely to perform it we all know, while with those with a strong positive emotional reaction are more likely to engage in it ok. Now, instrumental attitude is cognitively based now it is determined by beliefs about outcomes of behavioral performance as we discussed in the TRA and TPB. Now, like here now I have mentioned experiential attitude feelings about behavior, pleasant feeling, unpleasant feeling you know you can have some positive feeling about a particular behavior, you can have a negative feeling about a particular behavior. Then behavioral belief you know you can as we were discussing in the TRN-TPB there what is behavioral belief, what is evaluation of behavioral outcomes a behavioral belief whether my doing regular physical activity can lead to you know reduction decrease in my excess body fat.

So, this is clear now. Now, subjective norm we discussed in TRA and TPB as an injunctive norm. So, it is about the normative beliefs that what others think one should do and motivation to comply. Just now we discussed about the subjective norm in the TRN-TPB as an injunctive norm that what actually people think that I should do and definitely motivation to comply was there and finally, we had the subjective norm. Now, according to you know who developed the Fishman and colleagues the integrated behavioral model they you know they have different you know evidence they you know conducted studies and research and finally, they felt that only this subjective norm it may not fully capture the normative influence. So, the important another thing is that perception about what others in ones social or personal network are doing that is descriptive norm.

What my friend circle is doing, what my relatives are doing, what my cousins are doing, what my family members are doing ok. So, in it can be social or personal network what my particular friend or what my particular you know my sister what she is doing. So, according to them descriptive norm is very very important only subjective norm are not enough. So, descriptive norm may also be an important part of normative influence. So, according to them normative influence is incomplete without the descriptive norm.

Now, finally, the personal agency it was described by Madurai's bringing ones influence to bear on ones own functioning and environmental events is proposed as a major factor influencing behavioral intention. Now, an integrated behavioral model IBM personal agency it consisted of two constructs we saw self-efficacy and perceived control. In TPB we only discussed about the perceived control the control beliefs and the perceived power, but here an integrated behavioral model the important thing is the self-efficacy. Now, that is very important. So, perceived control as described earlier is determined by ones perception of the degree to which various factors make it easy versus difficult to carry out the behavior.

By now you are completely clear about the perceived control we discussed that what I feel what is my belief that these are the facilitating or constraining condition or my perception about the effect of that particular barrier or facilitators in making my performance difficult or easy. Now, here in contrast self-efficacy is one's degree of confidence in performing the behavior in face of various obstacles or challenges. Now, what is self-efficacy? It is my own confidence that yes I can perform a behavior I can or I cannot either it is I can or either it is I cannot. Another thing is important that you have to keep in mind it is not only about that how much I am confident to perform a particular behavior. You have to keep in mind how much I am also confident to overcome the barriers to perform a particular behavior.

Now, this is self-efficacy. So, self-efficacy again I repeat do not get confused with the perceived behavioral control try to understand the things are very easy and very clear I have given so, many examples. Again I repeat self-efficacy is about my own confidence how much I am confident I can or I cannot perform a particular behavior, how much I am confident that I can overcome a particular challenge or I can overcome barriers for performing behavior. Now, we will also be talking about the precaution adoption process model. So, we are done with TRA, TPB and IBM. Now, PAPM or the precaution adoption process model it attempts to explain how a person comes to decision to take action.

Again I repeat read this line how a person comes to decision to take action and how he or she translates that decision into action. I get aware I think about that particular issue I decide to act I may not decide to act if I decide I will act. So, that decision to action is very important in everyday life you will find right that here I have come to know that you know I should eat fruits I should eat vegetables every day ok. Now, I have come to know I have my own opinion now after having you know actually you know as a human being we evaluate. We know that we should eat vegetables and fruits every day then we evaluate in our own brain.

After evaluate I can either decide to eat or I can also decide not to eat ok. Then if I decide to eat I will you know I will eat and I will try to maintain that particular behavior after action you know the maintenance. And if I do not decide and I will not act that action will not happen. Now, the PAPM model applies mainly to deliberate action towards adoption of a new precautionary behavior like consistent use of mask during COVID-19 pandemic. No, the just not pandemic you all know or stopping of a risky behavior like in avoiding crowded places during COVID-19 pandemic rather than to the gradual development of habitual patterns of behavior ok.

So, mostly see it depends you can it is said that the PAPM model it applies mainly for the adoption of new precautionary behavior rather than the gradual development. Now, it happens that some you know research can be carried out and it can be seen that your PAPM model is also working in the habitual patterns of behavior like you know the diet or the exercise or something. But the thing is mostly till now it is seen that it mostly it mainly deliberate action towards adoption of a something new or something you know the precautionary behavior

which can adopt which can be adopted you know a kind of quickly not gradually very quickly and frequently. So, I just gave you an example of that you know particular vegetables and fruits just to understand and how a person can take action and can translate that you know I mean how a person can you know comes to decision and can translate that decision to action. But you should try to apply this model mostly to some behavior which is as I said of a new precautionary behavior than the gradual one.

Because the evidences are there that PAPM model is more effective, but in future you will see that here there are so many studies are going on where PAPM model is also a working well with some habitual patterns of behavior. So, there is nothing to get confused first the important thing is you have to clear about the different stages of the model. Now, these are the stages of the PAPM model. Now, as I said in stage 1 unaware of issue. So, people is not aware of that particular issue that here this is the in this health problem this particular precautionary behavior I mean this precautionary behavior can prevent me from some disease like you know taking calcium tablets can prevent osteoporosis.

So, that particular person is not aware, unaware of issue. So, after between stage 1 and stage 2 what happens from unaware to aware now that person is aware. So, if that person gets aware of a particular issue then he will start thinking ok. So, generally what happened in stage 1 and stage 2 it is about the unaware and unengaged by issue ok. So, finally, in stage 3 you are in the you know stage where you are actually deciding you can either decide or you cannot decide. So, you were unaware now you get aware after getting aware you are unengaged, but it might happen people is aware after unawareness awareness is done people you know that particular person is aware, but unengaged by the issue then what happens he or she might get engaged ok.

So, from unengaged to engaged by the issue then they decide about acting whether they can decide to act or it can you know go to this phase also decide not to act. If that person gets decided to act then he or she will act and you know the acting can action then every day you do a particular action and finally, it goes for the maintenance. So, this is the different stages of precaution adoption process model. So, let us conclude. So, we came to know that theory of reasoned action TRN, TPB it focus on theoretical constructs concerned with individual motivational factors as determinants of the likelihood of performing specific behaviours.

Now, the precaution adoption process model it attempts to explain how a person comes to decision to take action and how he or she translates that decision into action. These are the learning resources you can go through all the textbooks which I mentioned here. Thank you.