

Course Name: Adolescent Health and Well-being: A Holistic Approach

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Institute Name: IIT Kharagpur

Week: 01

Lecture: 01

Lecture 1 - Adolescent Health Statistics.

Hello everyone. Myself Dr. Sumana Samanta, I am working as an assistant professor in the department of Community Medicine at Dr. B. C. Roy Multi-Specialty Medical Research Centre IIT Kharagpur. So, we are going to start our course that is on Adolescent Health and Well-being: A holistic Approach. Today is our first lecture, we are mainly concerned about the adolescent health statistics. But in this session I will cover why this age group is a special age group and various morbidity and mortality related to this age group and also the health statistics that may be national and that may be international, which is related to this age group. And these are certain keywords you can find that adolescent malnutrition, anemia, child marriage, teenage pregnancy and NFHS data.

Well, first we will start that why it is a special age group. I can say that it is not a specific age group because whenever we are thinking about the adolescent population this is just a junction, that is between the childhood and the adulthood. So, it is a stage rather than an age, but due to our ease of work we have defined this population and this population we have taken from World Health Organization. They have stated that 10 to 19 years of age group is the adolescent age group. But in India what we use in different programs like the programs of Kishori Shakti Yojana. This program actually run by Integrated Child Development Services or Scheme. You can say in our country and here the adolescent girls belong to 11 to 18 years of age. Whatever the definition, but you can say that this is a unique stage of human development and it lays the foundations of good health. And in this stage or age group you can say that these people they experience a rapid physical cognitive and psychosocial growth. And whenever these changes occur there are lots of hormonal changes occur inside the body and all these changes ultimately leads to how they feel, how they think, how they make decisions or they are interacting with their peers and also with the adult population. And also this time they are establishing some behavior. Those behaviors that is related to diet, physical activity, substance abuse and sexual

activity. And these behavior depending on their nature either they can destroy them or they can be beneficial or they can be helpful for their future.

And despite being thought that it is a healthy stage of life because it is just the crossing of the childhood and just and the beginning of the adulthood. So, we cannot imagine that in this stage also there are significant amount of death, illness and injuries. But fortunately all these not all this I can say, but many of these can be preventable or treatable, but we do not know how to do that thing.

Let us have a look that how we can classify this adolescent age group. Because in various researchers and various professionals they have found that there are distinctly different characteristics in these 2 age group. That is the early adolescent age group and some late adolescent age group. And here the thing is if you know the characteristics of these 2 age group then it will be easier for you to give the emphasis on special needs of their requirements. And the first age group that is the early adolescent age group that is 10 to 14 years. Here we usually get the growth spurts, physical changes become easily noticeable and the boys and girls they have their gender consciousness in these period they develop. Now, coming to the late adolescent age group that is 15 to 19 years where the growth spurs continues, but the people they gain interest in romantic and sexual relationship and their development of sexual identity occur during this period. And whenever we are talking about the adolescent age group we cannot deny the young adult population that is the 20 to 24 years. Because during this time almost they complete their physical development and we have seen that risk taking behavior declines and they become more emotionally stable.

Now, coming to the adolescent health statistics. Here you can see that adolescents are making about 16 percent of world population. So, we can see that it is it is it is more than 10 percent. And it is 1.3 billion adolescents we can found we can find in the whole world and that is report is given by UNICEF in 2022. But you will surprise that when you will see that the proportion of adolescent in our country that is 21 percent of the Indian population and that is 253 million. And if you search or if you want to know that how many adolescents are surrounding then you can see that every fifth person surrounding you is 10 to 19 years of age. So, our country's continued development depends on the adolescents definitely if they are safe, healthy, educated, equipped with information and life skills. But what is the scenario of Indian adolescents, are they really healthy or are they really mentally and physically sound? Can you say that thing?

Let us see what are the different reports given in different researchers and also by WHO and UNICEF. Here in our culture, in our community or in our country we can see that both the girls and boys lack access to information on the issues affecting their lives. They have very limited space to develop their competencies. So, whenever they think that yes I want to do these things they are not capable of doing these things. And girls are exposed to multiple layers of vulnerability and due to these social norms which are affecting our

India's our country's growth. These are their ability and did affect their ability to move freely and also to make decisions in their work life, in their education life, even in their social relationship. And whenever we are coming to see that what is the educational status of the Indian adolescent, we can see that about 43 percent of the adolescent girls drop out before completing their secondary education. There are various reasons for this drop out of these girl child, but we can find in different researches that is their household responsibilities, their marriage or early marriage, early pregnancy or the sanitation, lack of sanitation in the school or the distance of the school from their home. These are the certain determinants of dropout of the girls has been found by different researches. And the child marriage, it is a deeply rooted social norm in our country. And UNICEF given a report that every year at least 1.5 million girls under 18 get married in India. And surprisingly these statistics will say that it alone accounting for one third of the global total population of this child marriage. So, you can see that how many or what is the burden of child marriage in our country. And what is the consequences of this child marriage? Definitely if the child gets married below 18, then she is becoming pregnant in this adolescent age group or there will occur the teenage pregnancy. And when the girl become pregnant, there is higher risk of maternal and newborn disease and death, because the babies which are coming out from the adolescent mother they are of increased risk of getting wasted. When this wasting is continuous for prolonged period they are becoming stunted. And this wasting and stunting that means, they are not physically healthy. And if this physical healthiness is not there then definitely there is lack of cognitive development. And all these things mean there the lack of cognitive development, lack of physical development ultimately it will affect the young children. And ultimately it will reduces the productivity of the adults.

So, here are the example of certain preventable or treatable health problems. I cannot say that we are all in the process of preventing those, but at least we can try to prevent all these problems. And these problems will be discussed in our coming lectures in detail. But here you can just see or here you can just get an idea that what are those problems that we have to think about when we are dealing with the adolescence age group. There is a nutritional disorder first and foremost thing because whenever we are thinking about a healthy people always we think that the person should be healthy, at least physically healthy.

So, definitely the mental healthiness is also comes hand by hand. But the first and foremost thing is the physical healthiness. And that you can judge or this physical healthiness you can assess by the nutritional status. And the problems in this nutritional status what we find in adolescent age group that is the under nutrition, anemia or overweight. Already I have told the child marriage which is much more proportion in our country and definitely there will be earlier unintended pregnancy. if the sexual life is unsafe then there is development of sexually transmitted infections and also the AIDS, Acute Immunodeficiency Syndrome. We will discuss in detail in our coming lectures. And what we have found that alcohol

abuse, tobacco and drug abuse that is also very much predominant in this age group. Now, coming your mental health concerns there are certain mental health problems we can find in the adolescents. If we do not care for those things or if we ignore those problems, then definitely the consequences will come up in their adulthood. Also there are various injuries and violence in this age group what we need to prevent.

Well, now we will see different statistics related to adolescents according to NFHS-5. So, first we will concentrate on malnutrition as I have told that whenever we are thinking about the healthiness first of all the physical healthiness. And physical healthiness we can assess by malnutrition and that malnutrition is a double edged showed you know. Because nowadays not only the under nutrition is the matter of concern, but the obesity or overweight that is also a matter of concern in the urban areas. I will show you the statistics here. Let us see what is the conditions of malnutrition in our country. If we think about the 15 of 19 years or aged female here, you can see that is 40 percent of the females are undernourished in our country of this age group. Whereas, the males they are more or less same that is the 41 percent. And if we think about the overweight or obesity that is 7 percent for male and 5 percent for female.

So, whenever we think about malnutrition we always think about the undernourishment. But we all know if this overweight and obesity that comes in this age group that is in the adolescent life then definitely that will affect your adulthood. There are lots of non communicable diseases are there which will come up in your adulthood if you have overweight and obesity from this adolescent period. Now, there is certain geographical variation that means, if that child is residing in an urban area or the city area or in the rural area or village area. So, you can see from this data that if we are thinking about undernutrition that undernutrition is more prevalent in rural area, for female it is 21 percent and for male it is 18 percent. And the people or the child who are residing at the urban area that is quite less that is 13 percent for both male and female. Coming to the overweight and obesity here we can see that 33 percent of this 15 of 19 years of age they are suffering from overweight and obesity that is alarming. And the male or the boys they are also not far behind that is 30 percent, but this overweight or obesity proportion that is quite less in case of rural area and for female it is 20 percent and for male it is 19 percent.

Well, we have seen in different researches and also in the NFHS data that this over nutrition or under nutrition that varies in different states. As you all know that whenever a person grows his or her mental condition or physical condition that is getting hampered or you can say that getting controlled by the environment. And these environment rather the community that is different in different states of in our country. What reflects here in this statistics that under nutrition in certain states are there where the under nutrition is very much prevalent and certain states are there where over nutrition is very much prevalent. So, you can see that the Jharkhand and Bihar they have 26 percent of

under nutrition in adolescent age group. Whereas Gujarat, Dadra, Nagar Haveli, Daman, Diu they have 25 percent. Coming to over nutrition, over nutrition is very very alarming that in Puducherry 46 percent over nutrition is there in female adolescent population. And whereas, Delhi, Tamil Nadu and Punjab they are not far behind and not only that the Kerala, Andaman, Nicobar Island they are also in that group that is over nutrition is very high that is 38 percent. Now, if we see this the same statistics in boys you can see that under nutrition we are finding it in Bihar that is 22 percent and in Madhya Pradesh and Gujarat that is 21 percent. Now, the over nutrition over nutrition in boys that is also very high in the states Andaman, Nicobar Island where it is 45 percent, Puruchari it is 43 percent and Lakshadweep it is 41 percent. So, from this table or from this statistic what we can say that we need to concentrate on certain states where over nutrition is very much prevalent and we need to concentrate on certain states where under nutrition is very much prevalent. So, our activity or our awareness programs or the programs related to adolescent health group that should be different in different state according to the need of this people.

Another important factor which can affect any one's health that may be a child, that may be adolescent that may be the adult group or that may be the older age group that is the anemia. I think. all you have a little bit of idea that what is anemia that is the less hemoglobin in our body. That hemoglobin percentage is different for different age group where we can say that yes, you have anemia. We will discuss these things in our future lectures, but here I just want to give an idea that what is this conditions this what is the prevalence of anemia in the adolescent age group. Because if you have anemia, not only your physical health will be hampered, your cognitive development will be hampered and also your scholastic performance will be hampered. And if you see the NFHS data you can see that it is been increased in all the way means here you can see in country if you see the whole country status of anemia. Here you can see that it is been increased in the girls aged 15 to 19 years where we are thinking that anemia we are telling anemia if the hemoglobin level is less than 12 grams per deciliter. And it is being increased about from 54 percent to 59 percent coming to the boys count of her where we are telling that anemia is anemia we will tell that when the hemoglobin level is less than 13 grams per deciliter. Though the proportion of boy's anemia is much less than the girl's because of the culture and customs of our country we will discuss about those things how can we manage, how can you handle those things, how can you modify those culture and customs. And here you can find that this proportion of anemia is much less, but again you can see that it is been increased from NFHS-IV data that is 29 percent to 31 percent.

Now, what is the condition of our state? you can see that in NFHS-4 there is 62 percent that is much high from the country status of anemia prevalence. And it is been increased in NFHS-5 that is 70 percent rather 71 percent that been increased from 62 percent. And in the boys' counterpart you can see that this anemia has been increased from 31 percent to 38 percent. So, we can conclude that whatever the gender, but

the anemia status has been increased that anemia prevalence has been increased from NFHS-4 to NFHS-5. Now, here this column you can see that pregnant women aged 15 to 19 years who are anemic.

Now, many of you are thinking that we are learning about adolescent or we are mainly we are we have come to learn or we have registered in this course to learn about the adolescents. So, why this data is there, that is pregnant women data? Because already I have given the hint that whenever you are becoming pregnant that time your health status, if it is poor then that will affect your child status and if it is healthy then definitely the healthy child will have born. And if the child is born healthy then definitely the childhood and adulthood will be healthy. But if the child is undernourished or born as a underweight baby or low birth weight baby then definitely his or her development will be hampered that may be physical development that may be the psychological development or that may be the social development.

So, whenever we are thinking of this adolescent age group that is not confined when they are within this age group. I have already told this is a stage. So, you have to think about the childhood also you have to think about the adulthood. And if we see the anemia prevalence is women here in the country status that is showing that anemia has been increased in whole country and in our state also the picture is not very different. It is being increased from 53 percent to 62 percent. So, you can see that not only in our state, but in the whole country this anemia prevalence has been increased according to NFHS 5 data if we are comparing that thing with NFHS 4. Well, we will see the anemia trends. Now, there are 3 types of anemia or you can say there are 3 classifications of anemia according to the levels of hemoglobin that you can say that anemia is mild moderate or severe. We are classifying this because of the treatment modality is different in mild, moderate and severe anemia we will discuss detail about this. But if you see that what is the status of this mild moderate and severe anemia that even in NFHS 5 if you consider women and the age group is 15 to 49 years, here you can see that mild, moderate and severe all types of anemia has been increased ok. But if you consider men of the age group of 15 to 49 years then definitely you can see that this that this 20 percentage is that means, the severe group and is much more increased than the mild to moderate.

Another important thing already I have told that is the teenage pregnancy that is 7 percent of the women aged 15 to 19 years they have begun child bearing and this teenage pregnancy is much more in the rural areas and these things had been decreased with the increasing level of schooling and also increasing level of wealth. Also the schedule type girls and Muslim girls they are suffering more due to this teenage pregnancy and if you see the state wise variation you can see that 22 percent of the teenage pregnancy we can find in Tripura, West Bengal, Andhra Pradesh, Assam, Bihar and Jharkhand they are also in the queue.

The mental health status already I have told, they not only the physical health mental health is also important in this age group we can find then 13 percent of the global burden of the disease. And national mental health survey that have shown that 7 percent of the prevalence of psychotic disorder in 13 to 17 years of age and they are almost equal in both the gender. And suicide is the fourth leading cause in the young people. Depression, anxiety, behavioral disorders we mostly find in this age group and there is various challenges are there in India those are early identification of mental health problems, the treatment gap, lack of professionals and interventions that will address these mental health problems. If we do not care about these mental health problems then definitely that will hinders the healthy adulthood. Here is the other statistics related to adolescents like the tobacco use in India. That is 11.9 percent and found in global adult health survey.

And the sexual activity, if it is not safe in these adolescent age group then definitely there is a chance of HIV and STI that has already been told. And it is been found that 2 out of every 7 new HIV infections globally in 2019 were among the young people.

Here is my references.

So, we can conclude the session with the thought that adolescent is the preparatory phase of adulthood. Well being during adolescents would predict the wellbeing during adulthood that is why we are doing this course, right. During this life stage child have specific needs and that is based on their gender, their socioeconomic status and the overall cultural belief of the community.

Thank you.