

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

Professor Name: Dr. Sumana Samanta

**Department Name: Community Medicine, Dr. B. C. Roy Multi-Speciality Medical
Research Centre**

Institute Name: IIT Kharagpur

Week: 04

Lecture: 20

Lecture 20 - Innovations for Holistic Well-being of Adolescents

Hello everyone. Let us start today's session that will be on Innovations for Holistic Well-being of Adolescence. You know that today is our last class. During these 4 weeks we have learnt many things about adolescence. Their physical and psychological development, what is the special requirement during these developmental periods. And also, we came to know that the special nutritional requirements, we came to know how physical activity is very important and how the mental health is very important during this period.

Now at last we have found some grey areas. That is why we have given this session that you should know where we need to emphasize in the future prospect of adolescent health. So, in this session I will try to cover why more research is required in adolescent health as well as the various grey areas in the physical and psychosocial development of adolescents. Consider certain keywords like physical health, mental health, cognitive development, high risk behavior and interventional studies.

Why more research is required? First and foremost, many researches are going on adolescent health. Still, we cannot say that the largest population of adolescent in our country they are all healthy or they are almost healthy. Because we need to feel the knowledge gaps regarding the adolescent health and we want to reduce the scientific uncertainties of what works in adolescent programming. Especially the early adolescence that is the 10 to 14 years of age. We need to explore the root causes of the issues in relation to adolescent health to modify the policies and the programs and the practices. Development of communication strategies also required for the effective dissemination of the evidence and generation of the adolescent friendly programs. And finally, we want to improve the adolescent health to ensure the social development and growth of the country in which they exist. Areas need to explore more those are nutrition, physical activity, mental health, injuries and violence, substance abuse, high risk behaviors, communicable and non-communicable disease prevention and management.

Now, regarding nutrition what we have failed that the development of validated tools. Because even if the person has not specific expertise in the adolescent nutrition, they can detect the nutritional disorders. So, our frontline health worker it will be very much beneficial. The psychosocial and emotional factors related to nutritional disorders in adolescence and the implications for prevention and treatment is very much important. We have to find some social determinants of health like the adverse childhood events, the stress from the social inequality, how they are contributing to the nutritional disorders in adolescence. Though many researches are already going on, but we need to explore more. Various strategies for avoiding the pitfalls of weight based nutritional counseling which may encourage the disorder eating. And sometimes we professionals tell our patients that you have to take the total diet or even if sometimes we do not consider what is their weight either they are overweight or they are underweight or they are obese. Sometimes we tell them that you have to take the healthy diet. But in case of adolescent, we have to evaluate more because in adult the physical and psychological development is almost complete. Here the physical and psychological development is going on. That is why the concept of total diet should be changed as per the need of the adolescents.

More intervention studies are required for obesity and eating disorders in the high-income countries. Whereas, we need the more studies on micronutrient deficiencies in the low- and middle-income countries. We should not avoid the fact that the regionally and culturally relevant interventions are required if we want to decrease the nutritional disorders in every nation. Few population-based interventions are required. WHO has given the guideline that few things we can follow in specific region or we can follow in specific countries. Like extra taxes on sugar sweetened beverages, limitations on marketing of sugar and sweetened beverages to the children and adolescents. The global strategies for nutrition provided in the schools, urban planning for safe public areas for physical activity and gender friendly spaces. We need to increase the access to nutrient rich foods in disadvantaged neighborhoods and the standardized global system for nutritional leveling. We can use technology because now is the era of technology. So, without the technology our control of the environment will be less even if we are giving our 100 percent effort, without technology it the effect of this effort will not be very clear.

We can use technology to explore the supporting nutritional treatment and the prevention through apps, social media, the physical activity monitoring devices and telemedicine. Few are there, but we need to work more on these topics. Now what we can do regarding the adolescent pregnancy because already I have told that adolescents are not ready to get the burden of pregnancy. Till in some countries mainly even in India many of the children in their adolescent age group are becoming pregnant. So, teenage pregnancy is an important public health problem in our country. So, we can develop a prenatal nutrition education tool targeting specifically the adolescent mothers and we can employ those adolescent friendly media for dissemination. Now we need to know about the biology and cognition of adolescents. Already I have told that huge variation we can see in different people or this is a phase where we get the maximum physical and cognitive and psychosocial development. The healthy physical activity levels we need to know at the different developmental periods.

Even we can explore the hormonal effects of puberty on aggression and nurturing behavior. We need to know the role of neuroendocrine system that is stimulating the bone growth and its impact on cognitive, emotional and behavioral changes of puberty. We can work on adolescents' health beliefs and attitudes which are ultimately guiding them to get the high-risk behaviors or the healthy behaviors. Competency of the adolescent decision makers and their impact on health related and health seeking behaviors that is also in research area. Capability of the adolescents to decide whether or not to accept a mental health treatment is a very grey area in our research in of mental health. Now some psychosocial development what we can find or we want to understand the supportive environment that foster the optimal psychosocial development during adolescents with particular attention to interpersonal relationship. Development of social coping and communication skill, bio social models of fertility and fertility related behaviors these are some areas we need to know. About the psychosocial development of the adolescents, interactions among the pre morbid personality, cognitive functioning, neuro biological, environmental and genetic factors in the development of addictive behaviors is also important to know. Some social and environmental context of adolescent's life we need to explore more like the family influence on adolescent development, health and behavior, coping strategies of families experiencing the personal or environmental stressor. We need to understand more about the experiences and needs of adolescent parents and we have to strengthen the families for better enhancement of adolescent health. And there is a huge scope of research in peer relationship during adolescents. We can study the quality of relationship, patterns of communication, nature of the activities in which adolescent engage. Now the family abuse and neglect have impact on adolescent health and their early life. So, we can find or we can establish a consensus on the definition of abuse and neglect. There should be a reliable and valid assessment measure for abuse and neglect. Documents of these problems at local and national levels, complex causes of maltreatment for different cultures and ethnic groups.

We need to explore the longitudinal impact of the malnutrition or maltreatment on the adolescent health and the evaluation of effectiveness of the governmental agencies in response to maltreatment. School organization and practices also has impact on adolescent health that is why we need to explore the work culture or we need to explore the school climate, development and evaluation of the school-based prevention and health promotion programs on sexuality, substance abuse and school retention. School has a site of delivery of health services. We can consider the school-based smoking prevention program. There are definitely the role of communities and the neighborhoods on adolescent, health that may be physical or that may be mental. Examples are abandoned buildings and littered streets, the physical conditions or the social conditions you can consider about the gangs, organized drug markets like those are affecting the adolescent's life.

Now we need to identify and assess the community characteristics like what are the constrains the health promotion activities. We can develop and test the intervention strategies aimed at the communities to promote the social competencies, responsibility of their own health. We need to improve the sense of self, healthy stress management, violence reduction and increase access to health care in the rural areas.

There are certain another example on which we can work. Regarding the adolescent health services, we need to know their special needs utilization, health outcome and cost effectiveness. We need to emphasize certain areas regarding the adolescent health services like the primary care, mental health, emergency medical services, contraception, substance abuse and chronic physical disorders. Special populations like who have attempted suicide, victims or perpetrators of the violence, survivors of the natural or technological disaster and also who are HIV positive they need the special concern in the various researches.

Great variation in the service utilization and cost might be expected in some population of adolescent like homeless people, like out of school people. So, we need to consider them also in our future studies. There is certain relationship between the adolescent and health care practitioners. That is also an area of concern because the provider characteristics including their communication style, their behavior, their education, their experience affect and facilitate the health promotion efforts. The whole health promotion interventions what we can think about like the periodical contact with the health providers and long-term maintenance of a variety of healthy behaviors. Like preventing the alcohol abuse. We can compare the effectiveness of the guidance provided by various health professionals. This guidance can be provided by practitioners, that can be doctors, that may be the nursing staff, that may be the allied health professionals. So, we can compare and see whose guidance has most effect on the adolescents regarding the prevention of alcohol abuse.

Now, health enhancing or high-risk behavior. Already we have discussed that different eating habits and the physical activity required every day. And if you are thinking that I am healthy, that feeling of healthiness can modify your behaviors. That behavior may be health enhancing or that may be health risk behavior. So, we need to explore the biological, psychological and the social factors that are controlling these behaviors. We can identify the early behaviors that serve the precursors of later or that can generate more high-risk behaviors. So, we need to identify those behaviors which have clear implications of early interventions and secondary prevention programs. Interventions to promote healthy behaviors, reduce the risky behaviors we can test and we can develop. And the risky behaviors like alcohol and other substance abuse, the sexual activity, the violent behaviors we need to consider. And the areas of health promotion like medical checkups, physical exercise, good nutrition, maintenance of dental health we need to consider during our studies. Coming to the various physical and mental disorders during adolescence. Even if there are lots of studies, we need to focus on the prevalence, incidence, natural history, etiology, prevention, treatment of medical and mental health problems of adolescence age group. We need to protect them from the mental disorder despite the exposure to the major stressor or other risk factors. So, we need to evaluate the treatment and services for mental disorders in adolescence.

These are my references. With this I want to conclude the session.

Thank you all.