Basics of Health Promotion and Education Intervention
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Lecture - 18
Models of Individual Health Behaviour

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Hello everyone. Today we will discuss on models of individual health behaviour. So, we will be covering the four individual level model that is health belief model, theory of planned behaviour and reasoned action, transtheoretical model of change or TTM and the precaution adoption process model or PAPM. So, we will discuss one by one.

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Now health belief model or HBM this model was initially developed in 1950 by a group of social psychologist in US public health service. Now at that time there were researches you know it was going into failure that a large number of eligible adults they were asked to participate in tuberculosis screening programs provided at no charge. You know there was no charge in a mobile X-ray unit conveniently located in various neighbourhood.

Now researchers were concerned with identifying factors that were facilitating or inhibiting participation. So, it is just a kind of history that there was no fee in that mobile X-ray unit and it was provided convenient at convenient location and the people you know the adult who were eligible they were asked to participate in that tuberculosis screening program. Now there might be possible that people will come or the many people will not come also.

So, why those people are not coming and why those people are coming, what are the facilitators or the barriers that was important. Actually, the HBM, you know it contains several primary concepts that predict why people will take action to prevent to screen for or to control illness condition. So, this model you know like if you are organizing any kind of health promotion education intervention activity then you can apply this health belief model.

A very good example like for a screening program you know for any screening program here we will take example of the breast cancer screening or the cervical cancer screening. So, one can any

researcher or any healthcare professional can use this model. To actually to predict or to determine that why people are actually accepting that behaviour or screening of any cancer and why they are not.

Actually, what are the determinants that are taking people to perform a particular preventive behaviour.

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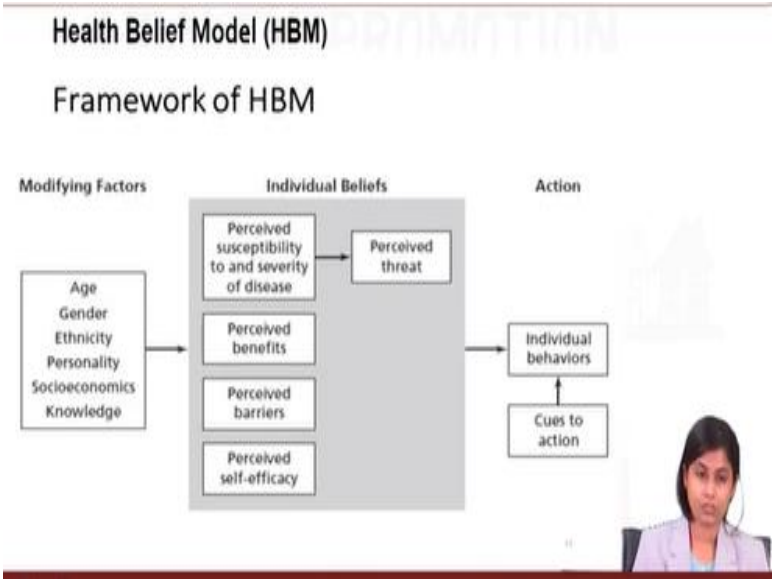

Now here you can see is a framework of HBM or the health belief model. Now in the left side you see some external or the modifying factors are there like the age, the gender, the ethnicity, personality, socioeconomic status, knowledge. So, these are the basically external or the modifying factors. Now here in the middle you can see the individual beliefs or perceptions and on the right side the action.

I mean actually when the individual person will behave that I mean we adopt the behaviour and will prevent any preventive behaviour. Actually, they will perform any preventive behaviour. So, see the first construct is perceived susceptibility and perceived severity of disease. Now this perceived susceptibility and perceived severity they combine together to form actually the perceived threat.

Actually, the perceived threat is determined by the perceived susceptibility or vulnerability also you can say, and the perceived severity to that disease. Next construct you can see the perceived benefit then the perceived barrier and the perceived self-efficacy. So, these are which are determining the behaviour of people of somebody. Now here an important thing is the cues to action.

Now I will explain in my next slide all the constructs and at the end you can see the cues to action is also important apart from all these you know perception to perform a preventive behaviour.

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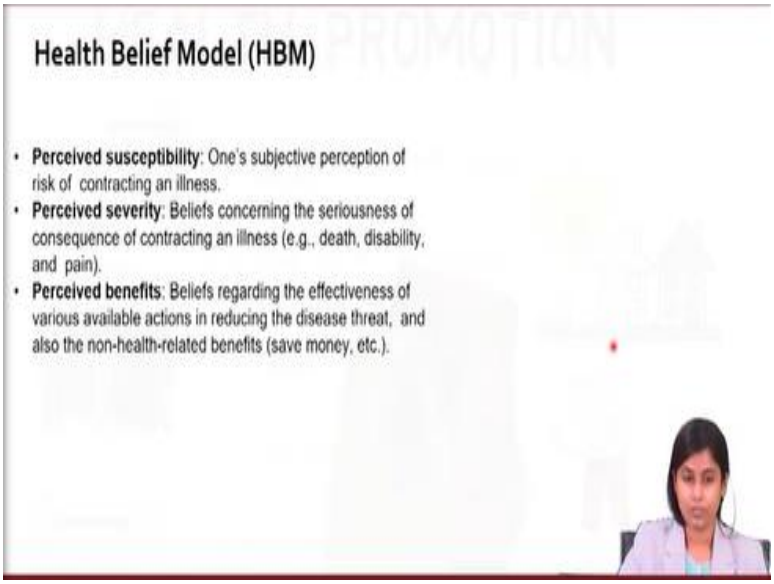

So, let us first talk on perceived susceptibility or the perceived vulnerability. Now this perceived susceptibility is actually one's perception of risk of contracting an illness. For example, a woman she can have a perception she can perceive that how much she thinks how much she believes that she is susceptible or vulnerable in acquiring a breast cancer or cervical cancer. So, this is actually you will see in HBM we mostly talk about the perceptions.

So, a person's perception is very important in determining a behaviour in actually acquiring or maintaining a preventive behaviour. Next is perceived severity, now these are the beliefs concerning the seriousness of consequence of contracting an illness. It can be death, disability,

pain anything. It can be you know severity if a disease gets severe these are the health issue it some other social issue can also be there.

If a disease gets severe and if a person dies then you know family problems these things can occur, social issues are also related. Now a woman can perceive that if she acquires, I mean if she suffers from breast cancer or the cervical cancer then what is actually her perception? What is her belief? That how much that disease will get severe in her and that severity whether that severity can lead to death or any disability, pain anything.

So, that she can perceive and as I said in my previous slide that the perceived threat or you can also say threat appraisal. Combining perceived susceptibility and perceived severity you know threat appraisal is actually the combination of these two. Next is this perceived susceptibility and perceived severity was actually about a disease or illness in are example we talked about breast cancer.

Now then the perceived benefit now this is actually the belief regarding the effectiveness of various available actions in reducing the disease threat or the perceived threat what I was talking about or the threat appraisal which was combining this to construct and also the non-health related benefits. Now see benefit for the breast cancer. If a woman if she believes or she has a perception that yeah if I go for regular screening for breast cancer or for the cervical cancer then actually that will benefit me.

Actually, you know reducing the like if I go for regular screening then that disease will actually not happen and if that disease will happen then severity will be very low. So, that is why actually it is a belief regarding the effectiveness of action here action is a screening, screening part. The screening of breast cancer or the screening of cervical cancer in reducing the disease threat that is the severity and vulnerability.

And also, the non-health related benefits they can save money. If a disease like if a woman suffers from breast cancer or from cervical cancer it gets severe you know then the treatment cost the hospital cost is too high. So, if she goes for the regular screening if she follows the preventive

health behaviour then what will happen, she that disease will not occur that disease will not get severe and she can also save money.

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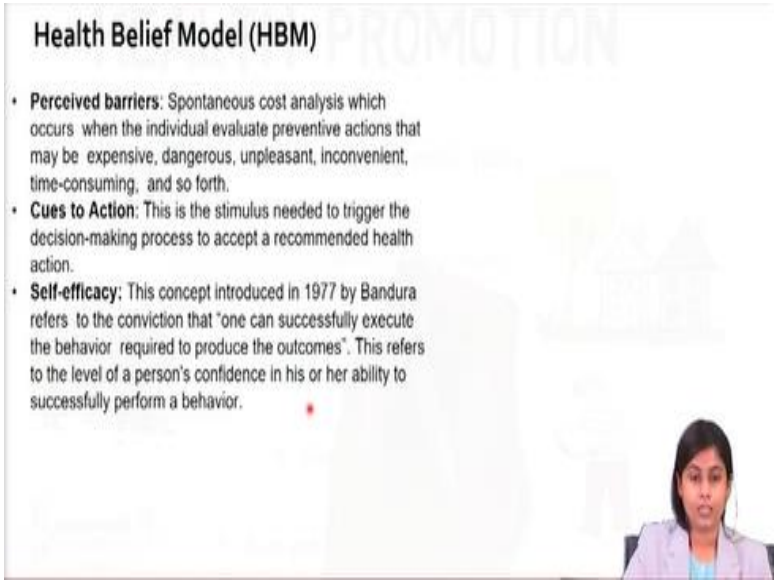

Then next construct is a perceived barrier. Now basically the barriers you know the constrain spontaneous cost analysis which occurs when the individual evaluate preventive actions that may be expensive, dangerous, unpleasant, inconvenient time consuming and there can be so many barriers. These are some barriers which I have put in my slide. But if you go and work in field you might find so many barriers and constraining conditions are there which are actually preventing a woman from going to any health centre or any hospital for the cervical cancer screening or for the breast cancer screening. Like a woman you may go and ask a woman that do you go for the cervical cancer screening and she will say no, so you will ask that why you do not go. You know it might happen that yes, she knows the frontline health workers. You know they have already made awareness level they have done.

That you should go to the nearest health centre for the cervical cancer screening or for the breast cancer screening. But still that woman is not going then definitely there can be so many various reasons. Why? The barriers can be like it is very time consuming, I have so much of work to do at my home, I am a working woman, I have to look after the family, children whatever. Then it can be a distance factor, the health centre is too far it is inconvenient for me, unpleasant.

Like she is not comfortable you know she is not comfortable to go for cervical cancer screening. Because she is feeling that maybe there can be the male health workers and she is feeling shy that and she does not want to go for the cervical cancer screening. And you know the fear also fear itself can be the barrier that no it can be painful, it can be dangerous and the screening process can be dangerous then other issues can be expensive.

If you know all the in-fact screening programs if they are going free of cost but in any other example for any other screening or for any other preventive you know adopting preventive practices or behaviour if that particular people has to spend money then it is actually the barrier. These are the barriers which that which a person is perceiving. Now these are the barriers you know actually she is doing a mental analysis you can say.

Where actually she is evaluating that these preventive actions this preventive you know behaviour I cannot you know afford, I cannot I do not have time to do, you know I cannot accept. So, many barriers can be there. Next you know I was talking about the cues to action. Now actually this is the stimulus to trigger the decision-making process to accept a recommended health action. Now for example you know a media publicity.

A mass campaign any kind of awareness you know a mass campaign a health education program can be the cues to action. Like you know media publicity or the mass campaign or any awareness program these things are going on for prevention of cervical cancer or cervical cancer screening. So, this is also important and this is actually known as cues to action. It is actually a trigger factor you can say or a stimulus. Which actually trigger a person in decision making process to accept that a screening facility or any kind of you know health action, preventive health action. Next is the self-efficacy. Now the self-efficacy this concept it was introduced by Bandura in 1977 and actually it is said that one can successfully execute that behaviour required to produce the outcomes. This refers to the level of a person's confidence in his or her ability to successfully perform a behaviour.

Now self-efficacy is actually how much a person how much people you know that particular person is confident that he or she can perform that particular behaviour. There can be barriers,

there can be so many constraining conditions. Even after so many you know barriers or constraining condition a person can overcome those barriers. So, this is actually self-efficacy and actually it is mostly you know referred to a person's confidence.

That here I am confident that I can go for the cervical cancer screening, I can go for that a particular preventive behaviour so this is self-efficacy. So, this was a framework of health belief model and now you see everything all the constructs I have explained. So, these are the determinants of the individual behaviour or the action.

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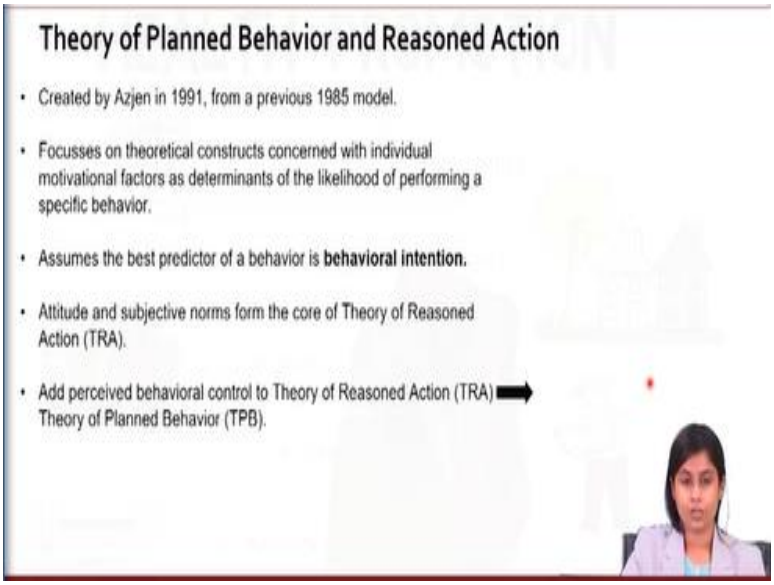

After health belief model we will discuss on the theory of planned behaviour and reasoned action. Theory of planned behaviour is TPB, theory of reasoned action is TRA. Now it was actually created by Azjen in 1991, actually it was a previous 1985 model which ultimately Azjen created in 1991. Now this TPB or TRA actually it focuses on theoretical constructs concerned with individual motivational factors as determinants of the likelihood of performing a specific behaviour.

So, this model has also various constructs been there and this models you know it assumes the best predictor of a behaviour is behavioural intention. So, this model this TBP does not directly actually you know predict a behaviour or it does not directly measure a behaviour. Actually, the best predictor it assumes that the best predictor of a behaviour is behavioural intention and, in

this model, it is said that if somebody has a behavioural intention or if somebody is intended to perform some activity any kind of you know any like for example regular physical activity.

So, if he or she is intended to perform regular physical activity then it is assumed that she will also perform regular physical activity. So, the main you know thing in theory of planned behaviour and reasoned action is actually behavioural intention, we were talking on behavioural intention. Now the first it was you know a TPB came later, TRA came you know first actually the TRA came.

And on the TRA attitude and subjective norm these were the two constructs which formed the core of TRA or the theory of reasoned action. Then after actually in TRA perceived behavioural control construct was added then as perceived behavioural control construct was added to TRA then ultimately you know theory of planned behaviour. So, TRA came first then TPB came or the theory of planned behaviour came.

So, we will be talking about the behavioural intention, what is attitude, what is subjective norm, what is perceived behavioural control. And you know these constructs attitude subjective norm and perceived behavioural control, what are you know attitude is determined by what the subjective norm is determined by what and perceived behavioural control is determined by what.

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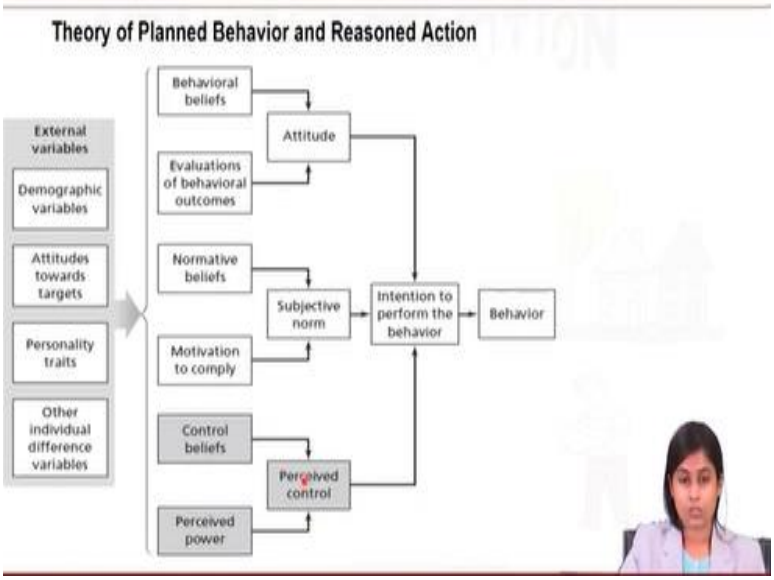

So, this is the framework of theory of planned behaviour and reasoned action also you can see. Now see the grey part I think it is visible clearly, this is a grey part perceived behavioural control which was added later and previously you know in TRA it was the attitude and subjective norm which was there. So, that is why this you know the part which was added later is being coloured differently or in coloured grey in this model also.

Now here you can see some external variables will be there for any behaviour for any kind of behaviour like you are planning to see that how you know individual health I am talking in today's topic is actually on individual health. So, any individual why she is performing or why is performing that behaviour, what are the determinants what are the factors of performance of the behaviour.

So, up this is actually the model's core construct but as I said always some external modifying variables will be there. So, some demographic variables you know demography attitude then personality trait other individual differences variables knowledge you know these things can be there. Now see attitude the first construct here you can see attitude. Attitude is determined by behavioural beliefs and evaluations of behavioural outcome.

You can see the arrow so combining behavioural beliefs and evaluation of behavioural outcome is actually the attitude. Then the second construct I was talking about was subjective norm. Here also you can see the normative beliefs and motivation to comply is there. So, actually subjective norm is determined by normative beliefs and the motivation to comply. Then perceive behavioural control or you can also say perceived control anything.

So, control beliefs and perceived power these are the two things which is actually after combining control beliefs and perceived power, perceived behavioural control exist. Now these you know attitude, subjective norm and perceived behavioural control actually this leads to the behavioural intention this is you know this part. So, intention to perform the behaviour. Now as I said in my previous slide if somebody is intended to perform the behaviour.

Then it is assumed that he or she will perform that particular behaviour. But our main focus is on behavioural intention whether that person is intended to perform the behaviour or not.

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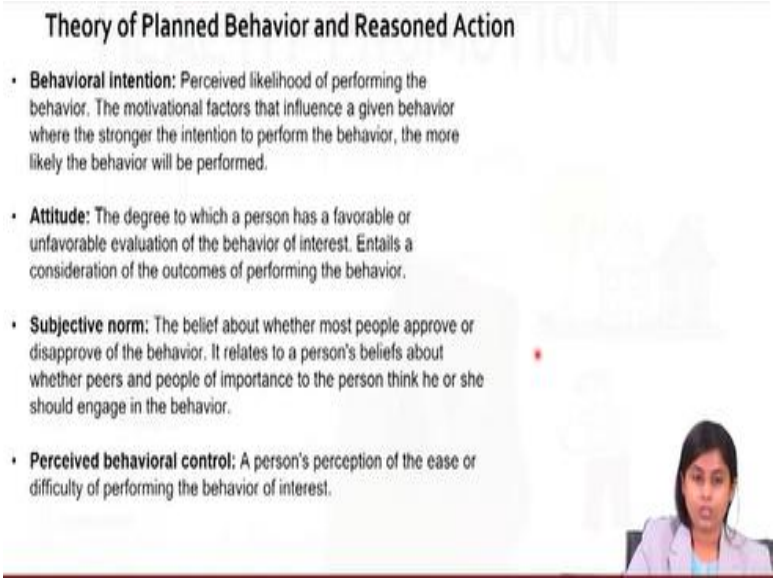

Now what is behavioural intention? It is perceived likelihood of performing the behaviour. So, the motivational factors that influence the given behaviour where the stronger the intention to perform the behaviour the more likely the behaviour will be performed, this is very important. So, perceive likelihood of performing the behaviour and actually the motivational factors. The stronger the intention that behaviour will be performed.

Attitude is the degree to which a person has a favourable, unfavourable evaluation of the behaviour of interest. Now see the attitude was determined by behavioural beliefs and evaluation of behavioural outcomes. So, for example exercise you know a one-hour exercise in the morning for proper body weight management. Let us take an example. So, behavioural belief is that if every day one hour of morning physical activity or morning exercises is done.

Then proper weight management can be maintained. Now here the behavioural outcome is the proper body weight management. So, that person will actually evaluate that for her or for him that proper weight management is good or bad then not only this belief is important. But his or her evaluation that whether that proper body weight management is important or not this will actually determine her attitude and that attitude will determine her or his behavioural intention.

Next is subjective norm. The belief about whether most people approve or disapprove of the behaviour it relates to a person's belief about whether peers and people of importance to the person think he or she should engage in the behaviour. You know your friend or your family members you know they can be the subjective norm. Now this subjective norm is also you can see the normative belief and the motivation to comply.

For example, your mother you know you think that your mother thinks that every morning one hour of physical activity or exercise should be done for proper weight management. So, your mother is telling you and you also believe that normally believe actually that my mother thinks I should do one hour of morning I mean exercise in the morning regularly every day. Now motivation to comply, you think that your mother wants you to do and your mother thinks this is beneficial.

But the motivation is also important and that motivations to comply that you have to comply. You can comply to your mother; you can think that if my mother is saying then I will comply on her advice or her suggestion I will follow. But it might happen that your teacher or your friends you believe that your friend thinks that you should do the exercise in the morning but you are not motivated to comply.

Actually, you are not motivated to actually you know follow that she feels then I should perform that behaviour. So, actually subjective norm is determined by normative belief and motivation to comply. Next is a perceived behavioural control, perceive behavioural control is a person's perception of the ease or difficulty of performing the behaviour of interest. And here the behaviour of interest is actually that you have to do the morning exercise.

I mean you have to wake up in the morning and you have to do one hour of exercise. Now this perceived behavioural control is determined by the control belief and perceived power. Now it might happen that you have tuition in the morning and after tuition you have to go to school. Now the thing is that when you will do the exercise when you will perform your one-hour exercise because you have to go to tuition or for any other involvement you have.

So, you feel you know this is actually the perceived behavioural control your perception, subjects' perception. So, control belief is like I think morning tuition you know it is actually a constraining condition for me for performance of the exercise in the morning. You think that you believe that you know the morning tuition I have to go to tuition this is a barrier, this is a constraining condition. Now perceived power, what is perceived power?

You know this is actually a constraining condition. But what you actually perceive how much that constraining condition is actually making you know behaviour making your doing behaviour that exercise difficult or easy. You might feel that no, I know that morning tuition is there but that is not making my behaviour to be done difficult or my behaviour to be done easy. So, actually perceived power it is your perception that whether that particular constraining condition is making your behaviour.

You know if you have to perform the behaviour making your behaviour doing difficult or easy. So, this is actually attitude subjective number perceived behavioural control on the theory of planned behaviour. These three determines your behavioural intention or intention to perform the behaviour and as I said ultimately if a person has an intention to perform the behaviour, then he or she will perform that particular behaviour.

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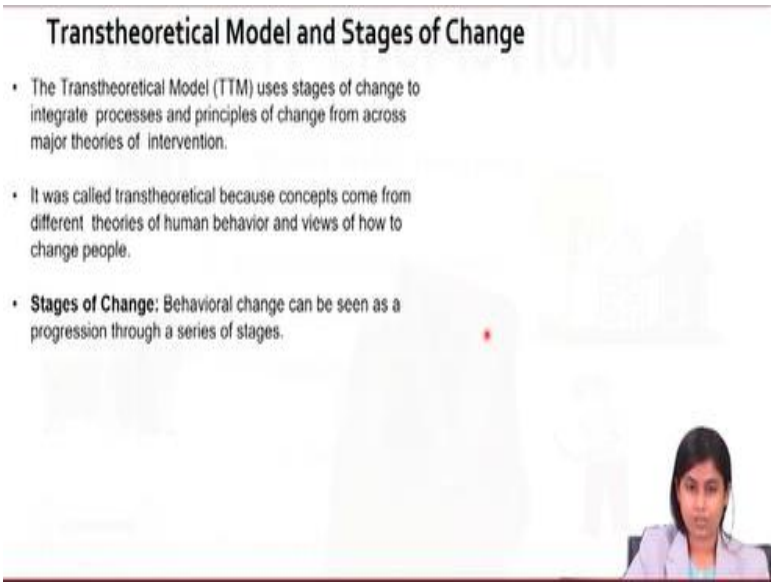

Now the next we will talk about the TTM or the transtheoretical model and the stages of change. Actually, it is also known as stages of change model. The various stages of you know the behaviour change is covered under TTM. Now the TTM uses stages of change to integrate process and principles of change from across major theories of intervention. Now it was called transtheoretical because concepts come from different theories of human behaviour.

So, many theories are there of human behaviour that these are the stages where a person has to go before performing a behaviour, before getting a behaviour change and views of how to change people. I mean how to change people's behaviour actually. Now stages of change is behavioural change can be seen as a progression through a series of stages. So, for the behaviour change the various stages are there which actually we will be covering in our subsequent slides.

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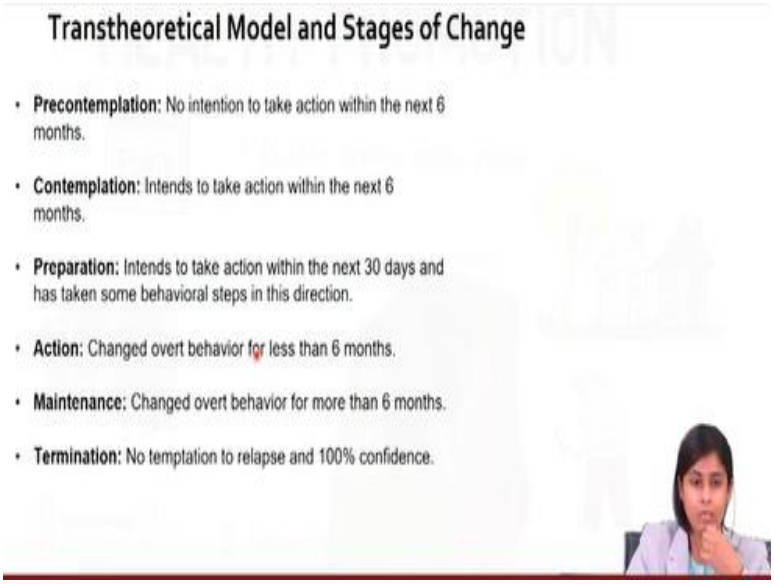

Now see these are the stages of change, six stages of change. The first is pre-contemplation, the first one is known as pre-contemplation. Now here a person has no intention or a participant or the subject has no intention to take action within the next six months so he is not intended. Contemplation is intends to take action within the next six months. We can take an example of quitting smoking; we can take this an example.

So, at first that subject is in under pre-contemplation stage. He does not have any intention to quit smoking now within the coming next six months. Then the next stage come the

contemplation he has the intention or he intends to take action within the next six months. Now intention has come then the next stage is preparation. Now in preparation a subject intends to take action within the next 30 days and has taken some behavioural step in this direction.

He has started you know some behavioural steps actually is has been started by that person. Now you know this time frame is important to put otherwise it is very difficult to understand interpret, no intention to take action. For how many days intends to take action. So, this time you know these 6 months 30 days this is important to understand. Otherwise, it can be you know there can be one year, four years, five years, six years.

But that we cannot take into consideration in the stages of change. That is why in trans theoretical model these stages have been put and within a certain time frame. Now action is actually a subject has changed the overt behaviour for less than six months. He has that person has taken the action. Now we have taken an example of quitting smoking. So, that person has for less than six months only but that person has changed his behaviour.

Maintenance, once a person has taken action but that maintenance is also important. It is not like I have quitted smoking for six months and then again, I have started smoking, so maintenance of that particular action. Maintenance is changed the overt behaviour for more than six months. I mean I have started I have quit smoking but I am maintaining that quitting for more than six months. So, I am maintaining that particular behaviour.

Termination, no temptation to relapse and that subject is 100% confidence to perform that particular behaviour. So, relapse means I will show you in the next slide that a person again you know in the relapse.

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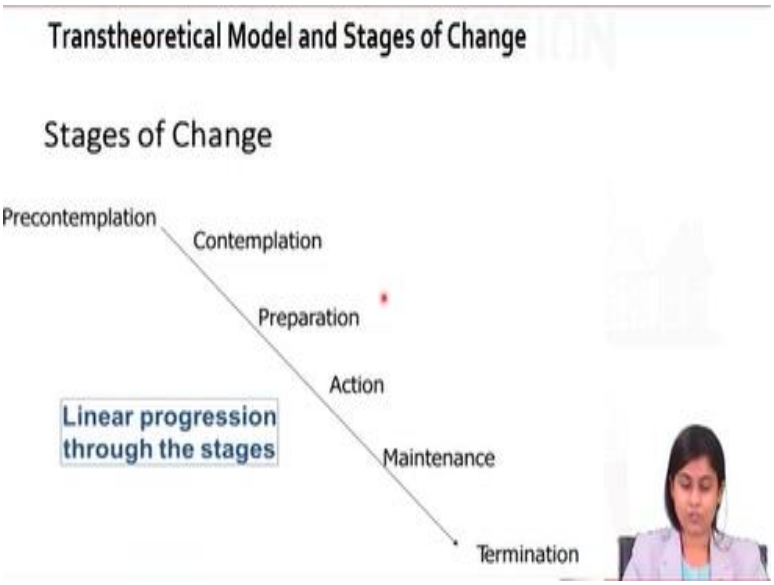

And he has now just I will first of all, we will see this framework. The linear progression then we will go for the circular progression.

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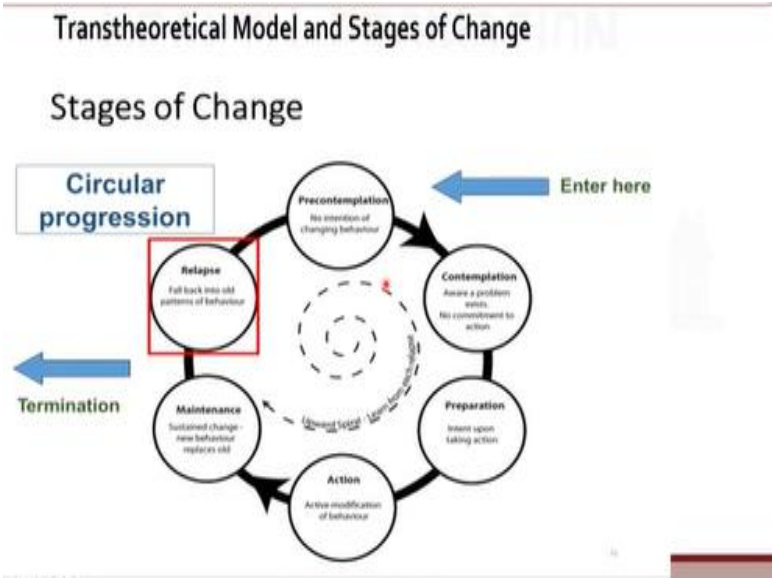

And in this circular progression I will explain relapse and termination more appropriately. So, first let us see this linear progression through the stages. Now I was talking about the six stages and you can see from pre-contemplation, contemplation, preparation, action, maintenance, and termination. So, this is the linear progression through the stages. Now this is a circular progression where you can see that pre-contemplation then contemplation enter here.

Just look at this you know arrow the blue arrow this enter here is pre-contemplation then contemplation, preparation, action, maintenance. Not till maintenance a person has gone now from maintenance a person can you know go to this. You know termination stage also or you can see the relapse stage where a person falls back into old pattern of behaviour. I mean he was maintaining but again what happened he again started smoking.

Even after maintaining he again started smoking. So, what will happen? When a relapse will occur again that person is actually going to the pre-contemplation stage. So, this is actually you can see the entire circle cyclic one. So, this is the circular progression and we were talking about this termination no temptation to relapse and 100% confidence that means this one, I have maintained my behaviour and here a person can go to termination or again that person can go to relapse.

So, if a person goes to relapse again the same stages have to be followed for acquiring any kind of behaviour for quitting smoking.

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Now then the last model of today is precaution adoption process model or the PAPM. Now the precaution adoption process model attempts to explain how a person comes to decisions and take action and how he or she translates that decision into action. So, this is very important that how a

person is actually taking the decision to act and how that action is actually you know I mean see and how he or she translates that decision into action.

PAPM model applies mainly to deliberate action towards adoption of a new precautionary behaviour. This you have to keep in mind here I have given example of Covid 19 like see like consistent use of mask during Covid 19 pandemic or cessation of a risky behaviour that is crowding in public places during Covid 19 pandemic rather than to the gradual development of habitual pattern of behavioural exercise and diet.

So, this PAPM model is actually you know applicable mainly for the adoption of a new precautionary behaviour or cessation of risky behaviour and this does not apply for the gradual development of any habitual patterns of behaviour. For example, diet and exercise.

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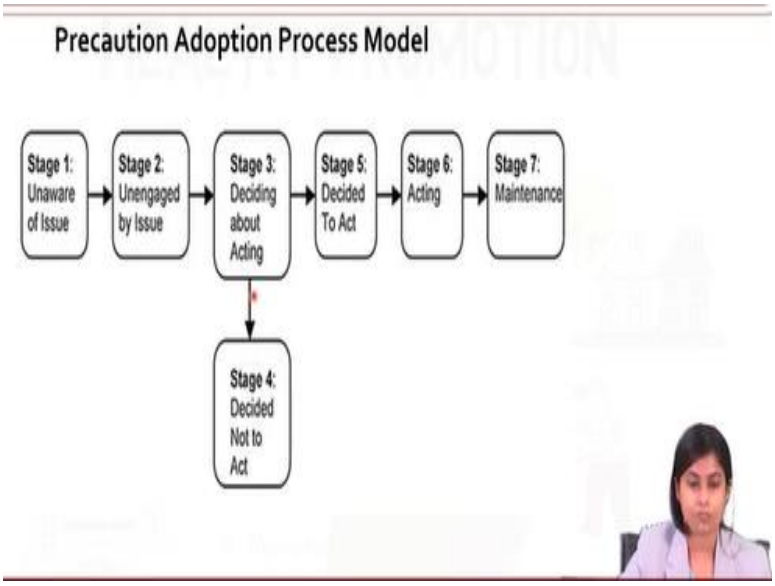

This is the framework of PAPM, you can see stage one. So, these are the stages of PAPM model unaware of issue. For example, taking calcium to prevent osteoporosis. Now that woman she does not know only, she is unaware she does not have the knowledge. She does not know that by taking calcium tablets she can prevent osteoporosis. Now she got aware now the next it happens that she was unaware but when she gets aware now the next stage, she is under unengaged by the issue.

She knows that taking calcium will prevent her for osteoporosis but she is not thinking about it, she has never thought about it. So, she is not engaged so unengaged by issue. Now if a person gets engaged that you know for that prevention of osteoporosis by taking calcium tablets. Now here stage three and stage four you can say that woman can decide about acting or she can even not decide to act.

She has thought because she was in stage two, she was actually unengaged. But now when a person starts thinking about that issue means that she has got engaged, after that she can decide to take calcium tablets or she cannot even decide. If a person decides then okay, she is decided to act actually in stage 3 she is deciding, what she will do? Now it can go to decided to act and it can go to decided not to act.

Now if she has decided to act, she will act she will take that calcium tablets for prevention of osteoporosis. The stage 6 is actually acting and the last stage you can see is the maintenance. Maintenance is not only one or two days you have taken calcium tablet but the actual what is the dose you know to prevent the osteoporosis by taking calcium tablet. So, you have to maintain that behaviour.

Now you can put this PAPM model in any other example here, I have taken this example. So, the last stage is that maintenance of that particular action or the behaviour. So, this is actually the PAPM model or the precaution adoption process model.

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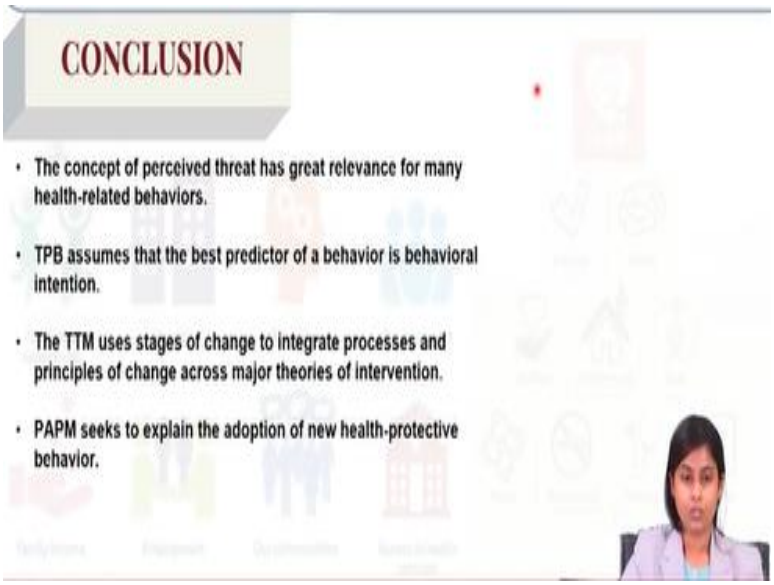

Now let us conclude. The concept of perceived threat has great relevance for many health-related behaviour perceived threat as I said perceive susceptibility and perceived severity. Now theory of planned behaviour TPB assumes that the best predictor of a behaviour is behavioural intention. The trans theoretical model or the TTM uses stages of change to integrate processes and principles of change across major theories of intervention like you know while I was discussing TTM, I talked about this.

Then PAPM seeks to explain the adoption of new health protective behaviour. You know the new health protective behaviour actually precaution adoption process model explains.

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So, go through these resources for more details, read through the books which I have given in my resource slide and also go through the handouts of supplementary material. Thank you.