



# Adolescent<sup>1</sup>today



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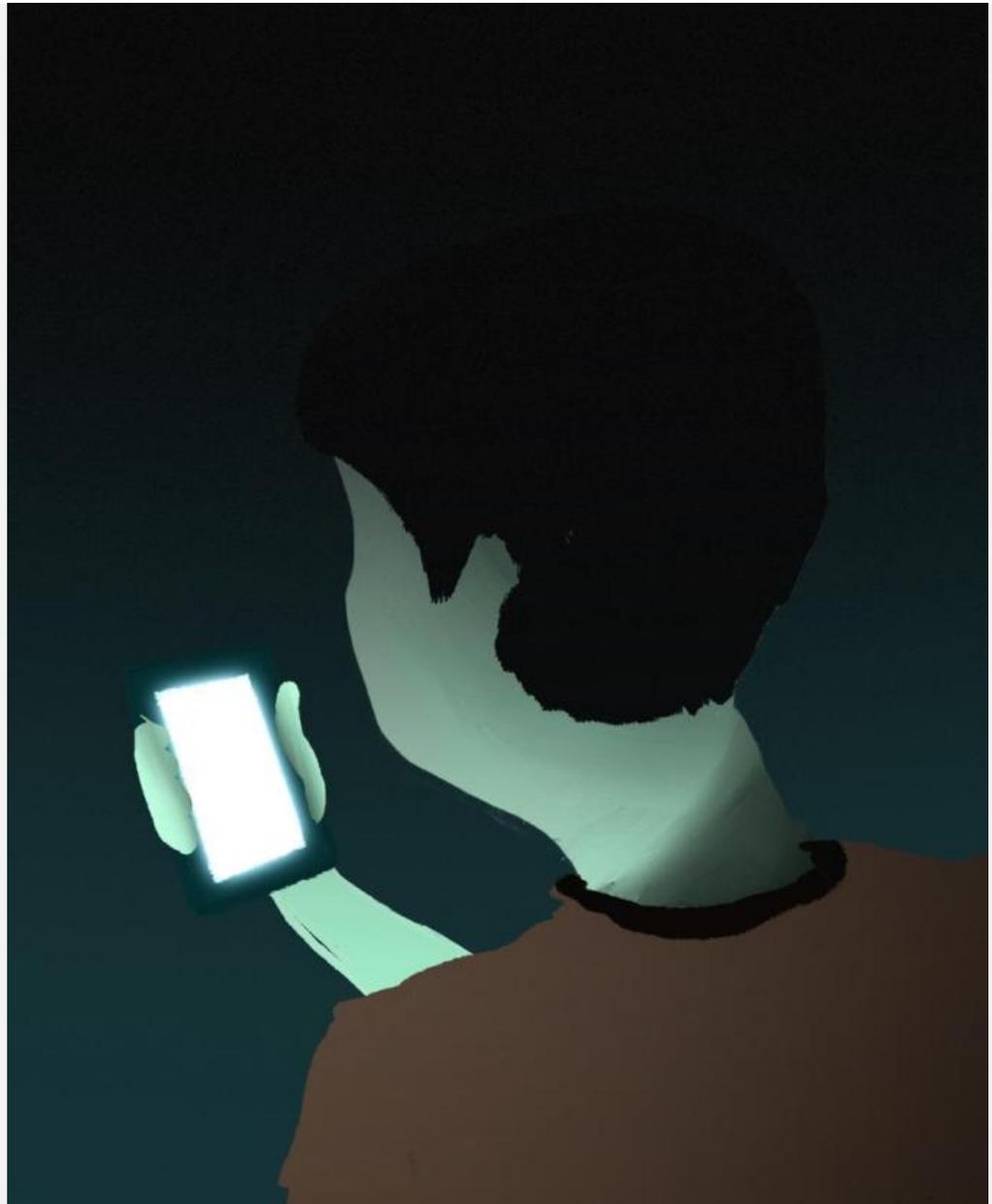
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**ADOLESCENT HEALTH ACADEMY**

A Subspecialty Chapter of Indian Academy of Pediatrics  
Society Registration No. 02/42/01/14649/11

## Chairperson's Message

Warm greetings from IAP-Adolescent Health Academy!!

As a chairperson, I have the privilege of leading an organization that is committed to fostering and uplifting holistic Adolescent Health.



We have completed a successful 8 months by conducting webinars every month on relevant topics and many physical meetings, school health programs and community awareness programs. Our esteemed members had many publications on Adolescents physical and mental health issues.

It was a great honor to sign the MoU on Joint professional forum (IAP, AHA, FOGSI, IPHA, IAPSM) for Comprehensive Sexuality Education on 8th August in Mumbai.

IAP-Adolescent Health Academy -Orientation program was conducted virtually from 9th to 12th July on dIAP platform. Response was overwhelming.

It is with great pleasure that I welcome you to this 3rd volume of the official E-bulletin of the IAP-Adolescent Health Academy. This bulletin is a reflection of the collective efforts and achievements of our members.

The previous two issues were dedicated to behavioral issues and nutrition during Adolescence.

This issue is mainly concentrating on Non-Communicable Diseases.

Non communicable diseases (NCDs) caused over half of Disability Adjusted Life Years among adolescents. 70% of premature deaths among adults stem from health related behavior that originates during adolescence. 1 in 5 deaths among adolescents are caused by NCDs. Low- and middle-income countries (LMICs) have a double burden of diseases.

The incidence of NCDs is increasing, and still incidence of infectious diseases is high. Common NCDs in India in 10-19 years are heart disease, hypertension, diabetes mellitus, asthma, mental health disorders, cancer.

Pediatrician /Adolescent specialist should target to work with the families to promote a healthy lifestyle and prevent NCDs.

Dr. Geeta Patil

IAP - AHA Chairperson, 2024

# MoU



## Memorandum of Understanding (MoU)

We, the Five National Professional Associations viz. Indian Academy of Pediatrics (IAP), Federation of Obstetric & Gynaecological Societies of India (FOGSI), Indian Association of Preventive and Social Medicine (IAPSM), Indian Public Health Association (IPHA) & Adolescent Health Academy (AHA) are signing this Memorandum of Understanding (MoU) on day 08<sup>th</sup> August, 2024 (Thursday) to work Nationally on Adolescent Health in alignment with Govt. of India and State Govt. Programs like RSKS, Adolescent Health Awareness program, School Health Program and other programs in coming years at National, State & District level.

*h.v. Sreenivasulu*    *Dr. Lakshmi*    *Dr. Sankar*    *Dr. B. B. 24*    *Dr. J. J.*  
National President    President    President    President    President  
IAP    FOGSI    IAPSM    IPHA    AHA



## Editorial

Dear Reader

This issue of the AdolescenToday, the third in the year, focuses on LIFESTYLE, a word much hyped about in media and the market, in advertising, in real estate, and the entertainment and food industry. The medical world is just waking up! A whole generation's tomorrow is at stake if we neglect to address Non-Communicable Diseases, the direct result of a poorly chosen Lifestyle. Adolescents, targets of toxic advertisement and misinformation, with emotional reactions and no sane judging ability, make those poor choices.

Research presented at the European Congress on Obesity showed that children with severe obesity could have just half the average life expectancy if they don't lose weight in adulthood, as the early onset obesity model finds that a child who is living with severe obesity at age 4 and doesn't lose weight has a life expectancy of just 39. Findings, based on data from 50 clinical studies on obesity and obesity-related diseases, also showed that early onset of severe obesity in childhood increased the likelihood of developing related comorbidities such as heart disease and type 2 diabetes. Pediatricians, adult NCDs are born in childhood and adolescence. Your counsel matters! Anticipatory guidance in clinics, schools and society at large is urgently needed.

Our cover page is exclusively designed for us by Kavin Vittal, a sensitive young ninth grader in Cupertino who pursues digital art when he has no history assignment! He interprets his creation thus 'All the light in his life is only from this, his device, for there is only darkness everywhere else'. Kavin shared of his class mates' addiction to the phone, and how many had sought therapy. Thank you Kavin!

An elegant article on 'Tackling Sleep' pushes us to press for adequate sleep for our young high schoolers, sleep sacrificed to tuitions/school/after school activities in the name of pursuing academic excellence or media addiction.

All about NCDs in two articles that one can put to use at our counselling opportunity. Case studies help for practical learning. Social Connectedness is an important aspect of lifestyle that needs emphasis and our author is doing a Life style Medicine certified course that may interest many.

Two young people have written their views in the youth pages. Our confident young have so much going right for them and we are constantly learning from them.

Senior and respected Dr Kotwal has shared his personal story in contemplation of the generation gap.

Dr Neha Agarwal's 'Plea from a girl child' resonates today as much as it did 12 years ago, when we all vowed 'never again'. And yet it continues to happen, again and again, every day, everywhere. Bringing up resilient girls and considerate boys is a necessity, not a vague concept anymore. As pediatricians, we need to do more, educating parents and encouraging children.

Our reading recommendations this time are 'ATOMIC HABITS Tiny Changes, Remarkable Results' by James Clear and 'WHY WE SLEEP' unlocking the power of sleep and dreams, by Mathew Walker

Grateful thanks to Dr Geeta Patil whose inspiration it was to theme on lifestyle and Dr Gowri and team for executing excellence. As always, our photo activity pages are filled with IAP-AHA members amazing work.

We are excited to be seeing each of you at the ADOLESCON 2024 at Nashik very soon!

Jai Hind! Jai IAP! Jai AHA!

Dr Shubha Badami and the Editorial team

# NON - COMMUNICABLE DISEASES IN ADOLESCENTS



## Shailaja Mane, Sravanthi Kasireddy

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### Introduction

WHO defines non-communicable diseases (NCDs) as “diseases of long duration, and with generally slow in progression”. NCDs are also known as lifestyle diseases, as they are the result of unhealthy lifestyle practices like lack of exercise, eating junk food, indulgence in tobacco, alcohol etc.

NCDs are the leading cause of death globally, accounting for 71% of all fatalities. Low- and middle-income countries, such as India, bear the brunt of this crisis, with a disproportionate share of premature NCD deaths.

### NCDs in Adolescents

Non-communicable diseases in adolescents include obesity leading to type 2 diabetes, cardiovascular diseases, cancer, respiratory diseases like asthma, and mental health disorders. These conditions account for one in two disability-affected life years and one in five deaths among adolescents worldwide. The main causes are behaviors that start in childhood, such as physical inactivity, poor diet, tobacco use, and substance abuse. NCDs not only harm adolescent health but also have long-term effects into adulthood.

### Risk factors of non-communicable diseases:

#### 1. Unhealthy Eating Habits :

Rising intake of saturated fats and sugary foods, particularly junk foods. The IAP nutrition chapter labels these as "JUNCS" foods, which cover unhealthy foods high in

fat, sugar, salt, or harmful substances.

#### Box 1 THE JUNCS FOODS: A NEW TERMINOLOGY

**J-** Junk foods (foods high in fats, especially saturated and trans-fats, sugars and salts, and foods lacking in micronutrients/minerals) [14]

**U-** Ultra processed foods (as defined in the fourth category of NOVA classification) [15]

**N-** Nutritionally inappropriate foods. Home-made foods can also qualify to be nutritionally inappropriate if prepared in recycled oil, or contain high amount of sugar, fat or salt.

**C-** Caffeinated/colored/carbonated beverages [16,17]

**S-** Sugar sweetened beverages [18]

(Ref: IAP JUNCS Guidelines. Indian Pediatrics, Vol 56 , Oct 2019

#### 2. Physical Inactivity:

It Causes 3.2 million deaths annually. Inadequate activity increases NCD risk by 20-30%. Eliminating inactivity could prevent 6-10% of major NCDs.

#### 3. Increased Screen Time:

Mass media influences unhealthy behaviors. More screen time reduces physical activity and increases obesity risk.

#### 4. Substance Abuse:

a. Tobacco: Linked to various cancers, especially lung cancer.

b. Alcohol: Causes 2.5 million deaths yearly and increases risk of liver diseases, CVDs, and accidents.

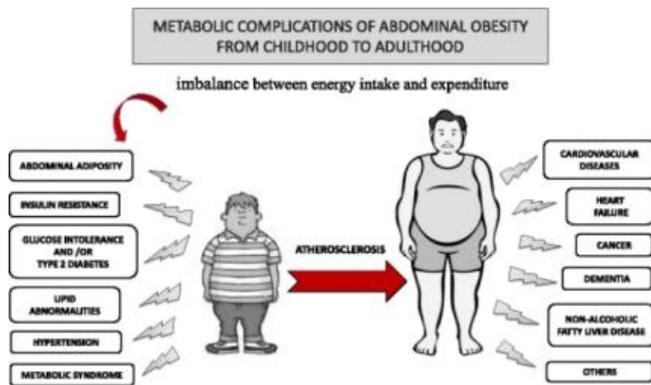
#### 5. Genetic Predisposition:

Family history of NCDs like hypertension or diabetes raises risk, leading to more health issues with age.

#### 1. Overweight and Obesity

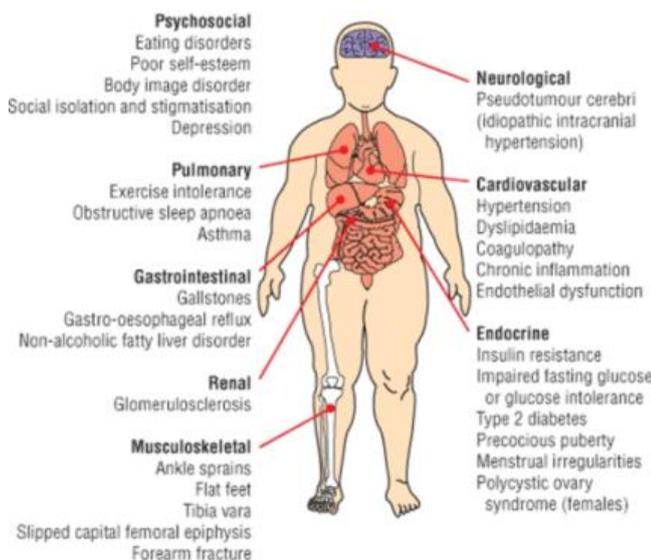
Overweight refers to excess body weight for

a given height, while obesity specifically means excess body fat. Childhood obesity often leads to metabolic syndrome, poor physical health, mental disorders, respiratory issues, and glucose intolerance, many of which continue into adulthood.



### Complications of Obesity:

Type 2 diabetes, asthma, snoring, and sleep apnea can disrupt sleep at night. Pickwickian syndrome is a severe type of sleep apnea. Obesity is also linked to psychosocial issues like stress, body image concerns, and depression.



### Complications of Obesity: IAP Textbook of Pediatrics (2013)

#### Metabolic Syndrome

Metabolic Syndrome (syndrome X) is insulin resistance syndrome. It is a group of risk

factors which increase the risk for coronary heart disease, stroke and type 2 diabetes. Central obesity and insulin resistance are risk factors for metabolic syndrome.

### Ø Criteria for Metabolic syndrome in adolescents:

**Table No.1 --The International Diabetes Federation (IDF)**

| Criteria        | 10-<16 years                                  | = 16 years (Adult criteria)   |
|-----------------|---|---|
| Obesity (WC)    | = 90 <sup>th</sup> Percentile                 | WC = 94cm (males)<br>= 80cm (females)   |
| Triglycerides   | = 150 <sup>th</sup> Percentile                | =150 mg/dL  |
| HDL-C           | < 40 mg/dL                                    | <40 mg/dL (males)<br><50 mg/dL (females)  |
| Blood pressure  | Systolic BP =130 or<br>Diastolic BP =85 mm Hg | Systolic BP =130 or<br>Ddiastolic BP =85 mm Hg o<br>treatment of previous<br>diagnosed hypertension |
| Fasting Glucose | = 100 mg /dL or known<br>T2DM                 | 100 mg/dL or known T2DM   |

Presence of central obesity and any two of the four factors given in above table is defined as MetS as per IOTF definition. IOTF definition is widely used and properly correlates among adolescents.

### ii) National Cholesterol Education Program's (NCEP) OR Adult Treatment Panel III (ATP III) definition for adolescents (12 to 18 years of age)

- Individuals with more than or equal to three of the following are considered at the risk for MetS.
- Age and sex specific waist circumference more than or equal to 90th percentile.
- Raised fasting plasma glucose level (equal to or raised 110 mg/dl)
- Raised serum triglycerides > 110 mg /dl
- Reduced serum HDL cholesterol equal to or less than 40 mg /dl
- Raised blood pressure more than or

equal to 90th percentile for age and sex.

## **2. Hypertension:**

Hypertension is a leading cause of cardiovascular mortality, affecting people of all ages. Evidence shows that it often begins in childhood and adolescence, though it is usually asymptomatic in early stages. This increases the risk of complications in adulthood. Detecting hypertension early can help identify those at risk for primary hypertension as adults, allowing for earlier intervention. Studies in India report hypertension prevalence in children and adolescents ranging from 0.46% to 11.7%.

### **OTHER NCDs:**

#### **A. Unintentional Injuries**

Unintentional injuries are the leading cause of death and disability among adolescents. In 2019, over 115,000 adolescents died in road traffic accidents, many as vulnerable road users like pedestrians and cyclists. Road safety laws need to be more comprehensive and strictly enforced, especially regarding alcohol and drug use. Young drivers should receive guidance on safe driving, with lower blood alcohol limits and graduated licenses with zero tolerance for drink-driving.

#### **B. Violence**

Interpersonal violence is the fourth leading cause of death among adolescents globally, with significant regional variations. Bullying affects 42% of boys, 37% of girls, and 1 in 8 report sexual abuse. This violence increases risks of injury, HIV, mental health issues, poor academic performance, and early pregnancy.

Prevention includes promoting early childhood development, addressing school bullying, developing life skills, and limiting access to alcohol and firearms. Effective care for survivors is essential for addressing physical and psychological effects.

#### **C. Mental health issues**

Depression and suicide are major concerns for teenagers, with mental health issues accounting for 16% of the global disease burden in those aged 10-19. Many adult mental health disorders begin before age 14, yet often go unnoticed and untreated. Factors like violence, poverty, and exclusion can severely impact mental health.

To improve adolescent mental health, it's vital to teach social and emotional skills, offer support in schools and communities, strengthen family ties, and ensure early detection and proper care by skilled healthcare providers.

#### **D. Alcohol and Tobacco use**

Adolescent alcohol consumption is a major public health issue, leading to reduced self-control, riskier behaviors, and increased chances of injuries, violence, and early death. Early alcohol use also impacts long-term health and life expectancy. Over 25% of 15-19 year-olds drink alcohol, with 13.6% engaging in heavy episodic drinking in 2016, mainly affecting males.

Tobacco use, often starting in adolescence, presents serious health risks. Comprehensive control measures, such as age restrictions, increased taxes, advertising bans, and smoke-free environments, are essential. Globally, at least 10% of 13-15 year-olds use tobacco, with varying prevalence by region.

## Approach to NCDs:

A thorough history and physical exam are crucial when evaluating obesity in children and adolescents. Referrals to specialists often address hormonal concerns or obesity-related issues like gynecomastia, embedded penis in boys, or irregular menstrual cycles, acne, and hirsutism in girls. Acanthosis nigricans may be present in both genders. Documenting family history of obesity, heart disease, hypertension, high cholesterol, diabetes, and cancer is important. Assessing the motivation of the adolescent and their family to adopt a healthy lifestyle is key. The aim is to promote healthy weight loss and prevent related health issues, considering the onset, duration, and rate of weight gain, along with the severity of obesity.

## HEEADSSS Assessment:

- **Home environment:** Obesity, Cardiovascular diseases, activity, parenting, Family Eating habits,
- **Eating habits:** type, time, schedule, regularity and frequency of eating junk, cold drinks
- **Education:** Performance in academics, bullying,
- **Activity (Physical activity):** Duration and type of exercise, use of media, pattern of sleep etc.
- **Drugs:** Medications like antiepileptics, antipsychotics, antidepressants, long term corticosteroids and use of drugs like marijuana, smoking.
- **Sexuality** pattern, polycystic ovarian disease

- **Screen** time: Television, mobile, computer and other screen viewing.
- **Suicidal** ideation, depression

**Physical Examination:** Should be done in detailed.

### a) **Anthropometric Assessment:**

Ø **Waist Circumference:** A key indicator of visceral fat and central obesity, waist circumference above the 70th percentile (based on Indian age- and sex-specific charts) is a marker for metabolic syndrome. A waist-to-hip ratio above 0.90 for males and 0.85 for females, as per WHO guidelines, indicates obesity.

Ø **Blood pressure (BP):** BP should be measured using an appropriate cuff size, with values classified according to the IAP centile charts. Readings above the 95th percentile are considered hypertensive.

Ø **Body mass index:** BMI is calculated using the formula: weight (kg)/height (m<sup>2</sup>). The 2015 IAP BMI centile charts by Khadilkar et al. are used to interpret values for Indian adolescents. A BMI between 3rd to 84th percentile is normal, BMI between the 85th and 94th percentiles indicate overweight, while a BMI above the 95th percentile signifies obesity.

The IAP BMI charts for children aged 5 to 18 years use cut-off percentiles equivalent to a BMI of 23 (overweight) and 27 (obesity) in adults.

b) Conduct a thorough examination to rule out other causes of obesity and detect complications. Assess Sexual Maturity Rating (SMR) with Tanner's Chart. Look for

signs like hirsutism, acne, pseudogynecomastia, goiter, and acanthosis nigricans, which may indicate type 2 diabetes or polycystic ovarian syndrome.

Ø Specific Investigations: Perform tests for thyroid function, growth hormone, and sex hormones (testosterone, FSH, LH, SHBG) as needed. Check for fatty liver and ovarian cysts via ultrasound, assess fasting insulin and metabolic markers for early signs of metabolic syndrome, and conduct cardiac evaluations, including ECG and echocardiography.

#### **MANAGEMENT:**

1. If there is no evidence of any NCD related symptoms and signs, the adolescent should be encouraged to lead healthy lifestyle.
2. If there is no evidence of NCD but high-risk family history, routine screening and preventive guidance is given.

Management of Overweight and Obesity: A multidisciplinary approach involving an adolescent physician or pediatrician, dietician, fitness coach, and counselor is essential. Management plans should be tailored to the individual, considering factors like age, sex, diagnosis, and severity of overnutrition, with realistic goals in mind. Long-term lifestyle modification is key. BMI should be used as a tool for management of over nutrition and obesity. BMI more than 30 or 95th percentile or more complete health checkup is recommended. BMI equal to 30 or between 85th and 95th percentile screening for health risks is advised.

1. **Medical Goal:** Set realistic weight loss targets, manage complications, and involve family and caregivers.

2. **Behavioral Goal:** Promote healthy eating and activity patterns, along with physical activity and behavioral therapy.

- **Diet modifications** to control calorie intake, guidance for how much, when and what to eat.

- **WHO Recommendation for Healthy Eating**

- Breastfeeding promotes healthy growth and reduces the risk of obesity and non-communicable diseases (NCDs) later in life.
- Energy intake (calories) should balance with energy expenditure. To prevent unhealthy weight gain, total fat intake should be under 30% of total energy, with saturated fats below 10% and trans fats below 1%.
- Limit free sugars to less than 10% of total energy intake.
- Keep salt intake under 5 grams per day (equal to less than 2 grams of sodium) to help prevent hypertension and lower the risk of heart disease and stroke.

#### **Increased physical activity.**

**WHO Recommendation** on Physical Activity for Children and adolescents aged 5-17 years

- Children and adolescents should engage in an average of 60 minutes per day of moderate-to-vigorous physical activity, mostly aerobic, across the week.

- Limit sedentary activities, especially recreational screen time.
- Behavioral Changes: Psychological counselling may be needed for stress management.
- Avoid Harmful Substances: Discourage the use of tobacco, alcohol, and substance abuse.

### **Prevention of unintentional injuries and accidents**

1. **Helmet Use:** Consistent helmet use while bicycling reduces head and brain injuries.
2. **Car Safety:** Children under 13 should ride in the back seat, and infants/toddlers should be rear-facing until at least age two.
3. **Pool Safety:** Fencing around swimming pools helps prevent drownings.
4. **Swimming Lessons:** All children should learn to swim by age four.
5. **Fire Safety:** Install smoke detectors, have a home escape plan, and teach children how to respond in a fire.

### **Key Messages:**

1. NCDs cause 20% of adolescent deaths.
2. Risk factors include poor diet, lack of exercise, excessive screen time, and genetics.
3. Raising awareness among adolescents, teachers, and parents about NCDs and risky behaviors is crucial.

4. Ensure 60 minutes of daily exercise for all adolescents.
5. Reduce sedentary lifestyles and screen time addiction.
6. Provide preventive counseling on avoiding tobacco and alcohol use.

### **Suggested Reading**

1. WHO. *Global status report on Non communicable disease*. 13 April 2021.
2. *Bhave's Textbook of Adolescent Medicine*. 2nd Edition. Page No 49-54.
3. *IAP Guidelines on the Fast and Junk Foods, Sugar sweetened beverages, fruit juices and energy drinks (JUNCS)*. *Indian Pediatrics* Vol 56, OCTOBER 15, 2019.
4. <https://www.who.int/news-room/fact-sheets/detail/adolescents-health-risks-and-solutions>
5. <https://www.who.int/news-room/fact-sheets/detail/healthy-diet>
6. Khadilkar VV, Khadilkar AV. Revised Indian Academy of Pediatrics 2015 growth charts for height, weight and body mass index for 5–18-year-old Indian children. *Indian journal of endocrinology and metabolism*. 2015 Jul 1;19(4):470-6.
7. Bhave S, Bavdekar A, Otic M. IAP National Task Force for childhood prevention of adult diseases: Childhood Obesity. *Indian Pediatrics* 2004;41:559-74.
8. *IAP Textbook of Pediatrics* (2013).
9. Barker DJ. *The origins of the developmental origins theory*. *J Intern Med*. 2007;261(5):412–417. Prevention of Unintentional Childhood Injury
10. DeGeorge KC, Neltner CE, Neltner BT. Prevention of unintentional childhood injury. *American family physician*. 2020 Oct 1;102(7):411-7.

# NCD PREVENTION ? ESSENTIAL LIFE STYLE CHANGES !



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## **Non-Communicable Diseases (NCD)**

These are non-infectious in nature and thus do not spread like communicable diseases. Most NCDs are chronic and last for a longer period of time. NCDs account for approximately 71% of global deaths. Furthermore, these deaths are concentrated in middle and low-income countries.

The four major death-causing NCDs are –

1. Cardiovascular Diseases
2. Cancer
3. Respiratory Diseases
4. Diabetes

Other contributory NCDs are

1. Essential Hypertension
2. Dyslipidemia
3. Obesity
4. Metabolic Syndromes
5. Rheumatoid Arthritis
6. Cerebrovascular Disease
7. Osteopenia/Osteoporosis
8. Degenerative Disc Disease
9. Depression
10. Cognitive impairment
11. Neurodegenerative Disease

## **RISK FACTORS FOR NON-COMMUNICABLE DISEASES -NO HUMAN IS SPARED!**

### **1. Genetic –**

- Genetic inheritance

- Family history of NCDs
- Mutations

### **2. Environmental Factors**

- Air pollution
- Weather Changes
- Sunlight (UV radiation)

### **3. Sociodemographic Factors**

- Age
- Gender
- Ethnicity
- Education
- Income

### **4. Self-management factors**

- Tobacco use
- Alcohol use
- Physical Activity
- Person's weight
- Food choices
- Dental health care
- Stress

### **NCD Survey Methods in Community**

#### **GSHS questionnaire (Global School Based Student Health Survey) of WHO**

The GSHS questionnaire is comprised of 10 core modules addressing the leading causes of morbidity and mortality among children and adults worldwide:

- alcohol use
- dietary behaviours
- drug use
- hygiene

- mental health
- physical activity
- protective factors
- sexual behaviours
- tobacco use
- violence and unintentional injury.

Countries must select at least six of the 10 core modules in their country-specific questionnaire. They may then add core-expanded questions for any module and add country-specific questions about topics of unique importance or interest.

#### **GSHS CORE QUESTIONNAIRE MODULE**

[\*\*https://www.who.int/publications/m/item/gshs-core-questionnaire-modules-\(2021\)\*\*](https://www.who.int/publications/m/item/gshs-core-questionnaire-modules-(2021))

#### **GSHS EXPANDED QUESTIONNAIRE MODULE**

[\*\*https://www.who.int/publications/m/item/gshs-core-expanded-questionnaire-modules-\(2021\)\*\*](https://www.who.int/publications/m/item/gshs-core-expanded-questionnaire-modules-(2021))

#### **INDIAN INCIDENCE OF NON-COMMUNICABLE DISEASES**

A) The latest **ICMR-INDIAB study**, which measured the prevalence of metabolic NCDs in the country, detected:

- 101 million people with diabetes,
- 136 million with prediabetes
- 315 million people with hypertension.

B) **National Noncommunicable Disease Monitoring Survey (NNMS)** was conducted during 2017–18 by ICMR-NCDIR. The survey covered a nationally representative sample of 12,000 households. It provides key national evidence on both behavioural and

metabolic risk factors for noncommunicable diseases (NCDs) among adults (18-69-years) and adolescents (15-17 years) residing in urban and rural areas, including national level indicators for health seeking behaviours and health system response to tackle NCDs.

Summary of findings:

High proportion of adults and adolescents from rural areas, used any form of tobacco and consumed alcohol. Prevalence of unhealthy dietary practices, insufficient physical activity and metabolic risk factors are high among urban residents.

#### **PREVENTION STRATEGIES FOR NON-COMMUNICABLE DISEASES:**

##### **Global Level (Primarily by WHO)**

Design National Policies and Plans. Support and Encourage Research for NCDs Prevention and Control. Monitor NCDs. Support National and International Partnerships for NCD Prevention and Control

##### **Country Level**

Budgetary allocations for NCDs in Primary Health Care Services. Engage NGOs, Research Institutions and Private Sector in collaborative partnerships for implementing NCD Prevention and Treatment Plans. Quality improvement systems to focus on Primary Health Care for NCD Prevention and Treatment Plans

##### **Society Level (Schools, Universities, Non-Governmental Agencies)**

Offer healthy food in workplace. Offer opportunities for physical activity in workplace. Offer mental health services at workplace

## Individual Level – FOCUS ON HEALTHY LIFESTYLE

### HEALTHY LIFESTYLE

#### a) Maintain a healthy diet:

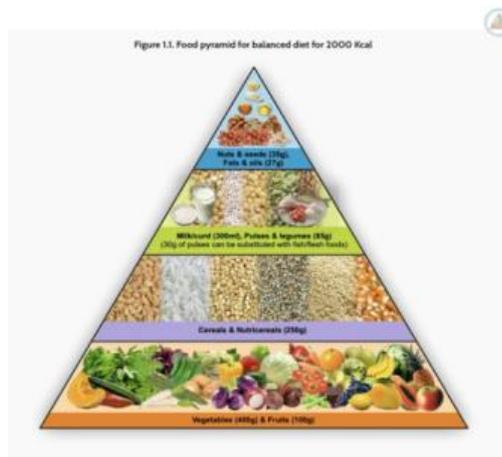
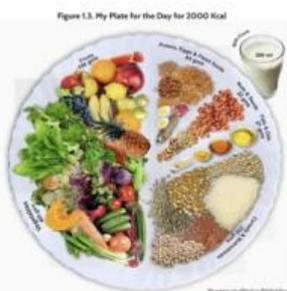


Table 1.1. Food Groups

| Group | Food Group                     | Examples   |
|-------|--------------------------------|--|
| 1     | Cereals and millets            | Rice, wheat, millets and other cereals, etc.   |
| 2     | Pulses                         | Lentil, green gram, chickpeas, rajma, soybean, etc.                                    |
| 3     | Vegetables                     | Seasonal vegetables  |
| 4     | Nuts, oil seeds, oils and fats | Peanuts, walnuts, almonds, pistachos, hazel nuts, and other nuts, vegetable oils, etc. |
| 5     | Green leafy vegetables (GLV)   | Seasonal GLV   |
| 6     | Fruits                         | Seasonal fruits  |
| 7     | Dairy                          | Milk, curd and buttermilk  |
| 8     | Roots and tubers               | Sweetpot, radish, carrots, legumes, sweet potatoes, etc.                               |
| 9     | Flesh foods                    | Marine fish, poultry and lean-cut meat   |
| 10    | Spices and herbs               | Turmeric (haldi), ginger, mustard, pepper, coriander, cumin, etc.                      |



#### b. Exercise

Regular exercise helps avoid NCDs and also strengthens the immune system, enabling the body to resist infections and diseases.

Table-1: Exercise Prescription for Children and Adolescents

| Type of exercise  | Frequency                                       | Duration        |
|---|---|-----------------|
| Moderate- or vigorous-intensity aerobic physical activity (such as running, hopping, skipping, jumping rope, swimming, dancing, and bicycling)                          | At least 3 days a week (Preferably daily). [13] | 60+ min per day |
| Muscle-strengthening physical activity (such as playing on playground equipment, climbing trees, playing tug-of-war, lifting weights, or working with resistance bands) | At least 3 days a week                          | 20-30 min*      |
| Bone-strengthening physical activity (such as running, jumping rope, basketball, tennis, and hopscotch)   | At least 3 days a week                          | 20-30 min*      |

[13] <http://www.health.gov/au/active/index>

\* After comfortable completion of 10-15 repetitions of an exercise, the resistance can be increased by 10%.

## School-Based Approach for Exercises

Schools can undertake a combination of strategies and approaches to help children be more active, including:

- Creating playgrounds and mandatory exercise periods.
- Creating analytical tools and systems to understand student's needs and fitness levels.
- Objective physical activity-related activities in the overall assessment.
- Engage students in moderate- to vigorous-intensity physical activity for at least 50% of physical activity class time.
- Activities and specific skills so that students are physically active not just during class, but throughout the day and across the school year.
- Providing qualified professionals for physical education, including for students with special needs.

## c. Stop Smoking

Not only does smoking make you susceptible to a host of NCDs, but it also compromises your respiratory system, making you more prone to illnesses like pneumonia and the common cold.

## Stages of Change in Smoking Cessation

A simple way of doing this is to establish whether and when a patient would be willing to consider quitting

- A patient who says "never" or "in more than six months" is in the pre-contemplation stage.

- A patient who says "in more than one month, and less than six months" is in the contemplation stage.
- A patient who says "in the next month" is in the preparation stage.
- A patient who says he or she is "cutting down" or "has set a quit date" is in the action stage.
- A patient who quit more than six months ago is in the maintenance stage.

## Treatment

### Precontemplation

Provide motivation to quit – 5 R's (Motivational Counselling)

1. **Relevance** - Encourage the patient to indicate why quitting is personally relevant.
2. **Risks** - Ask the patient to identify potential negative consequences of tobacco use.
3. **Rewards** - Ask the patient to identify potential benefits of stopping tobacco use.
4. **Roadblocks** - Ask the patient to identify barriers or impediments to quitting.
5. **Repetition** - The motivational intervention should be repeated every time an unmotivated patient has an interaction with a clinician.

### Contemplation and Beyond

5 A's

1. **Ask** - Identify and document tobacco use status for every patient at every visit.

2. **Advise** - In a clear, strong, and personalized manner, urge every tobacco user to quit.
3. **Assess** - Is the tobacco user willing to make a quit attempt at this time?
4. **Assist** - For the patient willing to make a quit attempt, use counselling and pharmacotherapy to help him or her quit.
5. **Arrange** - Schedule follow-up contact, in person or by telephone, preferably within the first week after the quit date.

## Pharmacotherapy

### NICOTINE REPLACEMENT THERAPY

Nicotine replacement therapy (NRT) works by releasing nicotine into your bloodstream to minimise or avoid cigarette and nicotine vaping cravings, and is considered a 'first-line' medicine for treating nicotine dependence. NRT comes in many forms, including: patches (to stick on your skin), chewing gum, lozenges, mouth sprays and inhalers

### PRESCRIPTION MEDICATIONS

Varenicline- Most effective. Bupropion is effective at helping people quit smoking but is considered less effective than varenicline and just as effective as NRT.

### d. Reduce Stress:

Stress is a silent contributor to many NCDs and dampens your immune system's response to fighting off infections.

## Parents can help their teen in following ways:

- **Monitor** if stress is affecting their teen's health, behavior, thoughts, or feelings
- **Listen** carefully to teens and watch for overloading
- **Learn** and model stress management skills
- **Support** involvement in sports and other pro-social activities

## Teens can decrease stress with the following behaviors and techniques:

- **Sleep well.** Experts recommend 8-12 hours of sleep at night. Avoid keeping digital devices in the bedroom.
- **Exercise.** Recommendation is for at least 60 minutes a day of activity for children ages 6 to 17.
- **Talk it out.** Talking about stressful situations with a trusted adult can help kids and teens put things in perspective and find solutions.
- **Make time for fun—and quiet.** Time to do what brings them joy. Find a healthy balance between favourite activities and free time.
- **Get outside.** Spending time in nature.
- **Write about it.** Research has found that expressing oneself in writing can help reduce mental distress and improve well-being.
- **Learn mindfulness**

## e) Maintain Hygiene:

**Body Odor** Regular bathing and change of clothes especially underwear

**Dental hygiene** Brushing teeth twice a day, flossing and going to the dentist regularly

**Feet** Should be completely dry before putting shoes on. Alternate shoes and to wear cotton socks

**Genitals Females** can wash their vulva with warm water and mild soap. **Periods** Counseling on how to use pads, tampons, period-proof underwear or menstrual cups.

Males can wash their penis and scrotum with warm water and mild soap, gently pulling back the foreskin, if present, to clean.

**Shaving Directions** on when to start shaving and how to do it.

## CONCLUSION

The socioeconomic costs associated with NCDs makes the prevention and control of these diseases a major development imperative for the 21st century.

## CASE STUDY

**PATIENT** Ms. L, 17 years and 5 months, female.

**Complaints**

Increased thirst, Frequent passage of urine

**Family history**

Mother with hypertension, father with heart failure.

**Past medical/social history**

No significant history

HEADDSS done.

PHYSICAL EXAM Height-173.1 cm (>97th percentile). Weight -107.2 kg (>97th percentile) BMI -35.8 kg/m<sup>2</sup> (>97th percentile). SMR 5. Appeared obese but did not look ill. Mental status was intact.

Blood Pressure of 137/81 mmHg (95–99th percentile).

### **SUGGESTIVE OF OBESITY**

LABS-HbA1c of 11.1%, Fasting plasma glucose level of 102 mg/dL, Insulin level of 23.12 µU/mL, and C-peptide level of 4.13 ng/mL.

### **SUGGESTIVE OF TYPE 2 DIABETES**

**MANAGEMENT** Oral medications. Life style modification- Diet and Exercise

**DIET** Regular meals with 70–75 g of proteins per day. Daily nutritional requirements of approximately 1,800 kcal. Low carbohydrate, low-fat diet, limit high saturated fats, track her intake. Aerobic and Weight exercises that improve muscle strength for more than 1 hour at least 3 times per week.

After 1 year, she incorporated a 7 km walk daily and Pilates more than 3 times per week to her exercise program

Assessed her adherence to therapy at 1–2 month intervals. Offered motivational support, and advised her to gradually increase her exercise duration rather than intensity. Measured her weight at every visit, maintaining equanimity!

Metformin needed increase to 1 gm twice daily

Four years later HbA1c decreased to 5.4% (Pretreatment-11.1 %). Metformin was

discontinued due to her successful glycemic control. Fasting blood glucose level was 97 mg/dL (Pretreatment-102 mg/dl) Insulin level was 5.62 µU/mL (Pretreatment- 23.12 µU/mL) C-peptide level was 2.13 ng/mL (Pretreatment-4.13 ng/ml). Her BMI was 27.1 kg/m<sup>2</sup> (Pretreatment- 35.8 kg/m<sup>2</sup>)

### **EFFECTIVE TREATMENT WITH DISCIPLINED LIFESTYLE MODIFICATION!!**

#### *References*

1. WHO FACT SHEET OF NON-COMMUNICABLE DISEASES-16th September 2023.
2. WHO Noncommunicable Disease Surveillance, Monitoring and Reporting- Global School Based Student Health Survey-2021
3. ICMR- National Institute of Nutrition- Dietary Guidelines for Indians-2024.
4. Consensus Physical Activity Guidelines for Asian Indians Misra A, Nigam P, Hills AP, Chadha DS, Sharma V, Deepak KK, Vikram NK, Joshi S, Chauchan A, Khanna K, Sharma R, Mittal K, Passi SJ, Seth V, Puri S, Devi R, Dubey AP, and Gupta S for Physical Activity Consensus Group (See Annexure 1) <http://idamumbaichapter.com/wp-content/uploads/2017/07/Consensus-Physical-Activity-Guidelines-for-Asian-Indians-Physical-Activity.pdf>
5. National Tobacco Control Programme- Government of India- 2007-2008

## EARLY HYPERTENSION IN AN OBESE ADOLESCENT



**Dr. Prashant Kariya**

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15-year-old Rohan was brought with complaints of easy fatigability, 'laziness' and body ache which was nonspecific. He also gained a lot of weight in last six months.

History: HEEADSSS details

### 1. Home Environment:

Rohan lives with his parents and younger sister. His father is an engineer with long working hours and mother is homemaker. Both the parents and their daughter are obese.

### 2. Education and Employment:

Rohan is in the 10th class, and he is average in studies. Often, he misses school due to tiredness. He also has difficulty in concentrating in class and he is often bullied by classmates for obesity.

### 3. Eating:

Rohan has food fads. He likes junk food more and his diet includes, in majority of time, fast foods and sugary drinks. He also likes chocolates. He eats large amount of food while watching screen. He usually skips breakfast and eats late at night. He eats quickly without chewing. Often in boredom he consumes large portions. He dislikes fruits. He is consuming 3000 calories per day with protein intake of 60 gram per day against the actual requirement of 2000-2400 calories per day and protein intake of 60-120 gram per day.

### 4. Activities:

Mobile – His screen time is more than 4 hours a day. He plays a free fire game online and also participates in some online

gambling games

Exercise – no physical activity as he is not good in sports and is often being bullied by friends.

Sleep – He sleeps by 12 PM and wakes up by 6 AM [6 hours]

### 5. Drugs:

Rohan is not inclined to use of tobacco or alcohol, not even for the short-term recreational purpose. His friends are also not consuming any drugs.

### 6. Sexuality:

Rohan is not currently in a relationship and has not been sexually active. He expresses no concerns regarding his sexuality.

### 7. Suicide/Depression:

Rohan feels self-conscious about his weight and has low self-esteem. He denies having suicidal thoughts but admits to feeling sad and frustrated with his appearance and health. Becked Depression Inventory screening was done which showed score of 12.

### 8. Safety:

There are no concerns about physical safety at home or school. However, Rohan reports verbal bullying related to his weight, which affects his social interactions and mental well-being.

### On Physical Examination:

-Height: 160 cm (50th percentile for age)

-Weight: 85 kg (above 95th percentile for age)

- BMI: **33.2 kg/m<sup>2</sup>** (**obese** category)
- Waist Circumference – 104 cm
- Waist to hip ratio – 1.2
- SMR Staging – Stage 5
- Blood Pressure: **145/95 mmHg** (hypertensive range)
- Other Findings: Acanthosis nigricans on the neck, abdominal fat distribution, no signs of secondary sexual characteristics abnormalities.

### **Investigations:**

#### 1. Blood Tests:

- Complete Blood Count (CBC)
- Fasting Blood Glucose
- Hemoglobin A1c
- Lipid Profile (Total cholesterol, LDL, HDL, Triglycerides)
- Liver Function Tests
- Thyroid Function Tests

#### 2. Urine Tests:

- Urinalysis (to check for proteinuria, hematuria)

#### 3. Imaging:

- Abdominal Ultrasound (to check for fatty liver disease)

#### 4. Cardiovascular Assessment:

- Echocardiogram (to assess for hypertensive heart disease)
- Electrocardiogram (ECG)

### **Diagnosis:**

- Primary Diagnosis: Obesity with early hypertension
- Secondary Diagnosis: Possible insulin resistance, dyslipidaemia and to rule out metabolic syndrome.

### **Management Algorithm:**

#### 1. Initial Assessment:

- Detailed medical history
- Complete physical examination
- Assessment of risk factors for cardiovascular disease

#### 2. Lifestyle Modifications:

- Diet:
  - Referral to a registered dietitian
  - Develop a balanced, low-calorie meal plan focusing on whole foods
  - Increase intake of fruits, vegetables, whole grains, lean proteins
  - Reduce intake of sugary beverages, processed foods, and fast food
- Encourage family meals with structured mealtimes

#### - Physical Activity:

- Encourage at least 60 minutes of moderate to vigorous physical activity daily
- Gradual introduction to enjoyable physical activities (e.g., walking, swimming, cycling)
- Limit screen time to less than 2 hours per day

#### - Behavioral Interventions:

- Cognitive-behavioral therapy to address eating behaviors and self-esteem issues

- Support groups or counselling for bullying and peer interaction difficulties
- Teach meditation or mind relaxation methods to deal with low self esteem

### 3. Medical Management:

- Hypertension:
  - Initial lifestyle interventions for 3-6 months
  - If blood pressure remains high, initiate pharmacotherapy (e.g., ACE inhibitors, ARBs, or calcium channel blockers)
- Obesity:
  - Monitor weight, BMI, and blood pressure at regular intervals
  - Consider pharmacotherapy for obesity if lifestyle modifications are insufficient and BMI > 95th percentile with comorbidities
- Associated Conditions:
  - Manage dyslipidemia with dietary changes and potential statin therapy if indicated
  - Address insulin resistance with lifestyle modifications and consider metformin if necessary

### 4. Monitoring and Follow-Up:

- Regular follow-up visits every 3-6 months to monitor progress
- Reassess blood pressure, weight, and BMI
- Repeat blood tests annually or as clinically indicated
- Adjust treatment plan based on progress and any emerging issues

### 5. Family Involvement:

- Educate family members on healthy

lifestyle practices

- Encourage family-wide adoption of dietary and physical activity changes
- Address family dynamics and support systems

### **Prognosticating Factors:**

Tracking hypertension from youth to adulthood requires an understanding of various prognostic markers that can indicate whether increased blood pressure in adolescence will remain into maturity. Here are several important prognostic factors:

#### 1. Family History

- A family history of hypertension, cardiovascular disease, or diabetes increases the probability of adolescent hypertension lasting into adulthood.

#### 2. Obesity

- Adolescents with obesity, particularly central obesity, have an increased risk of developing hypertension as adults. This includes an increased body mass index (BMI), waist circumference, and waist-to-hip ratio.

#### 3. High blood pressure readings.

- The severity and persistence of high blood pressure readings during adolescence are strong factors. Persistent prehypertension, or stage 1 hypertension, is more likely to last until adulthood.

#### 4. Metabolic Syndrome: Insulin resistance,

dyslipidemia, and abdominal obesity are major predictors of chronic hypertension.

5. Ethnicity - Certain ethnic groups, such as African Americans, have a higher risk of developing chronic hypertension, making ethnicity a significant prognostic factor.

6. Lifestyle Factors Unhealthy lifestyle choices, such as a high salt diet, insufficient physical activity, and high stress levels, might lead to the persistence of hypertension.

7. Socioeconomic level: Lower socioeconomic level is linked to higher risk due to variables such as restricted healthcare access, poor food, and greater stress.

8. Gender: Males have a larger risk of having persistent hypertension than females, though this may vary by population.

9. Early Adolescent Hypertension is more likely to continue throughout adulthood than late-onset hypertension.

10. Renal and Cardiovascular Health: Early symptoms of renal or cardiovascular disease, such as microalbuminuria or left ventricular hypertrophy, are linked to a higher risk of chronic hypertension.

Monitoring these characteristics allows healthcare providers to better predict and control the evolution of hypertension from childhood to adulthood.

### **Conclusion:**

Rohan's case highlights the complex interplay between lifestyle, environment, and health in adolescents. Early identification and comprehensive management of obesity and associated hypertension are crucial to prevent long-term cardiovascular and metabolic complications. A multidisciplinary approach involving medical, nutritional, psychological, and family support can significantly improve outcomes and quality of life for adolescents like Rohan.

# IMPORTANCE OF SOCIAL CONNECTEDNESS IN ADOLESCENTS



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All of us know the importance of maintaining a healthy lifestyle in terms of a **nutritious diet, adequate exercise, restorative sleep, stress management** and **avoidance of addictive substances**, and as paediatricians, we regularly question our adolescents and their parents about the same. But how often do we delve into their **social connectedness**? Almost never!



Why is this important? A study that emphasises **t h i s** wonderfully

is the **Harvard Grant Study of Adult Development: 1938–2022**, which startlingly revealed that close relationships, more than money or fame, are what keep people happy throughout their lives. Good social ties with friends, family and peers protect people from life's discontents, help to delay mental and physical decline, and are better predictors of long and happy lives than social class, IQ, or even genes (FUCHSMAN, 2023).

Then we have loneliness, which WHO has declared a 'global public health concern', the effects of which can be as bad for an adolescent's health as smoking 15 cigarettes a day! Lonely people have a



50% decreased likelihood of survival compared to the socially integrated, an effect that is stronger than excess alcohol consumption, obesity, and failure to exercise (Holt-Lunstad J, 2010).

In adolescents, loneliness, particularly **p e r c e i v e d** or subjective impression of **social isolation** is on the rise (Brett Laursen, 2013). Spending time with parents during weekends is perceived as isolation! Onset of **pubertal changes**, success or failure in the search for **romantic relationships**, and **physical attributes** like skin colour and acne contribute to how popular (or not) the child sees him/herself to be. **Poor parental support** and **frequent family conflict** can intensify the depressive effect of this perceived isolation (DeLay, 2012).



How can we as paediatricians help them to be more socially connected, and hence less lonely? We can start by encouraging the forming of new social connections, and then strengthening of existing ones (American College of Lifestyle Medicine, n.d.).

**An adolescent can form new social connections by:**

**Volunteering** at a social event, club or library, or just helping a relative or neighbour. The child thus helps others



improve health, increases his/her own happiness and may meet new people

Joining **Online or community groups** of those who share the same interests – meetup.com or Facebook groups are great places to look.



Joining **Religious, Ideological or Spiritual groups**, for children who are so inclined

Helping at a **Local Animal Shelter**, or adopting a pet to connect with other animal lovers



Going to **local sport events, performances, lectures, book readings, or art displays**



Helping **organize community events** by joining a steering committee or board



Attending community celebrations like **parades or walks**

**Existing social connections can be reinforced by:**



**Connecting with people** they see a lot

during the week, be it at school, coaching classes or sports activity

**Staying positive** while connecting with others. Teach them to see the positive side of each situation, and suppress the urge to point out the negative ones



**Sharing new experiences**

with existing friends and relatives, be it **concerts,**

learning to dance or discussing books



**Making time for** parents, grandparents, neighbours and friends, **and helping others**, especially in times of need



Being **flexible, supportive and excited** about what others are doing in their lives

What about the **parents**? What paediatricians must stress upon is the fact that adolescents **need their parents more now**, than when they were children. We can help foster bonding and closeness by advising parents to:



**Connect before you correct.** Develop an emotional connection with the kids first, and then gently correct any perceived faults.

Connection is important because adolescents need at least one adult who believes in them, to whom they can turn to in times of need.

**Do not invalidate their emotions.**

Accept the child's anger, fear, anxiety, sadness and even jealousy; and patiently help them confront each of them when the time is right



**Respect their choices** of clothes, hairstyle, music etc. Choose your battles when you contradict,

and avoid being a nag about things that do not actually matter much

**Give them reasonable autonomy.** Set certain boundaries, but within those boundaries do not interfere too much and too often



Point out to parents that **parent as a mentor** is better than parent as a preacher or decider. Be there when you are wanted by them, but maintain a distance when they so request

Teach them **assertiveness**, support and help **build resilience**, particularly when dealing with failure



Let us **empower** parents to leverage the power of relationships and social connectedness, which in turn can help reinforce healthy behaviours in their adolescents.

#### *Bibliography*

*American College of Lifestyle Medicine. (n.d.). Retrieved from <https://lifestylemedicine.org/>*

*Brett Laursen, A. C. (2013). Understanding loneliness during adolescence: Developmental changes that increase the risk of perceived social isolation. Journal of Adolescence, 06.003.*

*DeLay, H. C. (2012, August 2). Perceptions of parental support buffer against depression for Brazilian youth with interpersonal difficulties. International Journal of Behavioral Development, 37(1), 29-34.*

*FUCHSMAN, K. (2023). Harvard Grant Study of Adult Development: 1938–2022. Journal of Psychohistory, 51(1), 27.*

# TACKLING ADOLESCENT SLEEPING DISORDERS



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## Abstract

Adolescence is often accompanied by significant disruptions in sleep patterns. These disruptions can manifest as common disorders including Insomnia, Delayed Sleep Phase Syndrome, Sleep Apnea, Restless Legs Syndrome, and Narcolepsy. The impact of these disorders is profound, affecting cognitive function, academic performance, mental health, and physical health. This article explores the causes, impact, and interventions for these disorders, providing evidence-based strategies for healthcare providers, educators, and parents to improve adolescent sleep hygiene and address sleep disturbances effectively.

## Introduction

Adolescence is a critical developmental period marked by profound physical, emotional, and social changes. These changes often lead to disruptions in sleep patterns, contributing to the prevalence of sleeping disorders among adolescents. According to recent CDC data, about 40% of adolescents report inadequate sleep duration, significantly affecting their daily functioning and long-term health. Nearly one in four adolescents suffers from some form of sleep disorder, including insomnia, sleep apnea, and restless legs syndrome [1-3]. These disorders not only disrupt daily activities but also pose severe risks to mental and physical health. Understanding and addressing these disorders is crucial for

better health outcomes and overall well-being.

## Types of Adolescents Sleeping Disorders

Adolescents can suffer from a variety of sleep disorders, each with unique characteristics and impacts. **Insomnia** is one of the most common conditions, characterized by difficulty falling asleep, staying asleep, or waking up too early, which leads to fatigue, mood disturbances, and reduced performance [2]. Stress, anxiety, depression, poor sleep hygiene, and irregular schedules are common causes of insomnia. Another prevalent disorder is **Delayed Sleep Phase Syndrome (DSPS)**, a circadian rhythm disorder that causes difficulty in falling asleep at conventional times and excessive daytime sleepiness [4]. DSPS is often influenced by natural shifts during puberty and late-night screen use [4].

**Sleep apnea** is a serious condition where breathing repeatedly stops and starts during sleep, leading to loud snoring, gasping, and daytime sleepiness. Factors such as obesity, enlarged tonsils, and genetics contribute to sleep apnea [2,3]. **Restless Legs Syndrome (RLS)** is a neurological disorder characterized by an urge to move the legs, causing difficulty falling or staying asleep. Causes of RLS include nerve damage, iron deficiency, certain medications, and other health

conditions [3]. Lastly, **Narcolepsy** is a chronic sleep disorder marked by excessive daytime drowsiness and sudden sleep attacks, which may be caused by genetic factors or abnormalities in brain chemicals [2,3].

### **Causes of Adolescent Sleeping Disorders**

The causes of adolescent sleeping disorders are multifactorial, involving biological, psychological, behavioral, and environmental factors. **Biological factors** play a significant role, with natural delays in the sleep-wake cycle during adolescence making early sleep and wake times challenging [2]. The circadian rhythm, which regulates the sleep-wake cycle over 24 hours, shifts during puberty, causing adolescents to prefer later bedtimes, which conflicts with early school start times and results in chronic sleep deprivation [2,4]. Hormonal changes during puberty, including fluctuations in testosterone, estrogen, and growth hormones, also affect sleep regulation, with the delayed production of melatonin making it difficult for adolescents to fall asleep early [1-3].

**Psychological factors** such as increased academic pressures, social dynamics, and family issues elevate stress and anxiety, leading to difficulty sleeping [1,2]. Stress and anxiety activate the body's stress response system, increasing cortisol production, which interferes with sleep. Conditions like depression and anxiety can alter sleep patterns and create a cycle of poor sleep and worsened mental health. Depression affects sleep architecture by

increasing REM sleep and decreasing deep sleep, while anxiety causes excessive worrying and rumination, hindering sleep.

**Behavioral factors** include poor sleep hygiene, such as irregular schedules, late-night screen use, and caffeine consumption, all of which disrupt sleep [3]. Irregular sleep schedules make consistent sleep-wake cycles difficult to maintain, while late-night screen use exposes adolescents to blue light, suppressing melatonin production [3]. Substance use, including alcohol, nicotine, and recreational drugs, also interferes with normal sleep patterns. Alcohol reduces REM sleep and causes frequent awakenings, nicotine increases alertness and hinders sleep, and recreational drugs disrupt sleep patterns and reduce sleep quality.

**Environmental factors** such as early school start times conflict with natural sleep patterns, leading to sleep deprivation and related issues [3]. Exposure to artificial light, especially blue light from screens, suppresses melatonin production and delays sleep onset, further compounding the problem.

### **Impact of Adolescent Sleeping Disorders**

The impacts of adolescent sleeping disorders are profound and far-reaching, affecting cognitive, emotional, and physical health. Sleep deprivation impairs cognitive processes such as attention, memory, and executive function, which in turn affect academic performance and learning [1-5]. Adolescents with sleep problems struggle to concentrate, process information, and

solve problems effectively, leading to lower academic achievements. Additionally, chronic sleep problems are associated with increased risks of depression, anxiety, and mood disorders [2]. Poor sleep exacerbates existing mental health issues, creating a vicious cycle where sleep problems and mental health issues feed into each other. Adolescents with sleep disorders often experience mood swings, irritability, and emotional instability, which negatively affect their social interactions and overall quality of life [2,3].

Physically, insufficient sleep is linked to various health problems, including obesity, diabetes, cardiovascular issues, and weakened immune function. Chronic sleep deprivation disrupts metabolic processes, increases the risk of weight gain, and impairs glucose metabolism, contributing to obesity and diabetes [2]. Poor sleep also weakens the immune system, making adolescents more susceptible to infections. Moreover, adolescents with sleep disorders may exhibit increased irritability, impulsivity, and risk-taking behaviors. Poor sleep affects social relationships, increasing the likelihood of conflicts and negatively impacting overall quality of life. Adolescents with sleep problems are more prone to engage in risky behaviors, such as substance use and unsafe driving, due to impaired judgment and reduced impulse control [2,3].

### **Strategies for Managing Adolescent Sleeping Disorders**

Addressing adolescent sleeping disorders requires an approach that includes

promoting healthy sleep hygiene, addressing psychological factors, implementing educational interventions, and seeking professional help.

#### **Promoting healthy sleep hygiene**

involves maintaining a regular sleep-wake schedule to regulate circadian rhythms. Reducing screen exposure at least an hour before bed is crucial to prevent melatonin suppression, and encouraging relaxing activities such as reading or practicing relaxation exercises can also help [2,3]. Ensuring a dark, quiet, and cool bedroom environment enhances sleep quality. Using blackout curtains to block out light, earplugs or white noise machines to mask background noise, and keeping the bedroom temperature cool are effective measures [2-4]. Additionally, ensuring the bed is comfortable and reserved for sleep and relaxation only is important.

#### **Addressing psychological factors**

involves teaching stress management techniques like mindfulness and relaxation exercises to reduce stress and improve sleep. Introducing mindfulness practices such as meditation or deep-breathing exercises can calm the mind before bed. Encouraging physical activities like yoga, which combine movement and relaxation, is also beneficial. Time management skills, such as prioritizing tasks and breaking down large projects, can help reduce academic and social pressures. Providing access to mental health resources and support for conditions like anxiety and depression is crucial. Schools can offer

mental health resources, including counseling services and stress-reduction workshops. Parents should maintain open communication with their adolescents and encourage them to seek help when needed [3].

**Educational interventions** are essential for raising awareness about the importance of sleep and promoting healthy habits. Educating adolescents, parents, and educators on the significance of sleep can be achieved by integrating sleep education into school curriculums, health classes, or wellness programs. Organizing workshops and seminars for parents to provide strategies for supporting their children's sleep health is also important. Using informational materials, such as pamphlets or online resources, to disseminate evidence-based sleep information can be effective. Advocating for later school start times to align with natural sleep patterns is another important strategy [2,3]. Working with school boards, administrators, and policymakers to shift school start times to a later hour is necessary. Research shows the benefits of later start times, including better academic outcomes, reduced absenteeism, and improved sleep. Encouraging community involvement and support for policy changes is also important.

**Seeking professional help** is crucial for adolescents with persistent sleep issues. Cognitive Behavioral Therapy for Insomnia (CBT-I) is an effective treatment that helps change thoughts and behaviors affecting sleep. Referring adolescents to a licensed therapist trained in CBT-I can be beneficial. The therapy typically involves techniques

such as stimulus control, sleep restriction, cognitive restructuring, and relaxation training. Consulting sleep specialists for conditions like sleep apnea and RLS, and using treatments like CPAP therapy or medications, is also necessary. If an adolescent exhibits symptoms of sleep apnea, such as loud snoring or gasping for air during sleep, referring them to a sleep specialist for evaluation and possible polysomnography (sleep study) is important. Treatment options may include continuous positive airway pressure (CPAP) therapy, dental appliances, or surgery. For restless legs syndrome, medical evaluation and treatment, including iron supplements or medications, may be necessary [3].

## **Conclusion**

Addressing adolescent sleep disorders requires a thorough approach involving healthy sleep habits, psychological support, education, and professional treatment. The prevalence of these disorders and their significant impact on mental and physical health call for effective management strategies. It is recommended that adolescents have 8-10 hours of sleep regularly [5]. By promoting consistent sleep schedules, reducing screen time, creating conducive sleep environments, managing stress, and seeking professional help when needed, we may improve sleep quality and overall well-being for adolescents. Collaborative efforts are required from healthcare providers, educators, parents, and policymakers to reduce adverse effects of sleep disorders and promote healthier, more productive lives for adolescents.

## **Limited References**

1. Carskadon, M. A., & Acebo, C. (2002). Regulation of sleepiness in adolescents: Update, insights, and speculation. *Sleep*, 25(6), 606-614.
2. Owens J; Adolescent Sleep Working Group; Committee on Adolescence. Insufficient sleep in adolescents and young adults: an update on causes and consequences. *Pediatrics*. 2014 Sep;134(3):e921-32. doi: 10.1542/peds.2014-1696. PMID: 25157012; PMCID: PMC8194472.
3. Mindell, J. A., & Owens, J. (2015). *A clinical guide to pediatric sleep: Diagnosis and management of sleep problems (3rd ed.)*. Lippincott Williams & Wilkins.
4. Crowley S. J., Acebo C., & Carskadon M. A. (2007). Sleep, circadian rhythms, and delayed phase in adolescence. *Sleep Medicine*, 8(6), 602-612.
5. Hirshkowitz M, Whiton K, Albert SM, et al. National Sleep Foundation's sleep time duration recommendations: methodology and results summary. *Sleep Health*. 2015 Mar;1(1):40-43. doi: 10.1016/j.sleh.2014.12.010. Epub 2015 Jan 8. PMID: 29073412.

## Impact of Lifestyle while Growing Up in An Academically Stressful Environment



### Nitya Vaish

a 17 year old in the B.Com [hons] program at the Delhi university resides at Dewas, MP and aspires to serve as an officer in the Indian Army

The modern-day world has infinite number of stressful situations to tackle with. One such is growing up in the existing competitive environment. Kids and teens, surrounded by unending expectations, break under the cumbersome weight of academic burden. The stress also grows as the child does, pressure can arise from family, teachers, and ourselves too. Other reasons like peer pressure, increasing number of competitors and limited number of opportunities also contribute to the elevation of stress that may hinder performance too.

The way one lives has the biggest impact on how mentally stable and strong we are and how efficiently we can deal with problems and stress. A balanced lifestyle consistently inculcates discipline and self confidence in us which is a huge need during our growth years.

Lifestyle predominantly focuses on our habits. Growing up and facing academic pressure sometimes makes children pick up abysmal and harmful habits including laziness, addiction, reacting to situations aggressively, procrastination etc.

Beneficial habits that focus on health and body positivity need to be instilled in children's lives. Exercising, participating in sports, eating a healthy and balanced diet, and engaging in productive activities and hobbies are key steps towards a stress-free healthy lifestyle. These habits not only establish discipline in a person's life but also balance one's hormones and keep one's mood calm and stable.

Proper sleep helps the body and brain to recover from fatigue and provides energy to work efficiently. Disturbed sleep schedules are fashionable these days, especially among students but without their knowledge, this damages them both physically and mentally. Children decrease the hours of their sleep in unhealthy manners for various reasons, one of the most popular being, for studying extra hours in the desire to perform better. Staying up late at night, whether it is for watching a movie or studying, disturbs the functioning of the brain which makes stress management difficult for students.

.The way we think also impacts our lifestyle in a huge way. In the current academic race, many students feel like they are lagging behind and start considering themselves as failures, often giving up on themselves We become what we think. Hence, students need to concentrate on having emotional stability by avoiding negative thoughts. Over thinking, procrastination and self-doubt trigger stress in students. We must identify these issues and work upon them by following certain practices and bringing changes in our lifestyles. From physical exercises like yoga to mental exercises like meditation may help in relaxing academic pressures. Letting out all kinds of emotions to a trusted confidant is another way of destressing. Although, seriousness towards one's aims is necessary, one should not turn it into stress.

Healthy Lifestyle practices in all aspects impact a student's growth in this highly competitive environment and should be primarily prioritised when dealing with stress.

## ADOLESCENT AND YOUNG ADULT PAGE



**Nirav Shankar**

*Nirav Shankar, a twenty-year-old Aerospace Engineering undergrad at University of Washington in Seattle, was asked these questions.*

Nirav, Hi! Thank you for agreeing to be my subject of interrogation. You are speaking with a high school student in his first year

1. He asks you what is important to know regarding choosing and making friends and keeping them
2. How does one balance physical activity, sleep, hobby and academics in a 24-hour day
3. How to handle peer pressure to do things one does not want to?
4. How can one help out a friend that seems to have depression?
5. What were your own battles you would want to share?

Nirav wrote back promptly.

'Speaking from my own experience, friendships tend to form themselves in school settings. Particularly in high school, where students have a wider variety of classes and activities to choose from, people are able to more easily find people with similar interests or goals. Connecting with these people has also happened fairly naturally in my experience, since you'll be spending several hours every week in class with them and will likely be talking to them about the classwork you'll be given. Keep in

mind that others might also be looking for friends as well, since high school is probably a relatively unfamiliar environment for them as well.

I've found that these friendships tend to naturally maintain and grow themselves as well. Spending time with people in class or during lunch or break periods will maintain a connection between you. The most common way for friends to drift apart is a lack of interaction between them, but I've found this fairly unlikely in school, especially if you share a class with them. Even if two people don't share classes, eating lunch at the same place each day can maintain this interaction and connection between them.

In high school in particular, people often find themselves getting involved in lots of new activities, such as sports, clubs, and various hobbies. With all these new activities combined with academic work, it might seem a bit difficult to fit them all into your schedule. I've found the best way to balance each of these is to set aside time each week for each of these. School, club meetings, and sports teams already meet at set times during the week, so most of the work in building a good schedule comes from fitting the remaining activities into your time each week. This probably won't happen on your first try; It'll take some time to find a schedule that works well for you. For example, if there's a particularly difficult



class with homework due on Fridays, it might be a good idea to leave some room in your schedule on Thursdays to finish up homework or study for a test for that class. And definitely don't compromise on sleep. Just like sometimes with computers, turning your brain off-and-back-on-again tends to improve both your mood and ability to think.

I'm doing two extracurricular activities in college: one is an engineering club designing and building a remote-controlled plane for a competition in the spring, and the other is a casual gaming club that hosts weekly events.

High school can be a stressful time, since everyone generally has more going on in their lives. More schoolwork, more extracurriculars, more difficulty. In situations like these, it's not uncommon for people to fall into depressive states. While I don't have much advice to give on this topic, I think it's generally a good idea to keep an open line of communication with them and to give them someone they can rely on. Each situation will be different, but being there for them can help relieve them of some of the stress they might be feeling.

As I've grown up throughout high school and into college, there have been many times when I feel unprepared for a situation or like I don't know what I'm doing. It may seem like the people around you have everything figured out and are comfortably sailing along in their lives while you are constantly struggling to figure out what to

do. In reality, though, nobody is ever 100% sure about what they are doing. Everybody has their own struggles, uncertainties, and new situations they face every day and have to figure out how to solve. If you ever feel out of your element, just remember that others are in your same situation and just like them, you'll find a way through.

## IAP - AHA ADOLESCENT HEALTHCARE WEEK

We will be celebrating Adolescent Health Care Week from 7th October to 13th October 2024.

The Themes for IAP-Adolescent Health Care week this year are :

**Teenage Day** : Bridging the gaps today for a better tomorrow (Suggested by : Dr. Shilpi Siddhanta)

Incharge : Dr. Ashim Ghosh, Dr. Gayatri Bezboruah

**Life Style Day** : Perfect Lifestyle makes Stronger Lifeline (Suggested by : Dr Sarala Sabhpathy)

Incharge : Dr. Prema R, Dr. Deepa Jardhanan

**Daughter's Day** : Holistic Development for our Daughters (Suggested by : Dr. Shalini Bhasin)

Incharge : Dr. Shalini Bhasin, Latika Bhalla

**Adolescent Week** :

Resilience Unlocks Opportunities (Suggested by : Dr. Nishikant Kotwal)

Incharge : Dr. Nischal Bhatt, Dr. Nishikant Kotwal

Special thanks to entire team who did work in mission mode

We have prepared ppt , resource material , press notes of each theme.

Sharing the google link : IAP-AHA ADOLESCENT HEALTHWEEK 2024 - RESOURCE MATERIAL - [https://drive.google.com/drive/folders/1KEfoSdt2MRLu4RfIxxgelGEHa\\_Z4p\\_3Us?usp=sharing](https://drive.google.com/drive/folders/1KEfoSdt2MRLu4RfIxxgelGEHa_Z4p_3Us?usp=sharing)

(compiled Dr Samir Shah)

You can utilise the content and arrange the programs Physically / Online in schools , community, hospitals, clinics

## INTERNATIONAL ADOLESCENT HEALTH WEEK

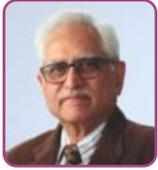


Dr. Samir Shah is the Lead for the Society of Adolescent Health Medicine (SAHM) Special Interest Group (SIG) International Adolescent Health Week (IAHW) 2024-26



Yashwanth Sirisati, Youth Ambassador from India to the International Adolescent Health Week Celebrations

## Generational Changes in Adolescent's Life - A Look Back in Contemplative Mood



**Dr. Nishikant Kotwal**

MD DCh CAHC, Nagpur

Our generation was better than this generation, was a sentence I hear from every next generation. My father had similar views about my generation and I was having same feelings for my son's generation and now my son repeats the same feelings about my grandson's generation.

Change is inevitable. The changes occur because of changes in environment we live. So, in this article I have tried to picturise changing scenarios and I have taken nutrition, activity, competition, safety, security and threats.

During my time we had limited items in food and even time of meals was fixed. The sweets were available only on occasion. The result was limited choices were available and disparity was less. On the flip side, there were more malnourished children, stunted growth, vitamin A and D deficiency, and protein energy malnutrition.

I am just writing and checking what has changed in adolescence life.

Years back, when I was a child, we had open grounds, safety, security and more time for play. We used to safely play outside our house and the games were mostly physical or cricket or indoor games like badminton. The reason behind all this was the availability of open spaces and there was total security for children to play outside.

Then came the era of my child, when he became an adolescent, the whole atmosphere changed. The family was shifted from a small rural background to an urban setting but still there were grounds.

So, it was more of a mixture of outdoor games and indoor games and there were a lot more school competitions. The competitions used to be only by the school or by the board and there were no private bodies which were involved.

It was more for honour and a prestige for the school. Everybody was dependent on either school sports or indoor games only, that was the shift from outdoor to indoor.

The next era was of my grandchild. For him outdoor games were not available freely, but the schools had already transformed into academic as well as sports institutions. But they were not available freely to a common adolescent. Security was very low and that is the time when outdoor shifted to indoor games, media gaming and adolescents had to face all the problems of these games.

### ***Competition in academic and extracurricular activity***

When I was adolescent that time there was more focus on academic activities. The teachers were good, the schools were dedicated but the resources available to the



school were very less. So, the era was dependent totally on teachers. Parents used to trust the teacher, their capability, their qualities and their assessment about our child.

The tuition classes were for only those who are not performing well those days. The classes were conducted by the school teacher without any remuneration. So, people accepted the different capabilities of different children.

School competition sports, arts and skill development. Though there was more emphasis on academics, sports also had its place and respect among students.

Then came the era of my child when he became an adolescent- things that changed, the public school had entered into education business. The corporation schools had little resources and their views were not updated.

Few schools were still there, known as academic institutes. But they had less resources, so entered the tuition classes. The society that time realised that if you get admission in a better institute, your future is secure and then started the class divide which was on financial capabilities and community. Naturally the society was divided and there was more stress which was coming on adolescent for their performance because parents had to shell money from their pocket. Still society was good, security was coming down and because of division, competition was becoming a little worse.

Then came the era of my grandson during his time it was mostly the affordability. Paying for better schools where better facilities were available became the norm! But the flip side of this was, there were still tuition classes tailor-made for increasing your performance and so the importance of school started coming down, involvement of teacher became less and money started playing its role. So, the sports/games were made for those who were talented.

The rest went for video games for satisfaction because they were academically oriented but without resources. The result was insecurity, severe competition and depression. Children became vulnerable in society but still adolescents performed very well. This is the time, when even the marriage culture had changed and children suffered because of breaking marriages and joint families and maltreatment.

### ***Threats, safety and security***

These three are very important factors in life. During my time when I was an adolescent there were no threats from persons, whether it is friend. The only threat was of physical injuries because of road accidents or some sports injuries. So, security was good. People staying in the community or neighbourhood knew each other and that is why nothing bad happened. Safety was because people were not violent and they used to think about their family welfare or society.

When my son became an adolescent, the societal change had occurred. Now in society nobody knew each other and that is why safety decreased. Security was also less because people wanted to grab money from each other. The threats also increased. It was not only the threat of physical harm but it was threat of extortion, competition, lies and jealousy. But still the society was not bad and security safety threads were at lower level.

Then the era changed totally for my grandson because of the internet. It was available in everybody's house. So, the threat was not only physical but it was for psychological and mental health also. Previously adolescents used to worry about physical damage. Psychological upsets were less because the buffers in family were existing. But now these family equations have changed. We have unit family and that is why we became more vulnerable. Dependable friend circle because of competition became small, the number of trusting friends reduced. The major threat came from internet because now we were exposed. Whatever messages we sent to each other became more public so blackmailing, bullying, cyber-crime became easy. So, in society, suicidal deaths and the morbidity because of anxiety and depression and a mortality from road accidents, almost became equal.

Apart from these I see a great change in socio-economic status of country. During my adolescent days TVs were not available. Choices were limited, food choices also were limited and purchases were only

during festival season.

During my son's adolescence TVs were available but the brands and channels were limited, hotels were available but homemade food had upper hand and mobiles were available but data was very costly. My grandson's adolescent days have more choices, more disparity, more false ideas of social status and the whole world has become more materialistic, spirituality going down and so there is loss of mental peace and comfort.

This is a time when we must look back. I know these adolescents have also done well because the changes were from their childhood and the threat perception was known to them but it is the duty of society now to create a better atmosphere for adolescent's physical mental and psychological development.

We must reduce these non-communicable malaises. Diseases which are not caused by microorganisms should decrease and the society becomes safer, more secure and free for our adolescents



## UNREACHABLE DREAM ! A Plea from the Girl Child



**Dr. Neha Agarwal**

*Dr. Neha Agarwal is an Associate Prof and HOD Dept. of Ped. Nephrology at SMS Medical College Jaipur. This poem written when she was a senior resident 11 years ago, still echoes in today's young world. Her compassionate focus at work is on the adolescent with chronic renal disease.*

Born in the womb of my mother,  
Had I not wondered, if my existence would be a bother.

Not known what made me so unique,  
My genetic character ... being XX my cliché.  
Sure, my grandma would have not been so hurt, first being the fairer Sex  
Aspiration for more, as would come  
In her thoughts ... A male child would it become?  
Against all odds. Education was not a hard climb,  
Reaching for our goals, a proud moment in time.  
No, not for all.  
I reached the zenith in my life as I thought,  
Becoming what I aspired to, what my dreams sought.  
The comma in the essay of my story,  
Was after all a necessary part ... Not too sorry!!

To ponder ... Me, mine, and I were lost on the foggy road  
As roles of wife, daughter in law, mother began to unfold.  
Gone in the wind, were my tempest thoughts  
My break from the ordeal, the fewest minutes of sleep I sought  
In my childish tweaking, I wanted to wander like Alice in wonderland  
Wishing my dreams and fantasies would never end  
These imaginary escapades now, cast a guilt on my larger self  
But I ask  
Why it is wrong to delve in the dewy Sunday morning  
Would I not be allowed a cent more of leisure  
In my small unworldly wild pleasure  
For every woman who has stood tall on the sword of life,  
In the woods she be allowed to tread, free of fear, full of dare?  
Still to be a child to go out in the wild  
Chasing a deer, alive in full gear.  
After all, does only a Y in place of X  
Make such a difference, so very big, I beg?

# WEBINARS

**IAP ADOLESCENT HEALTH ACADEMY CHAPTER**

**TEEN RELATIONSHIPS, DATING AND SEX**

**IAP-AMA LITTAH PRESENTS IN ASSOCIATION WITH CANA & AHA**

**THURSDAY, 5th September 2024**  
09:00 PM - 10:30 PM

**Pediatrician's Section for Teenager's Healthcare**

A Joint Initiative of IAP/AAAP, NASHAP IAP & NASHA AHA

**Moderator:** Dr. Anurag Patil, Paediatrician, Tumkur

**Jul 7, 2024**  
10:50 AM

Meeting ID: 814-9234-0884 | Channel: Maharashtra / Ind  
Passcode: 123456

**AACCI WEEK CELEBRATION 2024**  
14-20th July 2024

**Decoding Teen Parenting**

**Date: 20th July 2024** | **Online Session**

**Time: 5 pm onwards on Zoom**

**Hurry Up! Register now**

**WhatsApp on +91 8369112470**

**AACCI Navi Mumbai**

**WBAAH in association with WBAP**  
**LET US KNOW**  
**POCSO**

**28th August, 8.45- 10PM**

**Our Esteemed Guests:**  
Dr. Geeta Patil, Dr. Himabindu Singh, Dr. Sukanta Chatterjee, Dr. Prakash V Arya, Dr. Inder Gadhur, Dr. Sudhir Mishra

**Our Esteemed Guests:**  
Dr. Anaru Bhadra, Dr. Kalpana Datta, Dr. Kinganabha Chatterjee, Dr. Achal Datta, Dr. Swapan Kir Ray, Dr. Mihir Sarkar

**Speaker:** **DR CHANDRIKA RAO**  
Professor Pediatrics, Coordinator - Child abuse response unit, Coordinator - medical ethics course, M.S. Ramiah Medical College and Hospital Ex-Chairperson, Bangalore Adolescent Chapter (2014-15)

**Moderator:** Dr. Astin Ghosh

**Link: WBAP Shared Link**

**RAIGAD IAP & AHA RAIGAD IN ASSOCIATION WITH PALGHAR IAP**

**TOPICS:**  
DIGITAL EXPLORATION IN CHILDREN TO USE OR NOT TO USE  
EFFECT OF SOCIAL MEDIA ON EARLY CHILD DEVELOPMENT  
REAL LIFE IN PRACTICE PEARLS

**FOR MANY KIDS, THE DIGITAL WORLD HAS BECOME MORE IMPORTANT THAN THE REAL ONE.**

**JOIN US THROUGH:**  
Zoom: <https://join.zoom.us/j/9234567890>  
Meeting ID: 9234 5678 90  
Passcode: 123456

**Date: 4th July 2024**  
**Time: 4 to 5 PM**

**IAP ADOLESCENT HEALTH ACADEMY CHAPTER**

**ADDICTIVE BEHAVIORS IN TEENAGERS**

**THURSDAY, 18th July 2024**  
09:00 PM - 10:30 PM

[Go to \[dipindia.org/event-calendar\]\(https://go.to.dipindia.org/event-calendar\) or \[click here\]\(#\)](https://go.to.dipindia.org/event-calendar)

**AHA KERALA**

Webinar Series Organized by IAP Kerala, AHA Kerala and IAP Thiruvananthapuram

**Monday, September 9, 2024, 8:00-10:00 p.m.**

Meeting ID: 829 9471 3704 Passcode: NURTURE

**SCIENTIFIC PROGRAM**

**Exercise & Sports for teenagers - Do's & Don'ts**

**Speaker:** **Dr Sidharth Unnithan**, MD Sports Medicine

**Chairperson:** **Dr Himabindu Singh**, President Elect Central AHA

**Dr Rangith P.** - Chairperson AHA Kerala State  
**Dr Vidhu Babu** - Secretary AHA Kerala State  
**Dr Sneha P.** - Treasurer AHA Kerala State  
**Dr Shireen Paulose** - President IAP Kerala State  
**Dr Dr. Riaz I.** - President Elect IAP Kerala State  
**Dr Krishna Mohan** - Secretary IAP Kerala State  
**Dr PG Hariprasad** - President IAP TVM  
**Dr Berno Andrew** - Secretary IAP TVM

**Adolescent Health Academy Nagpur**  
in association with **Maharashtra AHA**  
organizes  
**World Suicide Prevention Day**

**Theme: "Changing the Narrative on Suicide"**

**Panel discussion**

**Topic: "Resilient youngsters: A way forward"**

**On 10th September, 2024, on zoom**  
**Time: 09:00 am to 10:00 am**

**Moderator:** **Dr. Ram Bharat**

**Panelists:** **Dr Sushil Gawande**, **Dr R R Patil**, **Dr Kamalakar Deoghare**, **Dr Abhijeet Bhardwaj**, **Dr Liness Yawalkar**

**Dr Nishikant Kotwal** - Chairperson, Maharashtra AHA  
**Dr Kush Jhunjhunwala** - President, AOP Nagpur  
**Dr Liness Yawalkar** - Chairperson, AHA Nagpur  
**Dr Yash Banait** - Hon secretary, AOP Nagpur  
**Dr Binayak Baraj** - Hon secretary, AHA Nagpur

**Empower Adolescents to unlock their potential**

**IAP ADOLESCENT HEALTH ACADEMY CHAPTER**

**REACHING THE UNREACHED ADOLESCENTS**

**FRIDAY, 26th July 2024**  
09:00 PM - 10:30 PM

[Go to \[dipindia.org/event-calendar\]\(https://go.to.dipindia.org/event-calendar\) or \[click here\]\(#\)](https://go.to.dipindia.org/event-calendar)

# WEBINARS

### AHA Uttar Pradesh Monthly Webinar

**ADOLESCENCE UNPLUGGED: NAVIGATING THE TEENAGE YEARS**

**TUESDAY, 13 AUG 2024**  
04:00PM - 05:00PM

Link: <https://ahahealth.com/aha-up-monthly-webinar-2024-08-13>  
Meeting ID: 840-9803-2725 | Passcode: 061280

### IAP ADOLESCENT HEALTH ACADEMY CHAPTER

**SAFEGUARDING ADOLESCENTS FROM ENVIRONMENTAL CHANGES FOR A SUSTAINABLE FUTURE**

**THURSDAY, 15th August 2024**  
09:00 PM - 10:30 PM

Go to [ahahealth.com/event-calendar](https://ahahealth.com/event-calendar) or [ahahealth.com](https://ahahealth.com)

### IAP ADOLESCENT HEALTH ACADEMY CHAPTER

**ADOLESCENT PARENTING SESSION 1: "RAISING EMOTIONALLY INTELLIGENT ADOLESCENTS"**

**THURSDAY, 22nd August 2024**  
09:00 PM - 10:30 PM

Go to [ahahealth.com/event-calendar](https://ahahealth.com/event-calendar) or [ahahealth.com](https://ahahealth.com)

### Pediatrician's Action for Teenager's Wellbeing

A Joint Initiative of MANIAP, Nephro IAP & Nephro AHA

**Dr. Subramaniam B** | **Dr. Rashmi Gupta** | **Dr. Nishikant Kataria**  
10:30 to 11 AM | 11 to 11:25 AM | 11:25 to 12:00 PM

**Dr. Tanya Mathur** | **Dr. Anurag Kataria**  
Moderator | Chairperson, Pediatric Nephrology

Meeting ID: 801-8870-8164 | Passcode: 123456 | Channel: Maniapp / IAP

### AHA Chattigarh Webinar Series

**Adolescent Counseling in Office Practice- Basics & Beyond**

| Date    | Topic                               | Speaker               | Topic   | Speaker   |
|---------|-------------------------------------|-----------------------|---|---|
| 22 June | Importance of Adolescent Counseling | Dr. Mani Bhat         | Evidence Based Adolescent Health & Behavior       | Dr. Prasad Srivastava                                 |
| 7 July  | Strength Based Counseling           | Dr. Sanyasi Mishra    | Motivational Interviewing Skills                  | Dr. Rakesh Sharma                                     |
| 21 July | Parental Values Influence Therapy   | Dr. Raj Kataria       | Behavioral Change Strategies                      | Dr. Nishant Ladd                                      |
| 4 Aug   | Peer Based Counseling Approach      | Dr. Anshu Bhat        | Case Based Counseling                             | Dr. Shubhanshu Khanna                                 |
| 18 Aug  | Life skills Based Counseling        | Dr. Sankar Ghosh      | Behavioral Reinforcement                          | Dr. Prasad Srivastava                                 |
| 30 Aug  | Case Based Counseling Approach      | Dr. Mani Sharma       | Team Based Counseling                             | Dr. Prasad Srivastava                                 |
| 14 Sept | Peer Based Counseling Approach      | Dr. Chitra Dhillon    | Pharmacological and non-pharmacological treatment | Dr. Prad Kataria                                      |
| 19 Sept | Parental Counseling                 | Dr. Nishant Singh     | Role of Family                                    | Dr. Mani Bhat   |
| 23 Sept | Teens' Wellbeing and School Issues  | Dr. Shubhanshu Khanna | Guest Break 2 to 3 pm                             | Grand Finale Day: 19th Aug Webinar Live: 10AM to 12pm |

Cooperating:

### AHA Chattigarh Webinar Series

**Adolescent Counseling in Office Practice- Basics & Beyond**

Cooperating:

### AHA Chattigarh Webinar Series

**Adolescent Counseling in Office Practice- Basics & Beyond**

Cooperating:

### AHA Chattigarh Webinar Series

**Adolescent Counseling in Office Practice- Basics & Beyond**

Cooperating:

### AHA Chattigarh Webinar Series

**Adolescent Counseling in Office Practice- Basics & Beyond**

Cooperating:





# AHA ACTIVITIES : CENTRAL ZONE



HPV Awareness @ Chattisgarh



Health Awareness @ Dantewada



Success Skills@Bilaspur



Breastfeeding Awareness @ Chhindwara



HPV Awareness and Menstruation @ Raipur



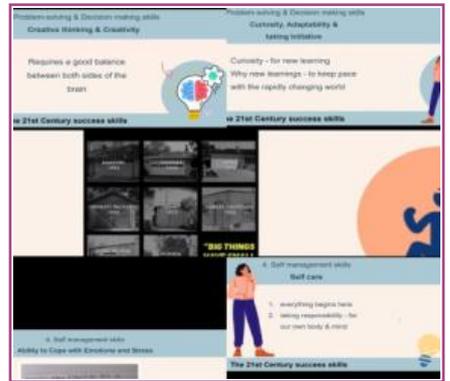
HPV Awareness @ Raipur



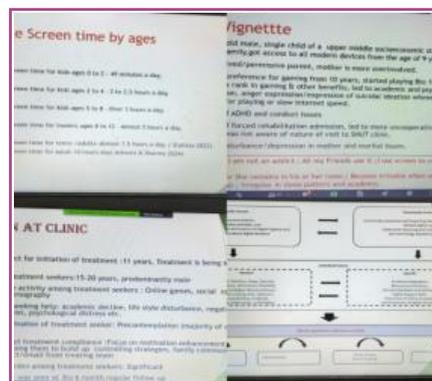
Independence Day @ Lucknow



Parenting Workshop @ Raipur



Webinar on Success Skills @ Chattisgarh



Webinar on Problematic Interactive Media Use @ Chattisgarh

# AHA ACTIVITIES : WEST ZONE



Puberty Simplified @ Navi Mumbai



ORS and Rehydration @ Raigad



Typhoid Vaccination @ Raigad



Self Defence Workshop @ Mumbai



Life Skill @ Nagpur



Adolescent Awareness @ Nagpur



Sexuality Awareness @ Nagpur



Adolescent Mental Health @ Chandrapur



Adolescent Awareness @ Chandrapur



Adolescent Health Awareness @ Nagpur



Healthy Lifestyle @ Navi Mumbai



POCSO and IAHW @ Vadodara

# AHA ACTIVITIES : NORTH ZONE

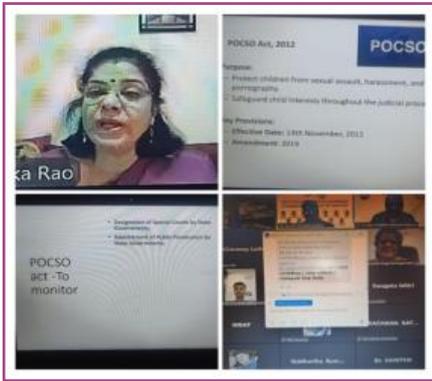


Chhindwara



AI in Medicine @ Ludhiana

# AHA ACTIVITIES : EAST ZONE



POCSO Act @ WBAHA



Adolescent Health Awareness @ Kolkatta

# MEDIA OUTREACH



# GREEN ARMY PROJECT IN SCHOOLS

## GREEN ARMY PROJECT IN SCHOOLS

It's a project for school children and young adolescents to retrieve our earth back. It will improve the awareness about how environment affects the children's health and their future.

The plan is to start a Green Army in each district (minimum 2 schools in a year) through Zonal Coordinators who will select one teacher in each school as the Green Army Captain. Each school will select 10 students for the Army (Boys and girls). The captain of each school will be coordinating the Army. We will give T-shirts of Green Army to each school (for 10 students and 1 Captain) - Cost Rs. 6000. The State convener will coordinate the teachers and Zonal coordinators through What's app.

This is a long-term project for IAP with a plan to start 2 schools in each district in 1st year. Projects for schools will be prepared by experts and implemented in schools. The Army will make gardens in schools, waste disposal solutions, awareness about Environmental issues and its solutions etc. The Army will train other students in each school.

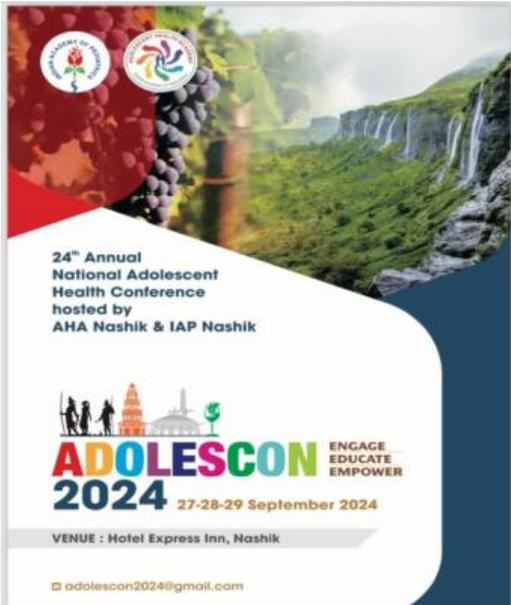
Outcomes of Green Army Kerala 1) Eco friendly school/ campus 2) Smoke / Drugs-free school 3) Improve the awareness about Environment and Environmental hazards 4) Projects continued by next generation 5) common modules of IAP / SOP will reach the school. We can take support of other organisations to implement this project in schools (Agenda of program to be monitored)

Projects recommended Dr Nouseed Ani: cowdung pots distribution, Seed Balls demonstration, EM mud balls for clearing contaminated water, rainwater harvesting, Mini (one cent or two cent) Miawaki forest at the premise of the school if they have land, Reuse, Recycle, up-cycling room at every school, Model medicinal plant garden, Subscription of Down To Earth magazine for school, showing environment-based short documentary films, bring speakers to talk about environmental issues, PPT presentation, every year to select one best student / School based on environmental activities and participation and honouring him by IAP ECHC, Green Army book.

Contact : Dr Nouseed Ani @ 95673 20984 to set up your own green army.



# ADOLESCON 2024



**24<sup>th</sup> Annual National Adolescent Health Conference**  
hosted by  
**AHA Nashik & IAP Nashik**

**ADOLESCON 2024** ENGAGE EDUCATE EMPOWER  
27-28-29 September 2024

VENUE : Hotel Express Inn, Nashik

adolescon2024@gmail.com



**ADOLESCON 2024** 27-28-29 September 2024

**WORKSHOP NO. 1** **Growth & Endocrinology Workshop**  
VENUE : MVP's Dr. Vasantrao Pawar Medical College, Hospital & Research Center, Adgaon, Nashik.

Local Co-ordinator : **Dr. Dipakree Tatar, Dr. Vaishali Bharadwaj** National Co-ordinator : **Dr. Ashim Ghosh, Dr. Prema R.**

| TIME                | TITLE   | ACTIVITY   | FACULTY   |
|---------------------|---|--|---|
| 9:00 am - 9:30 am   | Breakfast & registration                                      |  |   |
| 9:30 am - 9:45 am   | Inauguration & introduction                                   |  | Dr. Ashim Kumar Ghosh                               |
| 9:45 am - 10:00 am  | SP growth charts : Introduction                               | Lecture : distribution of growth charts  | Dr. Prema R.  |
| 10:00 am - 10:30 am | Growth plotting 5-18 yr                                       | Case based, hands-on plotting & interpretation   | Dr. Shalini Bhattacharya                            |
| 10:30 am - 11:00 am | Puberty assessment  | Tanner staging based on photos, video & cartoons, measuring of SP/L, physiologic variation | Dr. Shalini + Dr. Prema<br>Dr. Sangeta + Dr. Ashim  |
| 11:00 am - 11:30 am | Adolescent PCOS : recent updates                              | WFG scoring, blood work, therapy modification, medicines                                   | Dr. Tushar + Dr. Shalini<br>Dr. Sangeta + Dr. Zakir |
| 11:30 am - 11:45 am | Tea Break   |  |   |
| 11:45 am - 12:15 pm | Adolescent obesity  | Diagnosis, metabolic syndrome, Lifestyle modification - practical points                   | Dr. Sangeta Yadava                                  |
| 12:15 pm - 12:45 pm | Adolescent diabetes   | Overview, presentation, diagnosis and management   | Dr. Tushar Godbole                                  |
| 12:45 pm - 1:15 pm  | All about insulin   | Lecture : insulin types & action profiles  | Dr. Zakir Upadhyay                                  |
| 1:15 pm - 1:45 pm   | Insulin injection techniques (insulin/insulin analogs)        | Hands-on on syringes, needles, pen devices   | Dr. Zakir + Dr. Prema                               |
| 1:45 pm - 2:15 pm   | Self-monitoring of blood glucose (continuous glucose monitor) | Hands-on on glucometers, CGMS  | Dr. Tushar + Team                                   |
| 2:00pm              |   |  | All Faculty   |

Local Co-ordinator : **Dr. Dipakree Tatar : 902207852**  
**Dr. Vaishali Bharadwaj : 9428365414**  
Workshop Committee Incharge : **Dr. Ravindra S. Senawase - 8208158034**

Workshop Registration : [CLICK HERE](#)

Bank Details : Indian Academy of Paediatrics  
Name : Bank of Maharashtra  
A/c No. : 2054644717  
Branch : Camatda Corner Branch  
TIN : Savings Account  
IFSC : MAHB0000472

Registration Charges - **Rs. 1200/-**  
Conference registration is mandatory to the workshop registration. (SARF) with acknowledgement receipt submitted till 02<sup>nd</sup> June. After the 02<sup>nd</sup> of June, Registration is per ongoing cost of conference.

OTTN : 27AAARV424N126  
PAN No. : AAATR4242N



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**WORKSHOP NO. 3** **High-Risk Behaviours in Adolescents**  
VENUE : MVP's Dr. Vasantrao Pawar Medical College, Hospital & Research Center, Adgaon, Nashik.

Local Coordinator : **Dr. Swati Bhutada, Dr. Prachi Birari** National Co-ordinator : **Dr. Samir Shah, Dr. Lakshmi Shandhi**

| TIME             | TITLE                                   | FACULTY                                       |
|------------------|---|---|
| 9:00 - 9:30 am   | Breakfast & registration                |   |
| 9:30 - 10:00 am  | Inauguration & introduction             | Dr. Prachi Birari                             |
| 10:00 - 10:20 am | Media addiction and crimes              | Dr. Geeta Patil                               |
| 10:20 - 10:40 am | The "Lonely" teenager                   | Dr. Poojara Bhatia                            |
| 10:40 - 11:00 am | Substance abuse                         | Dr. Neelam                                    |
| 11:00 - 11:20 am | Sexual experimentation                  | Dr. Ashi Kumbhar                              |
| 11:20 - 11:40 am | ANA syndrome                            | Dr. Himabindu Singh                           |
| 11:40 - 11:55 am | TEA BREAK                               |   |
| 12:00 - 01:30 pm | Workshop - case discussion part 1       |   |
| 01:30 - 02:30 pm | LUNCH BREAK                             |   |
| 02:30 - 03:30 pm | Workshop - case discussion part 2       |   |
|                  | For family adolescent                   | Dr. Sangita Yadava & Dr. Ritu Gupta           |
|                  | Substance abuse                         | Dr. R.G.Patel & Dr. Prakash W. Arya           |
|                  | Media addiction                         | Dr. Sameer Shah & Dr. Shalini Bhattacharya    |
|                  | Sexual experimentation & PCOS           | Dr. Lakshmi Shandhi & Dr. Swapn Mahapatra     |
|                  | Rage and aggression                     | Dr. Sandeep Kulkarni & Dr. Satachari Upadhyay |
| 03:30 - 04:00 pm | Post test & distribution of certificate |   |

Local Co-ordinator : **Dr. Swati Bhutada : 9786438888**  
**Dr. Prachi Birari : 8275872448**  
Workshop Committee Incharge : **Dr. Ravindra S. Senawase - 8208158034**

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**WORKSHOP NO. 2** **Comprehensive Adolescent Care for Practitioners**  
VENUE : MVP's Dr. Vasantrao Pawar Medical College, Hospital & Research Center, Adgaon, Nashik.

Local Co-ordinator : **Dr. Deepa Joshi, Dr. Rahul Koppikar** National Co-ordinator : **Dr. Deepa Janardhanan, Dr. Madhusree Deshpande**

| TIME             | TITLE  | FACULTY                     |
|------------------|--|-----------------------------|
| 9:00 - 9:30 am   | Breakfast & registration   |                             |
| 9:30 - 9:45 am   | Inauguration & introduction  | Dr. Rahul Koppikar          |
| 09:45 - 10:00 am | Need of the hour- guiding adolescents and Parents for health, hygiene and safety | Dr. Hari Patel              |
| 10:00 - 10:30 am | Information, intervention for comprehensive adolescent education                 | Dr. Shubhada Khirwadkar     |
| 10:30 - 11:00 am | Explore the minds of adolescents & parents by interviewing                       | Dr. Pooja Bhattacharya      |
| 11:00 - 11:30 am | Let's stop adolescents to follow binge meals by anticipatory guidance            | Dr. Harvish Bajaj           |
| 11:45 - 1:45 pm  | Case scenarios (work stations) - get answers for adolescent behavior             | 5 cases                     |
|                  | A1) How much is too much for teenagers - media                                   | A1) Dr. Madhusree Deshpande |
|                  | A2) Protecting youth - addressing sexual abuse, depression and the PCOS and      | A2) Dr. Neelam Bhat         |
|                  | B1) Academic slump in my teenager  | B1) Dr. Deepa Janardhanan   |
|                  | B2) Peeping into the minds of teens to uncover depression                        | B2) Dr. Kalyani Patil       |
|                  | C1) Making aware the need of digital safety                                      | C1) Dr. Deepa Patil         |
|                  | C2) Sleepless nights, grieve tantrums, running away before examination           | C2) Dr. Manmeet Sodhi       |
|                  | D1) Teen diet trends - balancing hype and health in adolescents                  | D1) Dr. Lakshmi Shandhi     |
|                  | D2) Food of the youngsters - healthy & unhealthy food habits                     | D2) Dr. Vijaya Rani         |
|                  | E1) Adolescent legalities  | E1) Dr. Deepa Joshi         |
|                  | E2) Exploring high risk behaviours & referrals                                   | E2) Dr. Rahul Koppikar      |

Local Co-ordinator : **Dr. Deepa Joshi : 9025158641**  
**Dr. Rahul Koppikar : 902988118**  
Workshop Committee Incharge : **Dr. Ravindra S. Senawase - 8208158034**

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